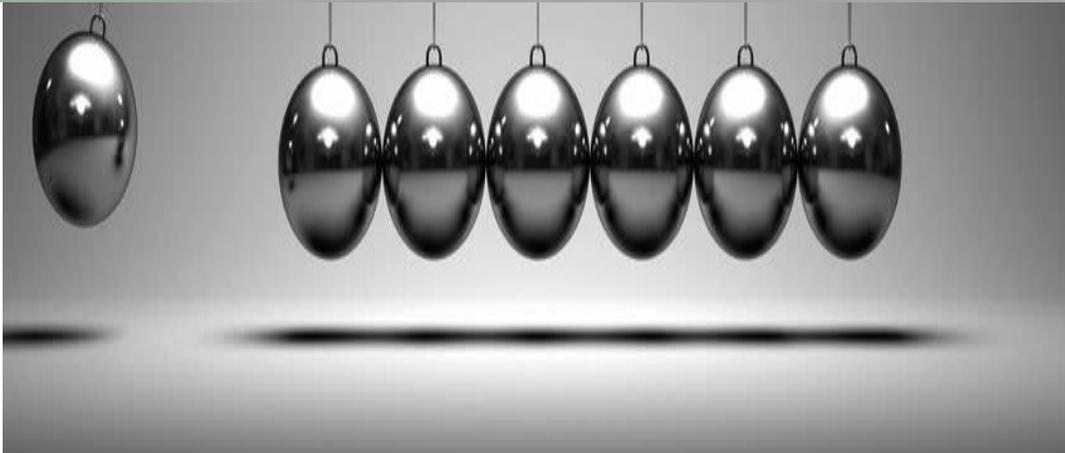**BANGLADESH BANK**

Central Bank of Bangladesh

Macroprudential Supervision of Financial System

Bangladesh Systemic Risk Dashboard (BSRD)

Financial Stability Department
December 2017

Bangladesh Systemic Risk Dashboard (BSRD)

December 2017

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4. Department of Off-site Supervision
5. Statistics Department

This dashboard has been prepared taking into account the data available up to December 2017 unless stated otherwise.

Table of Contents

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
ERD	Economic Relations Division
FCBs	Foreign Commercial Banks
FIs	Financial Institutions
FSD	Financial Stability Department
FY	Financial Year
GDP	Gross Domestic Product
IMF	International Monetary Fund
MA	Moving Average
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 to 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

Bangladesh Systemic Risk Dashboard: An Overview

1. Macro risk

Real GDP growth (indicator 1.1) continues to rise in fiscal year (FY) 2017. This growth rate increased to 7.3 percent in FY17, which was higher than the IMF forecast of 6.9 percent for FY17. The real GDP growth rate forecasted by IMF for FY18 is 7.0 percent. **Current account balance-to-GDP ratio (indicator 1.2) turned into negative since the second half of 2016.**

Aggregate debt-to-GDP ratio (indicator 1.3) increased slightly. Both NFC debt and government debt - the major components of aggregate debt - increased in FY 17. Domestic government debt (indicator 1.4) constitutes the major portion of aggregate government debt. Private NFCs' debt comprises the majority of total NFCs' debt.

Government deficit-to-GDP ratio (indicator 1.5), both including and excluding grants, decreased in FY17. Household debt to gross disposable national income (indicator 1.6) increased slightly in December 2017 compared to the position of June 2017.

2. Credit risk

Growth rate of bank lending to households (indicator 2.1) turned negative in December 2017 while the same to NFCs (indicator 2.3) showed a positive trend. In December 2017, the growth rate of lending by banks to households was negative and the same to NFCs increased significantly compared to the growth rates in June 2017. On the other hand, the growth rate of lending by non-bank depository corporations (NBDCs) to households (indicator 2.2) declined and the same to NFCs (indicator 2.4) remained almost stable in December 2017 compared to the growth rates in June 2017.

Provision maintenance ratio (indicator 2.5) of banks recorded a minor decrease in December 2017 whereas the ratio of FIs (indicator 2.6) slightly increased in December 2017 compared to June 2017.

An overall net easing in banks' interest rates of housing sector loans (indicator 2.7) was observed in December 2017.

3. Funding and liquidity risk

Banks did not avail liquidity support (indicator 3.1) in the form of assured liquidity support (ALS) and special repo since December 2016, implying that market had enough liquidity. Advance-to-deposit ratio (ADR) (indicator 3.2) increased slightly in 2017. ADRs of private commercial banks (PCBs) and specialized banks (SBs) were higher than the industry average.

Treasury bonds with residual maturity over 5 and up to 10 years (indicator 3.3a) and treasury bills with residual maturity up to 91 days (indicator 3.3b) were the largest in terms of volume in December 2017. Subordinated debt (indicator 3.4) showed an increasing trend since 2015 and this trend continued till December 2017.

4. Market risk

Equity indices (indicator 4.1) showed a steady growth in the second half of 2017. Average call money borrowing and lending rates (indicator 4.3) remained almost stable whereas spread between banks' lending and borrowing rates (indicator 4.4) declined in December 2017. Exchange rate (indicator 4.5) depreciated further in December 2017 when compared with end-June 2017 position.

5. Profitability and solvency risk

Banks' profitability, measured by ROE and ROA (indicators 5.1a and 5.1b), recorded a notable increase in December 2017. Cost-to-income ratio (indicator 5.1c) remained stable. Proportion of net interest income in total operating income (indicator 5.1d) showed an upward trend at end December 2017.

Though the ratio of Tier-1 capital to total risk-weighted assets (indicator 5.2a) declined in December 2017, it was well above the regulatory requirement of 6.0 percent. Ratio of non-performing loans and advances to total loans and advances (indicator 5.2b) slightly decreased in December 2017.

FIs' profitability, measured by ROE and ROA (indicators 5.3a and 5.3b), remained uptrend and recorded a significant increase in December 2017. FIs' cost-to-income ratio (indicator 5.3c) remained stable in December 2017. FIs' net interest income to total operating income ratio (indicator 5.3d) increased moderately in December 2017, which implies increase of FIs' income from interest earning assets.

Ratio of Tier-1 capital to total risk-weighted assets (indicator 5.4a) slightly declined in December 2017; still it was well above the minimum regulatory requirement. Ratio of non-performing loans and advances to total loans and advances (indicator 5.4b) decreased moderately in December 2017.

6. Inter-linkages

Government borrowings from banking sector (indicator 6.1) showed a declining trend. Government borrowing from NBDCs (indicator 6.2) remained negligible.

Banks' loan growth in residential housing sector (indicator 6.3a) demonstrated an upward trend. On the other hand, loan growth in commercial housing sector (indicator 6.3b) demonstrates high fluctuations over the years. Growth of FIs' loans to housing sector (indicator 6.4) remained low since December 2014.

Increase in banks' exposure (indicator 6.5) to its major public and private counterparts has been mainly led by NFCs accounting for more than seventy percent of total bank loans. NFCs' borrowing is the major contributor in NBDCs' increasing loan portfolio (indicator 6.6) closely followed by an increasing loan exposure to households. Banks' cross-border claims (indicator 6.7) remain low accounting for less than one percent of total assets of the banking sector. NBDCs' cross-border claims (indicator 6.8) were almost non-existent in December 2017.

1. Macro risk

## 1.1 Current and forecasted real GDP growth
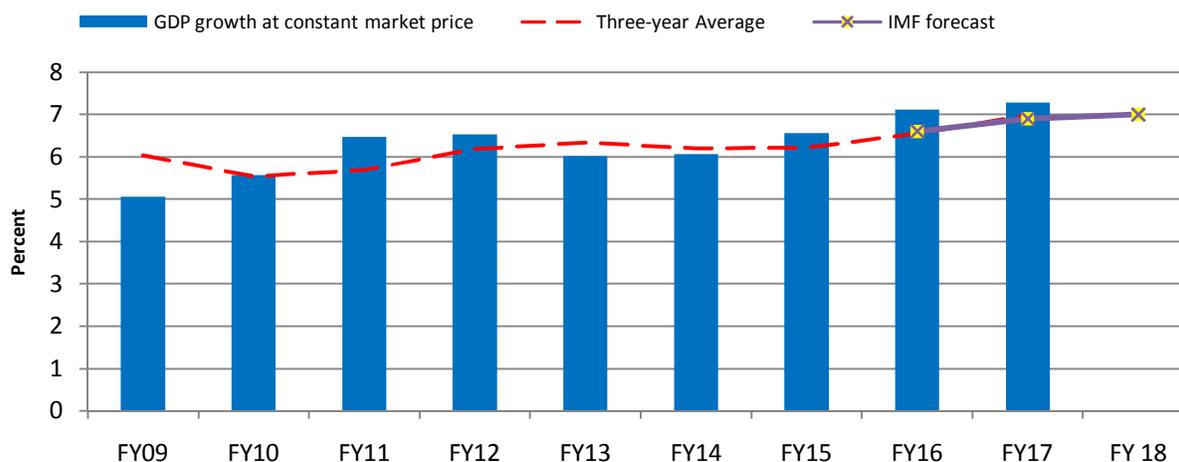
Source: Statistics Department and IMF World Economic Outlook, April, 2017.
Notes: 1. As half yearly GDP is not calculated in Bangladesh, GDP growth is only shown for financial years.
2. Dotted line represents three-year moving average of GDP growth rate.

Real GDP growth showed an increasing trend, surpassing the IMF forecast for the fiscal year 2017 (FY17).

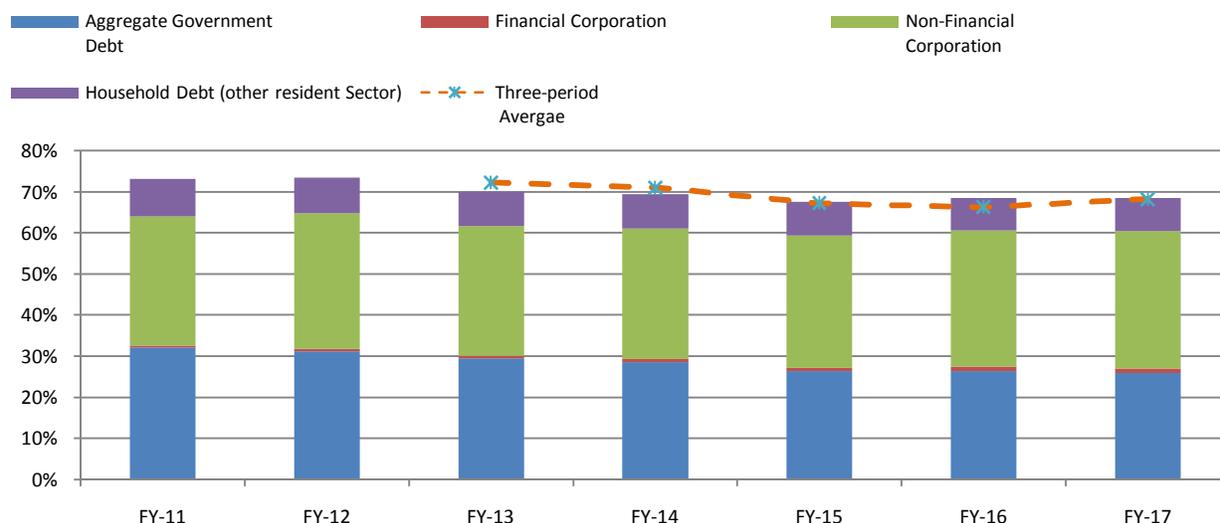## 1.2 Current account balance-to-GDP ratio
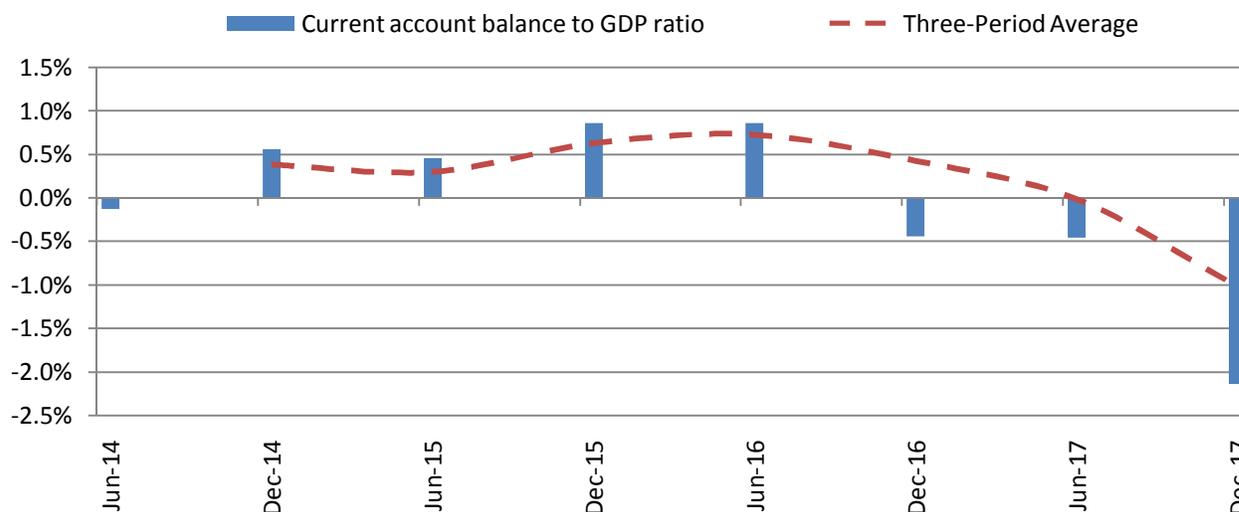
Sources: Monthly Economic Trends, BB.
Note: As half yearly GDP is not calculated in Bangladesh, June based GDP data is used as a proxy for December in calculating current account balance-to-GDP ratio.

