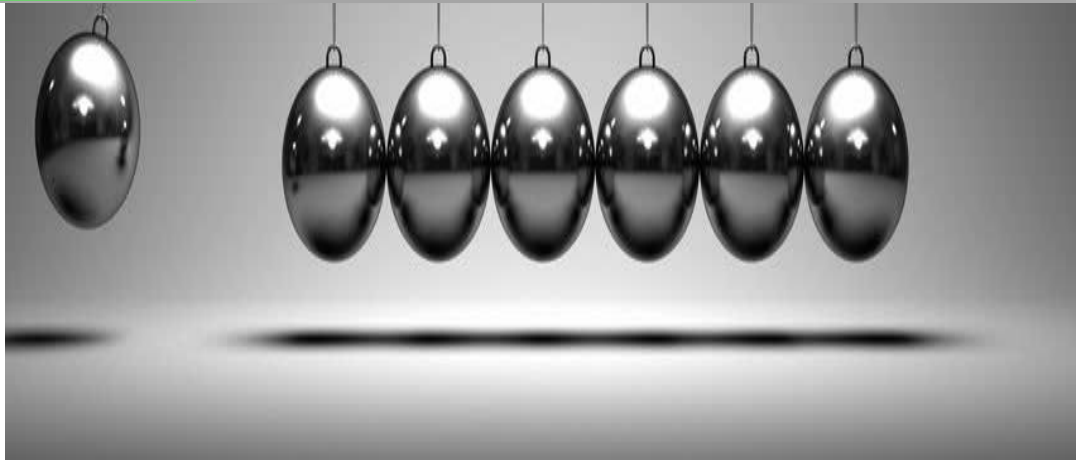**BANGLADESH BANK**

Central Bank of Bangladesh

Macroprudential Supervision of Financial System

Bangladesh Systemic Risk Dashboard (BSRD)

Financial Stability Department

December 2016

Bangladesh Systemic Risk Dashboard (BSRD)

December 2016

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

This dashboard has been prepared taking into account the data available up to December 2016 unless stated otherwise.

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List of acronyms

ADR	Advance-to-Deposit Ratio
BB	Bangladesh Bank
BIS	Bank for International Settlements
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/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

GDP growth continued to rise in fiscal year (FY) 2016. GDP growth rate increased to 7.11 percent in FY16, which was higher than IMF forecast of 6.6 percent for FY16 (indicator 1.1). The real GDP growth rate forecasted by IMF for FY17 was 6.9 percent which is lower than the real GDP growth rate in FY16.

Aggregate debt-to-GDP ratio increased slightly (Indicator 1.3). In December 2016, aggregate debt-to-GDP ratio increased slightly, government debt-to-GDP ratio and non-financial corporations' (NFCs) debt-to-GDP ratio increased. Domestic government debt constitutes a major portion of government debt. Private NFCs' debt comprises 98.6 percent of NFCs debt and it increased in December 2016.

Current account balance-to-GDP ratio was negative in July-December 2016 compared to January-June 2016. Government deficit-to-GDP ratio, both including and excluding grants, increased in FY16. Household debt in relation to gross disposable national income increased slightly in December 2016 compared to June 2016.

2. Credit risk

Growth rate of bank lending to households increased while the same to NFCs decreased. In December 2016, the rate of growth in lending by banks to households was higher while the same to NFCs was lower compared to the growth rates in June 2016 (indicators 2.1 and 2.3). On the other hand, growth rate in lending by non-bank depository corporations (NBDCs) to both households and NFCs decreased in December 2016 compared to the growth rates in June 2016 (indicators 2.2 and 2.4). Provision maintenance ratios of banks and FIs remain almost same in December 2016 as that of June 2016 (indicators 2.5 and 2.6). NBDCs' loans to household sector showed an upward trend (indicators 2.2). Growth rate of NBDCs' loans to private NFCs experienced a decline in the second half of 2016 (indicators 2.4).

Banks' interest rate for housing loans, a proxy for banks' credit standards, maintained a lower trend in 2016. It is observed that larger proportion of banks had eased the interest rates of loans to housing sector (indicators 2.7).

3. Funding and liquidity risk

Assured liquidity support of Bangladesh Bank was volatile since 2013 and remained negligible in December 2016. Special repo showed a decreasing trend since 2013 and became nil in 2015, implying that market had enough liquidity. Though special repo has started to increase in June 2016 but it again became nil in December 2016 (indicators 3.1). Advance-to-deposit ratio (ADR) remained stable over last few years. ADRs of private commercial banks (PCBs) and specialized banks (SBs) were higher than the industry average (indicators 3.2).

Residual maturity of treasury bonds over 5 and up to 10 years and treasury bills more than 182 days were the largerst in terms of volume (indicators 3.3a and 3.3b). Subordinated debt showed an increasing trend since 2013 and reached the highest level in December 2016 (indicators 3.4).

4. Market risk

There was no significant deviation of the equity indices in the second half of 2016 (indicators 4.2). Average call money borrowing and lending rates and spread between banks' lending and borrowing rates remained almost stable in December 2016 (indicators 4.3 and 4.4). Exchange rate remained stable despite slight jump in December 2016 (indicators 4.5).

5. Profitability and solvency risk

Banks' profitability, measured by ROE and ROA (indicators 5.1a and 5.1b), remained broadly stable though showing upward trend in December 2016. Cost- to- income ratio remained stable except in June 2016. Proportion of net interest income in total operating income also rose between December 2015 to December 2016 (indicators 5.1c and 5.1d).

Though the ratio of Tier-1 capital to total risk-weighted assets declined in December 2016, it was well above the regulatory requirement. Ratio of non-performing loans and advances to total loans and advances remained mostly stable in December 2016.

FIs' profitability, measured by ROE and ROA (indicators 5.3a and 5.3b), remained broadly stable though showing decrease in December 2016. Increasing trend of cost- to- income ratio implies that the FI need to improve operating efficiency. Proportion of net interest income in total operating income also went up in December 2016 except in June 2016 (indicators 5.3c and 5.3d).

Ratio of Tier-1 capital to total risk-weighted assets declined in December 2016; still it was well above the minimum regulatory requirement. Ratio of non-performing loans and advances to total loans and advances went down in December 2016.

6. Inter-linkages

Government borrowings from banking sector declined in December 2016 (indicators 6.1).

Banks' loan growth in residential housing sector demonstrated an upward trend. On the other hand, loan growth in commercial housing sector experienced a slowdown at the end of December 2016 (indicators 6.3a and 6.3b). A downward trend is observed in FIs' loans to housing sector (indicators 6.4).

Increase in banks' exposure to its major public and private counterparts has been mainly led by NFCs accounting for more than sixty percent of total bank loans (indicators 6.5). Banks' cross-border claims are increasing but it makes up only around 1 percent of total assets of the banking sector.

NFCs' borrowing is the major contributor in NBDCs' increasing loan portfolio closely followed by an increasing loan exposure to households (indicators 6.6). Government borrowing from NBDCs was negligible (indicator 6.2).

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1. Macro risk

## 1.1 Current and forecasted real GDP growth
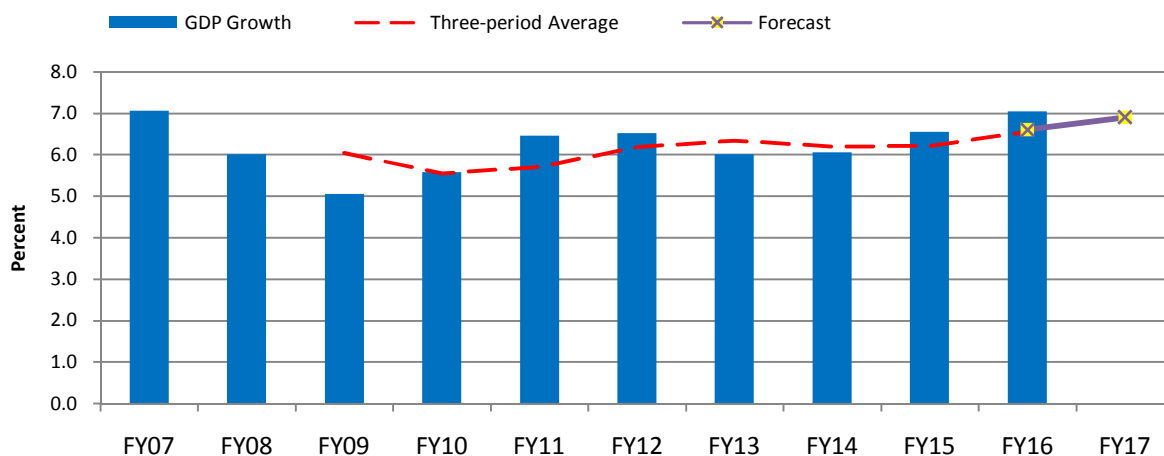
Source: Statistics Department and IMF World Economic Outlook, Update, July, 2016.
Notes: As half yearly GDP is not calculated in Bangladesh, GDP growth is only shown for financial years.
Dotted line represents three-year moving average of GDP growth rate.

Real GDP growth showed an increasing trend, being more than IMF forecast for the fiscal year 2016 (FY16).

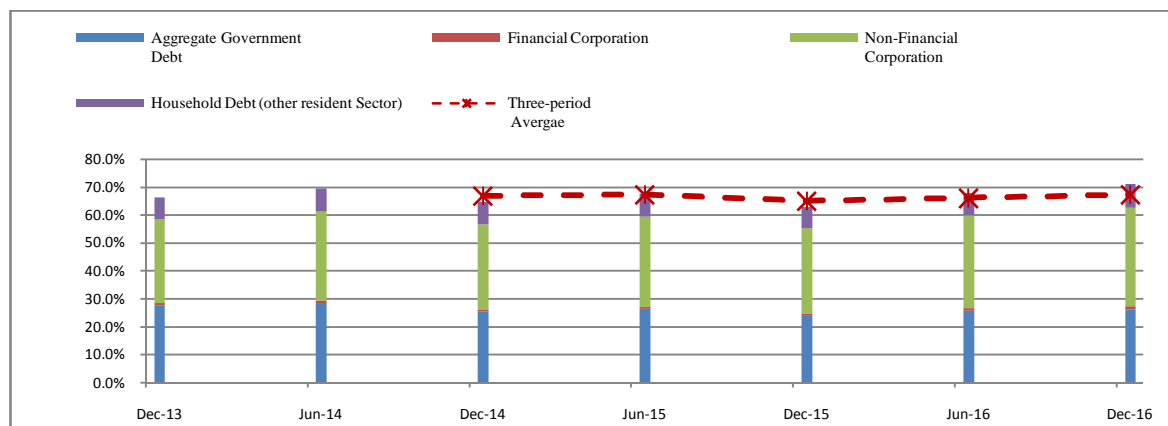## 1.2 Current account balance-to-GDP ratio
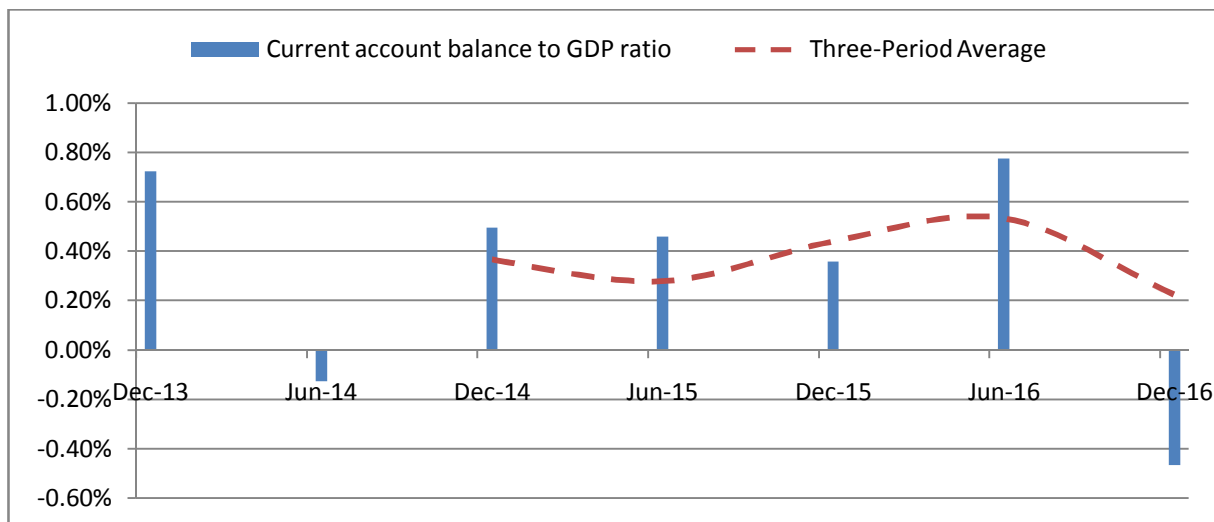
Sources: Monthly Economic Trends, BB.
Notes: As half yearly GDP is not calculated in Bangladesh, June based GDP data is used as a proxy for December in calculating current account balance-to-GDP ratio.

