

**National Bank of the Republic of Macedonia**

Supervision, Banking Regulation and Financial Stability Sector

Financial Stability and Banking Regulations Department



***REPORT ON THE RISKS IN THE BANKING SYSTEM  
OF THE REPUBLIC OF MACEDONIA  
IN THE SECOND QUARTER OF 2015***

October 2015

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## I. Summary

The solid growth of the economy continued in the second quarter of 2015, without putting any pressure on prices and foreign reserves, supported by increased bank lending activity, despite the domestic political turmoil and uncertainty about the outcome of the debt crisis in Greece. In the context of Greek developments, in late June 2015, the National Bank took temporary protective measures<sup>1</sup> to prevent the risk of significant capital outflows from the Republic of Macedonia to Greece to cause significant disturbance of balance of payments and to disrupt stability of the financial system. These measures contributed to further strengthening of the resilience of the financial system to external factors.

In the second quarter, the total assets of the banking system recorded a slightly accelerated growth (on both quarterly and annual basis), when loans to non-financial entities grew rapidly, compared to deposits. The increased lending was financed using liquid assets of banks, i.e. reducing of placements with banks and other financial institutions. After the slowdown in the previous quarter, the increased bank lending to non-financial sector strengthened in both sectors, with the credit support from banks being largely aimed at households (the highest quarterly growth rate in the past few years). Deposit potential of the banking system continues to grow, although the changes in public risks perceptions caused by internal political and security developments and developments in Greece have entailed weaker performance in the deposit base of the household sector. Thus, the increase in banks' deposits fully resulted from the new denar deposits of the corporate sector, which also contributed to the reduction in the maturity of the deposit potential. Yet, in spite of these developments, denarization of banking activities continued at a slightly slower pace in household deposits.

In the second quarter of 2015, increased lending activity of banks, amid slower growth of non-performing loans, led to a slight decrease in the share of non-performing loans in total loans to 11.5%, ranging within the usual level for the last two years, between 11% and 12%. Among companies, this share increased minimally to 16.0%, due to the faster growth of non-performing loans relative to the credit support. The high rate of non-performing loans to corporate sector suggests the need for regular monitoring of the performance of the most risky activities - construction and real estate services, and industry and for taking measures to address problematic exposures. The rate of non-performing loans to households continued to decline, mainly due to the rapid credit growth. The growth of household loans was mostly concentrated in consumer loans. Amid slight acceleration in the annual growth of non-performing consumer loans and eased requirements for their approval, the above signals possible growing risks in the household loan portfolio and requires strengthening of banks' systems for consumer lending, as well as for monitoring the regularity of payments and timely identification of financial difficulties of these clients. However, the credit risk arising from banks' claims on households is low, on the one hand, seen through the low share of non-performing

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<sup>1</sup> The analysis of potential consequences of the Greek developments is provided in the Financial Stability Report of the Republic of Macedonia in 2014, p. 154. <http://www.nbrm.mk/?ItemID=0270211B2C2F9545B1267774C29A767D>.

Preventive measures restrict capital outflows from the Republic of Macedonia to Greek entities only on the basis of newly concluded capital transactions (such as outflows for incorporation of companies, securities investment, investment in units of investment funds, long-term loans, etc.). The goal of preventive measures is not to restrict nor in any way hamper commercial dealings with entities from the Republic of Greece, so that the current transactions (based on the exchange of shares) remain free. Banks were required to withdraw all loans and deposits from the banks in Greece and their branches and subsidiaries in the Republic of Greece or abroad, regardless of the contractual maturity.

loans in total loans, but stems from the very nature of retail lending, given the high dispersion of banks' claims, based on both the amount and the number of customers.

The risk of banks' own funds from any materialization of credit risk, i.e. assumed full default of total non-performing loans is not high because of their high coverage with allocated impairment.

The liquidity of the Macedonian banking system is stable and satisfactory, despite the imminent reduction of liquid assets in the second quarter of 2015. Namely, in this quarter, amid slower growth of deposits, the increased bank lending activity was financed with the reduction of liquid assets. These developments caused a slight decrease in the liquidity indicators which was more pronounced in denar liquidity indicators, but also caused shifts in the structure of assets and liabilities by residual maturity, i.e. reduction of assets with shorter residual maturity and reduction of liabilities with longer residual maturity. Simulations of combined liquidity shocks show that liquid assets available to the Macedonian banking system are sufficient to withstand any hypothetical extreme liquidity outflows.

Other risks have little significance in the range of risks to the Macedonian banks.

The stable solvency of the banking system strengthened further. In the second quarter of 2015, the capital adequacy ratio slightly increased, and at the end of June 2015 amounted to 16.2%. The main factor for increased solvency is the increase in the own funds of the banking system, which also contributed to strengthening its resistance, according to the results of stress tests, which as of 30 June 2015 improved compared to the end of the first quarter of 2015.

Profitability followed its positive trend that was evident in the last few years, mostly due to the decrease in deposit interest rates. However, because of the still present risks in the loan portfolio of banks and the steady decline in interest rates on deposits to a level that narrows the space for their further cuts, maintaining profitability is a significant challenge for banks in the period ahead.



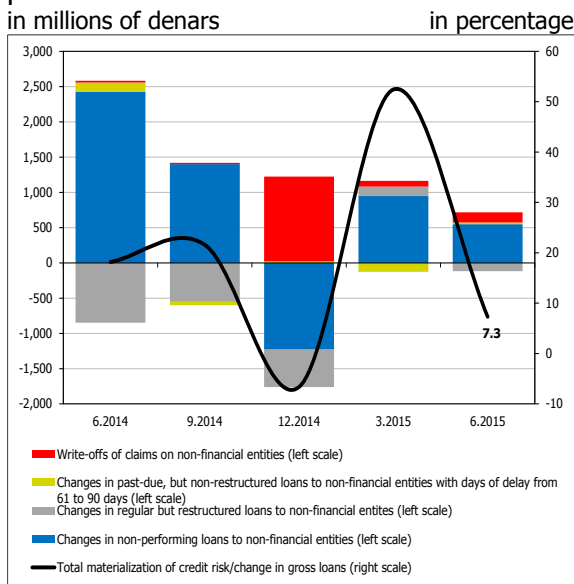
## **II. Bank Risks**

## 1. Credit risk

In the second quarter of 2015, loan portfolio of the banking system preserved its quality, with the share of non-performing loans in total loans being at the usual level for the last two years, ranging between 11% and 12%. In this quarter, the slower growth of nonperforming loans, amid accelerated bank lending activity led to slight decrease in the share of non-performing loans in total loans to 11.5%. Concerning corporate sector, although the growth in non-performing loans slowed down, yet it brought about minor increase in the share of non-performing loans in total loans (16.0%), which resulted from the small increase of the credit support to this sector. The high rate of non-performing loans to the corporate sector creates a need for regular monitoring of the performance mainly of the most risky activities, such as construction and real estate services, and industry, and taking measures to address problematic exposures. The rate of non-performing loans to households continued to decline, mainly due to the rapid credit growth. The growth of household loans is mostly concentrated in consumer loans. Amid rapid annual growth of non-performing consumer loans and eased requirements for their approval, the above signals potential growing risks of the loan portfolio of households and creates a need for strengthening banks' systems for consumer lending, as well as for monitoring the regularity of payments and timely identification of financial difficulties of these customers. The growth of non-performing loans has registered some acceleration after the cut-off date of this Report, which amid the simultaneous deceleration of bank lending activity, increased the share of nonperforming loans in total loans to non-financial entities to 11.9% in August 2015. The threat for the own funds of the banking system from

the possible materialization of the credit risk from non-performing loans is not high, given that these loans have high coverage with allocated impairment (84.4% with their own and over 100% with total impairment).

Chart 1  
Materialization of credit risk in banks' credit portfolios



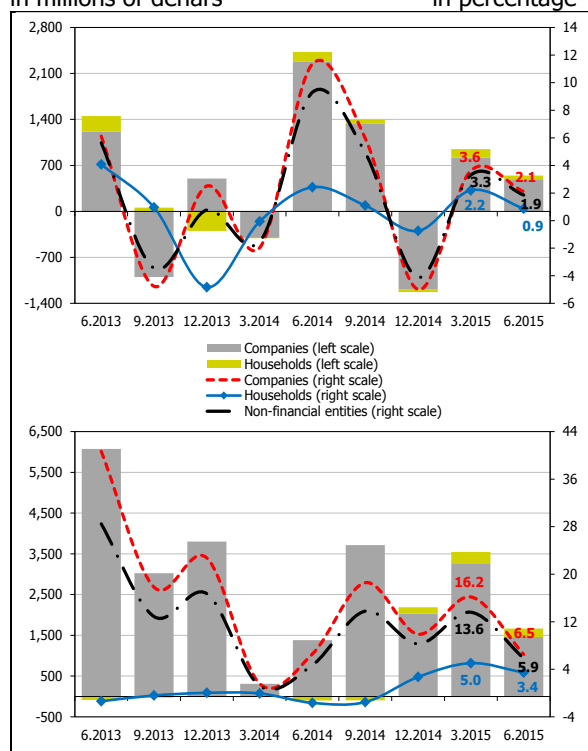
Source: NBRM's Credit Registry, based on data submitted by banks.

### 1.1 Materialization of credit risk in banks' balance sheets

In the second quarter of 2015, changes in the categories that denote materialization of credit risk (growth of non-performing loans, write-offs, foreclosures and the like) compared with the growth of total loans shows that **the materialization of credit risk in banks' portfolios is multiple times lower compared to the previous quarter and makes up only 7.3% of the growth of gross loans of the banking system in the**



**Chart 2**  
 Quarterly (up) and annual (down) growth rate of non-performing loans to non-financial entities and individual sectors in millions of denars in percentage



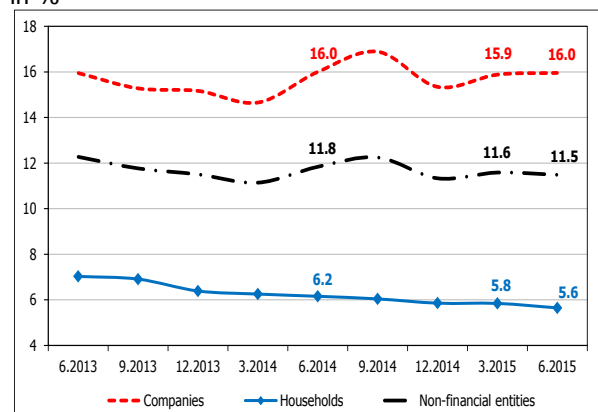
Source: NBRM, based on the data submitted by banks.

**second quarter of 2015<sup>2</sup>.** This means that the growth of gross loans was mostly due to the growth of the loans without signs of impairment (regular loans).

**The quality of the banking system's loan portfolio, measured by the changes in non-performing loans to non-financial entities registered an improvement,** both quarterly and annually. As of 30 June 2015, the annual growth rate of non-performing loans is 5.9%, which is more than twice lower than at the end of the first quarter, but slightly higher than the same quarter last year. However, the annual growth rate of non-performing loans has registered a general downward trend and at the end of the second quarter of 2015, it hit a record low in the last eleven months.

**The growth of non-performing loans (quarterly and annual) is mostly due to the growth of non-performing loans to companies, with a smaller number of customers.** Thus, in the second quarter of 2015, the growth of non-performing loans reflects the deteriorating performances of some clients from the industry, and transport and storage.

**Chart 3**  
 Share of non-performing loans to total loans of non-financial entities and by sectors in %



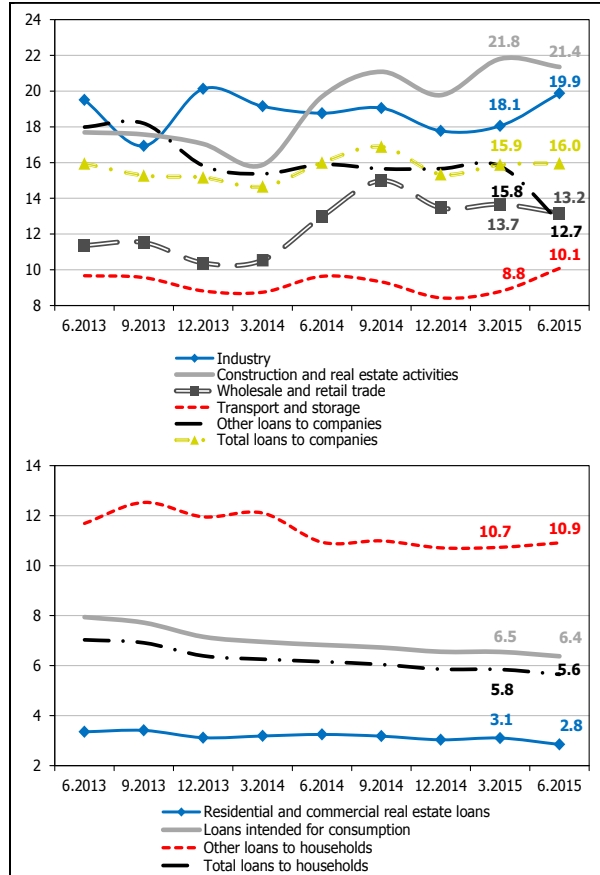
Source: NBRM, based on the data submitted by banks.