Current account balance-to-GDP ratio showed a fluctuating trend. Though the ratio was positive up to June 2016, it became negative since December 2016.

1. Macro risk–Cont'd.

1.3 Aggregate debt-to-GDP ratio

Legend:
- Aggregate Government Debt
- Financial Corporation
- Non-Financial Corporation
- Household Debt (other resident Sector)
- Three-period Avergae

Sources: ERD, Ministry of finance and monthly economic trends of BB (various issues).

Note: Aggregate debt refers to the claims on government, households, financial and non-financial corporation by depository corporations. Government debt includes both domestic and external debt.

Aggregate debt-to-GDP ratio increased slightly in FY17 compared to that of FY16. Debts of non-financial corporations and government are the major constituents of aggregate debt.

1.4 Government debt-to-GDP ratio

Legend:
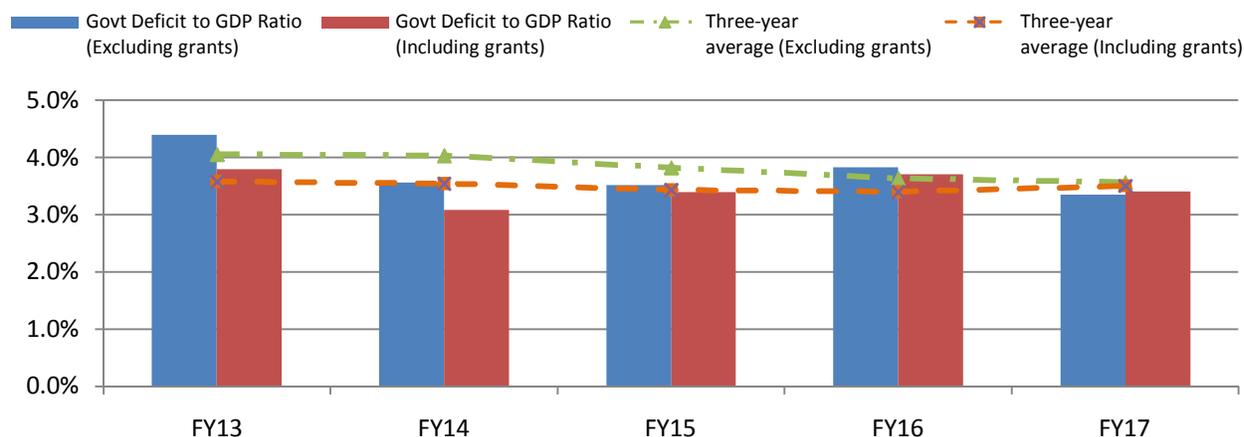- Domestic debt
- External Debt
- Three-Period Average
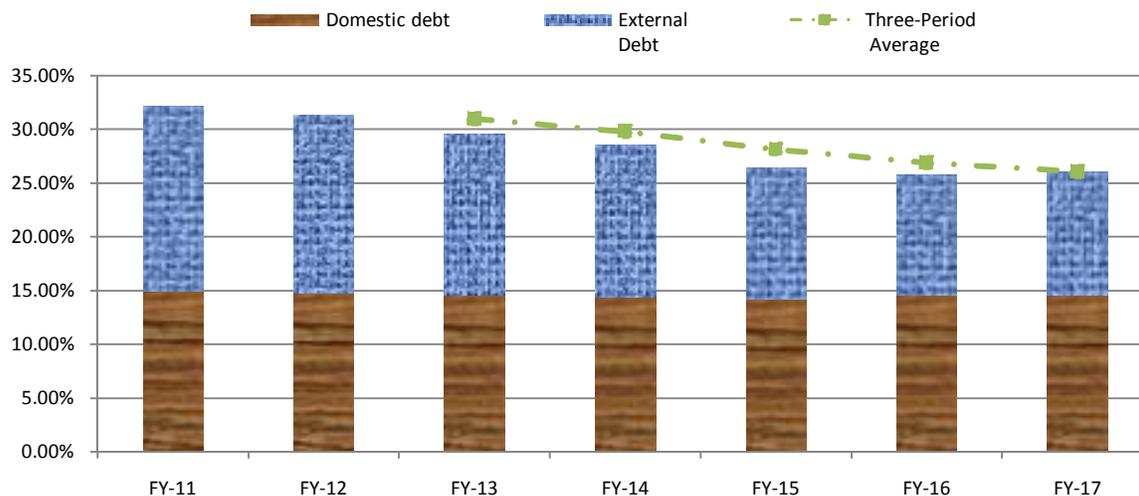
Sources: ERD, Ministry of finance and monthly economic trends, BB.

Domestic government debt constitutes major portion of government debt. Government debt-to-GDP ratio slightly increased in FY17 compared to that in FY16.

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-year average (Excluding grants)
- Three-year average (Including grants)

[Bar and line chart showing Government deficit-to-GDP ratio for FY13 through FY17, y-axis from 0.0% to 5.0%]
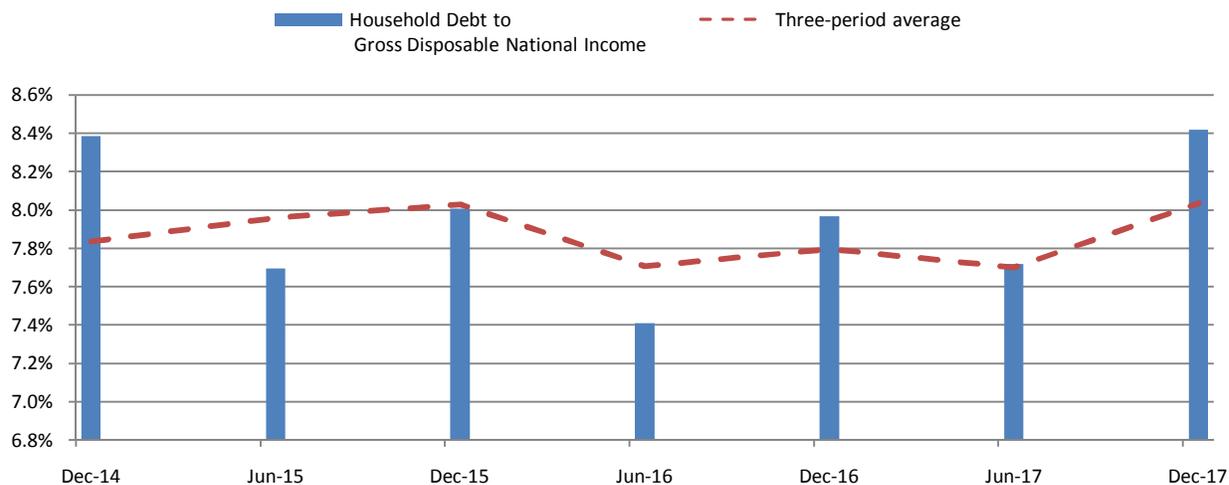
Source: Monthly Report on Fiscal Position, Government of Bangladesh (various issues).
Notes: Because of unavailability of half yearly data of both government deficit and GDP, government deficit-to-GDP ratio is shown for financial years only. Actual figures of government deficit are used here.

Government deficit-to-GDP ratio, both including and excluding grants, decreased in FY17 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

[Bar and line chart showing Household Debt to Gross Disposable National Income from Dec-14 through Dec-17, y-axis from 6.8% to 8.6%]
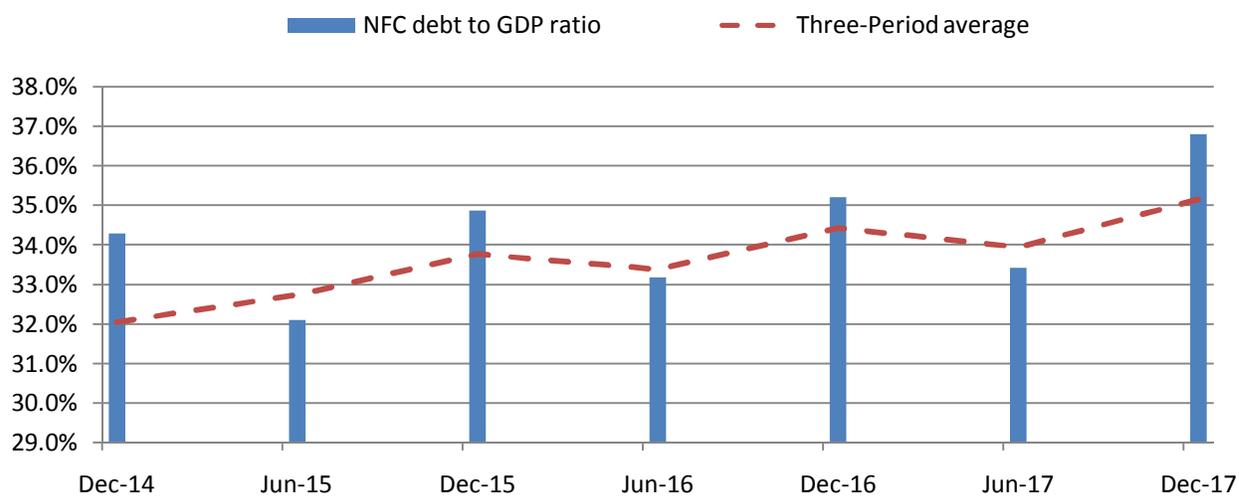
Sources: Monthly Economic Trends, BB (various issues).
Notes: As half yearly gross disposable national income is not calculated in Bangladesh, June based data of gross disposable national income is used for both June and December in calculating household debt-to-gross disposable national income ratio. Dotted line represents three-period moving average of household debt-to-gross disposable national income ratio.

Household debt to gross disposable national income increased in December 2017 compared to that of June 2017.

1. Macro risk – Cont'd.

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

Legend: ■ NFC debt to GDP ratio   - - - Three-Period average

Sources: Monthly Economic Trends, BB (various issues).
Notes: NFC debt includes debts of both public and private NFCs. Dotted line represents three-period moving average of NFC debt-to-GDP ratio.
As half yearly GDP is not calculated in Bangladesh, June based GDP data is used as a proxy for December in calculating the ratio.

Private non-financial corporations' (NFCs) debt comprises major portion of aggregate NFCs debt. NFC debt-to-GDP ratio increased by 3.4 percentage points in end-December 2017 compared to the end-June 2017 position.