Current account balance-to-GDP ratio showed a fluctuating trend. Though the ratio was positive in first half of CY16, it was negative in the second half.

1. Macro risk–Cont'd.
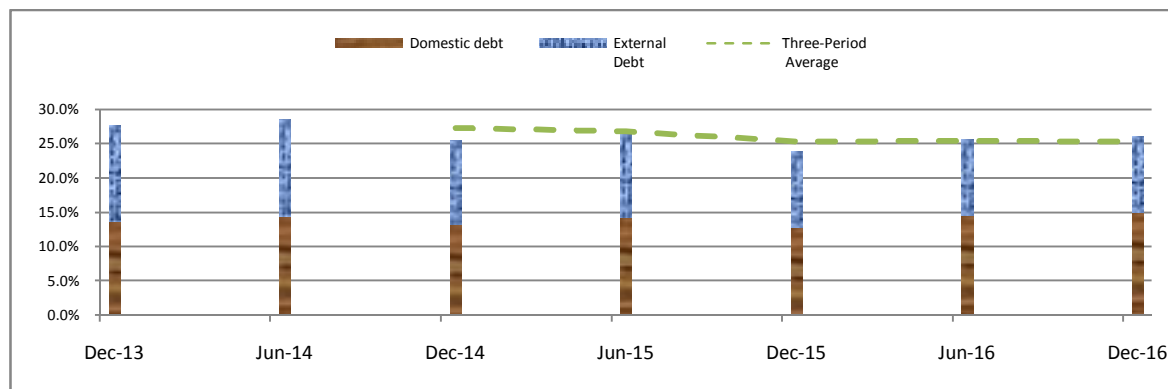
1.3 Aggregate debt-to-GDP ratio

Sources: ERD, Ministry of finance and monthly economic trends of BB (various issues).
Note: As half yearly GDP is not calculated in Bangladesh, June based GDP data is used as a proxy for December in calculating aggregate debt-to-GDP ratio. 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. Because of unavailability of half yearly external debt, June based data of external debt is used as a proxy for December. However, external debt for FY16 is up to January 2016.

Aggregate debt-to-GDP ratio increased in December 2016. Debts of non-financial corporations and government are major part of aggregate debt. Government debt-to-GDP ratio and non financial corporation debt-to-GDP ratio increased in December 2016 with respect to the preceding period.

1.4 Government debt-to-GDP ratio

Sources: ERD, Ministry of finance and monthly economic trends, BB.
Note: As half yearly GDP is not calculated in Bangladesh, June based data of GDP is used as a proxy for December in calculating government debt-to-GDP ratio. Because of unavailability of half yearly external debt, June based data of external debt is used as a proxy for December. However, external debt for FY16 is up to January 2016.

Domestic government debt constitutes major portion of government debt. Government debt-to-GDP ratio remains almost same in December 2016 compared to June 2016.

1. Macro risk–Cont'd.

1.5 Government deficit-to-GDP ratio
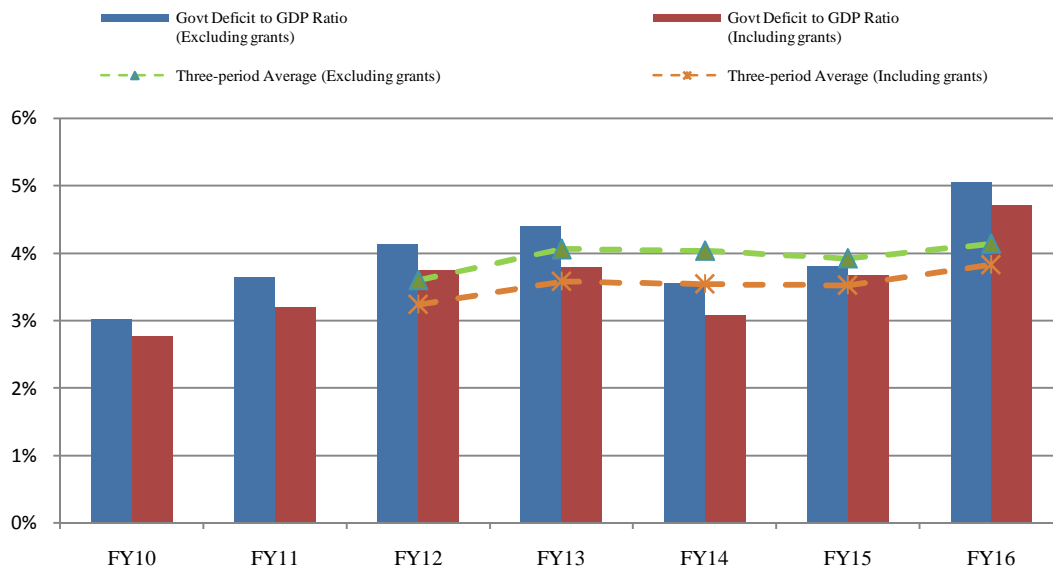
Sources: Monthly Report on Fiscal Position and Bangladesh Economic Review, Ministry of Finance.
Notes: Because of unavailability of half yearly data of both government deficit & GDP, government deficit-to-GDP ratio is shown for financial years only. However, data for FY16 is estimated.

Government deficit-to-GDP ratio, both including and excluding grants, increased in FY16 compared to the preceding fiscal year.

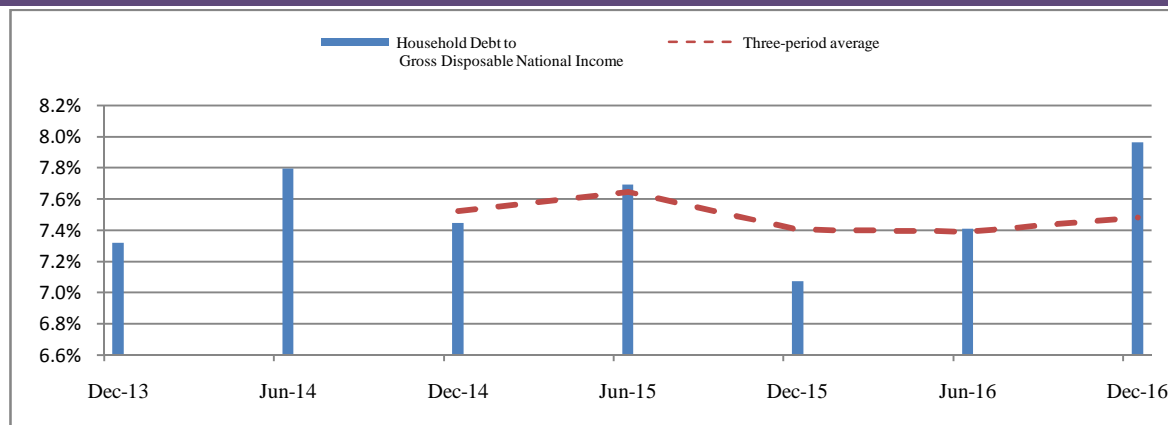## 1.6 Household debt-to-gross disposable national income ratio

Sources: Monthly Economic Trends, BB.
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-year moving average of household debt-to-gross disposable national income ratio.

Household debt in relation to gross disposable national income increased in December 2016 compared to June 2016.

1. Macro risk – Cont'd.

1.7 NFC debt-to-GDP ratio
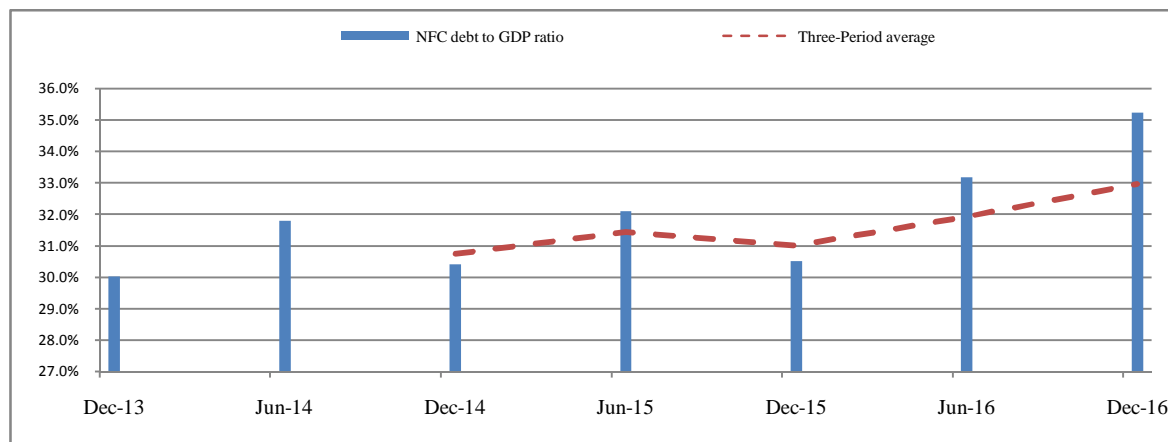
Sources: Monthly Economic Trends, BB.
Notes: NFC debt includes debts of both public and private NFCs. Dotted line represents three-year moving average of NFC debt-to-GDP ratio.
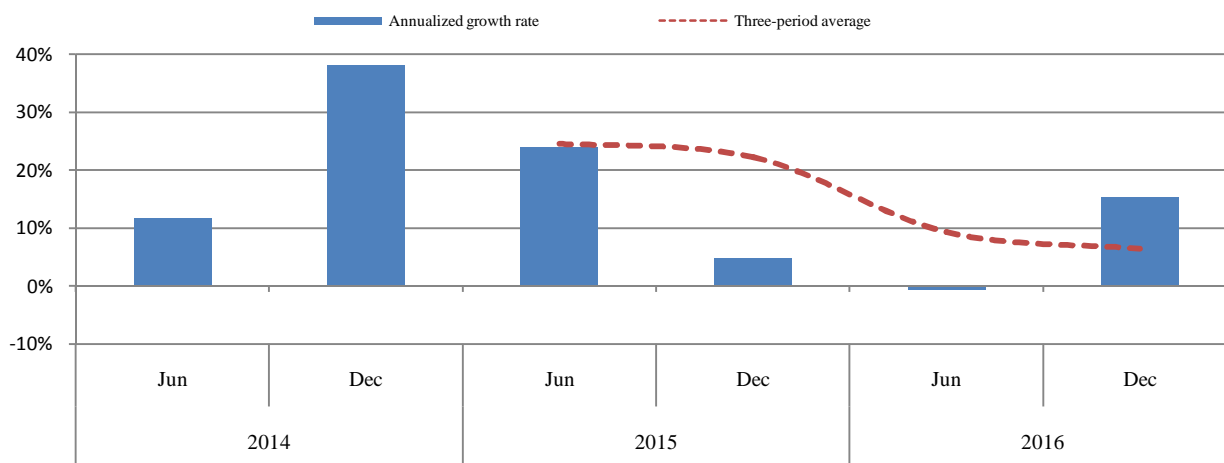
Private non-financial corporations' (NFCs) debt comprises major portion of aggregate NFCs debt. NFC debt-to-GDP ratio increased by 2.1 percentage points in December 2016 compared to June 2016.