**Non-performing loans to households has been increasing since the end of 2014.** Compared to the previous quarter, in the second quarter of 2015, the growth of non-performing loans to households slowed down. Although their growth is not worrisome, these loans should be monitored with caution due to the deviation from the previous annual growth rates, which also ranged below zero, and because of the intensive growth of lending to this sector in the recent period.

The slower growth of non-performing loans amid enhanced bank lending activity

<sup>2</sup> The total materialization of the credit risk is calculated as the sum of actual write-offs of claims, the quarterly growth of foreclosures based on outstanding claims and the quarterly change in non-performing loans, regular restructured loans and non-restructured loans overdue from 61 to 90 days. The total change in gross loans refers to the quarterly change in gross loans including claims written off for the quarter and the quarterly growth of foreclosures based on outstanding claims.

**Chart 4**  
Share of non-performing in total loans to companies - by activities (up) and to households - by credit products (down) in %



Source: NBRM's Credit Registry, based on data submitted by banks.

contributed to a slight favorable shift in the share of non-performing loans in total loans to 11.5%. This share in the corporate sector (which is 16.0%) remained almost unchanged compared to the previous quarter and the same period of 2014, which amid slower growth of non-performing loans results from the weak growth of credit support to this sector. On the other hand, the rate of non-performing loans<sup>3</sup> to households continued to decline and reduced to the lowest level since 2008. This is due to the continuous enhanced lending to this sector, amid slight increase in non-performing loans.

The rate of non-performing loans increased after the cut-off date of this Report and climbed to 11.9% in August 2015. This almost entirely results from the corporate sector whose rate of non-performing loans reached 16.7%.

**According to the rate of non-performing loans, the credit risk is the highest among banks' claims on companies from construction and real estate activities, and industry.** The industry sector reported the most significant increase in the share of non-performing loans in total loans in the second quarter, of 1.8 percentage points. The rate of non-performing loans to households has not registered significant upward movements, observed by credit product. However, the rate of non-performing loans intended for consumption, as the fastest growing category of loans to households, exceeds the level of the indicator for the entire household sector.

**According to the regulation, one of the criteria for a claim to acquire non-performing status is the delay in its repayment for a period longer than 90 days.** Thus, due loans with delayed repayment of principal between 61 and 90 days<sup>4</sup> represent

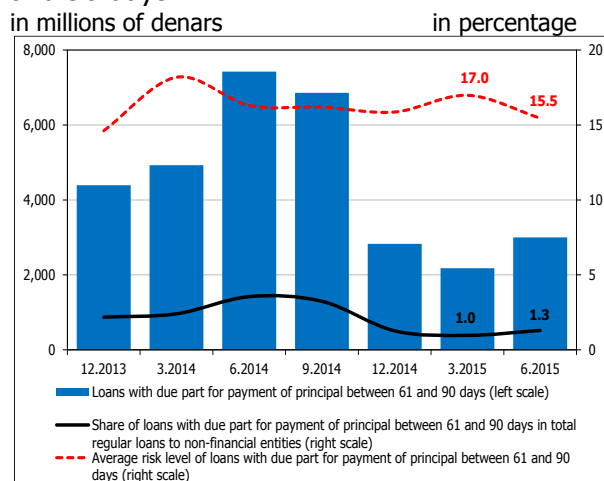
<sup>3</sup> The rate of non-performing loans is a share of nonperforming loans in total loans.

<sup>4</sup> As of 31 December 2014, loans with due part between 61 and 90 days are calculated using a new methodology which came as a result of the amendments to the regulations on credit risk from 1 December 2014 (according to the Instructions for implementing



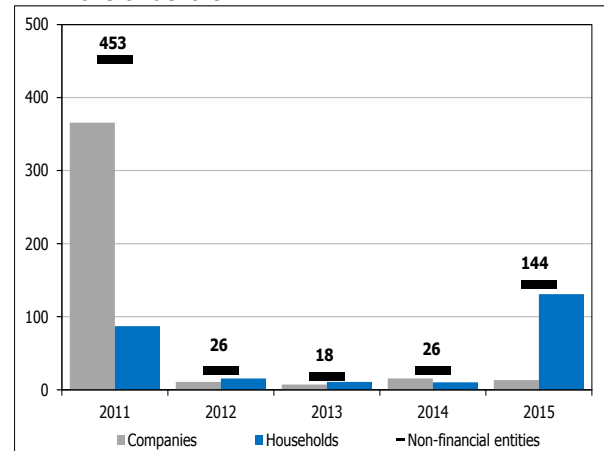


**Chart 5**  
Dynamics and average risk level for loans with due part for payment of principal between 61 and 90 days



Source: NBRM's Credit Registry, based on data submitted by banks.

**Chart 6**  
Write-offs made during the second quarter, over the years



Source: NBRM, based on the data submitted by banks.

a potential risk of migration to non-performing loans and accordingly, of increase in the level of non-performing loans the following month, i.e. potential materialization of credit risk in banks' portfolios. Assuming that the due debt of none of the due loans between 61 and 90 days will be collected in the next month, as of 30 June 2015, 1.3% of total regular loans would become non-performing, and that only on this basis, non-performing loans would rise by Denar 2,998 million, or 9.9%. However, the next month (July 2015), non-performing loans reduced on a monthly basis, indicating a **solid recovery of the due part of 61 to 90 days.**

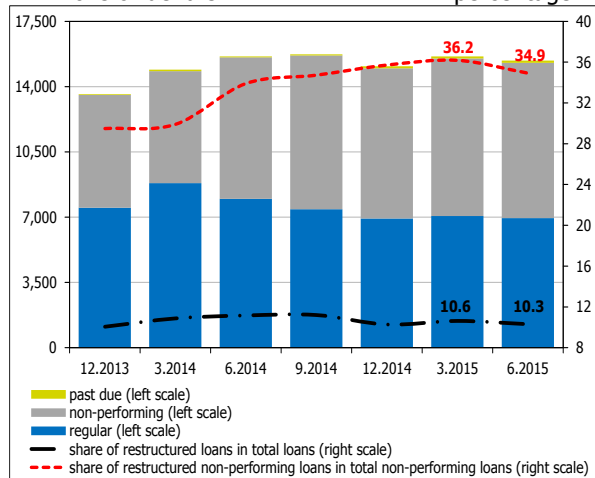
In the second quarter of 2015, Denar 144 million were written off, which exceeds the average amount of write-offs made during the second quarter in the previous four years. Typical for this quarter is that written off claims almost entirely relate to households, and the collections from households are the most common in the overall recovery of already written off claims. The vast amount of written-off claims from households, in addition to the usual reasons behind the write-off<sup>5</sup>, is associated with the write-off of claims on natural persons under the Law on debts write-off for socially vulnerable categories<sup>6</sup>. About a quarter of total write-offs of claims on households have been written-off on this basis. **Write-offs made in the second quarter have had little impact on the dynamics of total non-performing loans**, so that if they would not be made, the quarterly growth rate of non-performing loans would be higher by only 0.3 percentage points. **However, the effect of write-offs is higher among households, and if we exclude their effect, the quarterly growth rate would be twice as high as the actual one.**

the Decision on the content and functioning of Credit Registry, Official Gazette of the Republic of Macedonia No. 14/2014 and 83/2015). Thus, starting from 31 December 2014, the analysis includes loans that are past due between 61 and 90 days only in the repayment of the principal, while the analysis for the previous quarters covers the loans which are past due between 61 and 90 days on any item (principal, interest or other claim) on the reporting date.

<sup>5</sup> Defined in the Decision on credit risk management (Official Gazette of the Republic of Macedonia No. 50/13 and 157/13).

<sup>6</sup> Official Gazette of the Republic of Macedonia No. 112/2014.

**Chart 7**  
Dynamics of restructured corporate loans, by status (regular or non-performing)  
in millions of denars in percentage



Source: NBRM's Credit Registry, based on data submitted by banks.

**Concerning the future movement of non-performing loans**, there is a possibility of their one-time reduction in an event of write-off of non-performing loans classified in E risk category that have been fully provisioned for a longer period and are still recognized in banks' balance sheets. Fully provisioned non-performing loans account for 61.2% in the structure of non-performing loans to non-financial entities, while the impairment allocated for those loans accounts for 72.5% of the impairment for the non-performing loans. If banks write off these loans, the coverage of non-performing loans with the impairment allocated for them would be reduced to 59.9%. Assuming this, the share of non-performing in total loans would be more than twice lower, i.e. it would amount to 4.8%.

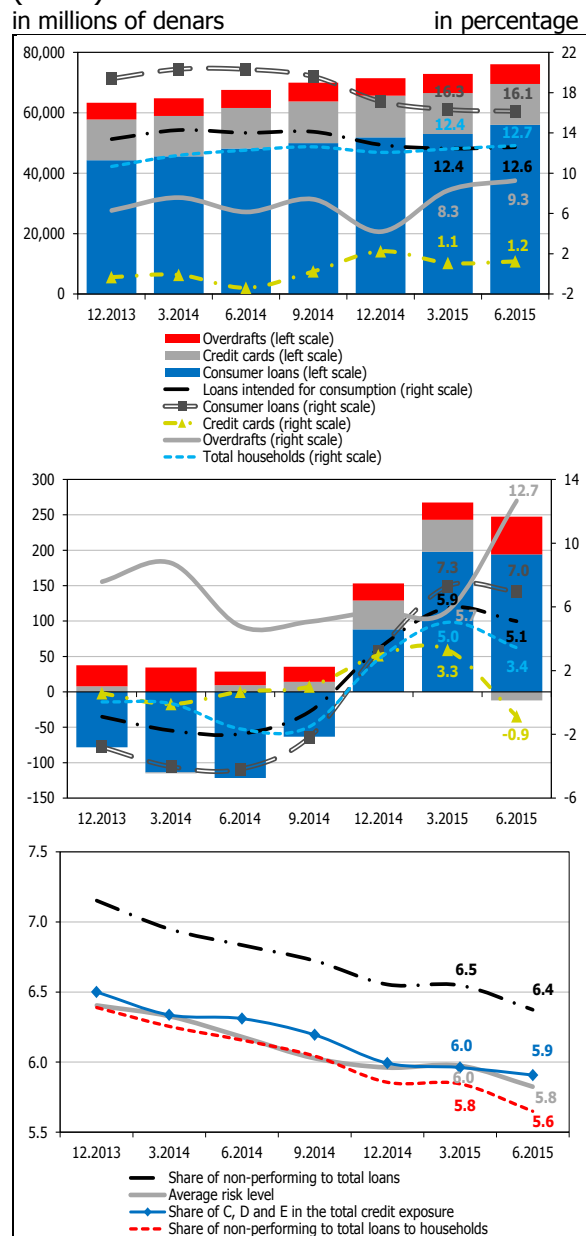
The dynamics and scope of restructured loans is also an indicator of the risk of corporate loans. In the second quarter of 2015, restructured loans to corporations, both regular and non-performing, decreased. Amid such movements, the share of restructured loans in total loans to corporations decreased by 0.3 percentage points, to 10.3%.

## 1.2 Analysis of riskier credit products (in households) and sectors (in companies)

The ongoing growth of **loans intended for consumption** in the past two years, amid extremely favorable credit standards for new borrowers of these types of credit products, creates a need for their more careful monitoring, both in terms of dynamics, and from the aspect of banks' lending practices. For example, in recent quarters, the growth of consumer loans, which despite the imminent slowdown exceeded 16% annually, in a way conceals the potential acceleration of the risk of these loans, i.e. the potential growth of the rate of non-performing loans. At the same time, the structure of repayments of certain types of



**Chart 8**  
Dynamics of consumer loans (up), annual growth of non-performing loans (middle) and indicators of risk of consumer loans (down)



Source: NBRM's Credit Registry, based on data submitted by banks.