2. Credit risk

2.1 Annual growth rate of banks' loans to households
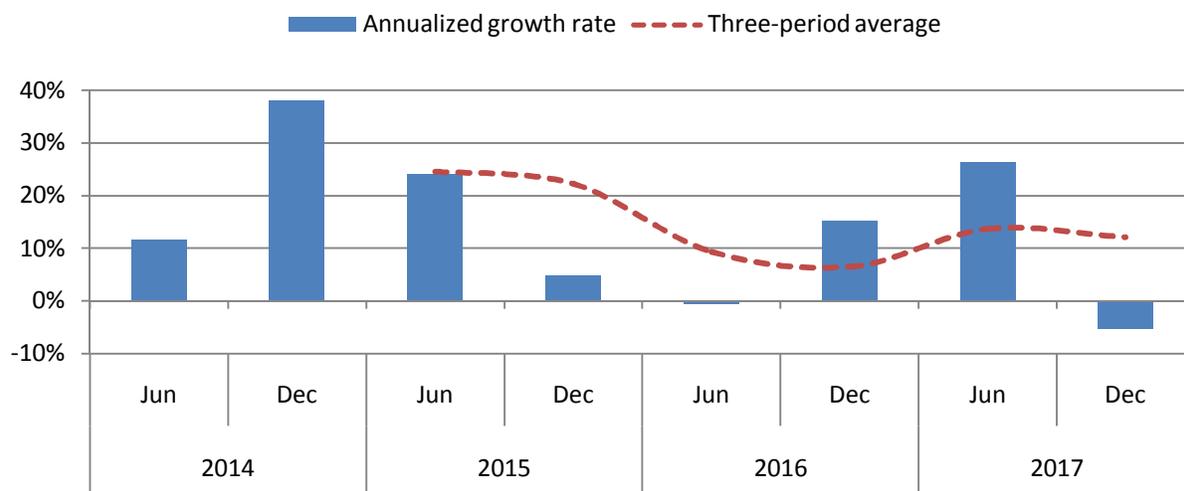
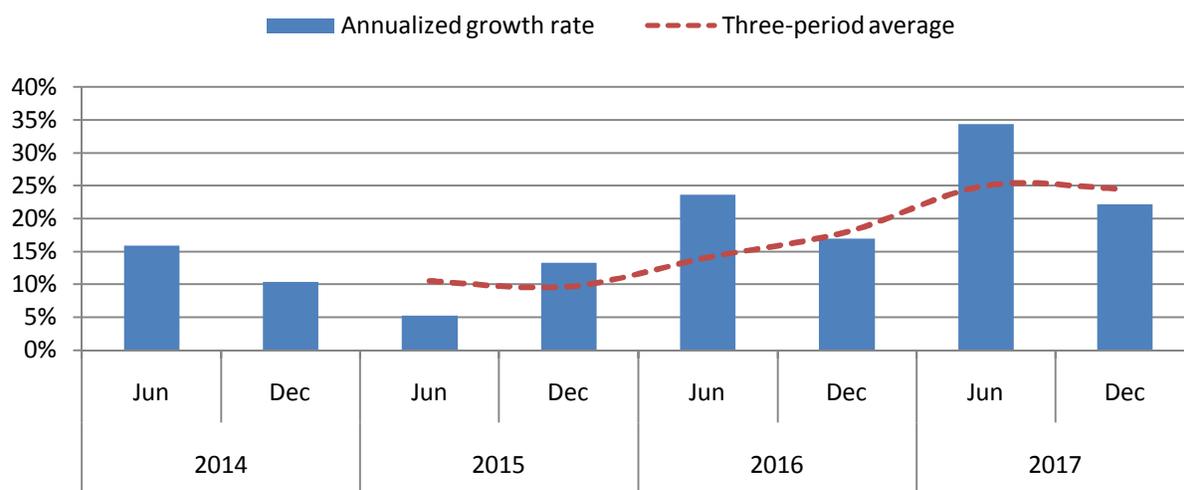**Annualized growth rate** ---- **Three-period average**

Source: Statistics Department, BB.

Notes: Data for December 2017 are provisional. Loans refer to outstanding loans and advances extended to domestic households (individual customers) excluding bills.

Growth rate of banks' loans to household sector turned negative again in the second half of 2017 after June 2016. Banks' loan growth in this sector remained quite volatile during the last few years.

2.2 Annual growth rate of NBDCs' loans to households

Annualized growth rate ---- **Three-period average**
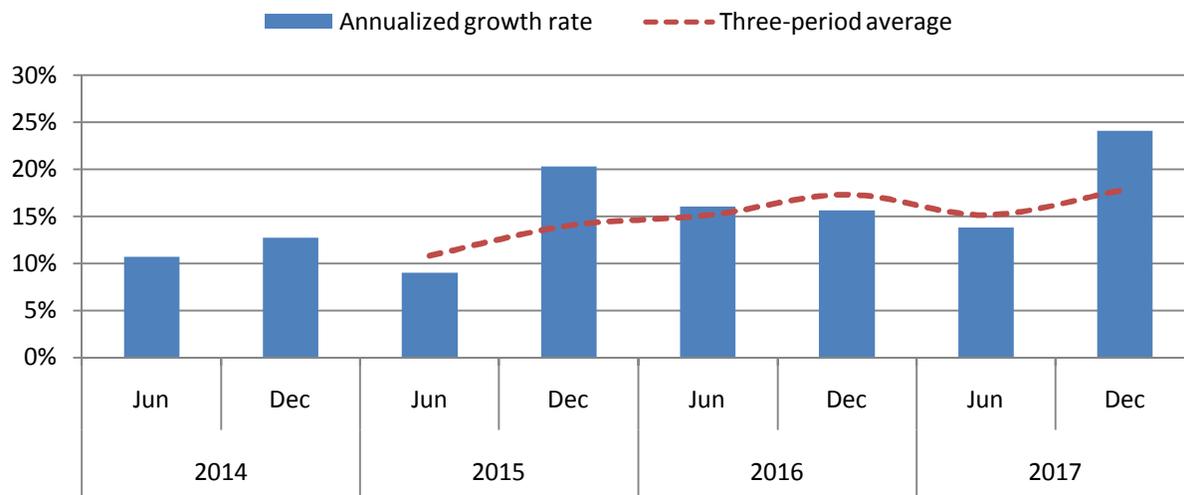

Source: Statistics Department, BB.

Note: NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, ProbashiKallyan Bank, central cooperative bank, and exclude non-depository FIs[1].

Growth rate of NBDCs' loans to household sector also declined in the second half of 2017; however, an overall upward trend is observed since June 2015.

---

[1]FIs refer to non-bank financial institutions.

2. Credit risk– Cont'd.

2.3 Annual growth rate of banks' loans to non-financial corporation (NFC)

Annualized growth rate ━━━ Three-period average

Source: Statistics Department, BB.
Notes: Data for December2017 are provisional. Loans refer to outstanding loans and advances extended to private NFCs excluding bills.

Banks' loans to private NFCs registered a strong growth at the end of 2017 as increased economic activity and robust domestic demand boosted private sector credit growth in 2017.

2.4 Annual growth rate of NBDCs' loans to non-financial corporation (NFC)

Annualized growth rate ━━━ Three-period average
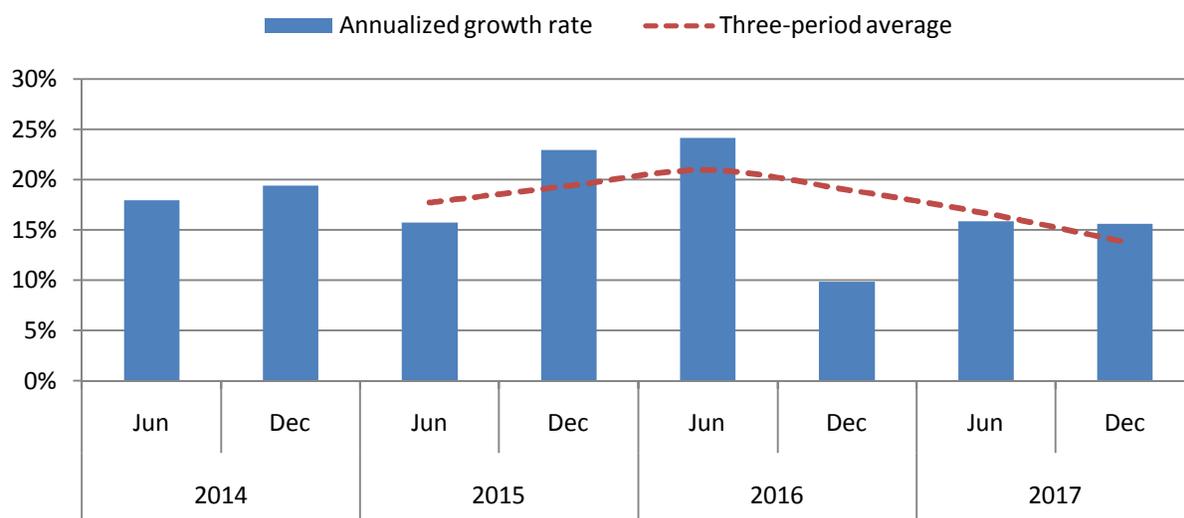
Source: Statistics Department, BB.
Notes: NFC refers to private NFCs only. NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, ProbashiKallyan Bank, central cooperative bank, and exclude non-depository FIs.

Growth rate of NBDCs' loans to private NFCs remained almost stable at the end of 2017.
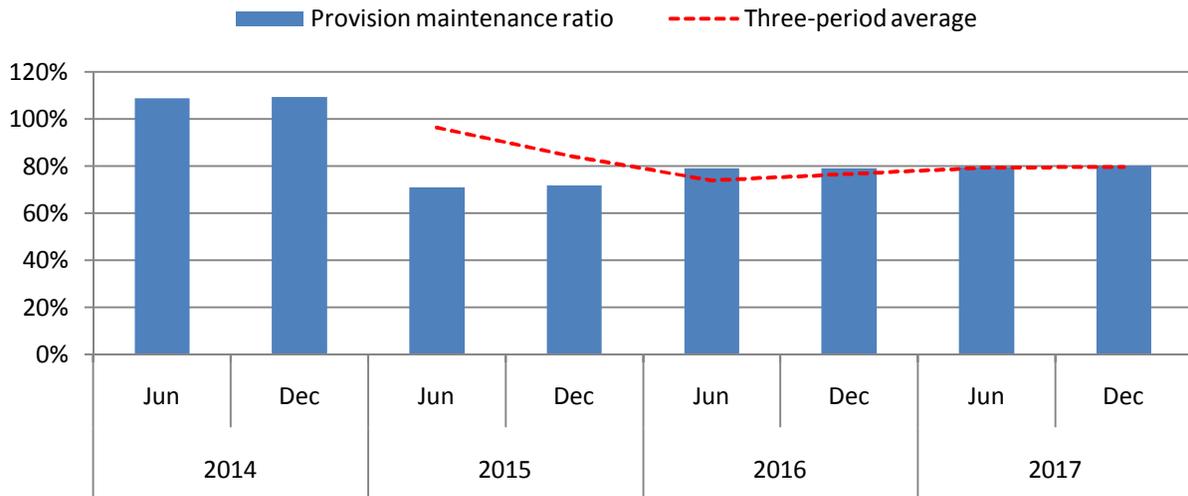
2. Credit risk– Cont'd.

2.5 Provision maintenance ratio of banks

Legend: Provision Maintenance ratio | Three-period average
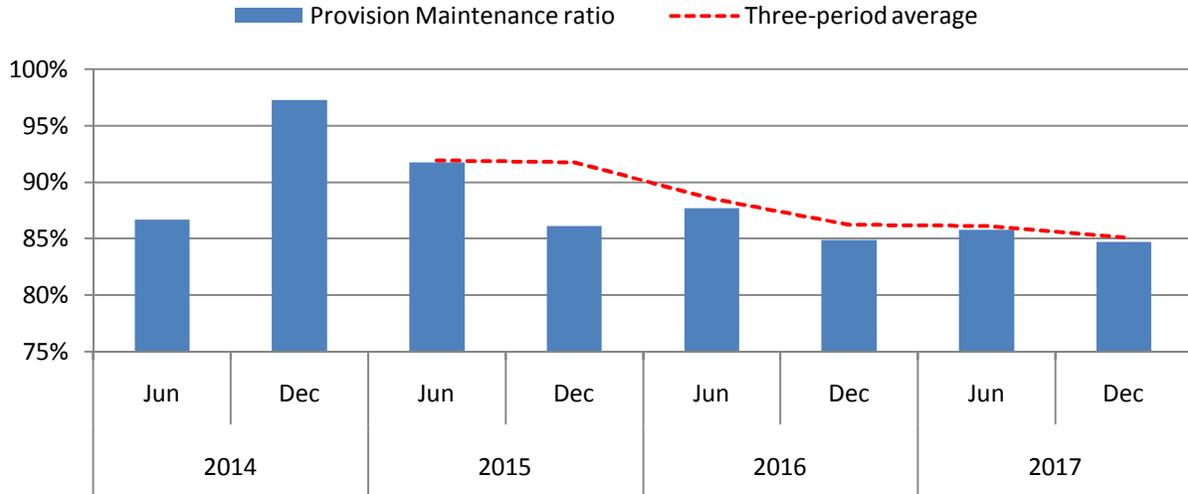
Source: BRPD, BB.