2. Credit risk

2.1 Annual growth rate of banks' loans to households

Source: Statistics Department, BB.
Notes: Data for December 2016 are provisional. Loans refer to outstanding loans and advances excluding bills extended to domestic households (individual customers).

Growth rate of banks' loans to household sector is on a decreasing trend since 2014; however, a notable increase was observed at end-December 2016.

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2. Credit risk – Cont'd.

2.2 Annual growth rate of NBDCs' loans to households

Source: Statistics Department, BB.
Notes: NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank, and exclude non-depository FIs[1].

An upward trend is observed in growth rate of NBDCs' loans to household sector. Noticeable that growth rate of NBDCs' loans to this sector has declined while banks' loan to the same has increased.

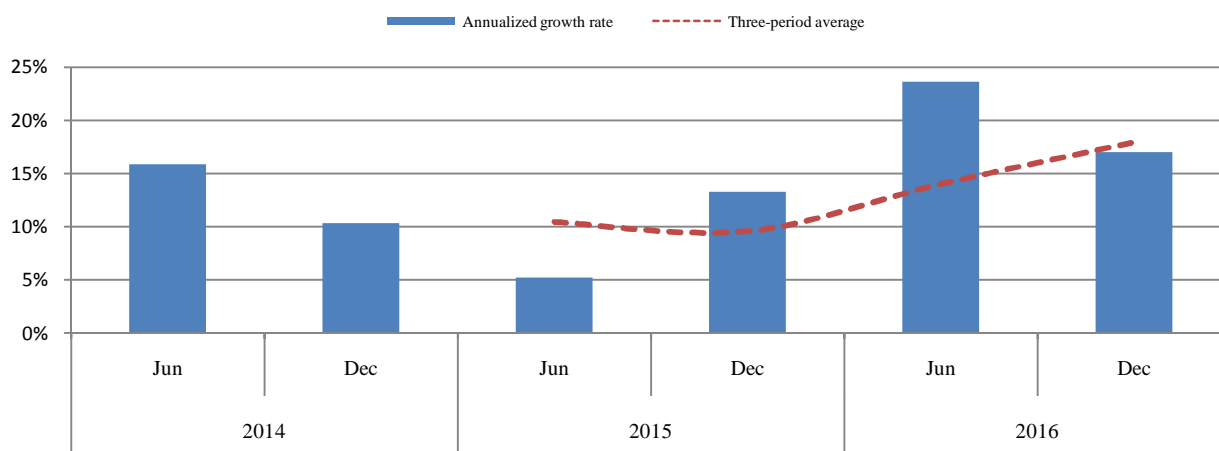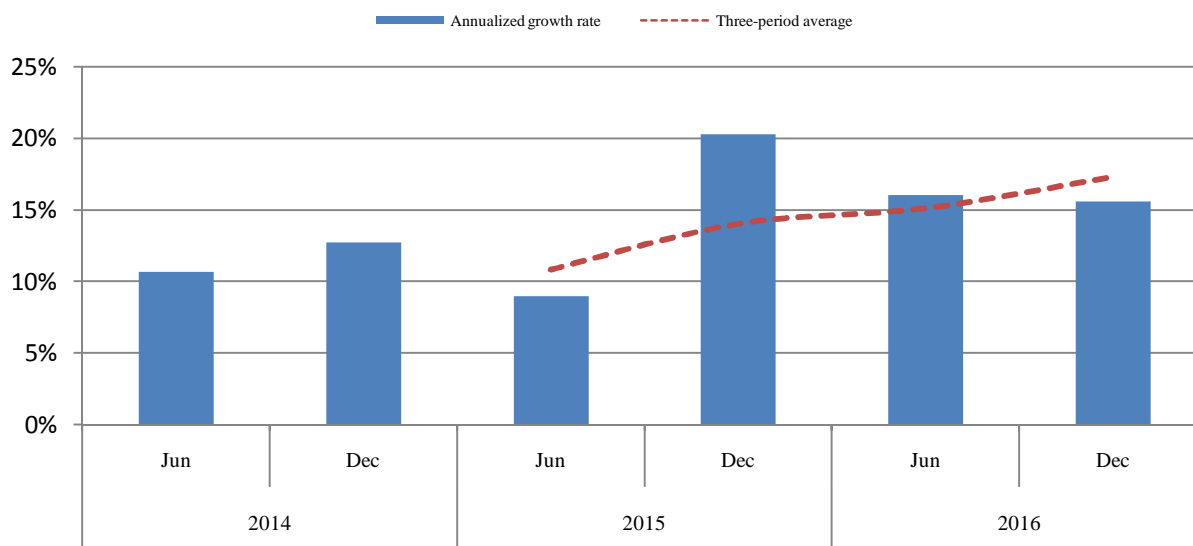## 2.3 Annual growth rate of banks' loans to non-financial corporation (NFC)

Source: Statistics Department, BB.
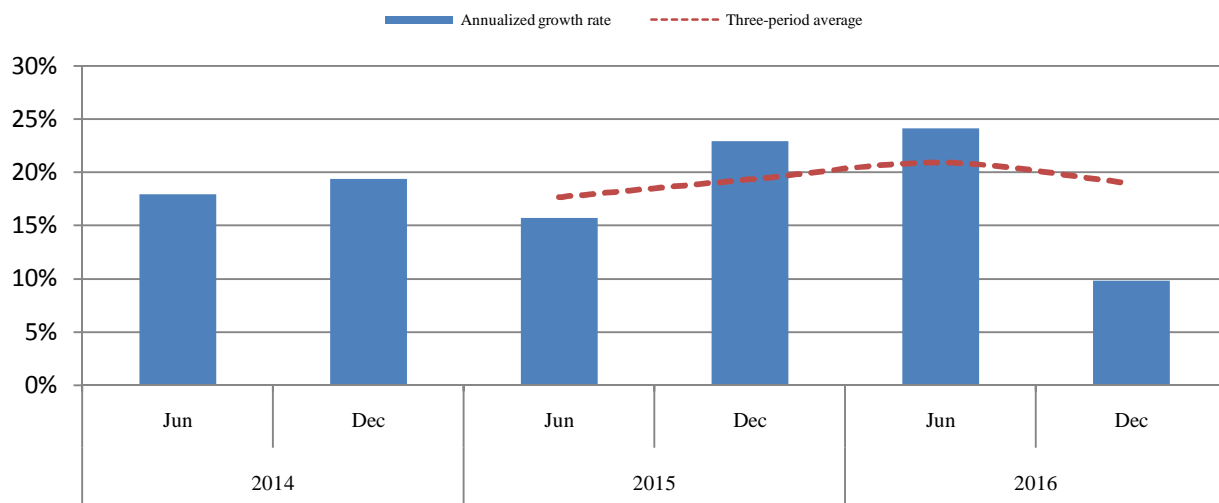Notes: Data for December 2016 are provisional. Loans refer to outstanding loans and advances excluding bills extended to private NFCs.

Private sector credit growth has boosted in recent years due to growth supportive monetary policy stance of Bangladesh Bank, which is evident from an increasing trend in (private) NFC loans by banks.

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

2. Credit risk – Cont'd.

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

Legend: Annualized growth rate ▮   Three-period average ┈┈┈

Chart data (Annualized growth rate):
- 2014 Jun: ~18%
- 2014 Dec: ~19.5%
- 2015 Jun: ~15.5%
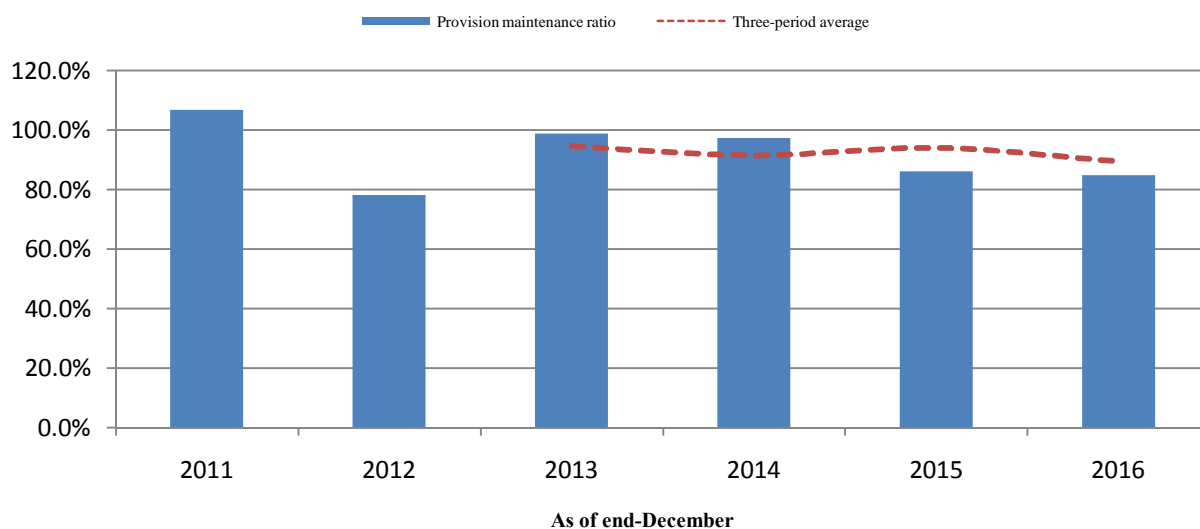- 2015 Dec: ~23%
- 2016 Jun: ~24%
- 2016 Dec: ~10%

Source: Statistics Department, BB.

Notes: NFC refers to private NFCs only. NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank, and exclude non-depository FIs.

Growth rate of NBDCs' loans to private NFCs experienced a decline in the second half of 2016.

2.5 Provision maintenance ratio of banks

Legend: Provision maintenance ratio ▮   Three-period average ┈┈┈

Chart data (Provision maintenance ratio):
- 2011: ~107%
- 2012: ~78%
- 2013: ~99%
- 2014: ~97%
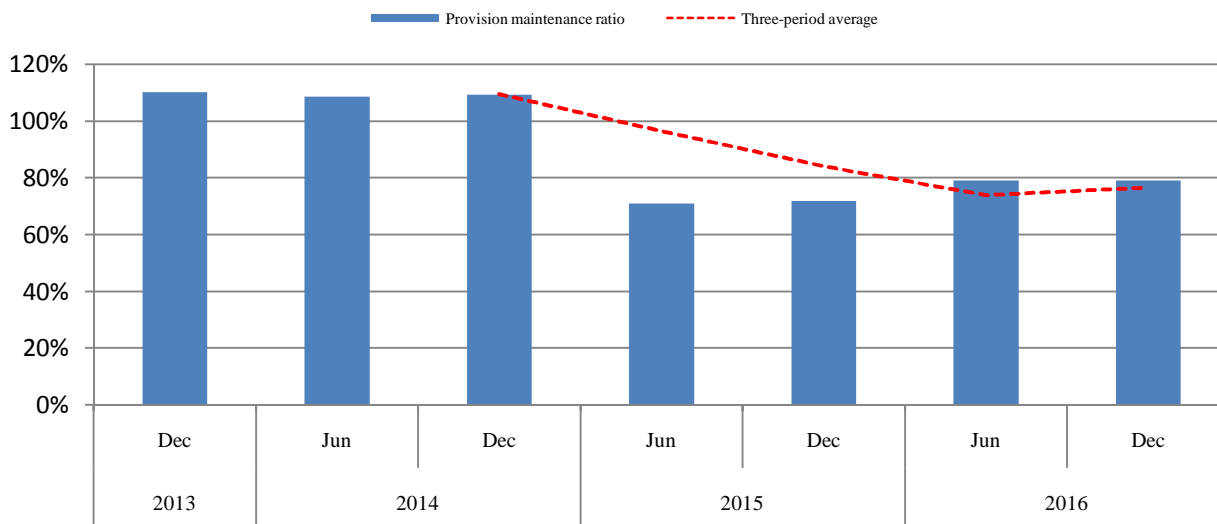- 2015: ~86%
- 2016: ~85%

As of end-December

Source: BRPD, BB.