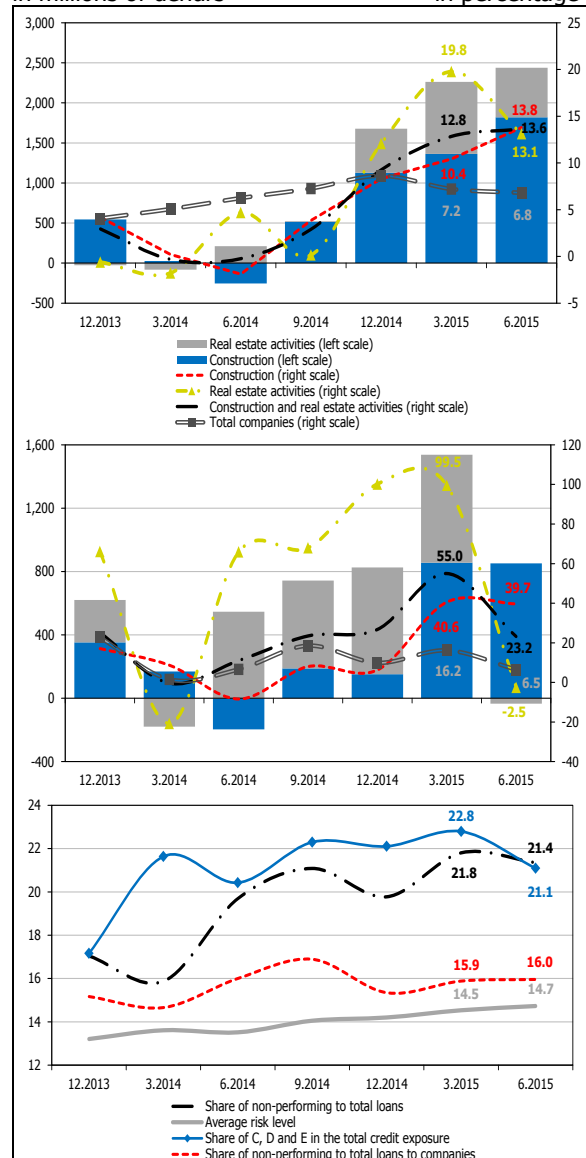
loans intended for consumption<sup>7</sup> can also blur the increased credit risk.

Unlike last year, when non-performing loans intended for consumption registered negative annual growth rates, starting from the end of 2014, they registered positive growth rates (from 3.4% as of 31 December 2014 to 5.1% as of 30 June 2015), which is primarily due to the increased non-performing consumer loans (from 3.2% as of 31 December 2014 to 7.0% as of 30 June 2015). Such growth of non-performing consumer loans has contributed to the overall growth of non-performing loans to households over the past six months. This shift in non-performing consumer loans may be a signal for their increased risk. Namely, the **significantly higher growth of consumer lending prevents the rapid growth of non-performing loans to increase the rate of non-performing loans** (the indicators of risk of consumer loans registered a constant downward trend). The annual growth rate of total loans intended for consumption equals 12.6%, which is more than twice as high as the growth of non-performing loans (5.1%). **Higher risk arising from these loans is perceived through the higher rate of non-performing consumer loans (6.4% as of 30 June 2015) relative to the rate of non-performing loans to households (5.6%).** Also, the coverage of these loans with collateral is lower. Thus, non-collateralized loans intended for consumption<sup>8</sup> account for about two thirds of total loans intended for consumption and nearly half (46.1%) of total loans to households. However, the risk of these loans not yet requires taking measures and actions to limit this risk, but creates a need for greater vigilance when monitoring this type of lending, primarily in terms of criteria for their approval and appropriate monitoring of the financial performance of the users of consumer loans, which may accordingly limit the rapid growth rate of these loans.

<sup>7</sup> E.g. revolving loans.

<sup>8</sup> Unsecured loans include loans that are not covered by any collateral, and loans collateralized only by a guarantor and a promissory note.

Chart 9  
Annual growth of total loans to construction and real estate activities (above), of non-performing loans (middle) and risk indicators for the activity (below)  
in millions of denars in percentage



Source: NBRM's Credit Registry, based on data submitted by banks.

Significant acceleration of credit growth (year on year) is also registered in **housing loans** (from 16.4% as of 31 March 2015 to 18.5% as of 30 June 2015), though for now, the quality of these placements gives no signals for concern because the annual growth of non-performing loans has slowed down. Furthermore, the low rate of non-performing housing loans (2.9%) confirms their low risk.

Amid further economic growth, the second quarter of 2015 recorded a moderate quarterly acceleration of credit support to corporations (from 0.1% as of 31 March 2015 to 1.6% as of 30 June 2015), while the annual growth slowed down (from 7.2% as of 31 March 2015 to 6.8% as of 30 June 2015). Construction is one of the fastest growing sectors in terms of the volume of lending, and most of the growth in assets of the corporate sector in 2014 resulted from this activity. At the end of June, the annual growth of loans to **construction and real estate activities**<sup>9</sup> (13.6%) was twice as high as the corporate credit growth and is attributable to the increase in construction in the field of civil engineering.

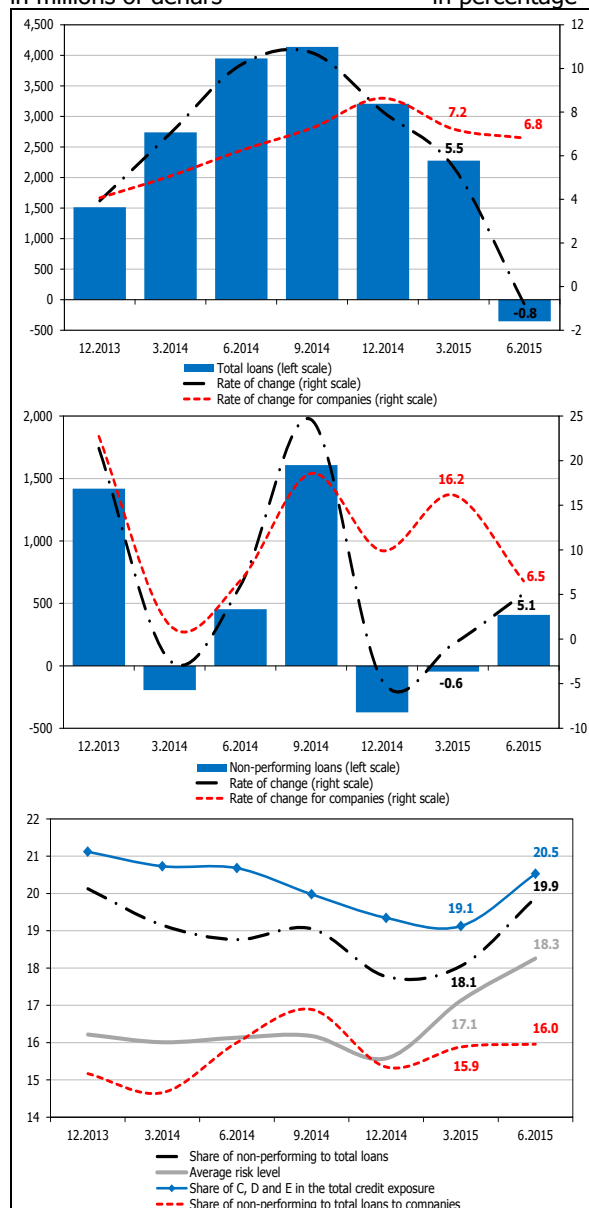
According to the final accounts for 2014, construction debt indicators registered the greatest annual increase, relative to other activities in the corporate sector. Moreover, debt indicators of this sector<sup>10</sup> are at a level that indicates limitation of the capacity to finance their growth through new credit support, and signals greater vulnerability to potential negative shocks. The need for more detailed analysis of the construction (along with real estate services) is based on the fact that loans to this sector register the highest share of non-performing loans (21.4%) within the **banks' claims on corporate sector that makes this activity the riskiest**. However, in the second quarter of 2015, non-performing loans to the construction sector registered twice as low annual growth rate as the previous quarter

<sup>9</sup> Construction and real estate services are merged into one activity because of the similarity of activities they perform.

<sup>10</sup> Debt indicators include: total debt ratio, long-term debt ratio, debt/equity ratio, leverage ratio (assets/equity) ratio, ratio for coverage of funding costs with operating profit.



**Chart 10**  
Annual growth of total loans of the industry (up), of non-performing loans (middle) and risk indicators of the activity (down) in millions of denars in percentage



Source: NBRM's Credit Registry, based on data submitted by banks.

(from 55.0% as of 31 March 2015 to 23.2% as of 30 June 2015), owing to the slight decrease in non-performing loans to real estate services, after their increase in the previous quarter and the continuing upward trend the last year. In contrast, non-performing loans to construction continue to increase, but this growth does not reflect the general performance of the business, but only two companies.

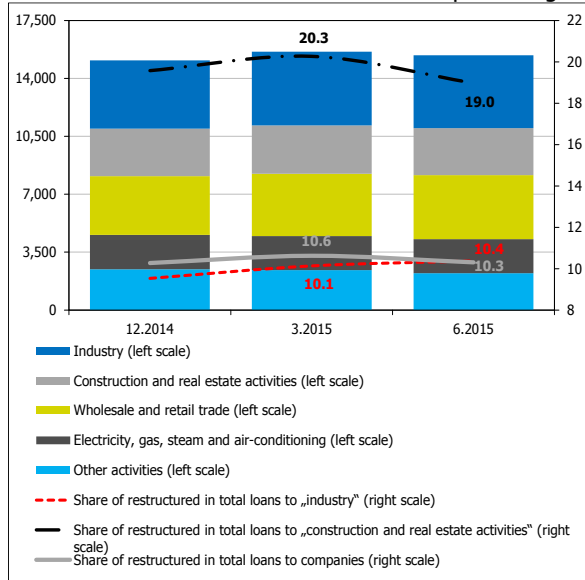
The rate of non-performing loans to construction and real estate activities went slightly down, but generally remained at the highest level of around 20%, reached in the last five quarters. The average risk level of loans in this activity has been increasing continuously, but still remains in B risk category.

**In terms of credit risk, industry stands out as the second riskiest activity.** This activity is particularly important for the credit activity of banks, given the fact that it covers almost 30% of total credit support to companies. In the second quarter of 2015, lending to the industry decreased by 0.8% annually (attributable to the fall of industrial output in the period April-May against the backdrop of deteriorating political situation), despite rising industrial activity at the end of the second quarter.

Non-performing loans to industry are marked by alternating movement in the past two years. In the second quarter of 2015, they registered a moderate annual growth of 5.1%, which entirely arises from several major customers from food industry and chemical industry, production of construction materials and production and processing of fuels.

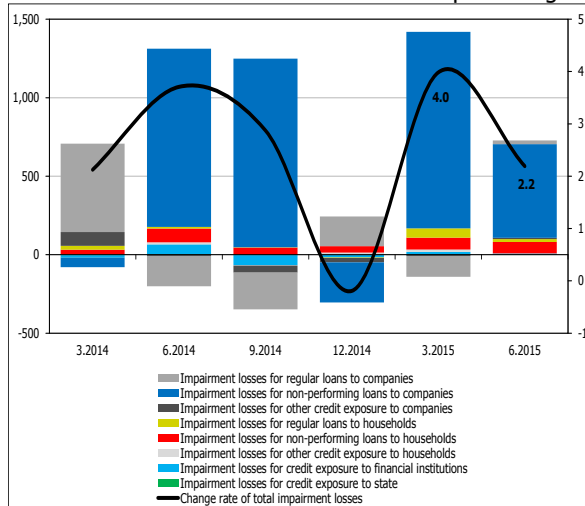
**Adverse changes in total and non-performing loans caused deterioration in the risk indicators of the industry.** Thus, the share of nonperforming loans in total loans grew significantly (from 19.1% as of 31 March 2015 to 20.5% as of 30 June 2015), and moved closer to the rate of non-performing loans to construction and real estate services (21.4%).

**Chart 11**  
Structure of restructured corporate loans, by activity  
in millions of denars in percentage



Source: NBRM's Credit Registry, based on data submitted by banks.

**Chart 12**  
Quarterly change of impairment for certain sectors  
in millions of denars in percentage



Source: NBRM's Credit Registry, based on data submitted by banks.