Banks' maintained provision as a percentage of required provision recorded a minor decrease at end-December 2017.
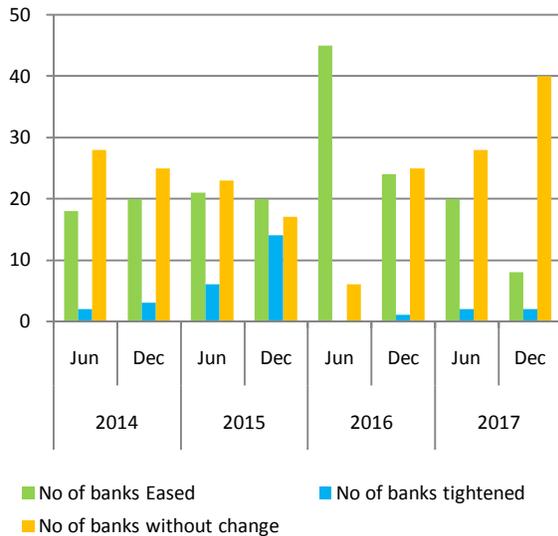
2.6 Provision maintenance ratio of FIs

Legend: Provision maintenance ratio | Three-period average

Source: DFIM, BB.

FIs' provision maintenance ratio continued an upward trend since December 2015.
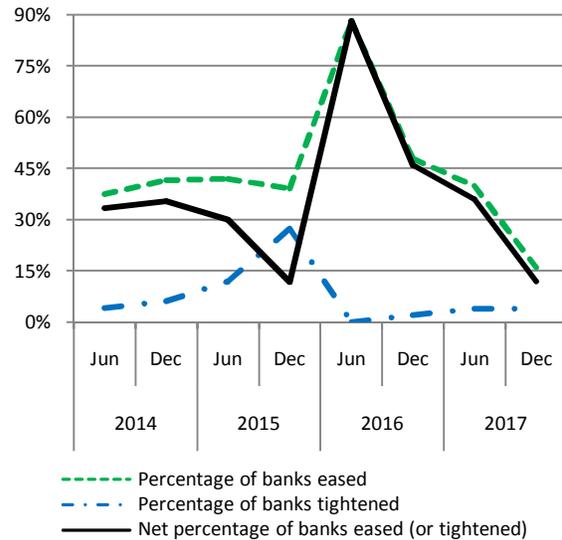
2. Credit risk– Cont'd.

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 (õnet easingö), whereas a negative net percentage change indicates that a larger proportion of banks have tightened credit standards (õnet tighteningö).

In December 2017, 16 percent banks eased the interest rates of loans to housing sector while 4 percent banks tightened the same; 80 percent banks kept their rates unchanged during the same period. Hence, after netting off the impacts of tightening, an overall net easing is observed in December 2017.

14

3. Funding and liquidity risk

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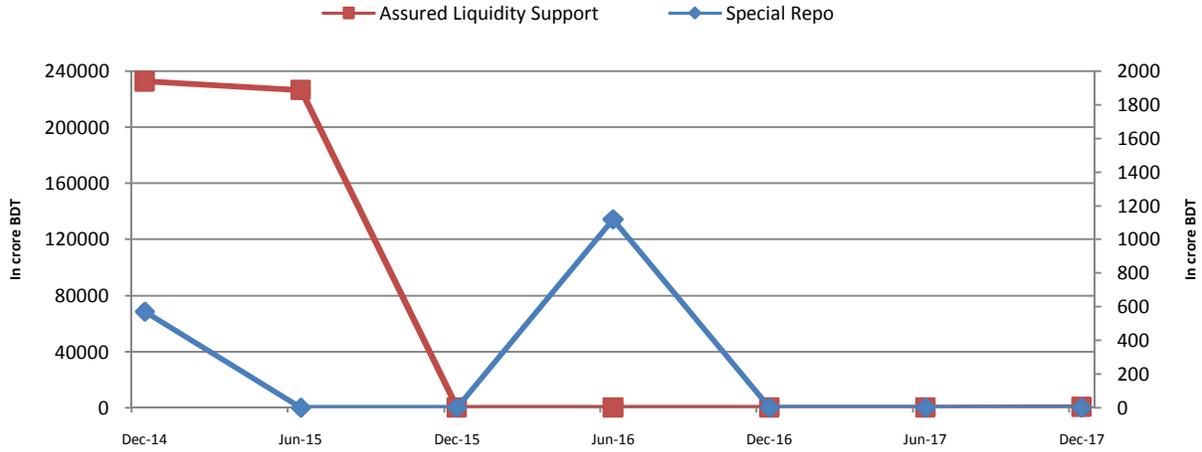
Source: DMD, BB.

Note: LHS represents Assured Liquidity Support & RHS represents Special Repo.

Assured liquidity support was rarely used by banks since December 2015. Special repo showed a decreasing trend since June 2016 and was nil in December 2016, June 2017and December 2017. The trend portrays presence of ample liquidity in the money market.

3.2 Advance-to-deposit ratio
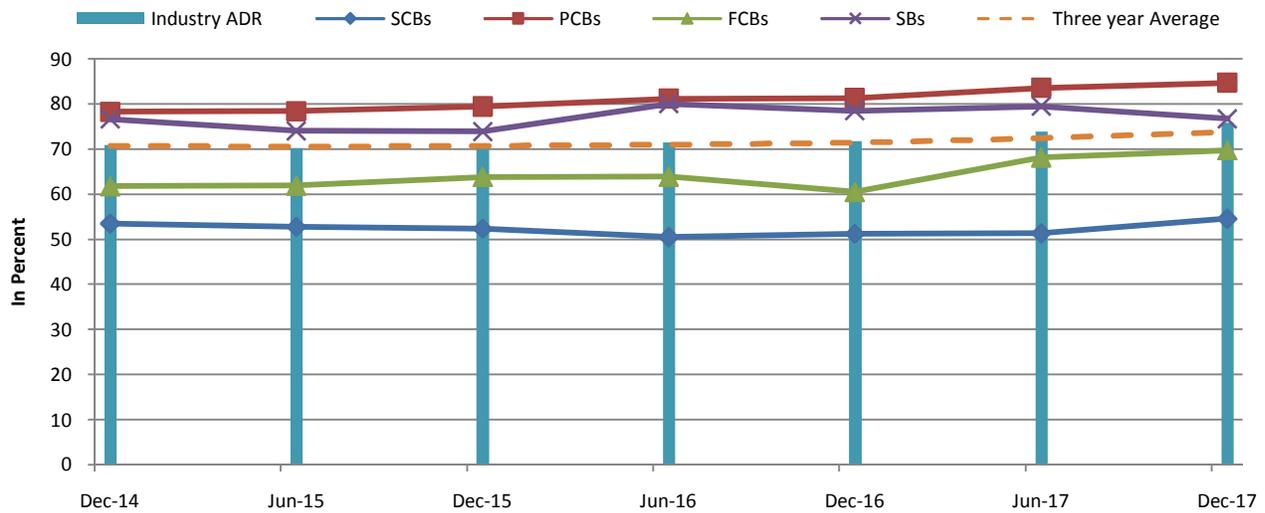
Source: DOS, BB.

Advance-to-deposit ratio (ADR) increased slightly in 2017 after remaining stable over the last few years. ADRs of PCBs and SBs were higher than the industry average whereas ADRs of FCBs and SCBs were lower than the industry average.

3. Funding and liquidity risk–cont'd.

3.3 Maturity profile of banks' outstanding debt securities
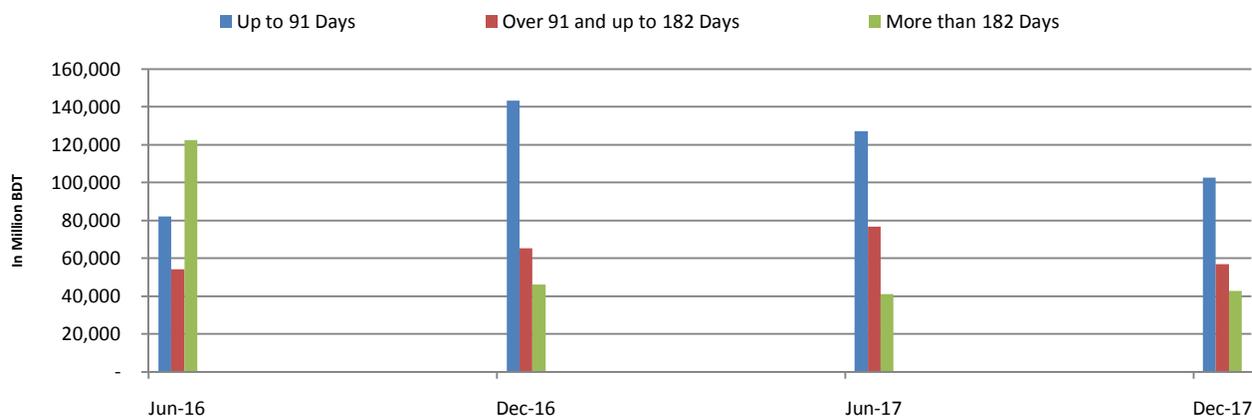
a. Treasury Bond
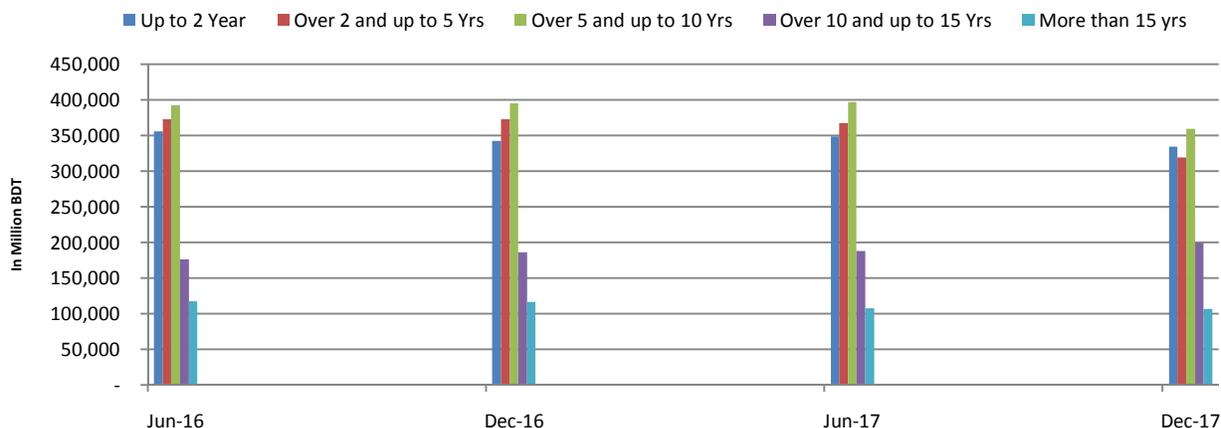
Source: DMD, BB.

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

Treasury bonds withremaining maturity over 5 to 10 yearsremained the largestin terms of volume whereas theones with remaining maturity of more than 15 years remained the smallest at end-December 2017. However, treasury bonds with various remaining maturities except the one over 10 to 15 years decreased in December 2017 from June 2017.

b. Treasury Bill

Source: DMD, BB.

Notes: Banksø 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.

Treasury bills with remaining maturity of up to 91 days are the largest in terms of volume which decreased from June whereas the same with remaining maturity of more than 182 daysare the smallest and increased from June 2017 .