Banks' maintained provision as a percentage of required provisions demonstrates a decreasing trend attributable largely to higher amount of gross NPLs.
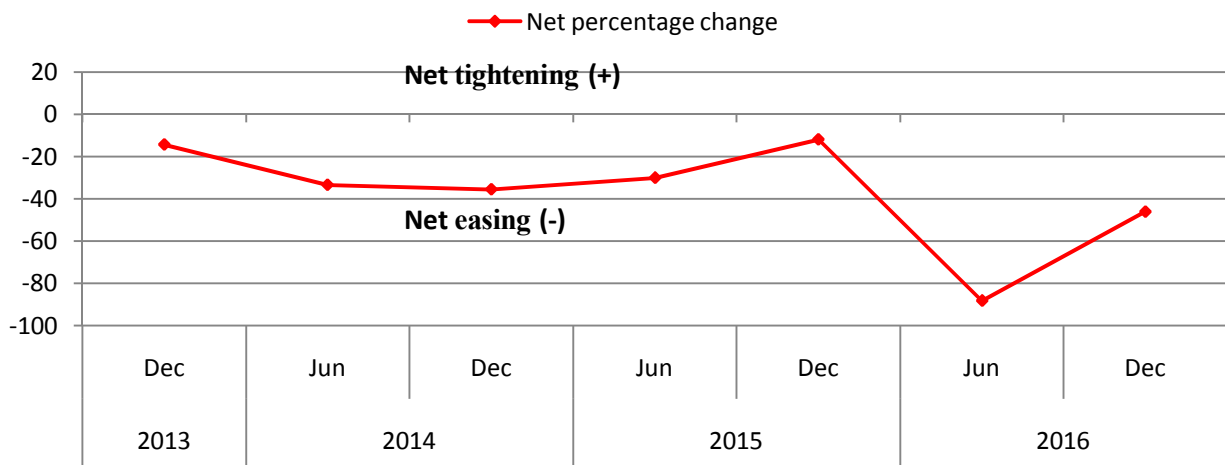
2. Credit risk – Cont'd.

2.6 Provision maintenance ratio of FIs

Source: DFIM, BB.

FIs' provision maintenance ratio demonstrated an upward trend in 2016.

2.7 Banks' interest rates for housing loans

Source: 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 tightened (increased) and the share of banks reporting that they have been eased (decreased). A positive net percentage change indicates that a larger proportion of banks have tightened credit standards (õnet tighteningö), whereas a negative net percentage change indicates that a larger proportion of banks have eased credit standards (õnet easingö).

An overall net easing in banks' credit standards for housing loans is observed, which is expected to boost the housing market.

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3. Funding and liquidity risk

3.1 Bangladesh Bank's liquidity support to banks
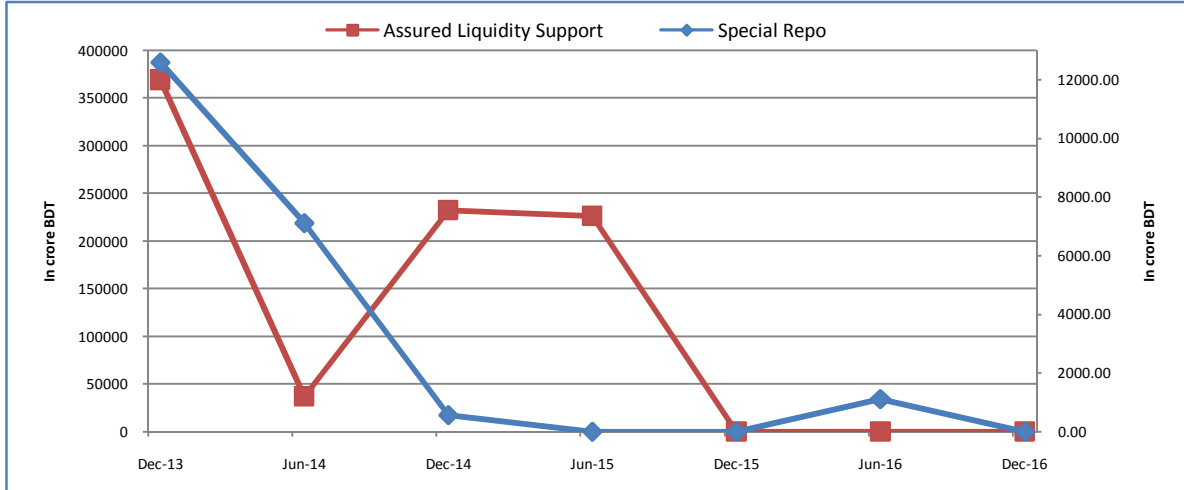
Source: Debt Management Department, BB.

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

Assured liquidity support was volatile since 2013 and remained negligible in December 2016. Special repo showed decreasing trend since 2013 and was nil in 2015. Though special repo has started to increase in June 2016 but it again became nil in December 2016. The trend portrays a presence of ample liquidity in the money market.

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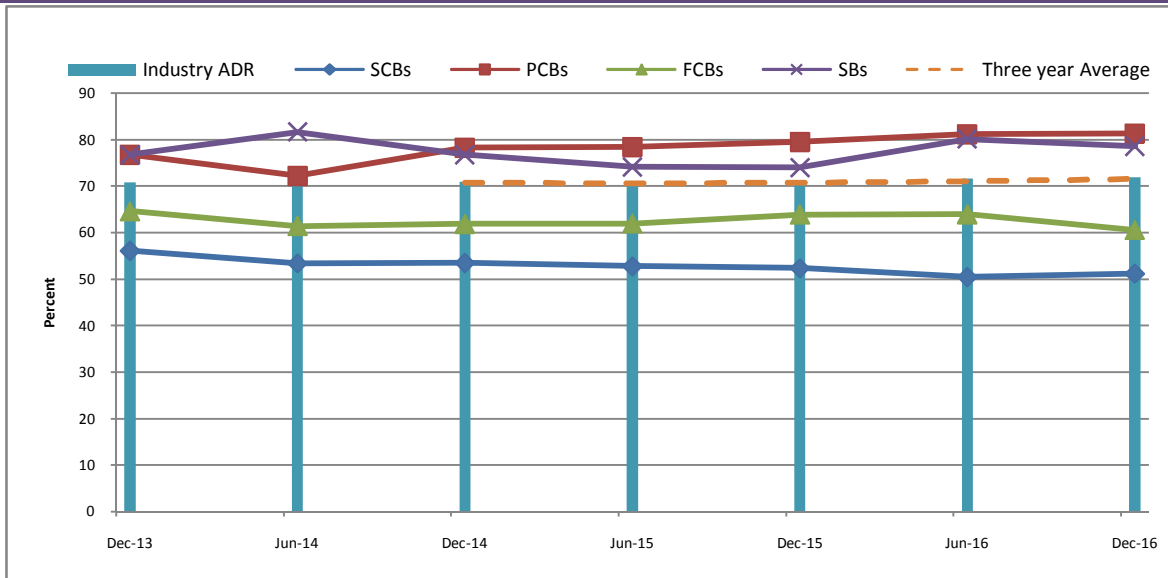
Source: DOS, BB.

Advance-to-deposit ratio (ADR) remained stable over the last few years. ADRs of PCBs and SBs were higher than the industry average.

3. Funding and liquidity risk–cont'd.

3.3 Maturity profile of banks' outstanding debt securities

a. Treasury Bond

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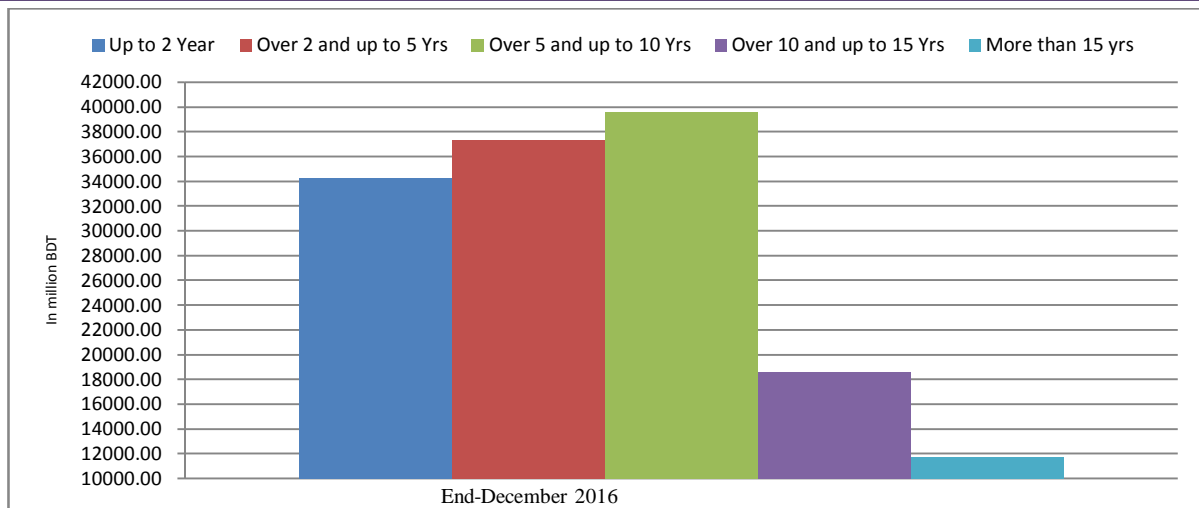
Notes: The maturity profile refers to the residual maturity of long-term and short-term debt securities issued by Government of Bangladesh. Banks' long term debt includes government treasury bond with a maturity of more than 12 months. Data are based on amounts outstanding at the end of the corresponding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

Remaining maturity of bonds over 5 and up to 10 years are largerst and more than 15 years are smallest in terms of volume.

b. Treasury Bill
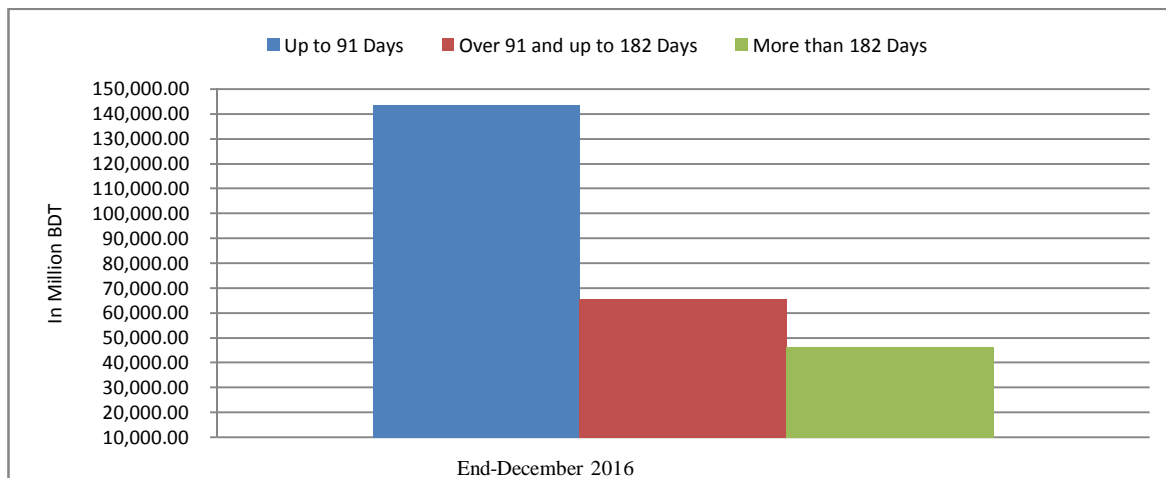
Source: Debt Management Department, BB.

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.