Interesting enough is the growth of the indicator for the average risk level, which moved close to the upper limit of B risk category (from 17.1% of 31 March 2015 to 18.3% as of 30 June 2015). Similar to the construction sector, performance indicators of the industry also recorded unfavorable shifts at the end of 2014, which confirms the increased risk of this activity<sup>11</sup>.

With respect to the most important activities for credit risk, the dynamics of restructured loans and the share of these loans to total loans confirm the higher risk of banks' claims on construction businesses and real estate activities. Thus, restructured loans to this sector accounted for about 20% of total restructured loans to companies, while the share of restructured loans in total loans for this sector is around 20%, which is almost twice higher than the share of the corporate sector (10.3%). In the industry, this share (10.4%) is almost on a par with the share of companies, but significant 30% of restructured corporate loans relate to customers from this sector.

**Risk of construction and real estate services, and industry** is also perceived by the period of average delay<sup>12</sup> of the amount which is repaid late, which equals as much as 4.2 years for the industry and 2.6 years for the construction and real estate services, while total for the corporate sector, the average delay is 3.3 years. **The length of the average delay of the amount repaid irregularly indicates gradual "aging" of a portion of non-performing credit portfolio<sup>13</sup> of banks (i.e. extension of the period of detention of non-performing loans on the banks' books).**

<sup>11</sup> More details about the operations of industry are given in the Financial Stability Report of the Republic of Macedonia in 2014.

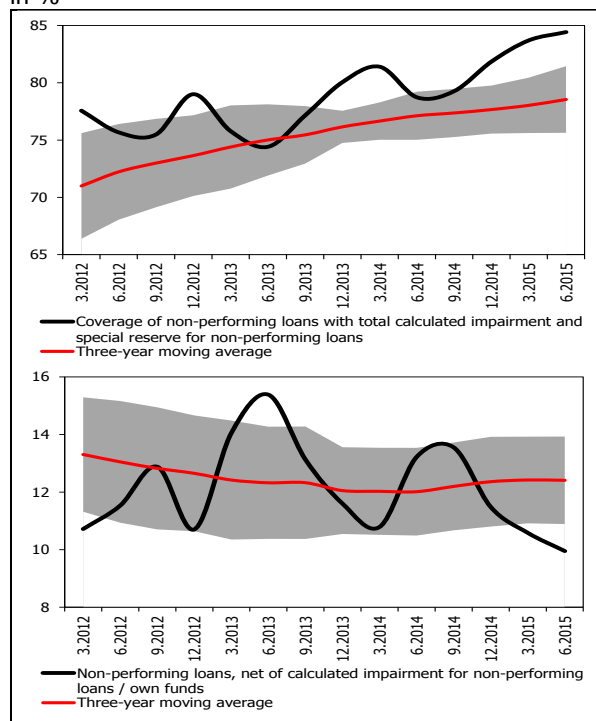
<sup>12</sup> The average delay of the amount of delay for each activity is calculated as a weighted average of the number of days of delay for each loan agreement, where weight is the share of the amount in default on any loan agreement in the total amount in default of all credit agreements covered in the appropriate activity.

<sup>13</sup> Given the fact that 90% of the total amount of delay of the companies refers to a delay longer than 90 days.



Chart 13

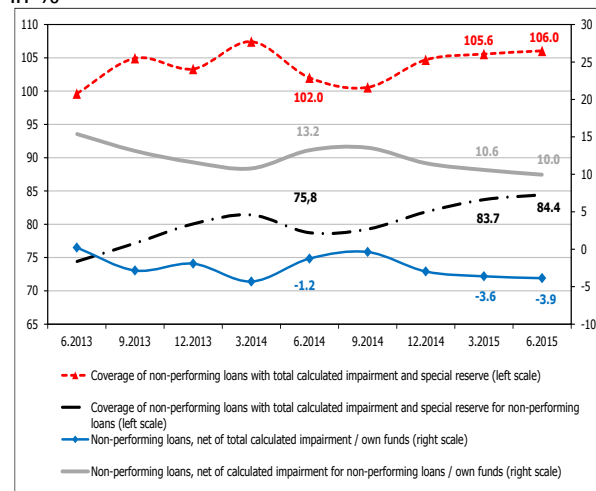
Indicators for banks' capacity to absorb losses from non-performing loans in %



Source: NBRM, based on the data submitted by banks. The shaded part in the charts denotes the range of one standard deviation above and below the three-year moving average of the respective indicator.

Chart 14

Coverage of non-performing loans and share of net non-performing loans in banks' own funds in %



Source: NBRM, based on the data submitted by banks.

### 1.3 Banks' capacity to absorb losses from non-performing loans

In the second quarter of the year, impairment of the total loan portfolio increased by Denar 731 million or 2.2%. This is a slowdown compared to the previous quarter, which corresponds to the slowdown in non-performing loans, which actually generate the growth of total impairment.

**The coverage of non-performing loans with allocated impairment is high, which indicates a satisfactory capacity of the banking system to absorb potential credit losses.** At the end of the second quarter of 2015, the coverage with total impairment increased to 106.0%, and with the impairment for the non-performing loans to 84.4%. The coverage of non-performing loans with their own impairment has increased in the last four quarters, reaching the record high<sup>14</sup>, which indicates banks' perceptions of increased risk of their claims. Moreover, this indicator is above one standard deviation of its three-year moving average for three consecutive quarters, which indicates an extremely high coverage of non-performing loans in recent quarters.

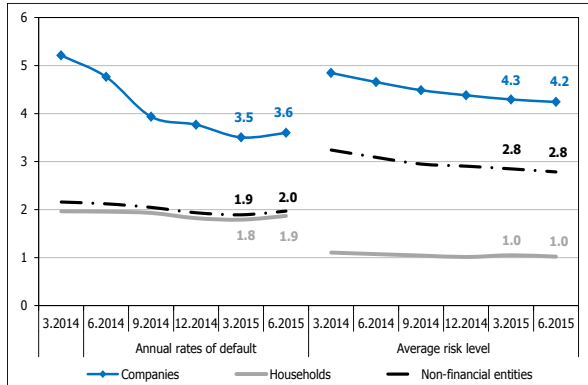
**The negative effects of a possible complete default of non-performing loans on own funds of the banking system are limited, given the high coverage of the non-performing loans with impairment.** In this way, the non-provisioned portion of non-performing loans absorb only 10% of the total own funds of the banking system, which would cover unexpected losses under extreme hypothetical event of full default on these loans. Under such an extreme assumption, at the end of the second quarter of 2015, the capital adequacy ratio would decrease by only 1.6 percentage points (almost identical to the previous quarter, 1.7 percentage points). The share of non-provisioned portion of non-performing loans in own assets is below one

<sup>14</sup> This indicator has been calculated since 2009, i.e. since the availability of data on impairment only for non-performing loans.

Chart 15

Annual rates of default on credit agreements and the average risk level of regular loans by individual sectors

in %

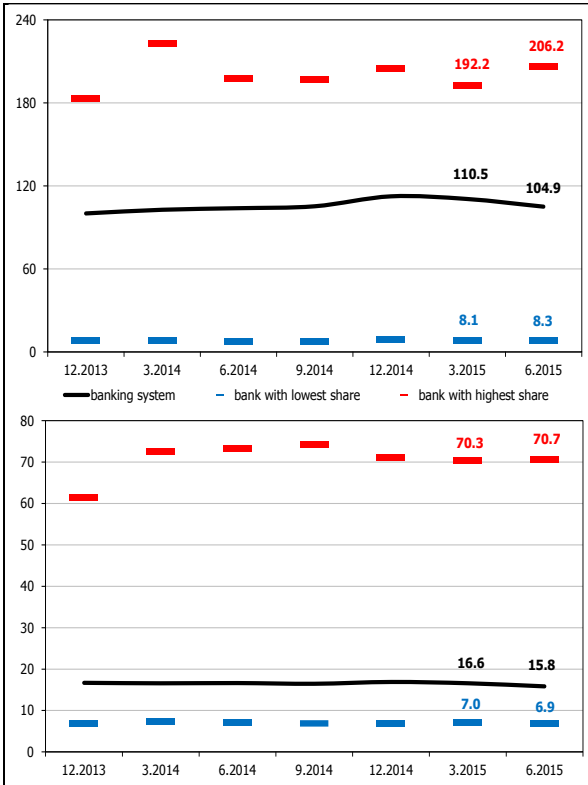


Source: NBRM's Credit Registry, based on data submitted by banks.

Chart 16

Share of the ten largest exposures to non-financial entities in the banks' own funds (up) and in the total credit exposure to non-financial entities (down)

in %



Source: NBRM, based on the data submitted by banks.

standard deviation from the three-year average for the second quarter, which indicates a favorable movement of the indicator and reaching its historic lows.

#### 1.4 Other potential sources of materialization of credit risk

##### The probability of materialization of credit risk of regular loans is low.

However, in accordance with prudential regulations, banks in the Republic of Macedonia are obliged to allocate impairment also for the regular loan portfolio. Coverage of regular loans with the impairment allocated for them, i.e. the level of expected losses from these loans is usually relatively low, but it exceeds the actual annual rate of default on loans<sup>15</sup>. The above points to the conclusion that the banks are more careful, so that they allocated impairment greater than the historical rate of default on the credit agreements with a regular status. The average risk level of regular loans<sup>16</sup> to non-financial entities and individual sectors is almost unchanged compared to the previous quarter, while the annual rate of default registered a slight increase.

##### Credit risk concentration, observed through the share of the ten largest exposures to non-financial entities in the banks' own funds has been decreasing since the previous quarter.

Analyzed by bank, the share of the ten largest exposures to non-financial entities ranges from 8.3% to 206.2%, with a median 118.1% and third quartile 160.8%. The average level of risk of the ten largest exposures of banks is usually low and corresponds with risk categories "A" and "B," but in the structure of the large exposures of some banks, higher risk exposures were observed. Given that the largest exposures account for a significant portion of the own funds of most banks, maintaining their low level of risk is especially important, as in the

<sup>15</sup> The annual rate of loan default is calculated as a percentage of the credit agreements with regular status, which for a period of one year receive a non-performing status.

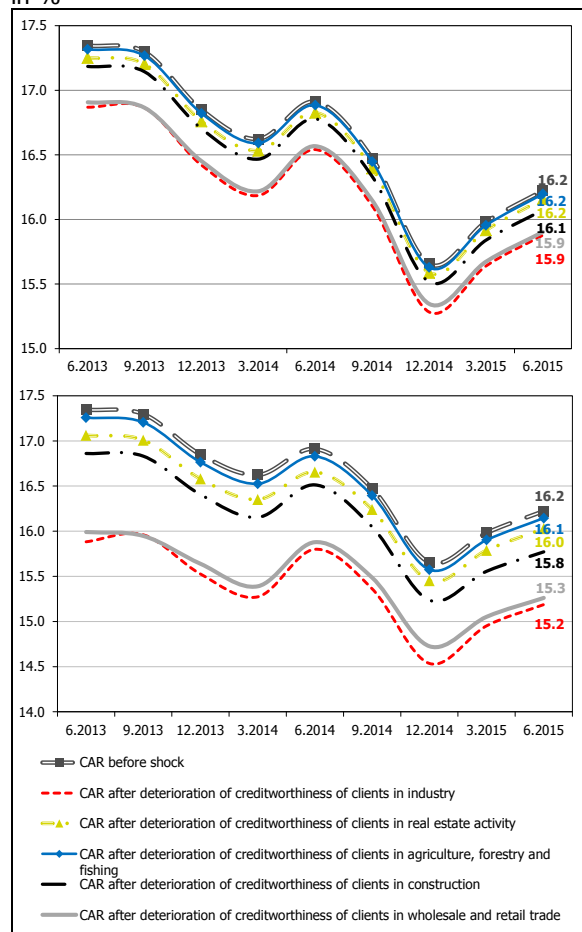
<sup>16</sup> The average risk level is determined as the ratio between the allocated impairment and relevant loans.



event of materialization of the risk of these exposures and the impossibility of their collection, the effect on banks' own funds would be substantial.

At the level of the banking system, the concentration of the ten largest exposures is low, given that their share in the total credit exposure to non-financial entities decreased and amounts to 15.8%. However, analyzed by individual bank, this share ranges from 6.9% to 70.7%<sup>17</sup>.

Chart 17  
Capital adequacy ratio, by activity, before and after the first (up) and the second (down) simulation for both sectors in %



Source: NBRM, based on the data submitted by banks.