16

3. Funding and liquidity risk–cont'd.

3.4 Subordinated debt
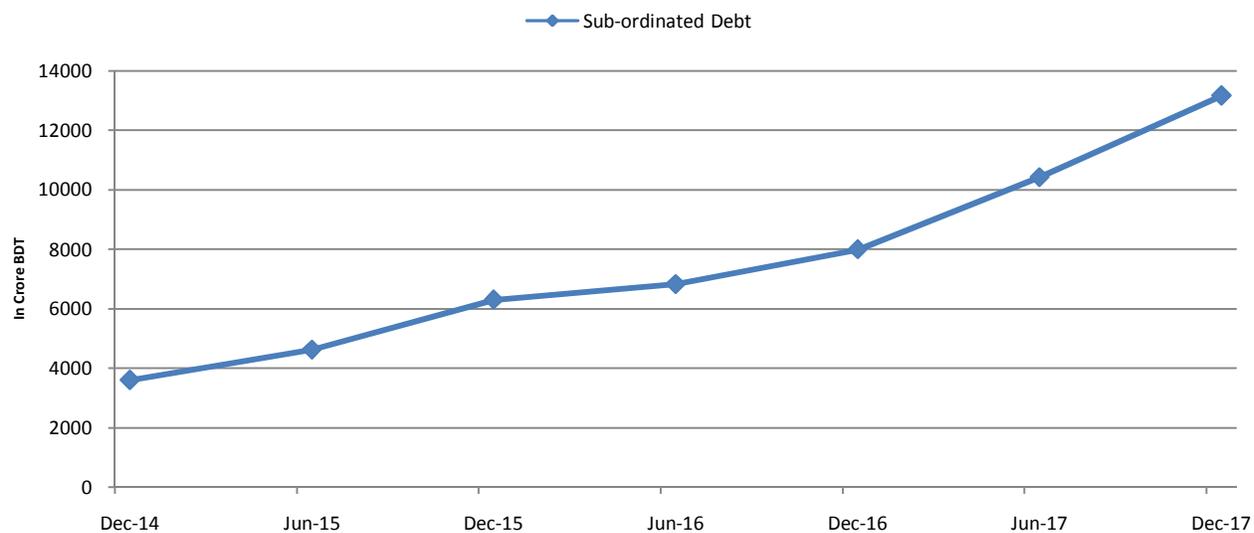
Source: DOS, BB.

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 showed an increasing trend since 2015. Such increase in subordinated debts issued by banks contributes to the overall capital base of the banking sector.

4. Market risk
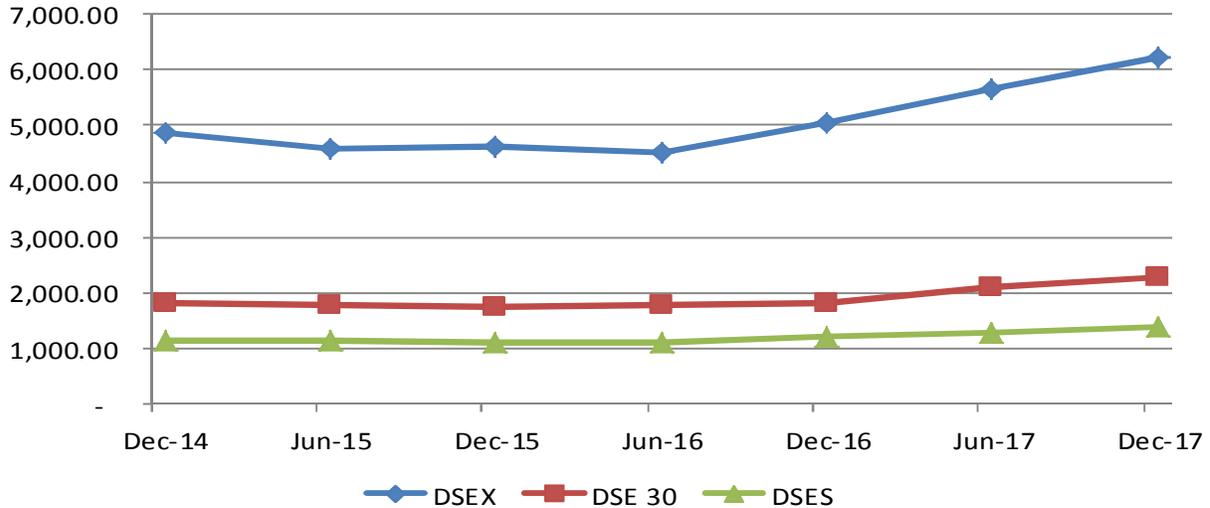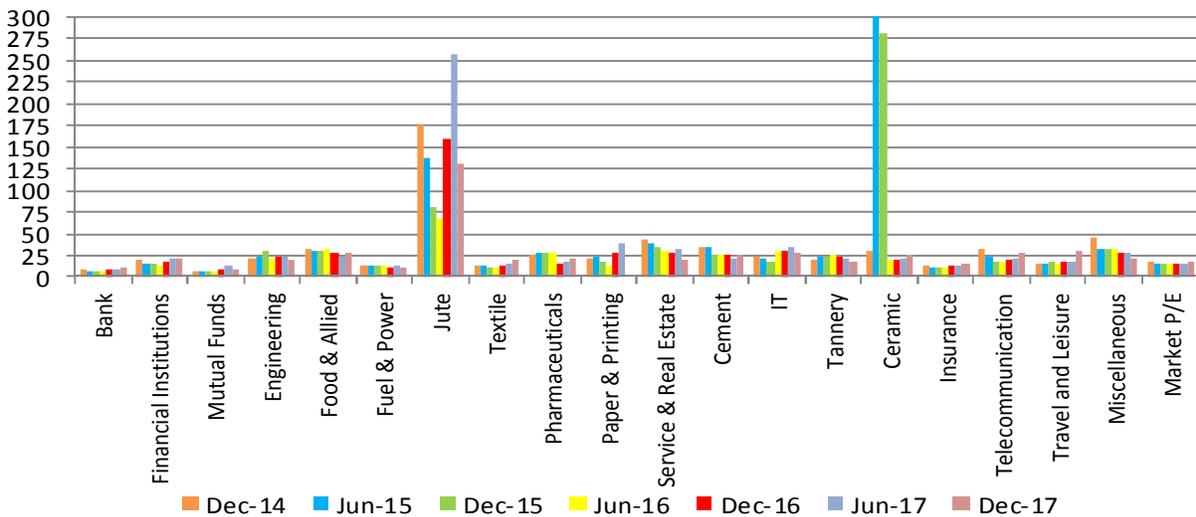
Source: DSE Website.

DSEX, the major DSE index, showed a steady growth and surpassed6,000 points at end-December 2017. Other equity indices continued uptrend since the first half of 2017.

4.2 Price/earnings ratio of equity indices

Source: DSE Website.

P/E ratio of all listed sectors remained broadly stable and highest market P/E ratio recorded since end-December 2014.

18

4. Market risk–cont'd.

4.3 Weighted average call money market rates

a. Borrowing rate
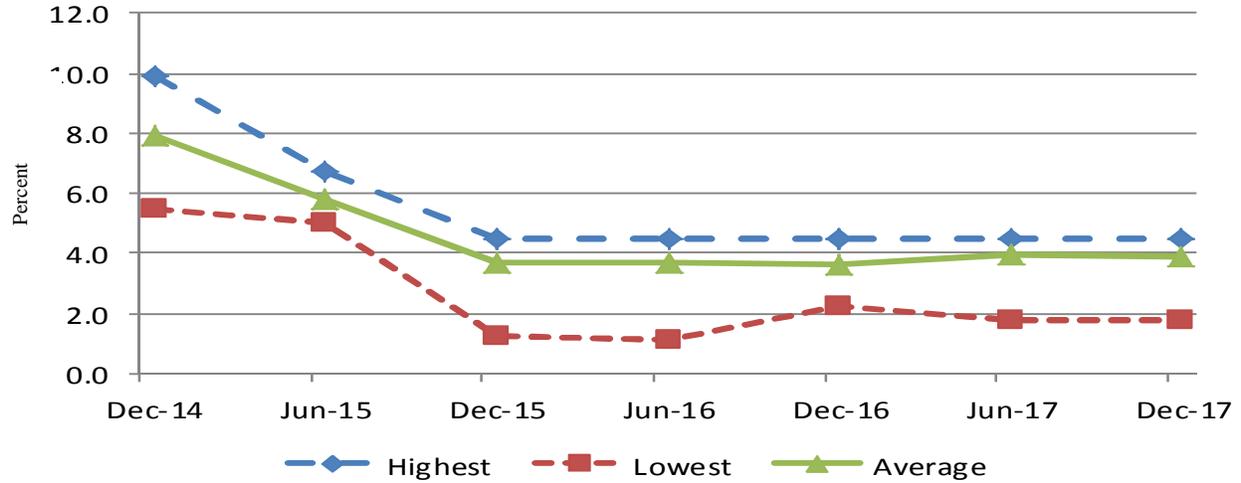
Source:Statistics Department, BB.

b. Lending rate
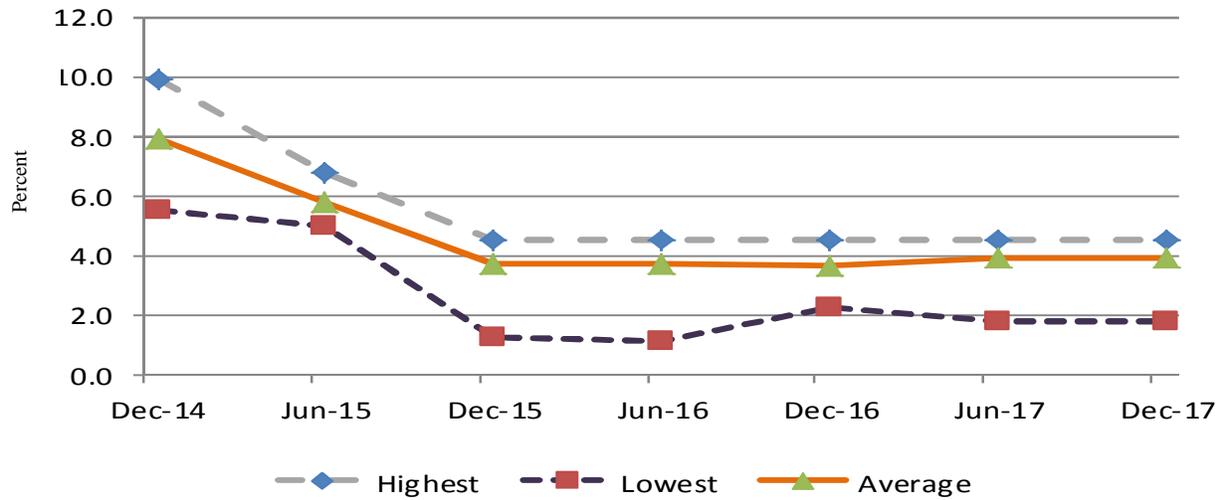
Source: Statistics Department, BB.

Call money borrowing and lending rates remained mostly stable in December 2017indicating no significant burden on liquidity management.

4. Market risk–cont'd.

4.4 Scheduled banks' weighted average interest rate on deposits and advances
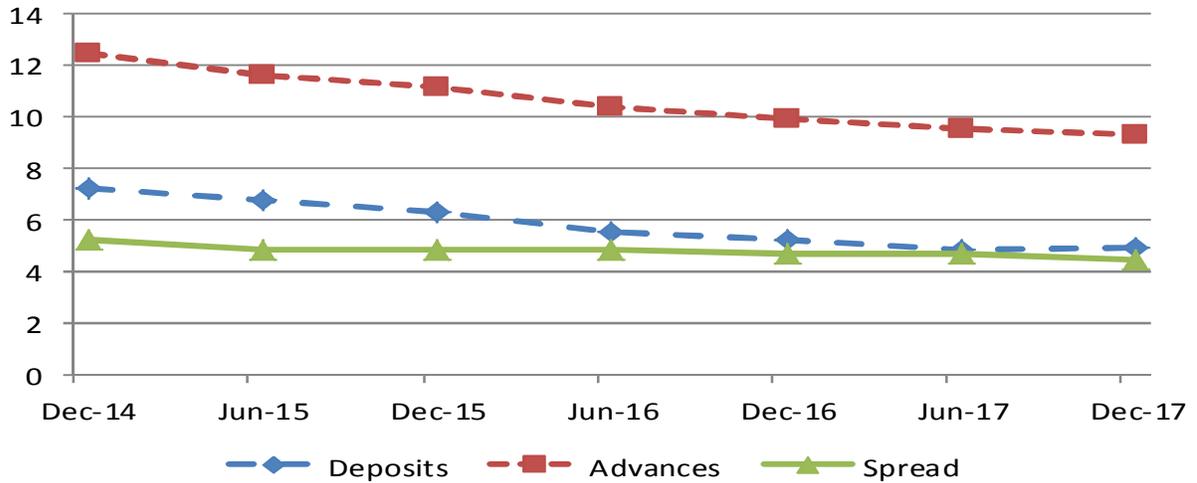
Source: Statistics Department, BB.

Weighted average interest rate on advances slightly declined and lowered the spread between rates on advances and deposits at end-December2017.