Remaining maturity of treasury bills up to 91 days are largerst and more than 182 days are smallest in terms of volume.

3. Funding and liquidity risk–cont'd.

3.4 Subordinated debt
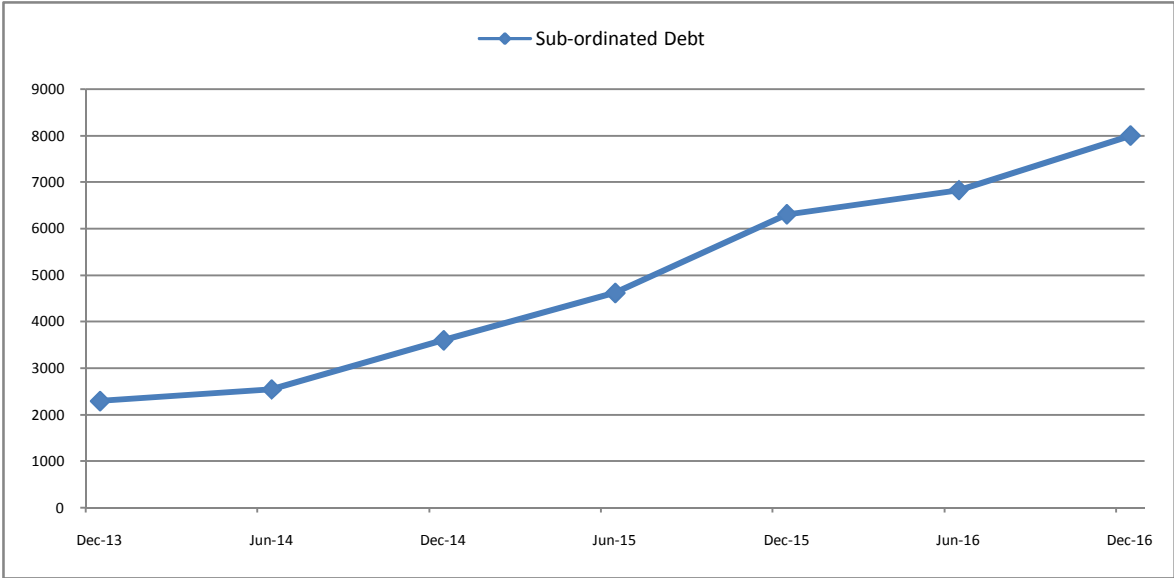
Source: Department of Off-site Supervision, BB.

Subordinated debt showed increasing trend since 2013 and attained highest position in December 2016.

4. Market risk

4.1 Price/earnings ratio of equity indices
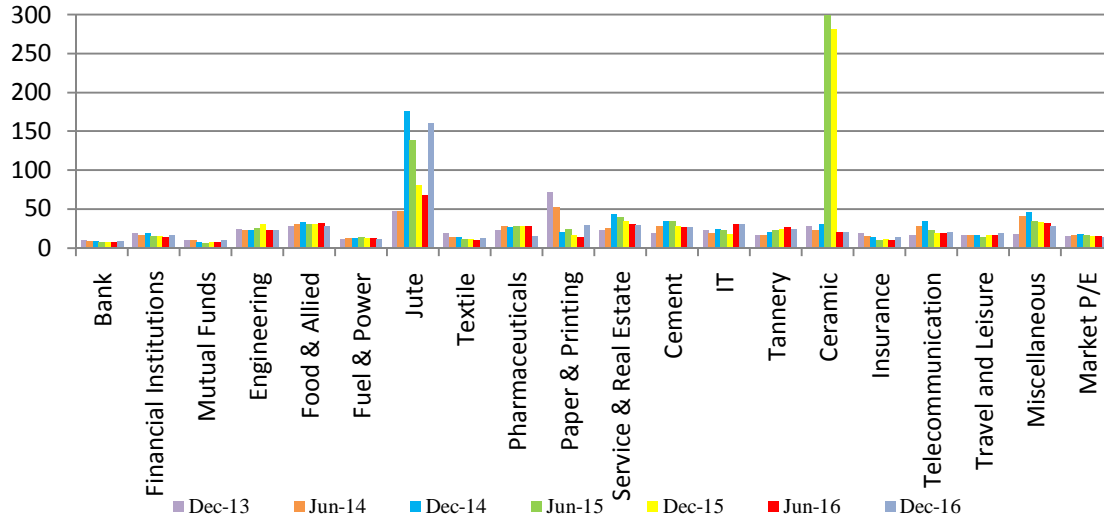
Source: DSE Website.

P/E ratio of all listed sectors remained mostly stable in December 2016 except for Jute and Ceramic sector. P/E of Jute sector fell gradually from December2014 but went up in December 2016 whereas P/E of ceramic sector experienced a sharp fall between December 2015 and December 2016.

4.2 Equity indices
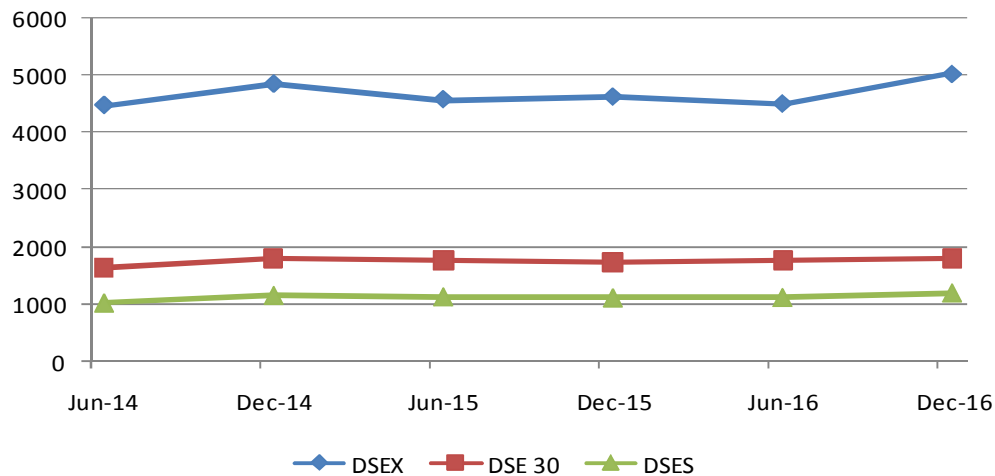
Source: DSE Website.

DSEX, the major DSE index, increased and crossed 5000 mark for the first time in two years. Other equity indices remained almost unchanged in the second half of 2016.

4. Market risk–cont'd.

4.3 Weighted average call money market rates

a. Borrowing rate
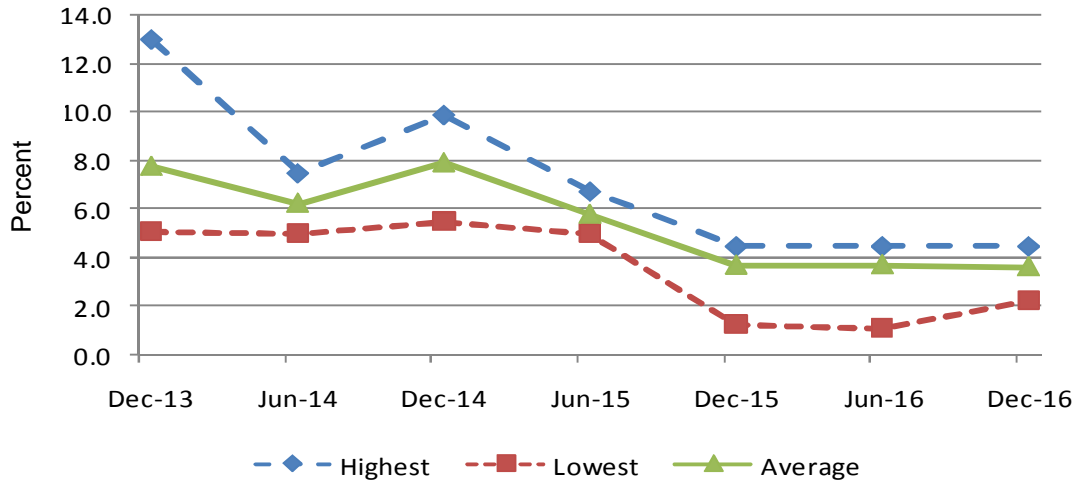
Source: Statistics Department, BB.

b. Lending rate
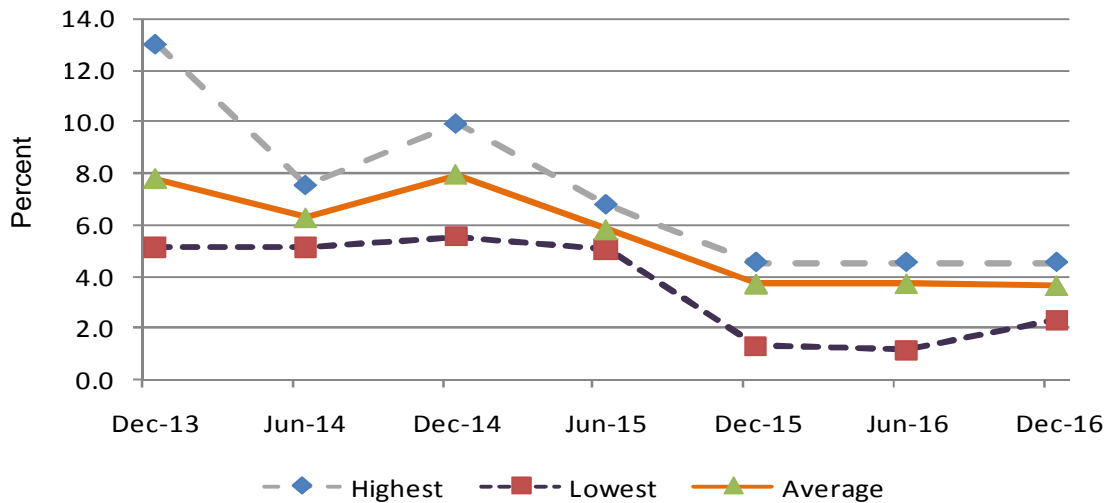
Source: Statistics Department, BB.

Average call money borrowing and lending rates had been declining since December2014 and remained stable in December 2016 indicating presence of no significant liquidity stress in the interbank market.

4. Market risk–cont'd.

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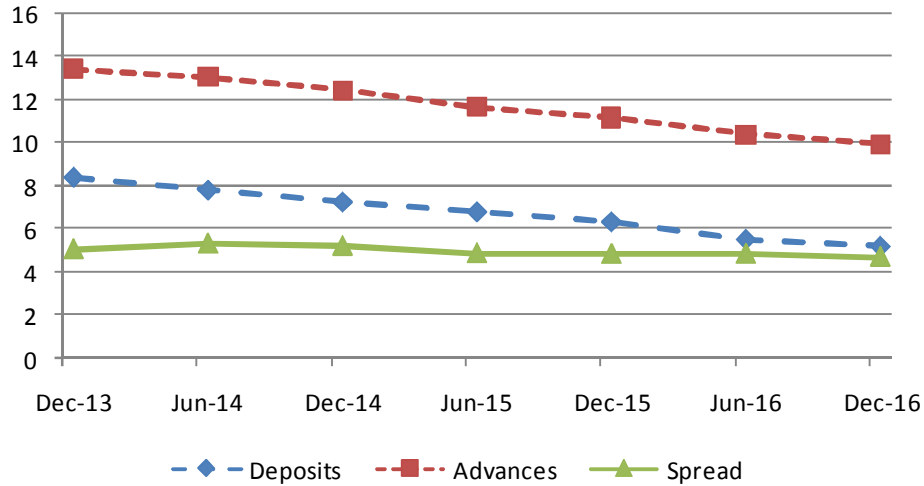
Source: Statistics Department, BB.

Despite a gradual fall in lending rates since December 2013, the spread between lending and borrowing rate remained almost stable.