### 1.5 Stress-testing - simulation of rising credit risk

In order to examine the sensitivity of the banking system to deterioration of the quality of certain loan portfolio segments, regular stress-tests are conducted. They consist of simulations of hypothetical migration of 10% (first simulation) and 30% (second simulation) of credit exposure to companies (by activity) and households (by credit products), separately, and to the two sectors together, to the next two higher risk categories. **The results of the simulations show resilience of the banking system to the simulated shocks, and register improvement in comparison with the previous quarter.** This is due to the higher capital adequacy of the banking system before the simulations, but also to the less pronounced sensitivity of some banks to the assumed shocks. Thus, the capital adequacy of the banking system does not go below 8% in any of the simulations, although individual banks reveal hypothetical need for recapitalization, but only in the event of simulated shocks of the second extreme simulation. In both simulations, the greatest reduction in the capital adequacy ratio was noticed in the deterioration of the creditworthiness of the clients from the industry and wholesale and retail trade businesses, due to the high share of these activities in the total

<sup>17</sup> If MBDP AD Skopje is excluded from the analysis because of its specific activities (a small number of non-financial customers), the upper limit of the interval would be 31.5%.

exposure to the corporate sector, of 25.9% and 32.1% respectively (Annex 27).

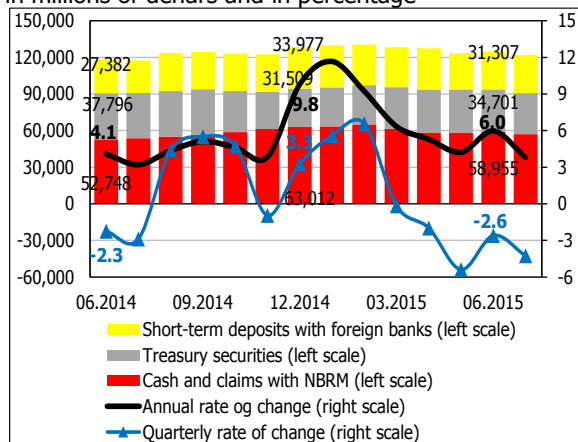
## 2. Liquidity risk

In the second quarter of 2015, liquid assets of the Macedonian banking system registered a decrease, resulting from the impact of seasonal factors, as well as from the specific factors of the domestic and external environment which, in turn, influenced also on the changes in household deposits as the main source of funding for banks. The decrease in the liquid assets mainly arose from the fall in the deposit facilities in the National Bank and the short-term deposits in foreign banks, while the banks' placements in securities registered an increase. The decrease in the liquid assets was mainly intended for lending, the growth of which accelerated in this quarter. These movements of the liquid assets caused decrease also in the liquidity indicators on a quarterly basis, which was more pronounced in denar liquidity indicators, but also caused shifts in the structure of assets by residual maturity, i.e. reduction of assets with shorter residual maturity given reduction of liabilities with longer residual maturity. The simulations for combined liquidity shocks show that the liquid assets of the Macedonian banking system would be sufficient for covering the hypothetical extreme liquidity outflows.

### 2.1 Dynamics and composition of liquid assets

At the end of the second quarter of 2015, liquid assets<sup>18</sup> at the level of the banking system amounted to Denar 124,962 million, registering quarterly rate of decrease of 2.6%, i.e. Denar 3,327 million. The quarterly decrease in the banks' liquid assets is partly due to seasonal factors, as well as to the influence of the specific domestic and external factors on the sources of funding, especially on the household deposits. The liquid assets continue to decrease on a quarterly basis also after the cut-off date of this report ( in July 2015 by 4.3%). On the other hand, the liquid assets continue to increase on annual basis, although in the second quarter their rise decelerated, in comparison with the first quarter of 2015. At the end of the second quarter of

Chart 18  
Movement and growth rate of liquid assets  
in millions of denars and in percentage

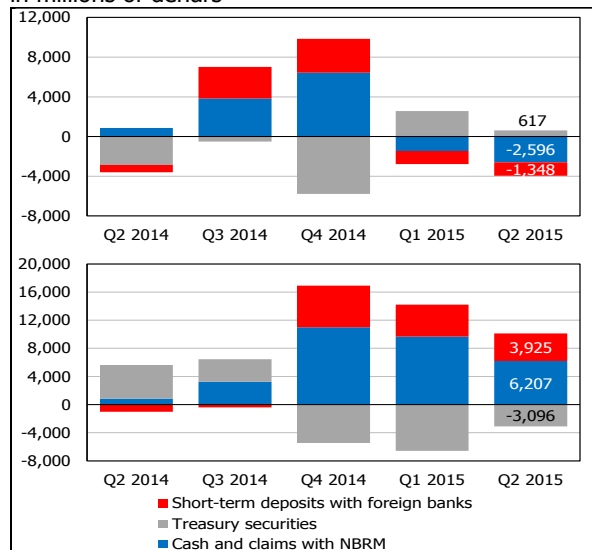


Source: NBRM, based on the data submitted by banks.

<sup>18</sup> The liquid assets encompass: 1) assets and claims on the National Bank, which include cash, assets on the accounts of banks with the National Bank, deposit facility with the National Bank and CB bills; 2) short-term deposits with foreign banks, including the assets of the banks on their correspondent accounts abroad and 3) the carrying amount of the investments in securities issued by the Republic of Macedonia. For the purposes of analyzing the liquidity, assets and liabilities in denars with foreign exchange clause are considered denar assets and liabilities.

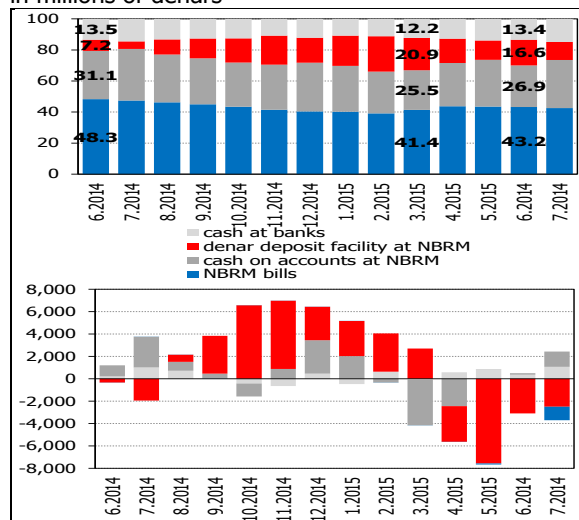


**Chart 19**  
Absolute quarterly (top) and annual (bottom) growth of individual instruments that constitute liquid assets in millions of denars



Source: NBRM, based on the data submitted by banks.

**Chart 20**  
Structure (top) and quarterly absolute growth (bottom) of the banks' funds and claims from the National Bank in millions of denars



Source: NBRM, based on the data submitted by banks.

2015, banks' liquid assets rose by 6.0%, i.e. Denar 7.036 million on an annual basis.

Regarding the financial instruments that constitute banks' liquid assets, completely adverse movements on quarterly and annual basis were registered. Thus analyzed on a quarterly basis, increase was registered only with the placements in domestic securities, while the assets and the placements in the NBRM, as well as the short-term deposits in foreign banks registered a decrease. Unlike this, on annual basis, the banks' investments in securities are diminishing, while the liquid assets growth generator are the primarily the investments in the financial instruments with the National Bank, followed by the investments in short-term deposits with foreign banks.

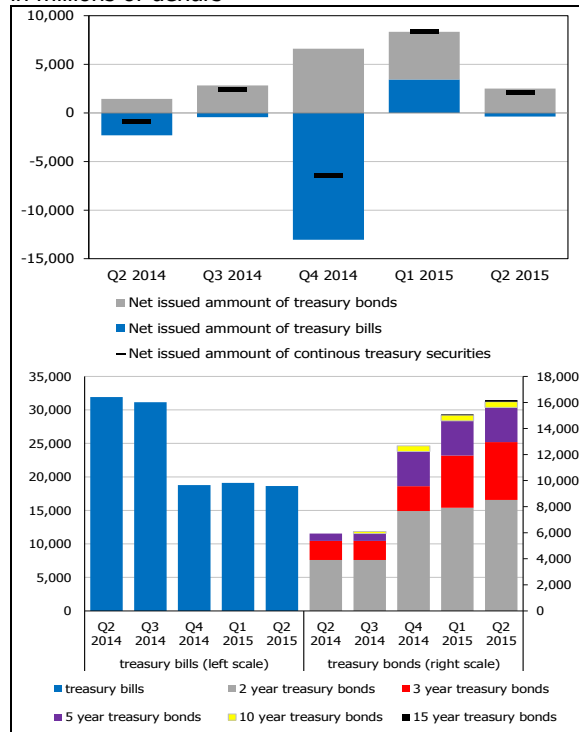
**The banks' assets and claims on the National Bank are the largest component of the banks' liquid assets, participating with 47.1% at the end of the second quarter of 2015.** Within their frames, the banks' investments in central bank bills<sup>19</sup> register the largest share, followed by the total assets on the bank accounts of the National Bank. However, the amount of the CB bills failed to register largest change, due to the limited offer by the National Bank. Unlike the CB bills, the bank investments in deposit facilities with the National Bank<sup>20</sup> as financial instrument in which the banks may invest unrestrictedly, registered far larger oscillations in the previous year. Thus if in the previous three quarters the banks' interest to place in deposit facilities was mounting constantly, in the second quarter of 2015, they fell on a quarterly basis (by 24.0%, which was actually the main generator of the quarterly drop in the total assets and claims on the National Bank (by 4.2%), and consequently, they had the largest share in the quarterly fall

<sup>19</sup> In the second quarter of 2015, the CB bills auctions were conducted on a monthly basis through a volume tender and interest rate amounting to 3.25%. In March 2015, the National Bank changed the offers distribution method among banks during CB bills auctions, which are actually restricted by the percentage share of the reserve requirement in denars in the bank in the total denar reserve requirement of the banking system for the period of fulfillment, which begins on the day of the auction.

<sup>20</sup> According to the Decision on the deposit facility ("Official Gazette of the Republic of Macedonia" No. 49/12, 18/13, 50/13 and 166/13), banks could place deposits with the National Bank every working day with a maturity of one business day and once a week with a maturity of seven days. These deposits are placed without the possibility of partial or full early withdrawal.

in the liquid assets (share of 92%). From the viewpoint of maturity, the largest portion in the structure of the deposit facility accounts for the deposit facilities up to seven days.

**Chart 21**  
 Quarterly dynamics of the net issued amount of government securities (top) and structure of the continuous government securities owned by banks (bottom) in millions of denars



Source: the National Bank

Note: The calculations are done by using face value of the continuous government securities.

In the second quarter of 2015, on the primary securities market, although the net issued amount<sup>21</sup> decreased compared to the first quarter of the year, it remained positive. On annual basis, the total nominal amount of issued securities increased by 5.1%. However, the net issued amount of government bonds increased, whereas the lower net issued amount of Treasury bills, which enabled further rise in the maturity profile of the issued government securities. Because of these activities on the government securities' primary market, given smaller trade volume on the secondary market, **the placements in banks' government securities, for the second consecutive quarter, are the only component of their liquid assets that registered a quarterly increase (of 1.8%).**

The share of the Treasury bills in the structure of the continuous government securities continues to plunge and at the end of the second quarter of 2015 it equals 54.5%<sup>22</sup>, which is a decrease of 1.1 percentage point on a quarterly basis, at the expense of the the increased share of the continuous government bonds. The banks' preference to invest in securities with shorter contractual maturity is more evident, because in the maturity structure of the banks' government bonds, more than half are two-year bonds. The trend of gradual decrease in the banks' share in the total issued government securities continued also in the second quarter of 2015 and on June 30 2015, it equals 47.2%, which is less than 0.5% and 6.7% percentage points on quarterly basis, respectively.

<sup>21</sup> Net - issued amount of government securities on the primary market is calculated as the difference between the amount of newly issued government securities within a certain period and the amount of due government securities in the relevant period.