4.5 Weighted average exchange rate (BDT/USD)
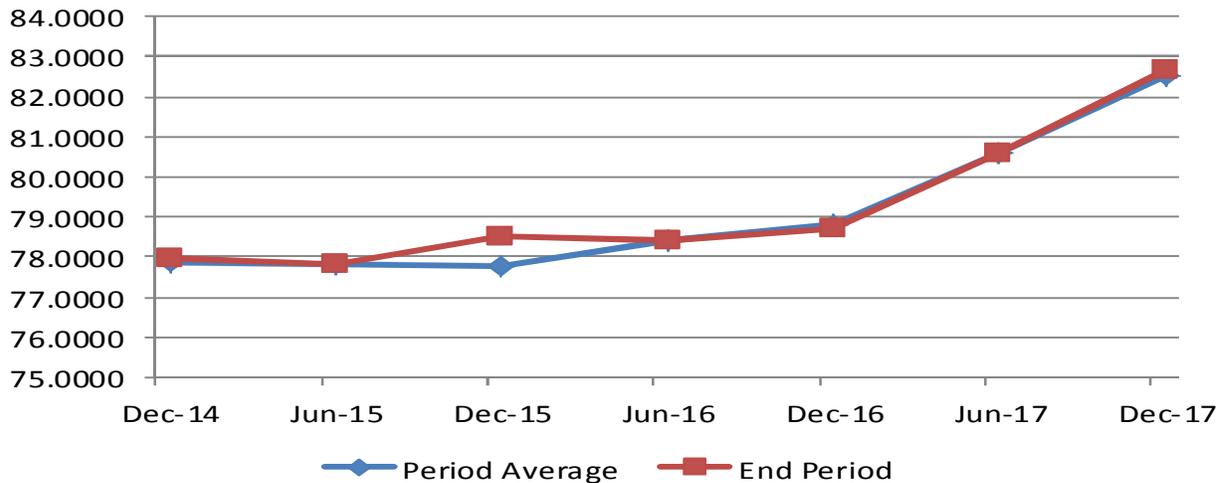
Source: Statistics Department, BB.

BDT experienced further depreciation in its value against USD at end-December 2017compared to end-June 2017.

5. Profitability and solvency risk

5.1 Banks' profitability indicators

a. Return on equity (ROE)
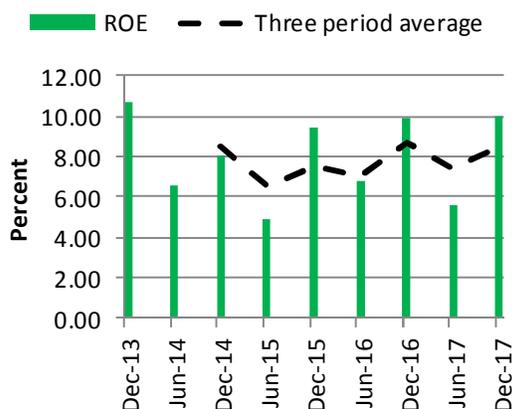
Source: Scheduled Banks; Computation: Financial Stability Department, BB.
Note: End-June ratios are annualized.

b. Return on assets (ROA)
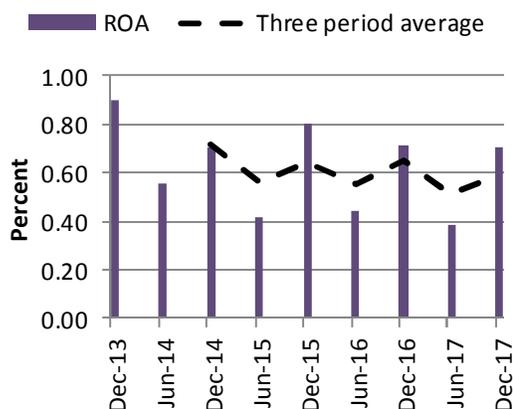
Source: Scheduled Banks; Computation: Financial Stability Department, BB.
Note: End-June ratios are annualized.

Both ROE and ROA recorded a notable increase in December 2017 compared to June 2017.

c. Cost to income ratio
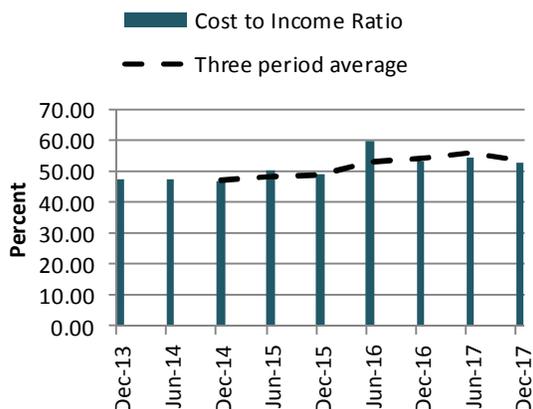
Source: Scheduled Banks; Computation: Financial Stability Department, BB.
Note: Ratio between operating expenses and total income.

d. Net interest income to total operating income ratio
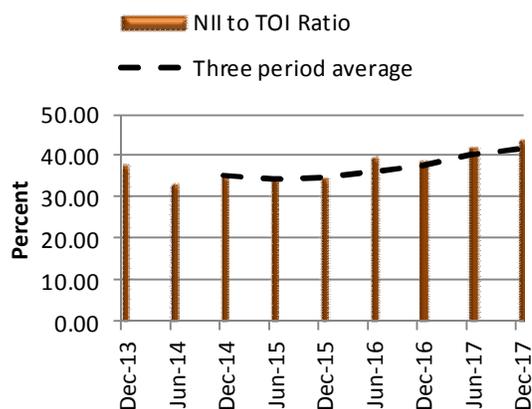
Source: Scheduled Banks; Computation: Financial Stability Department, BB.
Note: Ratio between net interest income and total income.

Cost to income ratio remained stable. Proportion of net interest income in total operating income showed an upward trend at end-December 2017.

5. Profitability and solvency risk–cont'd.

5.2 Banks' solvency indicators

a. Tier-1 to RWA ratio
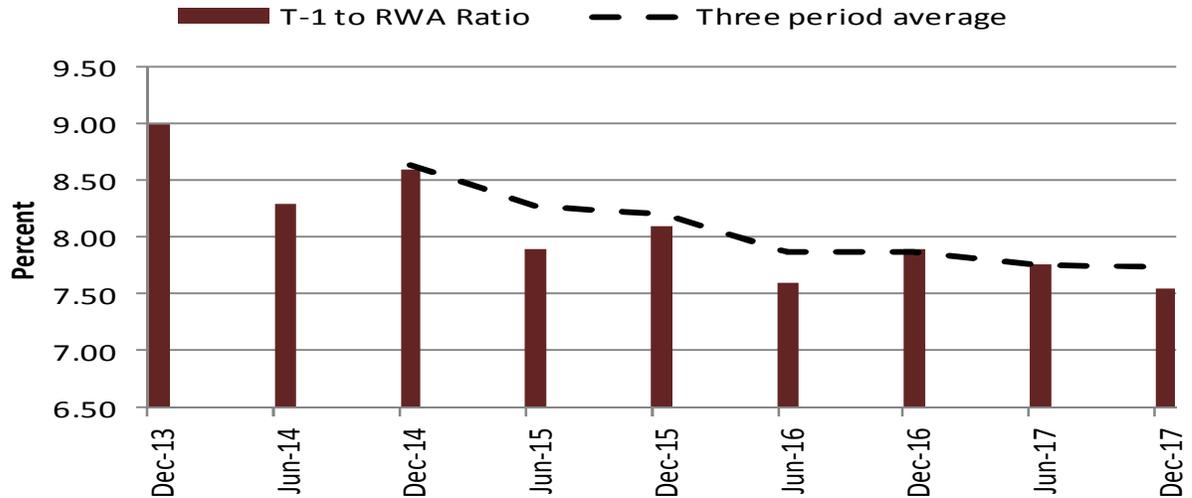
Source: DOS, BB.
Note: Ratio of Tier-1 capital to total risk-weighted assets.

The ratio slightly decreased in December 2017, but remained well above the regulatory requirement.

b. Gross non-performing loan (NPL) ratio
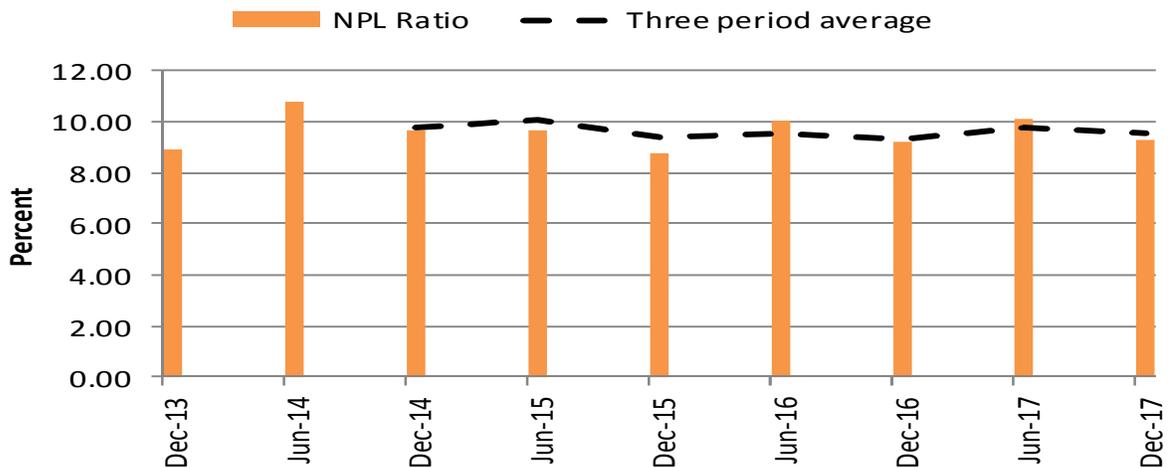
Source: BRPD, BB.
Note: Ratio of non-performing loans & advances to total loans & advances.

The ratio remained mostly stable and decreased slightly in December 2017 compared to end-June 2017.

5. Profitability and solvency risk–cont'd.

5.3 FIs' profitability indicators

a. Return on equity (ROE)
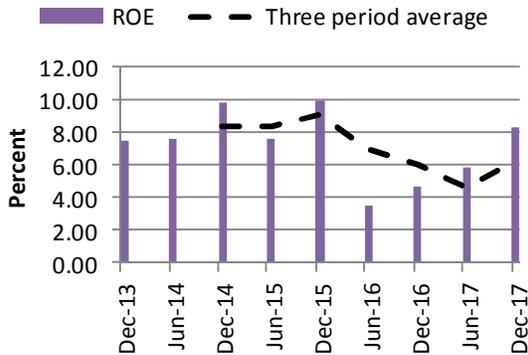
Source: DFIM, BB.
Note: End-June ratios are annualized.

b. Return on assets (ROA)
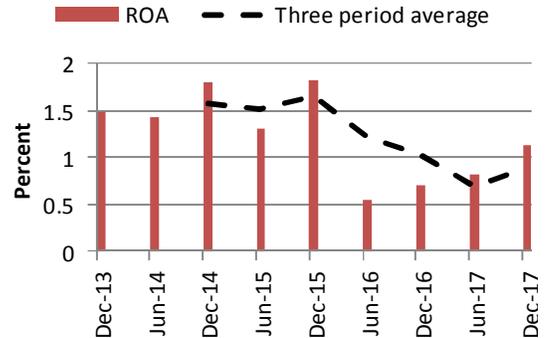
Source: DFIM, BB.
Note: End-June ratios are annualized.

FIs' ROE and ROA remained uptrend and recorded a significant increase in December 2017.

c. Cost to income ratio
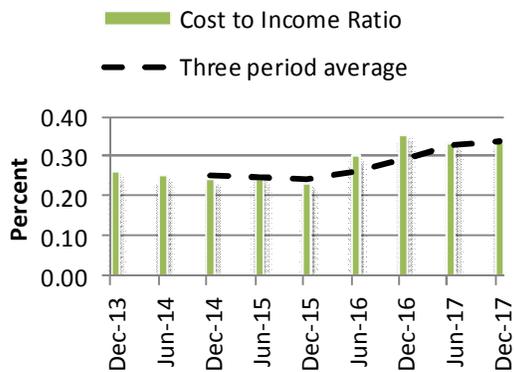
Source: DFIM, BB.
Note: Ratio between operating expenses and total income.

d. Net interest income to total operating income ratio
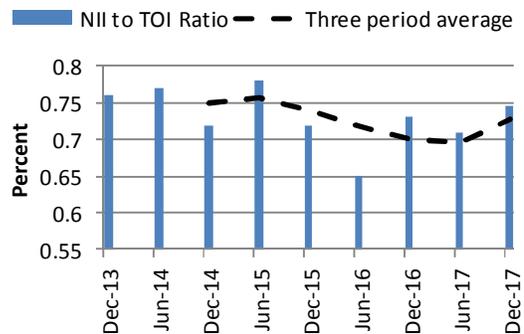
Source: DFIM, BB.
Note: Ratio between net interest income and total operating income.