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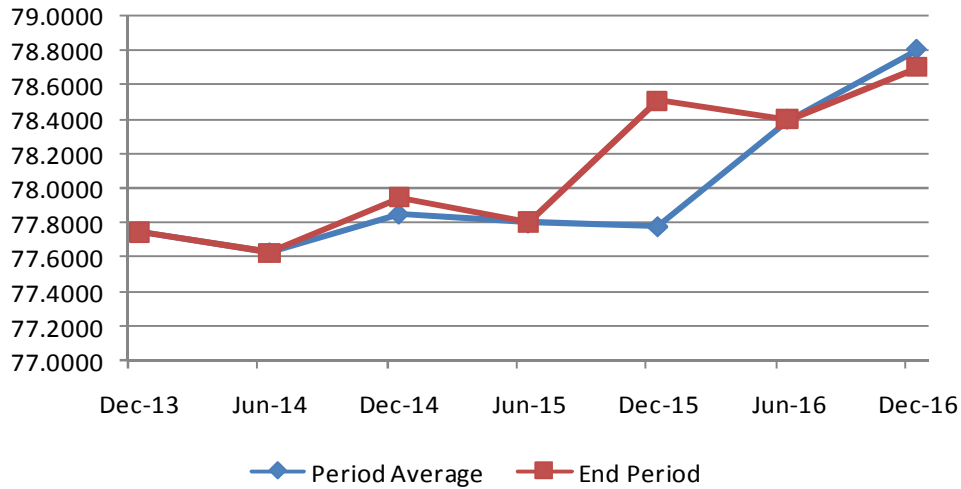
Source: Statistics Department, BB.

Exchange rate remained stable despite slight jump in December 2016. BDT experienced a slight depreciation in its value against USD in December 2016.

5. Profitability and solvency risk

5.1 Banks' profitability indicators

a. Return on equity (ROE)

Legend: ROE — Three period average

Percent (y-axis: 0.00, 2.00, 4.00, 6.00, 8.00, 10.00, 12.00)

x-axis: Dec-13, Jun-14, Dec-14, Jun-15, Dec-15, Jun-16, Dec-16

Source: Financial Stability Department, BB
Note: End-June ratios are annualized.

b. Return on assets (ROA)

Legend: ROA — Three period average

Percent (y-axis: 0.00, 0.20, 0.40, 0.60, 0.80, 1.00)

x-axis: Dec-13, Jun-14, Dec-14, Jun-15, Dec-15, Jun-16, Dec-16
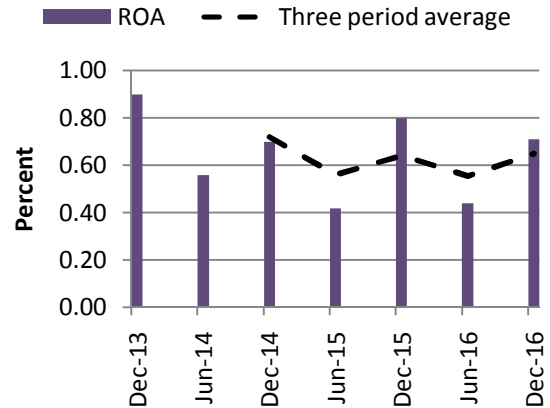
Source: Financial Stability Department, BB
Note: End-June ratios are annualized.

ROE and ROA remained broadly stable though showing upward trend in December 2016.

c. Cost-to-income ratio

Legend: Cost to Income Ratio — Three period average

Percent (y-axis: 0.00, 20.00, 40.00, 60.00, 80.00)

x-axis: Dec-13, Jun-14, Dec-14, Jun-15, Dec-15, Jun-16, Dec-16

Source: Financial Stability Department, BB
Note: Ratio between operating expenses and total income.

d. Net interest income to total operating income ratio

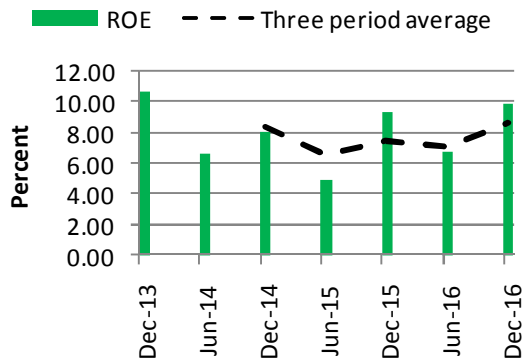Legend: NII to TOI Ratio — Three period average

Percent (y-axis: 0.00, 10.00, 20.00, 30.00, 40.00, 50.00)

x-axis: Dec-13, Jun-14, Dec-14, Jun-15, Dec-15, Jun-16, Dec-16

Source: Financial Stability Department, BB
Note: Ratio between net interest income and total income.

Cost-to- income ratio remained stable except in June 2016. Proportion of net interest income in total operating income rose between December 2015 to December 2016.

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5. Profitability and solvency risk–cont'd.

5.2 Banks' solvency indicators

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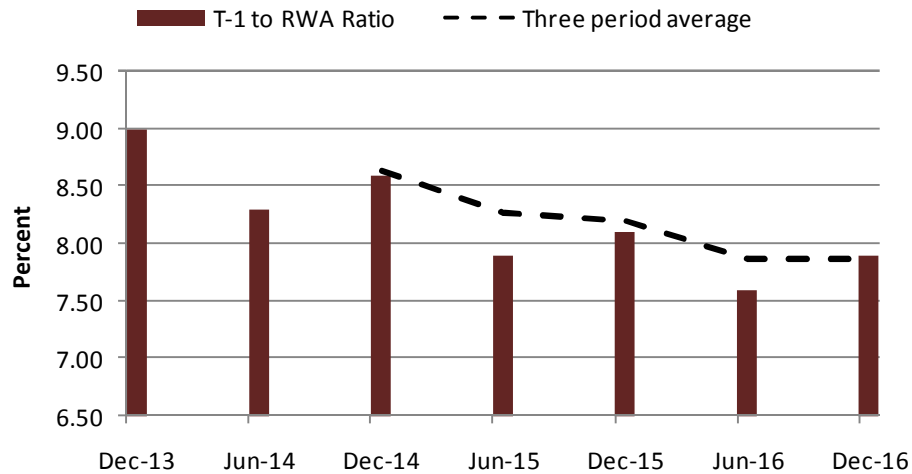
Source: DOS, BB
Note: Ratio of Tier-1 capital to total risk-weighted assets.

The ratio increased in December 2016 from June 2016, and remained well above the regulatory requirement.

b. Gross non-performing loan (NPL) ratio
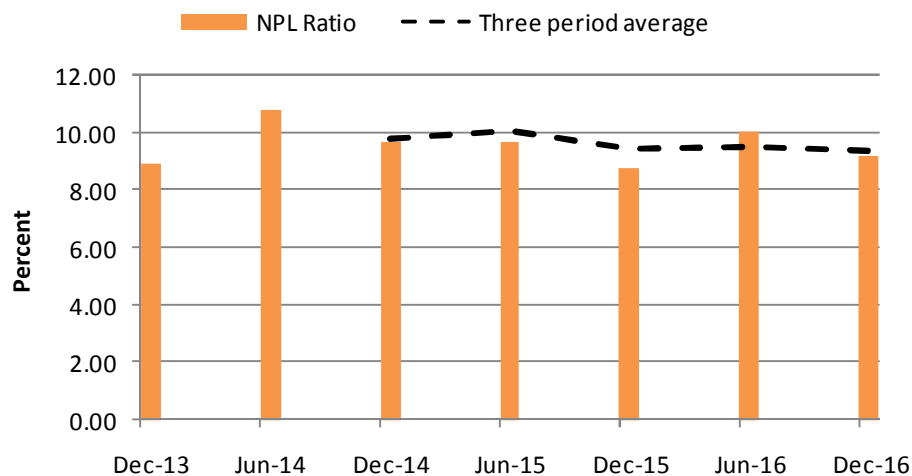
Source: DOS, BB
Note: Ratio of non-performing loans & advances to total loans & advances.
The ratio remained mostly stable during the last three years with a minor increase in June 2016 compared to end-December 2016.

5. Profitability and solvency risk–cont'd.

5.3 FIs' profitability indicators

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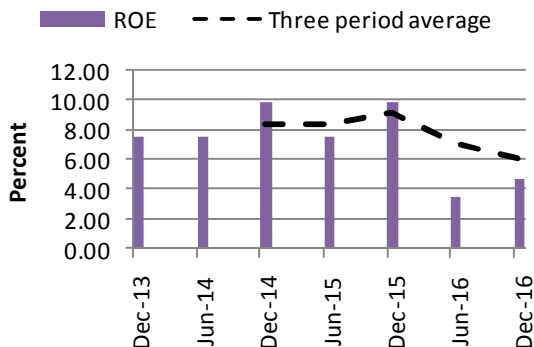
Source: DFIM, BB
Note: End-June ratios are annualized.
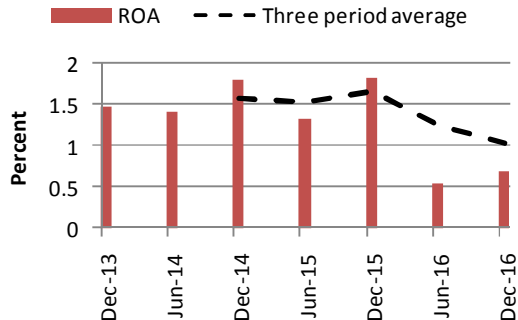
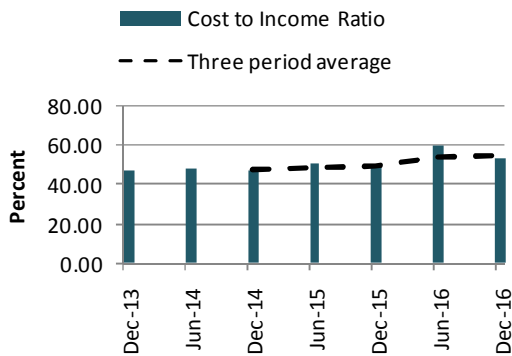### b. Return on assets (ROA)
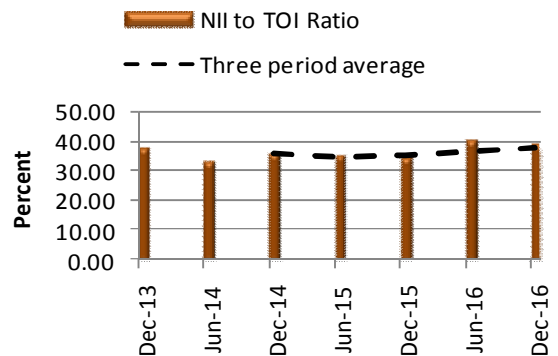

Source: DFIM, BB
Note: End-June ratios are annualized.

ROE and ROA remained broadly stable though recorded slight increase since June 2016.

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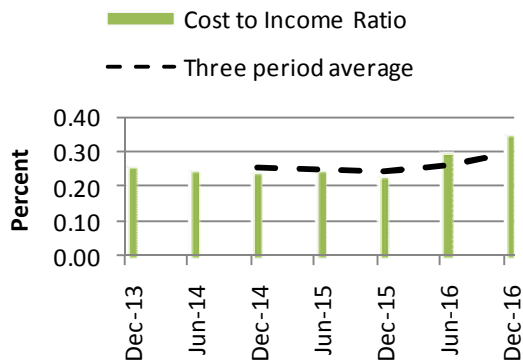
Source: DFIM, BB
Note: Ratio between operating expenses and total income

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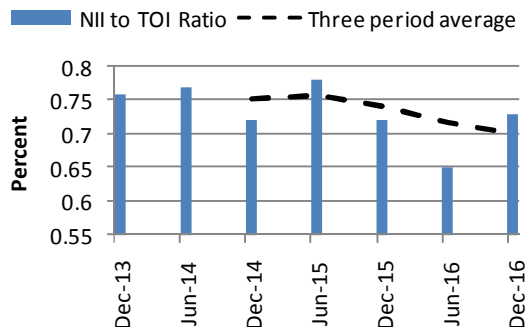
Source: DFIM, BB
Note: Ratio between net interest income and total operating income

Increasing trend of cost-to- income ratio implies that the FI need to improve operating efficiency. Proportion of net interest income in total operating income also went up in December 2016 except in June 2016.