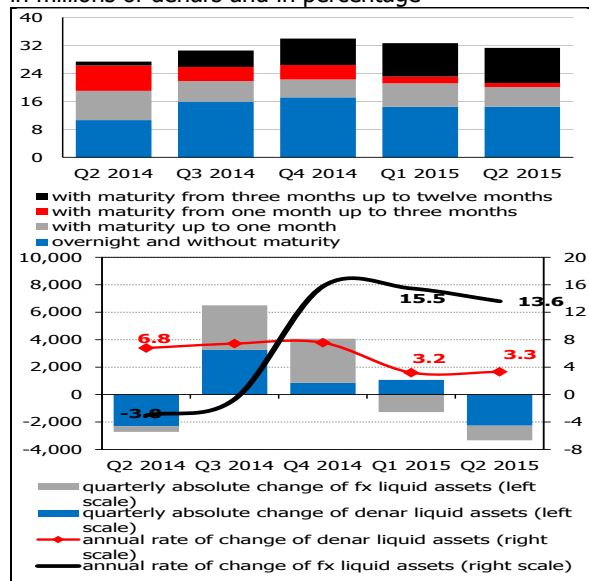
<sup>22</sup> Calculated by using carrying value of the government securities in the banks' balance sheet. If the calculation is done by using the face value of the issued government securities, the share of Treasury bills in the portfolio of banks' government securities to banks amounted to 53.5% at the end of the second quarter of 2015.



Chart 22

Amount of short-term deposits with foreign banks (top) and change in the liquid assets by currency (bottom)

in millions of denars and in percentage

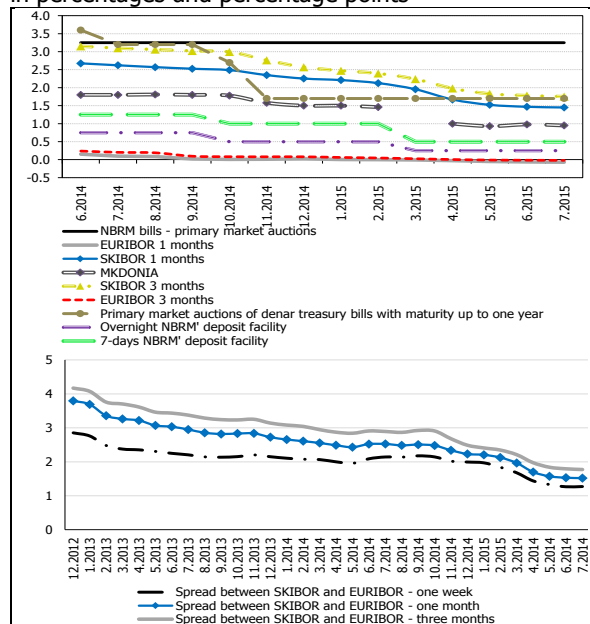


Source: NBRM, based on the data submitted by banks.

Chart 23

Movements of the key interest rates (top) and spread between SKIBOR and EURIBOR for certain maturities (bottom)

in percentages and percentage points



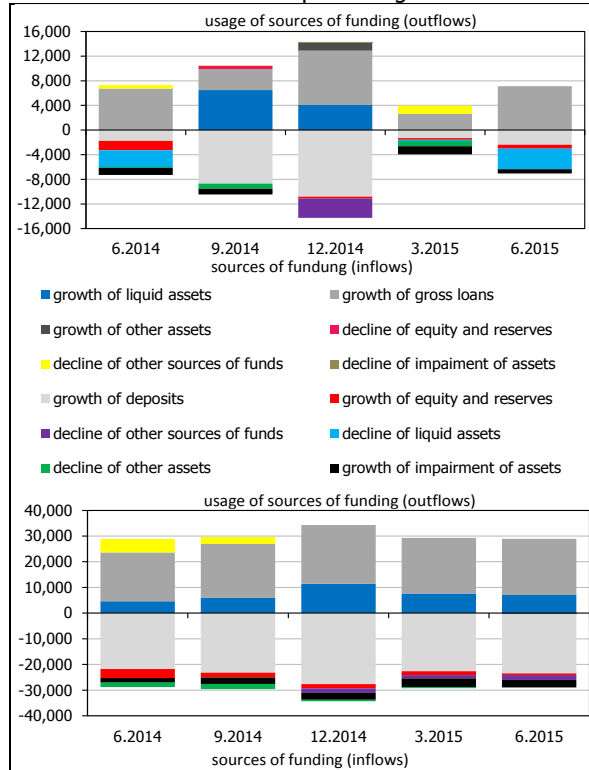
Source: National Bank for SKIBOR and website of the European Money Markets Institute for EURIBOR. The spread is calculated by using the average interest rates in respective months

**The short-term assets placed in foreign banks registered a decrease for second consecutive quarter (by 4.1%).**

The assets on the correspondent accounts with foreign banks and the overnight deposits dominate the structure of these assets, with gradual increase in the assets with maturity between three months and one year being registered, which is mainly due to the historical low, and even negative, interest rates on the international interbank markets. As a result, for the purpose of earning larger profit, it is inevitable the domestic banks, when invest in foreign banks, to increase the investment horizon, i.e. to prolong their maturity. The quarterly reduction of the assets in foreign banks contributed towards quarterly fall in the liquid foreign currency assets by 3.0%. However, the foreign currency liquid assets still register an increase on annual basis of 13.6%, mainly due to their faster growth in the second half of 2015. On the other hand, because of the decrease also in the denar liquid assets, at the end of 2015, the currency structure of the banks' total liquid assets did not register larger changes. Thus the foreign currency liquid assets equal 27.6% of the total liquid assets, which is a decrease of 0.2 percentage points compared to the end of the first quarter of 2015.

Regarding the interest rates on the domestic interbank market (SKIBOR and MKDONIA), as well as on the interbank markets in the euro area, the downward trend continued also in the second quarter of 2015, followed by downward movement of their yield curves. The narrowing of the spread between the denar interest rates on the domestic interbank market and the key interbank rates for euros in the euro area continued in the second quarter of 2015, as well, and got to the historical minimum.

**Chart 24**  
 Amount of the new sources of funding of the banking system and their use on a quarterly (top) and annual (bottom) basis in millions of denars and in percentage



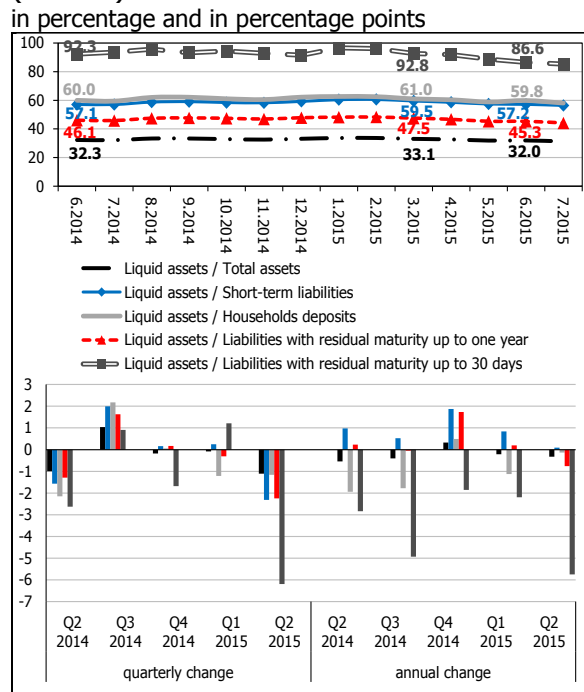
Source: NBRM, based on the data submitted by banks.

The quarterly decrease in the banks' liquid assets was the main creator of the banks' sources<sup>23</sup> of funding. Namely, in the second quarter of 2015, the contribution of the increase in the deposits of the non-financial entities (as main source of funding) in the creation of sources of funds was about one third, but most of their growth (almost half) arose from the restructuring in the banks' assets, i.e. redirecting of the assets from liquid assets into sources of lending. However, on annual basis, the deposit growth contributes mostly in the creation of new sources of funding of the Macedonian banks, which originates from the conventional business model that the domestic banks apply, based mainly on deposit-based financing. In the second quarter of 2015, the use of the sources of funding was fully directed towards credit support of the domestic non-financial entities. On annual basis, the banks used about three fourths of the new sources of funding for lending.

<sup>23</sup> The new sources of funding for banks and their use are obtained in an indirect calculation, i.e. by changing the balances of individual accounts of the banks' balance sheet. The effect on the banks' cash flows, which is due to the income and expenditures that do not represent cash outflow or inflow (e.g. loan write-offs, revaluation of securities available for sale or held for trading, depreciation of fixed assets, net foreign exchange differences, etc.) is an integral part of the change in the corresponding balance sheet items, the respective inflow or outflow refers to. \* The category of other assets includes assets that are not loans to non-financial companies and are not included in the category of liquid assets (placements in securities that are not part of the liquid assets, long-term placements in foreign and domestic banks, foreign exchange reserve requirement, foreclosures, fixed assets, etc.) The category "other sources of financing" includes all sources of funding that are not included in the deposits of non-financial entities, capital and reserves, subordinated and hybrid capital instruments (deposits of financial institutions, borrowings, other liabilities, current profit etc.) and the effect of the change in impairment of assets.

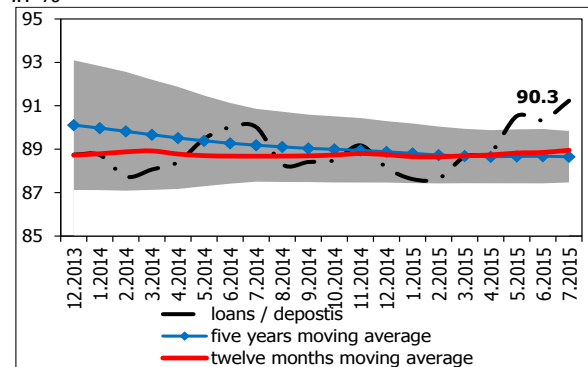
## 2.2 Liquidity indicators

Chart 25  
Movement of liquidity indicators of the banking system (top) and their growth (bottom)



Source: NBRM, based on the data submitted by banks.

Chart 26  
Movement of the loan-to-deposit ratio for the banking system  
in %



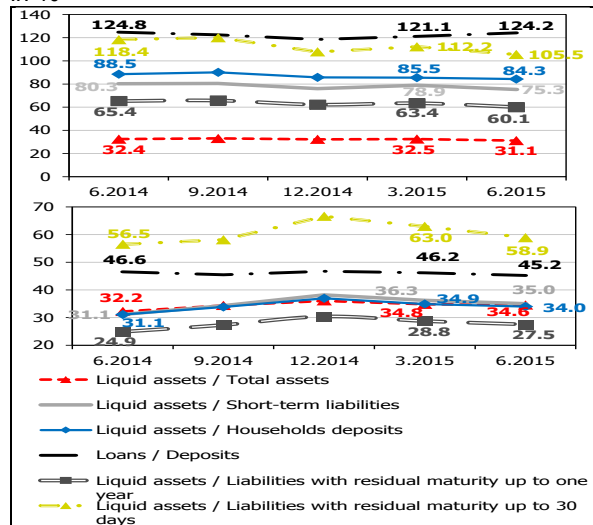
Source: NBRM, based on the data submitted by banks.  
Note: The shaded part in the chart denotes the range of one standard deviation above and below the five-year moving average of the share.

**Due to the reduction in liquid assets during the second quarter of 2015, the indicators<sup>24</sup> of coverage of the various categories of banks' liabilities with liquid assets registered a decrease.** Thus the coverage of the short-term liabilities and household deposits with liquid assets decreased on a quarterly basis by 2.3 and 1.2 percentage points, respectively. Decrease was also registered with the indicators of coverage of liabilities with different contractual residual maturity. Decrease in the coverage of liabilities with residual maturity up to 30 days with liquid assets is especially evident in the second quarter of 2015, but this indicator also registers the highest value (86.6%), compared to other liquidity indicators. The share of the liquid assets in the total assets of the banks at the end of the second quarter of 2015 equals 32.0% and it is lower by 1.1 on a quarterly basis, i.e. 0.3 percentage points on annual basis. By banks, on 6 June 2015, the liquid assets equal from 16.9% to 44.1% of the total assets, while the coverage of the short-term liabilities with liquid assets ranges from 34.9% to 109.8%.

The loan-to-deposit ratio at the level of the banking system, on 30 June 2015 equals 90.3% also in comparison with the end of the first quarter of 2015 registers an increase of 1.6 percentage points. It should be noticed that the loan-to deposit indicator for the second quarter of 2015, for the first time in post-crisis period, is beyond standard deviation of its five-year moving average, which can signalize faster credit growth given the current dynamics of the deposits, as the main source of funding of banks. Analyzed by banks, as of 30 June 2016, the loan-to-deposit ratio ranges from 72.1% to 130.0%, and in seven banks which mutually create 26.7% of the total assets of the banking system this ratio is higher than 100%. The

<sup>24</sup> The calculation of the liquidity of the banking system does not take into account the resident interbank assets and liabilities.