FIs' cost to income ratio remained stable in December 2017. Net interest income to total operating income ratio increased moderately in December 2017, which implies an increase of FIs' income from interest earning assets.

5. Profitability and solvency risk–cont'd.

5.4 FIs' solvency indicators

a. Tier-1 to RWA ratio
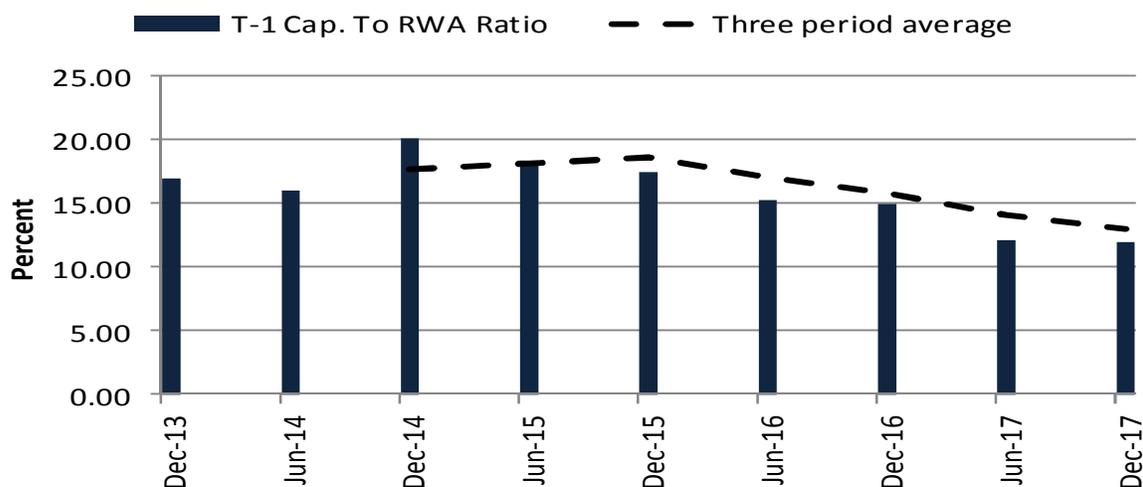
Source: DFIM, BB.
Note: Ratio of Tier-1 capital to total risk-weighted assets.

Though the ratio further declined in December 2017, it was well above the regulatory requirement.

### b. Gross non-performing loan (NPL) ratio
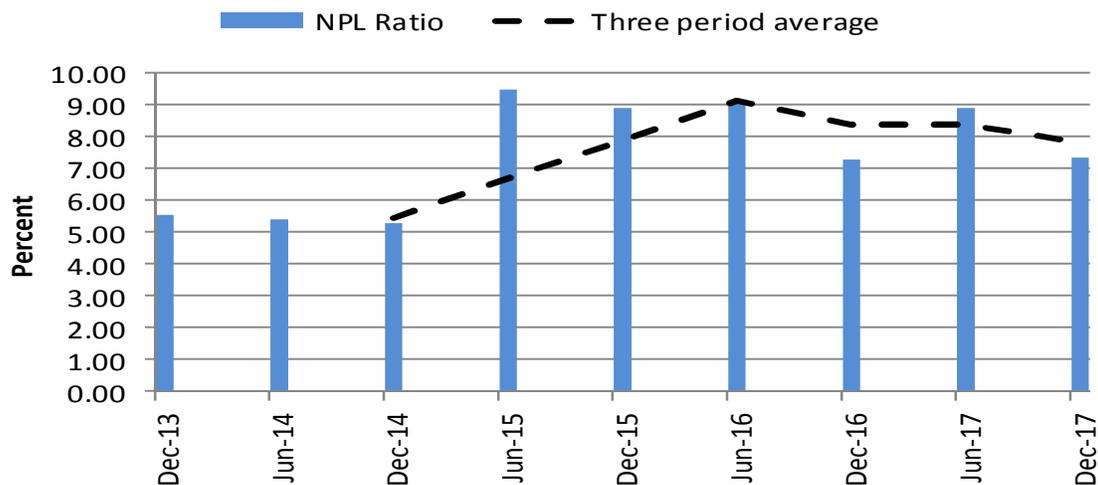
Source: DFIM, BB
Note: Ratio of non-performing loans &leases to total loans &leases.

The ratio decreased moderately at end-December 2017compared to end-June 2017 position.

6. Inter-linkages

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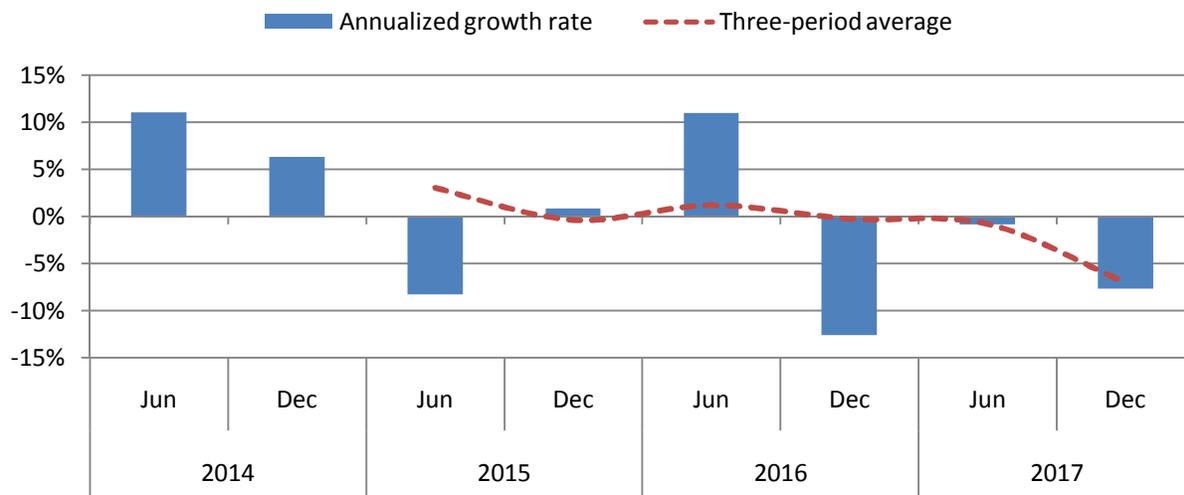
Source: Statistics Department, Bangladesh Bank.
Notes: Credit extended to the government refers to gross amount.

Overall government borrowings from the banking sector remained on the downward path at the end of 2017.

6.2 Annual growth rate of NBDCs' credit (gross) to government
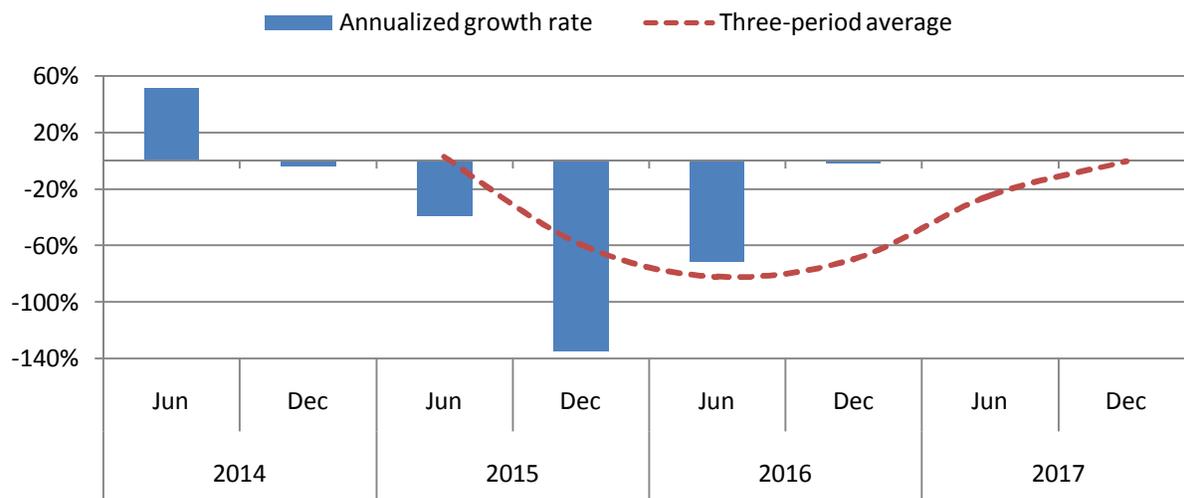
Source: Statistics Department, Bangladesh Bank.
Notes: NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, ProbashiKallyan Bank, central cooperative bank, and exclude non-depository FIs.

Government borrowings from the NBDCs also remained negligible at end-December 2017.

6. Inter-linkages– Cont'd.

6.3 Annual growth rate of banks' loans to Housing sector

a. Loans to residential housing

Legend: Annualized growth rate (bar) · Three-period average (dashed line)

b. Loans to commercial housing

Legend: Annualized growth rate (bar) · Three-period average (dashed line)
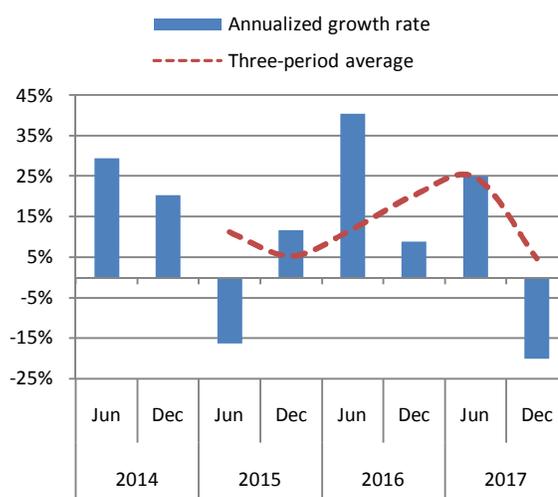
Source: Statistics Department, Bangladesh Bank.

Notes: Data for December 2017 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 demonstrates an overall upward trend while loan growth in commercial housing sector demonstrates high fluctuations over the years.

6.4 Annual growth rate of FIs' loans to Housing sector

Legend: Annualized growth rate (bar) · Three-period average (dashed line)
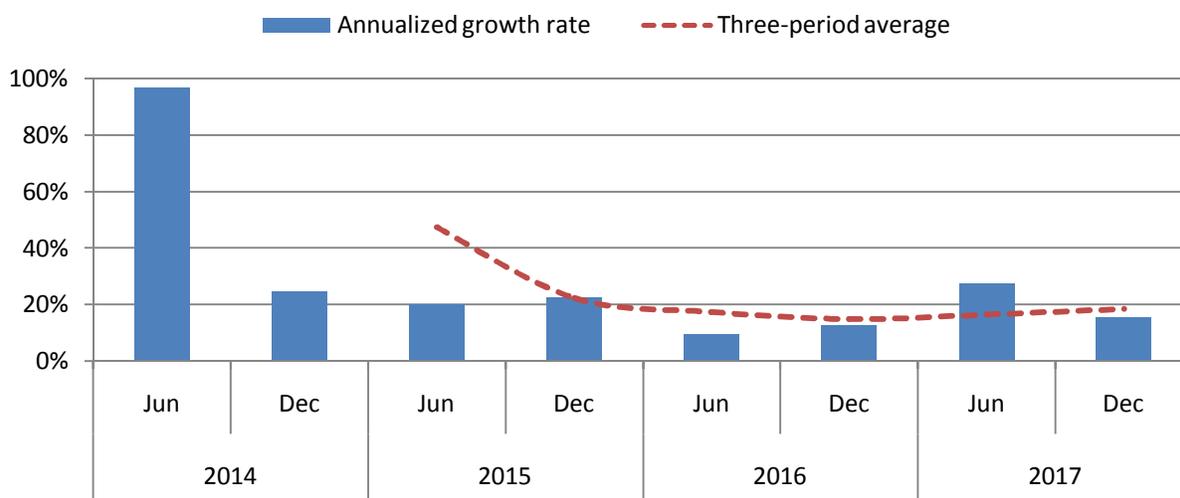
Source: DFIM, Bangladesh Bank.

Notes: Loans to housing sector refer to loans extended by FIs for both residential and commercial housing purposes.

Growth of FIs' loans to housing sector remained low since December 2014.