5. Profitability and solvency risk–cont'd.

5.4 FIs' solvency indicators

a. Tier-1 to RWA ratio
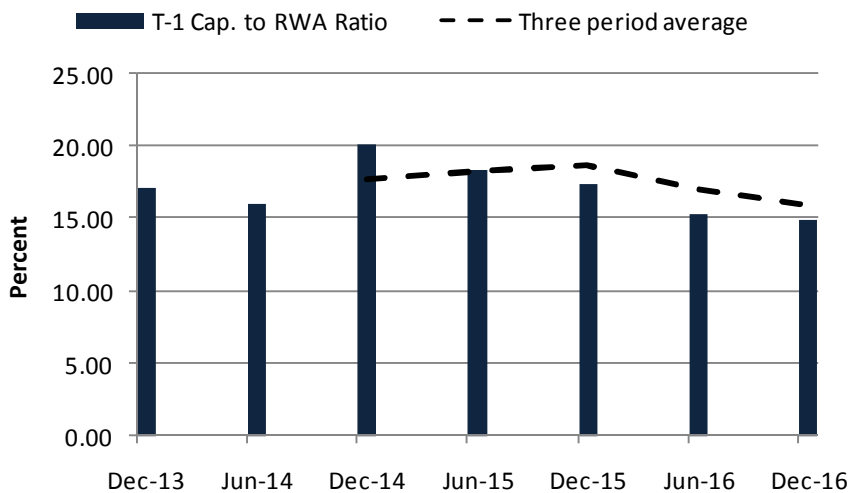
Source: Department of Financial Institutions and Markets, BB
Note: Ratio of Tier-1 capital to total risk-weighted assets.

Though the ratio declined since December 2014, it was well above the regulatory requirement.

b. Gross non-performing loan (NPL) ratio
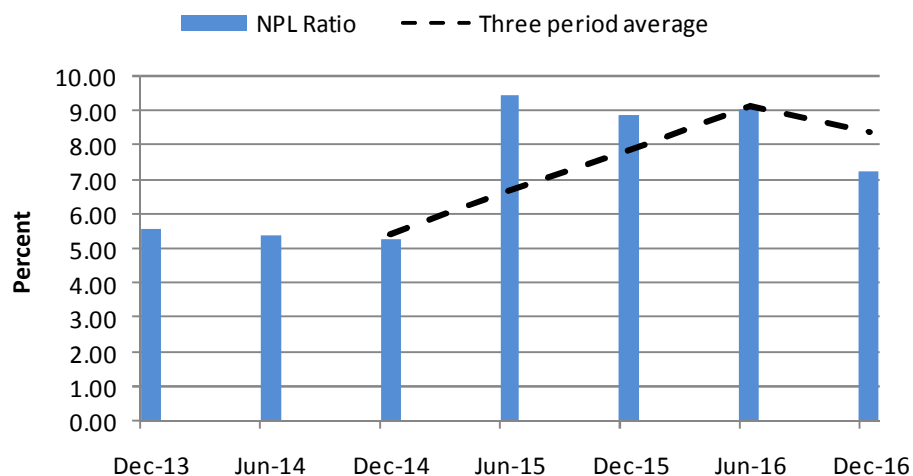
Source: Department of Financial Institutions and Markets, BB
Note: Ratio of non-performing loans & leases to total loans & leases.

The ratio went down in December 2016 compared to end-June 2016 position.

6. Inter-linkages

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

Legend: ■ Annualized growth rate — — — Three-period average
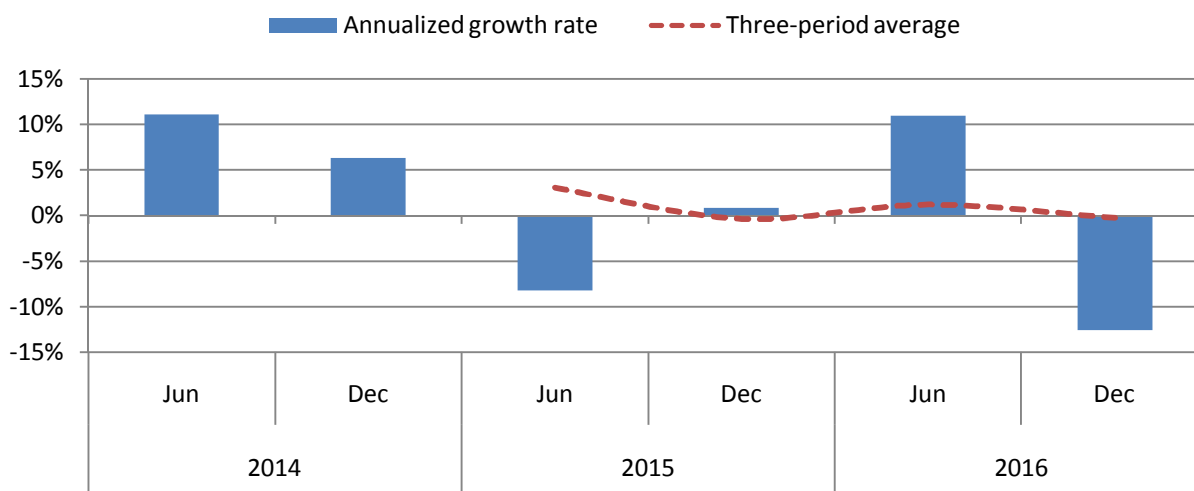
Source: Statistics Department, Bangladesh Bank.
Notes: Credit extended to the government refers to gross amount.

Overall government borrowings from the banking sector have been on a declining trend since June 2016.

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

Legend: ■ Annualized growth rate — — — Three-period average
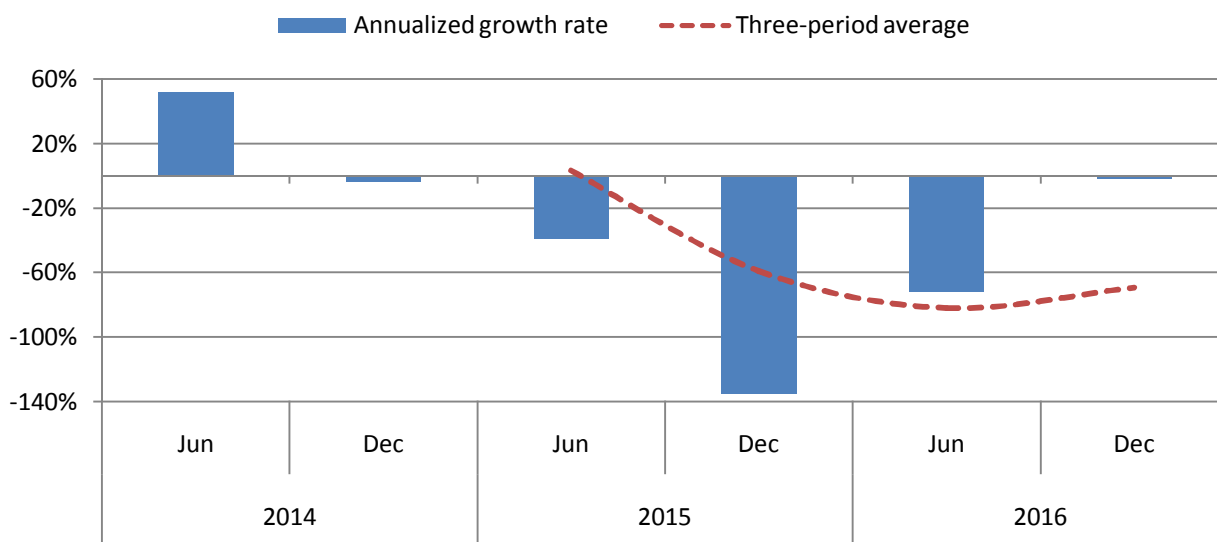
Source: Statistics Department, Bangladesh Bank.
Notes: NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank, and exclude non-depository FIs.

Government borrowings from the NBDCs have been at a very low level since June 2014.

6. Inter-linkages–cont'd.

6.3 Annual growth rate of banks' loans to Housing sector

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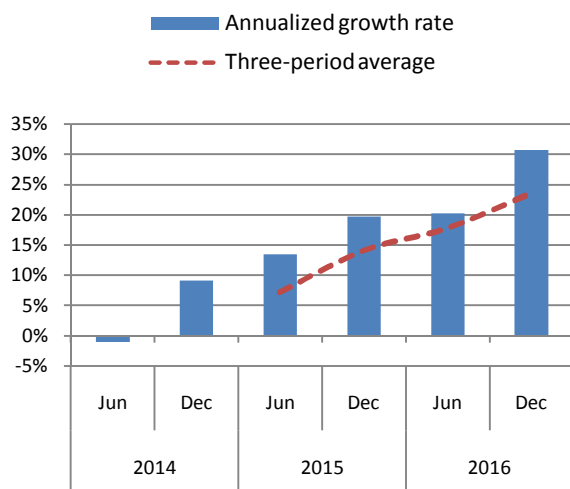
b. Loans to commercial housing
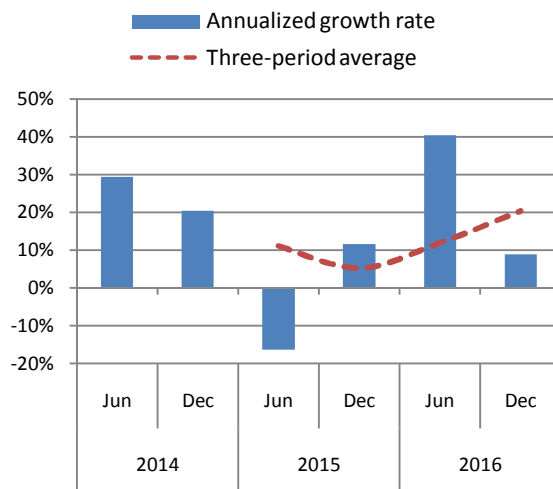
Source: Statistics Department, Bangladesh Bank.

Notes: Data for December 2016 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 continued the upward trend while growth in commercial housing sector experienced a slowdown at the end of December 2016.

6.4 Annual growth rate of FIs' loans to Housing sector
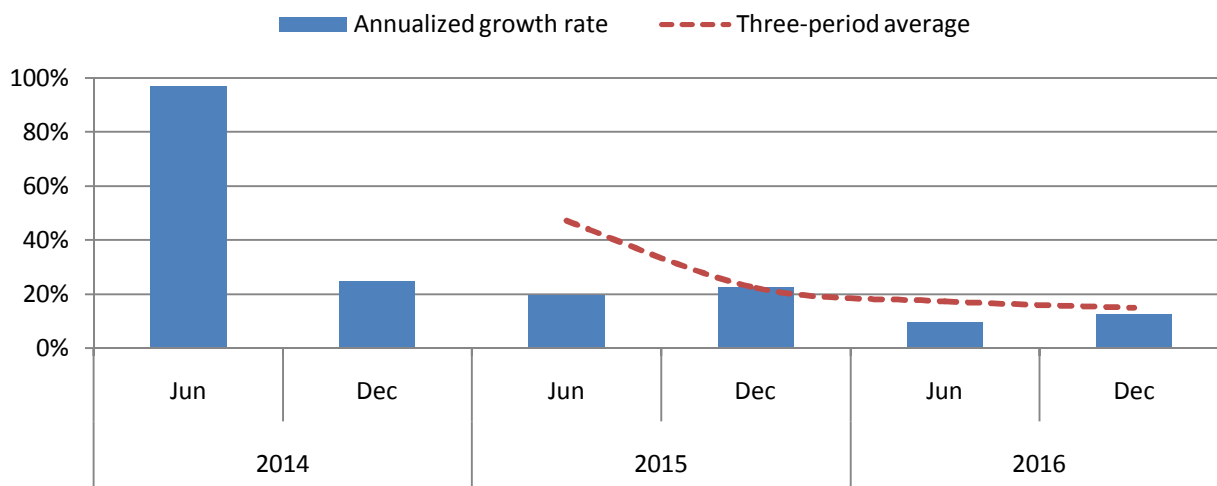
Source: Department of Financial Institution and Market, Bangladesh Bank.