Chart 27  
Banking system liquidity ratios, according to currency structure - Denars (top) and FX (bottom) in %

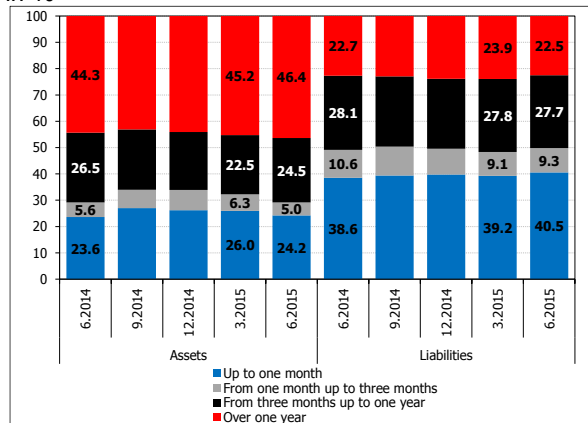


Source: NBRM, based on the data submitted by banks.

liquidity ratios of the banking system<sup>25</sup> presented as correlation between assets and liabilities that fall due in the following 30 and 180 days, at the end of the second quarter of 2015 equals 2.23 and 1.52, respectively, which is over the prescribed minimum of 1.

**Due to more intense decrease in liquid assets in denars in the second quarter of 2015, the decrease in the liquidity indicators is more evident in comparison with indicators of foreign currency liquidity.** However, the liquidity indicators in denars are still quite higher in comparison with the liquidity indicators in foreign currency.

Chart 28  
Structure of banks' assets and liabilities by their contractual residual maturity in %



Source: NBRM, based on the data submitted by banks.

### 2.3 Maturity structure of assets and liabilities

In the second quarter of 2015, the increase in the share of assets with residual maturity longer than one year continued, at the expense of the decline in the share of assets with shorter residual maturity of one month and from one to three months. The main reason for these structural changes was the decrease in the banks' liquid assets with short residual maturity, especially the claims on the National Bank. In the structure of the banks' liabilities, according to the contractual residual maturity, the changes in the second quarter of 2015 refer to fall in the structural share of the liabilities with longer residual maturity at the expense of the increase in the liabilities with shorter residual maturity. Such changes mainly arise from the absence of growth in household deposits, given gradual maturing of the previously deposited time deposits and bigger preference of the depositors to maintain the deposits on shorter-terms.

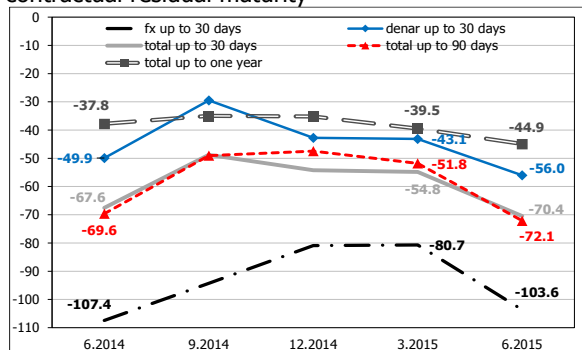
<sup>25</sup> The method of calculation of liquidity ratios up to 30 and up to 180 days is determined by the Decision on the liquidity risk management of banks ("Official Gazette of the Republic of Macedonia" no. 126/11, no. 19/12 and no. 151/13).



Chart 29

Relative importance of the cumulative difference between banks' assets and liabilities according to the contractual residual maturity

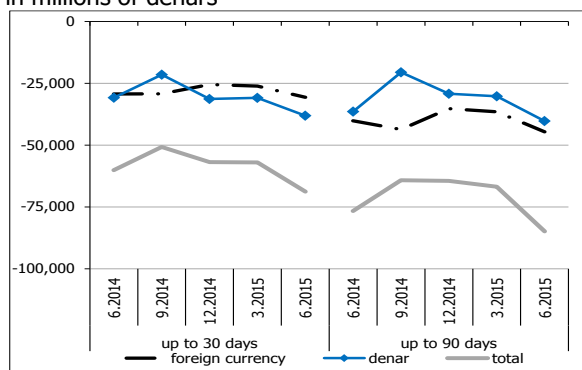
percentage of cumulative assets with the same contractual residual maturity



Source: the NBRM calculations, based on data submitted by banks

Chart 30

The difference between the assets and liabilities by their contractual residual maturity up to 30 days and up to 90 days in millions of denars



Source: the NBRM calculations, based on data submitted by banks

These movements in the structure of banks' assets and liabilities according to their contractual residual maturity caused increase in the relative importance of the aggregate negative difference between assets and liabilities, regardless of the residual maturity. Thus the gap between assets and liabilities with residual maturity up to 30 days, presented as correlation with the total assets with same residual maturity, at the end of the second quarter of 2014 is deeper by 15.6 percentage points and equals -70.4%, which is the highest level in the global post-crisis period. The quarterly deepening is also evident with the gap between assets and liabilities with contractual maturity up to 90 days and residual maturity up to one year. Although the absolute volume of assets and liabilities mismatch, depending on their currency features is similar, however, the relative volume of the gap is still far larger with their foreign currency component.

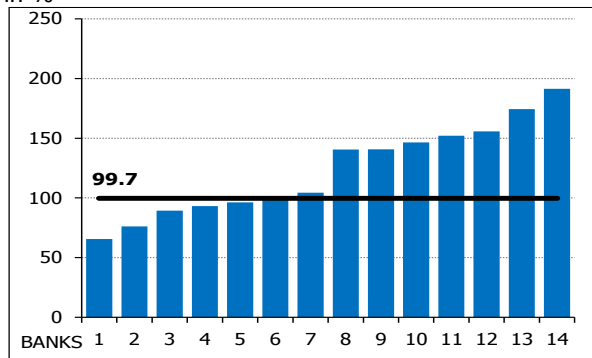
**The banks expect high stability of the deposits also in the second quarter of 2015.** Thus at the end of the second quarter of 2015, banks expect 82.0% of time deposits with residual maturity up to three months (84.1% as of 31 March 2015) will be at their disposal for the next three months, while regarding the demand deposits, including funds on bank transaction accounts, the banks expect 82.0% (82.6% on 31 March 2014 ) to remain in the banks. There is still positive aggregate difference between assets and liabilities according to their expected maturity, in all maturity buckets (Annex no. 30).

## 2.4 Stress test simulations for liquidity shocks

The decrease in liquid assets in the second quarter of 2015 contributed as well to weaker performance of banks when simulating a simultaneous combination of liquidity shocks, which implies combined spill over of certain sources of funds outside the banking system<sup>26</sup>.

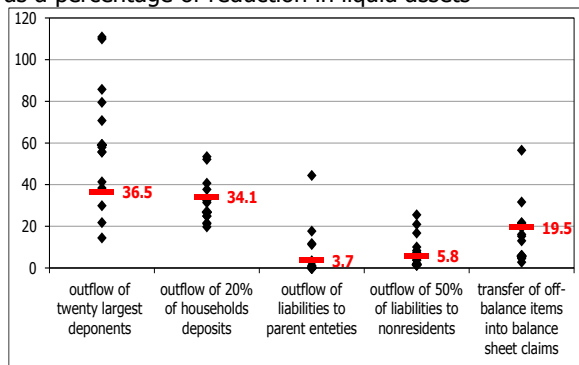
<sup>26</sup> The simulation assumes outflow of deposits of the twenty largest depositors, 20% of household deposits, liabilities to parent entities with the exception of liabilities on subordinated instruments and hybrid capital instruments that are excluded from the

**Chart 31**  
Reduction of liquid assets in the simulation of combined liquidity shocks  
in %



Source: the NBRM calculations, based on data submitted by banks

**Chart 32**  
Contribution of individual combined shocks to the decline in the liquid assets in the simulation of a combined liquidity shock as a percentage of reduction in liquid assets



Source: NBRM, based on the data submitted by banks.

In case of combined and simultaneous liquidity outflow, as an extraordinary extreme simulation (given individual assumed liquidity shocks, the Macedonian banks have sufficient liquidity to repay outflows, perform future regular activities without difficulties), the banking system would use almost all liquid assets, but it would repay the required outflows. After the conducted simulation, the share of liquid assets in the total assets of the banking system would amount to 0.13% (1.82% as of 31 March 2015), while the coverage of short-term liabilities<sup>27</sup> with liquid assets would be 0.26% (3.51% as of 31 March 2015). If for the purpose of this simulation the scope of the liquid assets expands with certain financial instruments<sup>28</sup> owned by banks, which can be assumed that could be easily collected or converted into liquid assets within a time frame of 30 days, then the reduction in liquid assets at the level of the banking system in this simulation would be 88.7% (85.2% as of 31 March 2015). Out of the liquidity shocks that are combined in this simulation, usually as the most important is the outflow of deposits of the twenty largest deponents, which also have the most evident differences by individual banks having in mind the differences in the deposits concentration level, followed by the outflow of 20% of the household deposits.

simulation as according to the regulations for determining capital adequacy the possibility for their early repayment is limited, 50% of the liabilities to non-residents (excluding liabilities which are already covered by one of the previous simulations) and full conversion of certain off-balance sheet liabilities of the banks (uncovered letters of credits, irrevocable credit lines and unused limits based on credit cards and approved overdrafts on transaction accounts) in balance sheet claims. The simulations of liquidity shocks exclude the Macedonian Bank for Development Promotion AD Skopje, because of the legal restriction to serve in the deposit market.

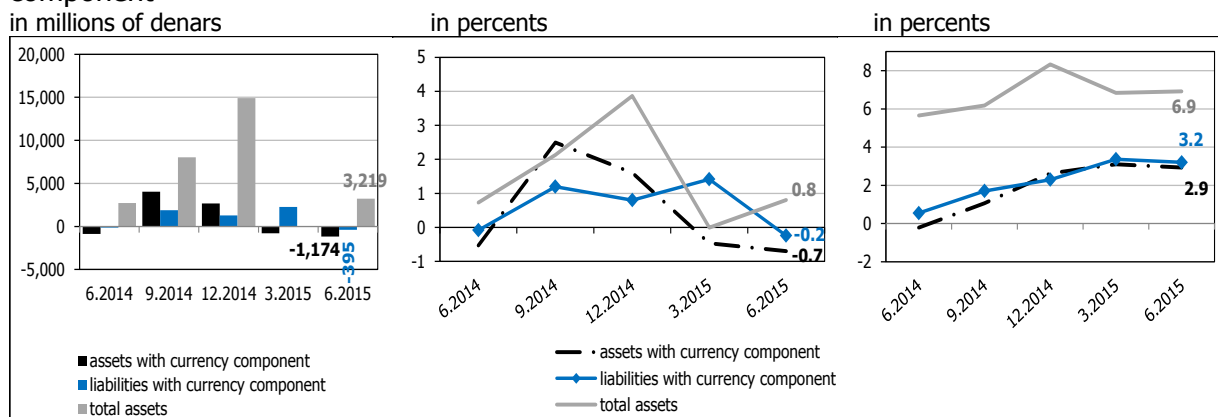
<sup>27</sup> The simulations assume that outflows in individual shocks are proportional to the contractual maturity structure of the individual sources of funding for which the outflow as of 31.12.2014 has been assumed. Such obtained maturity structure of assumed outflows serves to calculate short-term liabilities after simulated outflows.

<sup>28</sup> In this expansion of the scope of liquid assets, in addition to financial instruments that comprise liquid assets, the following financial instruments from the balance of the banks are added: term deposits in foreign banks, money market instruments issued by non-residents, foreign government bonds, loans with contractual residual maturity of up to 30 days and the effect of reducing the reserve requirement for foreign currency liabilities of banks, which is allocated in foreign currency due to the outflow of households' foreign currency deposits.