26

6. Inter-linkages– Cont'd.

6.5 Banks' loans to counterpart sectors

Households   NFCs   Government
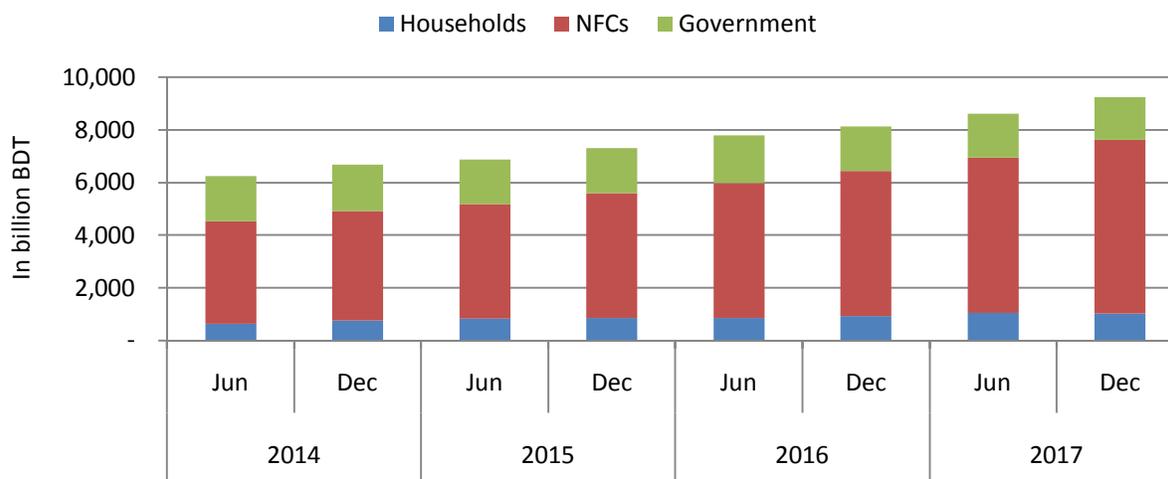
Source: Statistics Department, Bangladesh Bank.

Notes: Data of households and NFCs for December2017 are provisional. Loans extended to households and NFCs refer to outstanding loans and advances excluding bills. Loans to government refer to gross amount.

Increase in banks' exposure to its major public and private counterparts has been mainly led by private NFCs over the years; private NFCs accounted for around seventy percent of total bank loans at the end of December 2017.

6.6 NBDCs' loans to counterpart sectors

Households   NFCs   Government
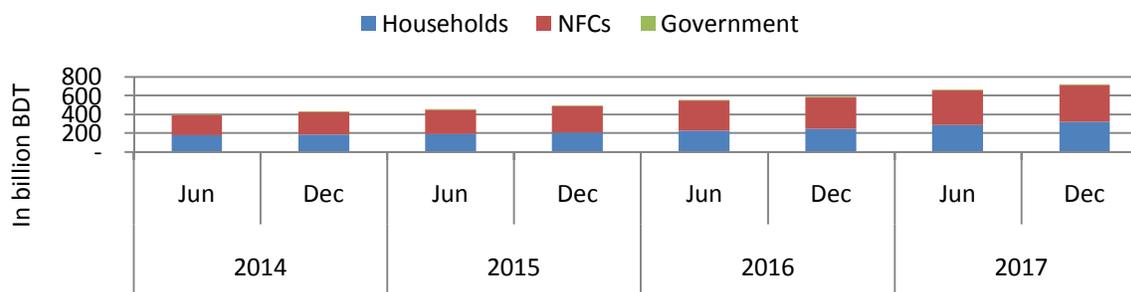
Source: Statistics Department, Bangladesh Bank.
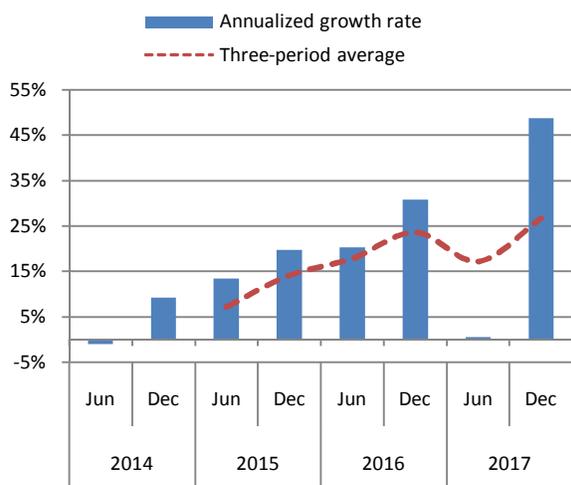
Notes: Loans to government refer to gross amount. NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank, and exclude non-depository FIs.

NFC borrowing constitutes major portion of NBDCs' increasing loan portfolio closely followed by an increasing loan exposure to households while the government borrowing remains negligible.

27

6. Inter-linkages– Cont'd.

6.7 Banks' cross-border claims
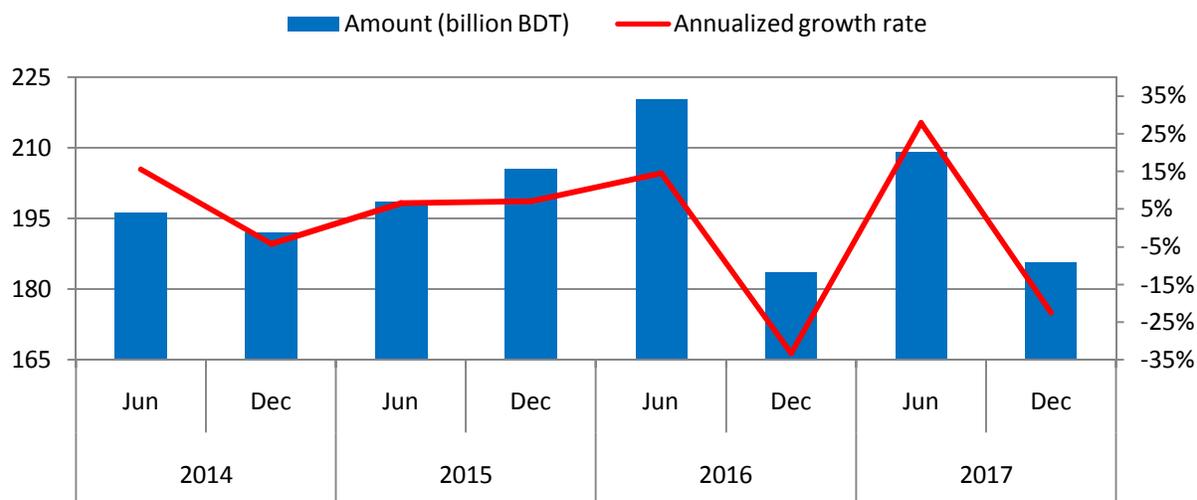
Source: Statistics Department, Bangladesh Bank.

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 remain low accounting for less than one percent of total assets of the banking sector.

6.8 NBDCs' cross-border claims
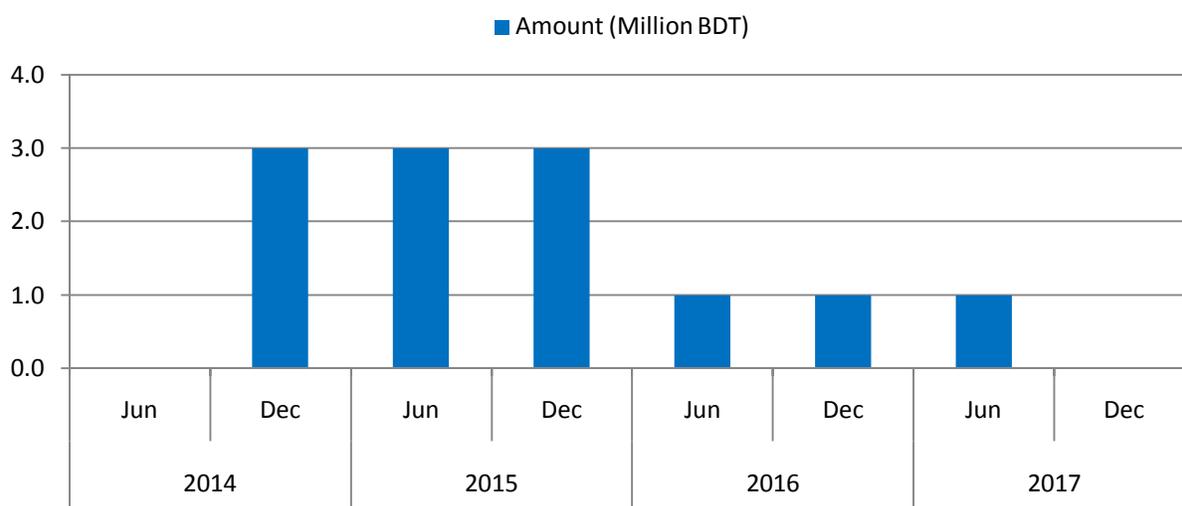
Source: Statistics Department, Bangladesh Bank.

Notes: Claims include only foreign currency notes in hand. No other claims have been generated yet. NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, ProbashiKallyan Bank, central cooperative bank, and exclude non-depository FIs.

NBDCs' cross-border claims are almost non-existent at the end of December 2017.

1. Macro risk:

1.1 Current and forecasted real GDP growth

Sources: Statistics Department, Bangladesh Bank and IMF World Economic Outlook Update, April 2017.

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 World Economic Outlook Update, April 2017.

1.2 Current account balance-to-GDP ratio

Sources: Monthly Economic Trends, BB.

Current account balance represents the sum of the 6 monthsø 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: ERD, Ministry of Finance and Monthly Economic Trends of BB (various issues).

The total aggregate debt as percentage of GDP represents the sum of the debt-to-GDP ratio of Financial, Non-Financial Corporations, Government, as well as households sectors(other resident sector).

1.4 Government debt-to-GDP ratio

Sources: ERD, Ministry of Finance and Monthly Economic Trends of BB (various issues).

Government debt includes both domestic government debt and local authorities and external debt. Local authorities include City Corporations, ZillaParisad, Municipalities, Thana/UpazilaParishad, Union Parishad, Gram Parishad and Other Local Bodies. The dotted line represents three-year moving average of the government debt-to-GDP ratio.

1.5 Government deficit-to-GDP ratio

Sources: Monthly Report on Fiscal Position (various issues).

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 income ratio

Sources: Monthly Economic Trends, BB.

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 income ratio represents resident sector loans as a ratio of gross disposable 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 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), Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank; non-depository FIs are excluded.

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; NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank; non-depository FIs are excluded.

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; FIs include both depository and non-depository FIs and exclude Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank; due to unavailability of NBDC data, provision maintenance ratio of FIs was used as majority of both NBDCs and FIs are depository FIs.

2.7Changes 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 assured liquidity support and special repo. Assured liquidity support is given against the government securities holding by the banks issued within last 60 days. Special repo is given upon request to BB when there is a possibility of shortfall in CRR.

3.2 Advance-to-deposit ratio

Sources: Department of Off-site Supervision, BB.

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

3.3 Maturity profile of banks' 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. Banksø 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 Price/earnings ratio of equity indices

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

The indices used are for 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.

4.2 Equity indices

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

The equity indices displayed are DSEX, DSE 30 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.

4.3 Weighted average call money market rates

Source: Statistics Department, 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: Statistics Department, BB.

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

4.5 Weighted average exchange rate (BDT/USD)

Source: Statistics Department, 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: Scheduled Banks; 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: Scheduled Banks; 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: Scheduled Banks; computation: Financial Stability Department, BB.

The indicator is based on the ratio between operating expenses and total income. End-June ratios are annualised.

d. Net interest income to total operating income ratio

Source: Scheduled Banks; computation: Financial Stability Department, BB.

The indicator is based on the ratio between net interest income and total operating income. End-June ratios are annualised.

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 exposure amount.

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. 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. End-June ratios are annualized.

c. Cost to income ratio

Source: Department of Financial Institutions and Markets, BB.

The indicator is based on the ratio between operating expenses and total income. End-June ratios are annualized.

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. End-June ratios are annualized.

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 and total risk exposure amount.

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 advances to total loans and advances.

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; NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank; non-depository FIs are excluded.

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; FIs include both depository and non-depository FIs and exclude Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, and central cooperative bank.

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; NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central co-operative bank; non-depository FIs are excluded.

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 õimmediate borrowerö 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 õGuidelines to the international consolidated banking statisticsö
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; NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank; non-depository FIs are excluded.

35