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

A downward trend is observed in FIs' loans to housing sector since June 2014 with exception in December 2015 and December 2016.

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6. Inter-linkages–cont'd.

6.5 Banks' loans to counterpart sectors
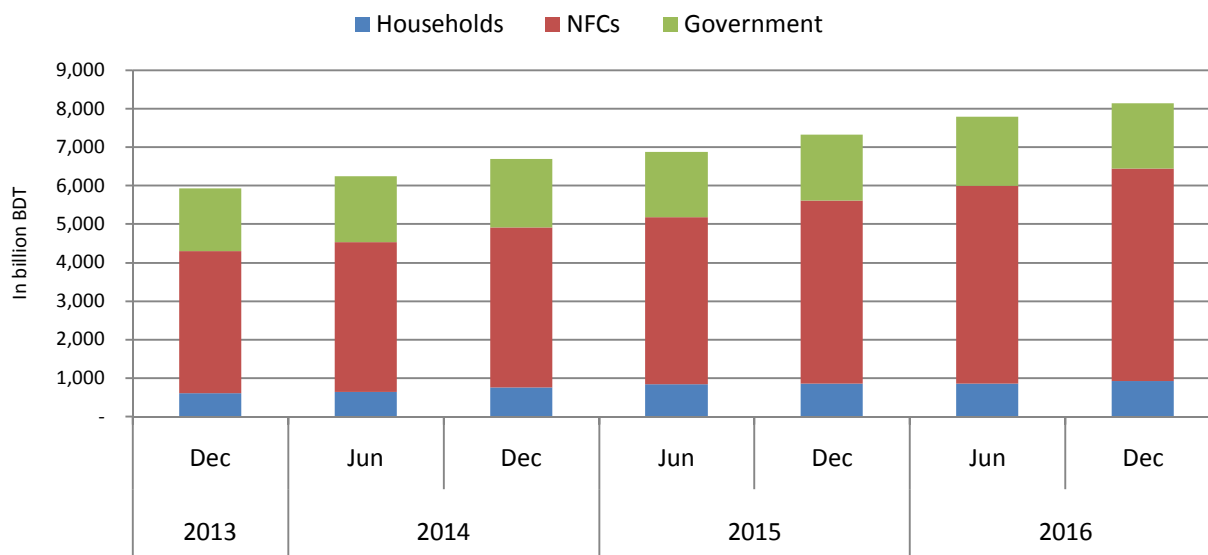
Source: Statistics Department, Bangladesh Bank.
Notes: Data of households and NFCs for December 2016 are provisional. Loans extended to households and NFCs refer to outstanding loans and advances excluding bills. Loans to Government refer to gross amount.

Increase in banks' exposure to its major public and private counterparts has been mainly led by NFCs accounting for more than sixty percent of total bank loans.

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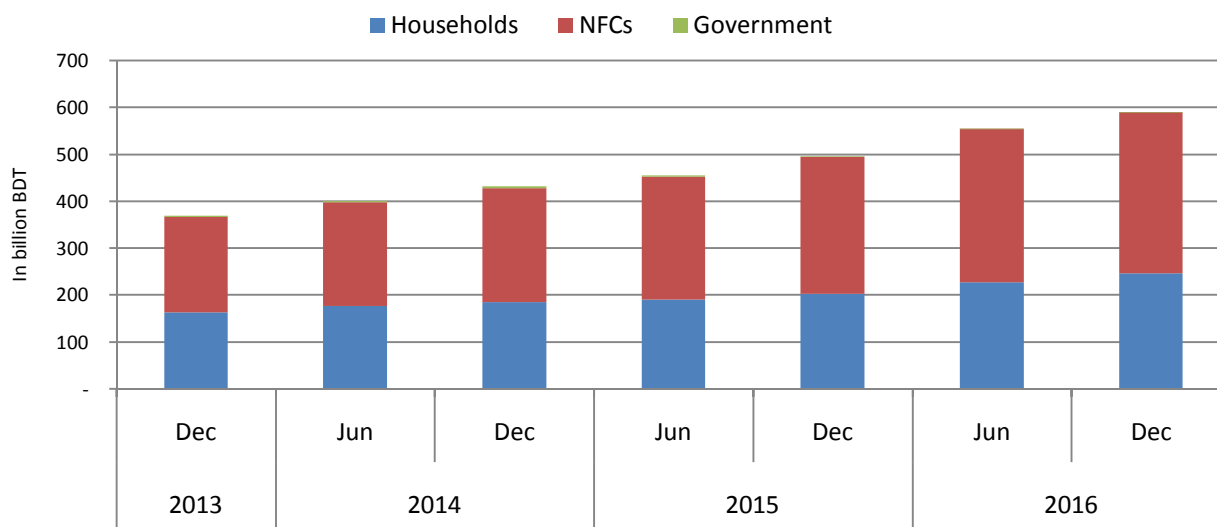
Source: Statistics Department, Bangladesh Bank.
Notes: Loans to Government refer to gross amount. NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank, and exclude non-depository FIs.

NFC borrowing constitutes major portion of NBDCs' increasing loan portfolio closely followed by an increasing loan exposure to households while the government borrowing is almost non-existent.

6. Inter-linkages–cont'd.

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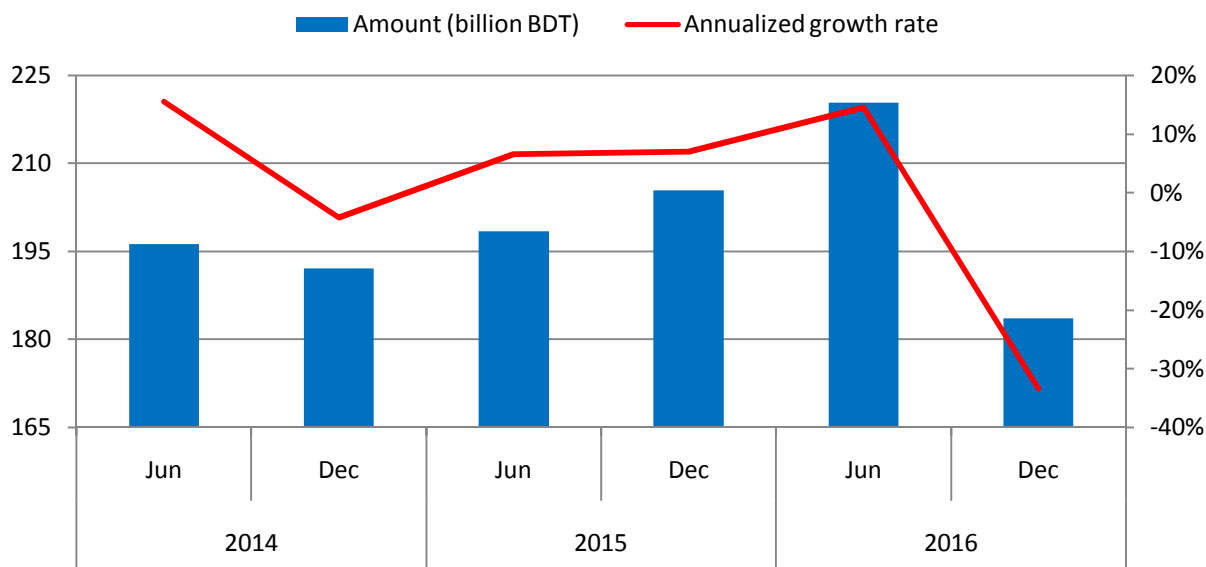
Source: Statistics Department, Bangladesh Bank.
Notes: Cross-border claims include foreign currency notes in hand, balances with banks abroad, bilateral trade credits, wage earners' balance abroad, foreign bills, foreign direct investment, portfolio investment.

Banks' cross-border claims are increasing as the country's banking transaction with rest of the world is also growing; however, it makes up only around 1 percent of total assets of the banking sector.

6.8 NBDCs' cross-border claims
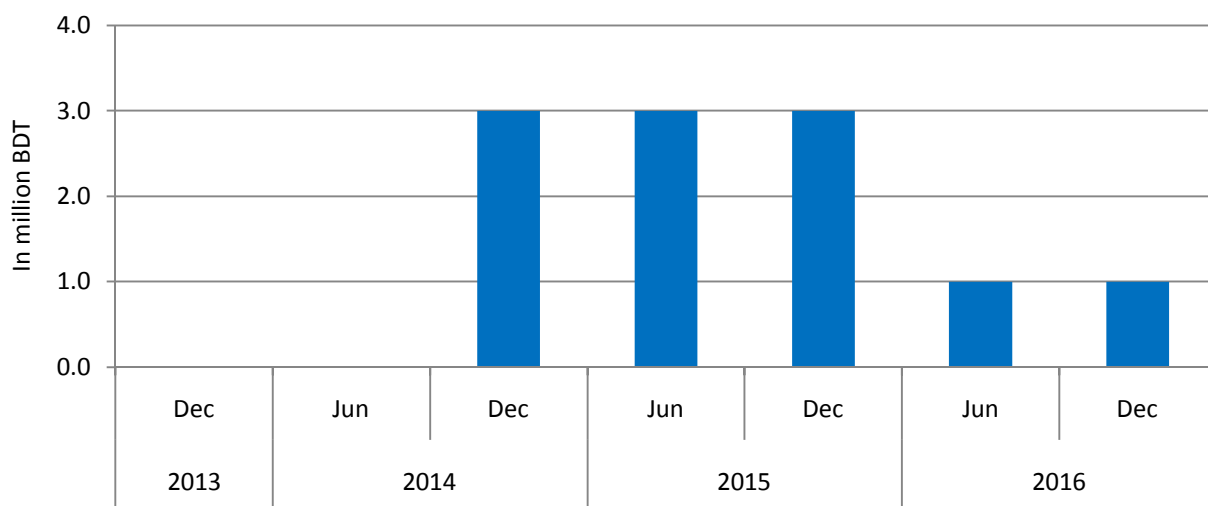
Source: Statistics Department, Bangladesh Bank.
Notes: Claims include only foreign currency notes in hand. No other claims have been generated yet. NBDCs include depository FIs, Grameen Bank, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Probashi Kallyan Bank, central cooperative bank, and exclude non-depository FIs.

NBDCs' cross-border claims are almost non-existent compared with the asset size of the industry.

1. Macro risk:

1.1 Current and forecasted real GDP growth:

Sources: Statistics Department, Bangladesh Bank and IMF World Economic Outlook Update, July 2016.

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, July 2016.

1.2 Current account balance-to-GDP ratio:

Sources: Monthly Economic Trends, BB.

Current account balance represents the sum of the 6 months of calendar year. GDP is at current market price. Average of three periods is the three-year 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, Zilla Parisad, Municipalities, Thana/Upazila Parishad, 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 and Bangladesh Economic Review, Ministry of Finance.

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

1.6 Household debt-to-gross disposable 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.

Both public non-financial corporations and private non-financial corporations are considered for non-financial corporations' debt. Public non-financial 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.

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.

2.7 Banks' interest rates for housing loans

Source: Bangladesh Bank website; Computation: Financial Stability Department, Bangladesh Bank

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: Debt Management Department, 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: DSE Website

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: DSE Website

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' financial statements; Compilation: FSD, 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' financial statements; Compilation: FSD, 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' financial statements; Compilation: FSD, 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' financial statements; Compilation: FSD, 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: DOS, 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: BRPD, BB

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

5.3 FIs' profitability indicators

a. Return on equity (ROE)

Source: DFIM, 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: DFIM, 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: DFIM, 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: DFIM, 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: DFIM, 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: DFIM, 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 (Is it also described in 6.8).

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.

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.