### 3. Currency risk

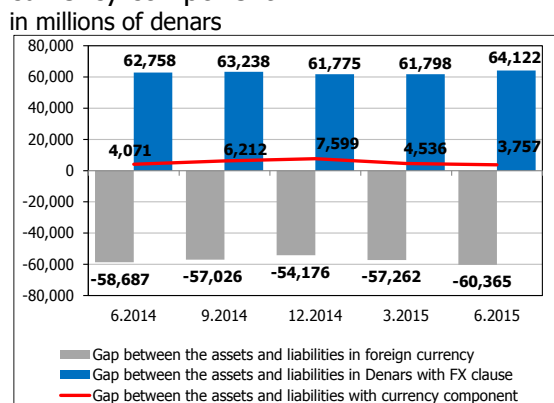
Currency risk is one of the most significant risks the banks are exposed to in RM and their customers, but the danger to them from such exposure is minimal due to the strategy of the National Bank to maintain a fixed exchange rate of the denar against the euro. In the second quarter of 2015, the gap between the assets and liabilities with currency component narrowed. As a result, its share in the banks' own assets also decreased, which is an indicator of the lower exposure of the banks to currency risk. The positions of the US Dollar contributed the most to the gap narrowing compared to the preceding quarter. Banks generally adhere to the prescribed limits for the open currency position, and in case of deviation, in accordance with the procedure set out in the regulations, undertake the following activities in order to reduce within the prescribed limit.

Chart 33  
Quarterly (left and middle) and annual (right) growth of assets and liabilities with currency component



Source: NBRM, based on data submitted by banks.

Chart 34  
Gap between assets and liabilities with currency component

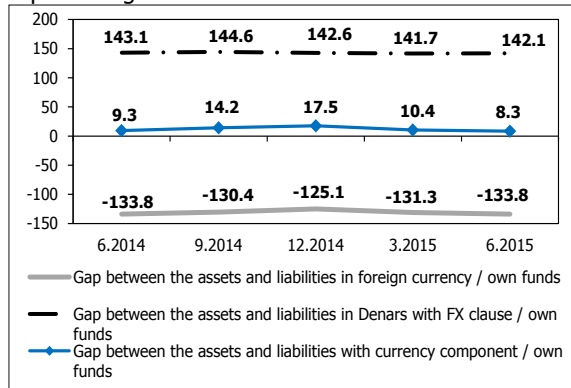


Source: NBRM, based on data submitted by banks.

**As of 30 June 2015, the gap between assets and liabilities with currency component decreased compared to 31 March 2015. The gap narrowing arise primarily on the decrease in the assets with currency component (by Denar 1,174 million<sup>29</sup>).**

<sup>29</sup> The foreign currency assets decreased by Denar 2.267 million (mainly due to the decrease on current accounts in foreign banks and loans in foreign currency) compared to the growth in the denar assets with foreign currency clause in the amount of Denar 1,093 million, which is due to growth in denar loans with foreign currency clause.

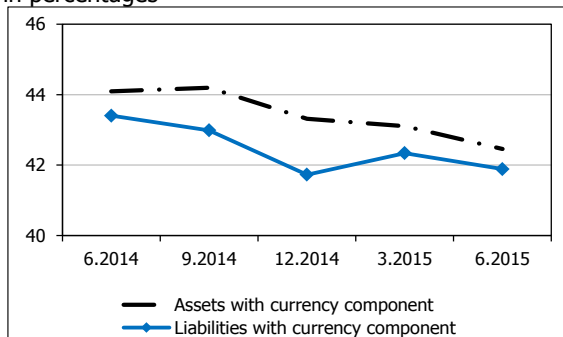
**Chart 35**  
Share of the gap between assets and liabilities with currency component in the banks' own funds  
in percentages



Source: NBRM, based on data submitted by banks.

**The narrowing of the gap between assets and liabilities with currency component resulted in a decrease in its share in the banks' own funds by 2.1 percentage point.** As of 30 June 2015, this share equaled 8.3%, which indicate relatively low bank exposure to currency risk.

**Chart 36**  
Share of the assets and liabilities with currency component in the total assets of banks  
in percentages



Source: NBRM, based on data submitted by banks.  
In the structure of the assets with currency component, loans and interest receivables are reduced by impairment. "MBPR" AD Skopje is not included.

The reduction of assets and liabilities with currency component (of Denar 1,174 and Denar 395 million, respectively), with simultaneous increase in total assets of the banking system (of 3.219 million), contributing to a further reduction of the currency component in the banks' balance sheets, as an indicator of further denarization of the banking activities.

**Table 1**  
Currency structure of assets and liabilities with currency component  
in %

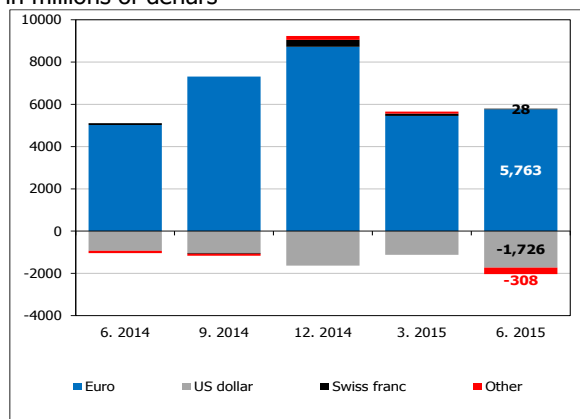
Currency	31.3.2015		30.6.2015	
	Assets	Liabilities	Assets	Liabilities
<b>Euro</b>	87.8	86.9	89.5	88.0
<b>US dollar</b>	7.3	8.2	6.6	7.8
<b>Swiss franc</b>	2.2	2.2	1.5	1.5
<b>Other</b>	2.7	2.7	2.5	2.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: NBRM, based on data submitted by banks.



Chart 37

Dynamics and structure of the gap between assets and liabilities with currency component, by currency in millions of denars



Source: NBRM, based on data submitted by banks.

**The gap between the assets and liabilities with the total component fully arises from the gap between assets and liabilities in euros.** In the second quarter of 2015, the positions (both, assets and liabilities) in euros increased, thus minimally increasing the amount of the gap in this currency, and it has strengthened the already large share in the currency structure of the banks' assets and liabilities. **The gap between assets and liabilities with currency component arises mainly from the increase in the negative gap between assets and liabilities in US dollars,** as well as the negative gap between assets and liabilities in the Australian dollar, which in the previous quarter was positive.

Table 2

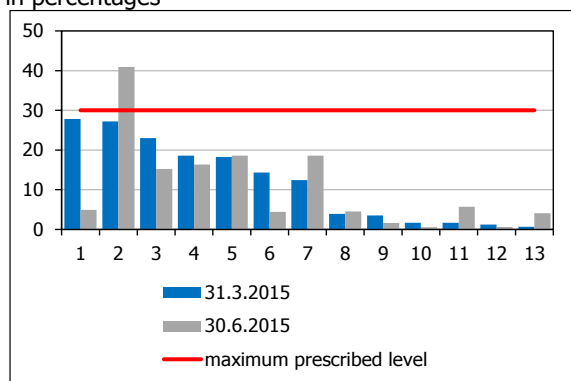
Classification of banks according to the share of the open foreign currency position by currency and the aggregate foreign currency position in the own funds

Items	Number of banks								Aggregate currency position / own funds
	Open currency position by currency / own funds								
	Euro		US Dollar		Swiss franc		Other		
	Long	Short	Long	Short	Long	Short	Long	Short	
<b>under 5%</b>	4	4	11	3	7	6		14	6
<b>from 5% to 10%</b>		1							3
<b>from 10% to 20%</b>	4								4
<b>from 20% to 30%</b>									
<b>over 30%</b>	1								1

Source: NBRM, based on data submitted by banks.

Chart 38

Aggregate currency position to own funds ratio, by bank in percentages



Source: NBRM, based on data submitted by banks.

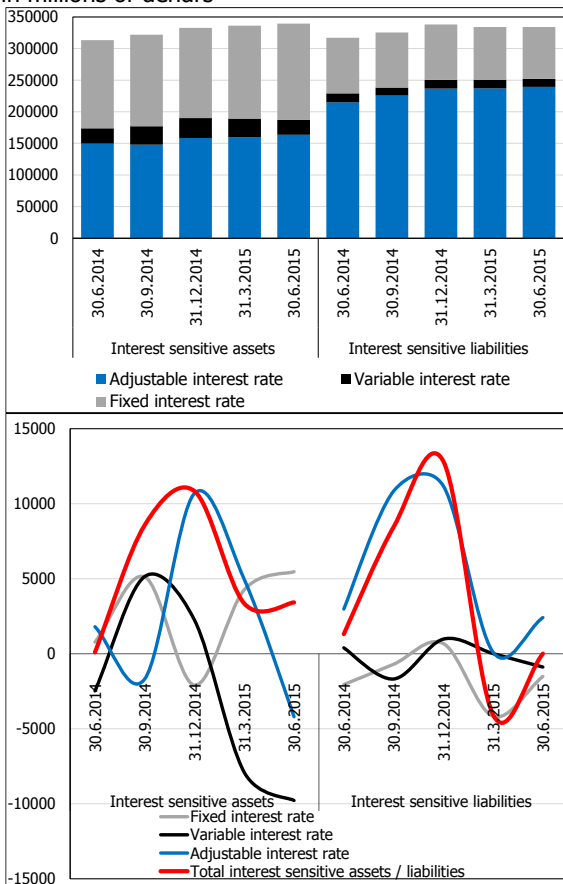
As of 30 June 2015, one bank exceeded the prescribed limit of the aggregate foreign currency position (30% of the own funds) and at the mid-July 2015, this excess was overcome and the bank complied with the prescribed limit.

#### 4. Interest rate risk in the banking book

The exposure of the banks in the Republic of Macedonia to interest rate risk in the banking book in the second quarter of 2015 continued to increase. The ratio between the total weighted value of the banking book and own funds continued to increase due to increased on-balance sheet items with fixed interest rates, which for the banks imply a risk of losing revenues if market interest rates rise. However, the Macedonian banks "neutralize" this risk through the implementation of the adjustable interest rates.

In the second quarter of 2015 the interest sensitive assets and liabilities in the banks' balance sheets insignificantly increased, mostly as a result of the items with fixed and<sup>30</sup> and adjustable<sup>31</sup> interest rate.

Chart 39  
Balance and structure (top) and quarterly change (bottom) of the interest sensitive assets and liabilities, by interest rate type in millions of denars



Source: NBRM, based on the data submitted by banks.

The increase in the interest sensitive assets was determined by the increase in the assets with fixed interest rate (of 1.6%) and primarily the housing loans with fixed interest rate.

The liabilities with adjustable interest rate, which increased by 1%, contributed to the quarterly growth in the interest sensitive liabilities. The liabilities with adjustable interest rate in the second quarter recorded a restructuring, i.e. the a growth on the demand accounts (transaction accounts) of Denar 6222 million, or 7.6%, and decrease in time deposits of Denar 4.778 million, or 3.5%.

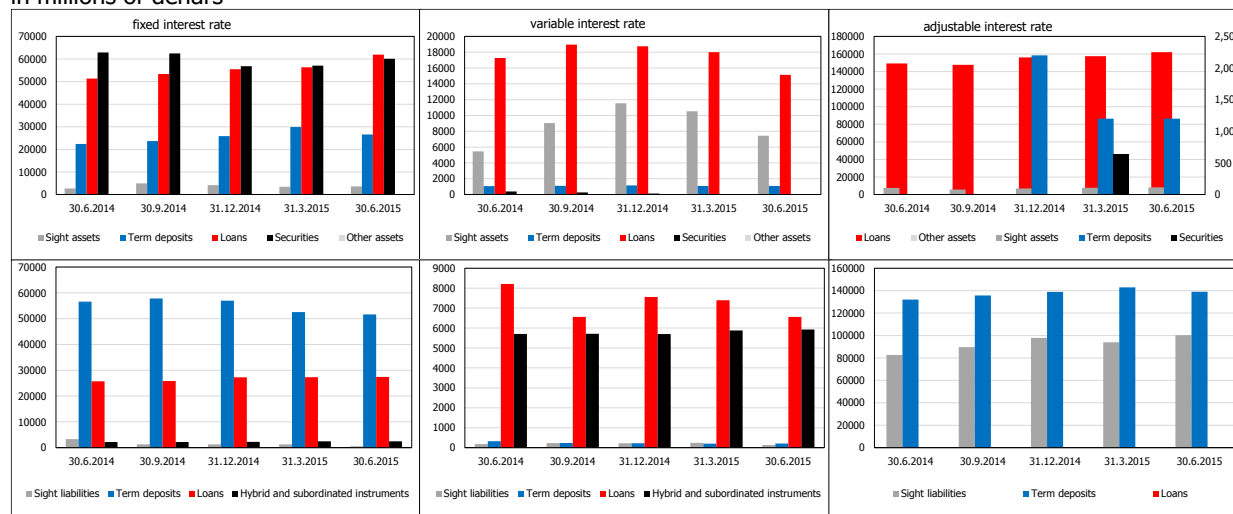
<sup>30</sup> Fixed interest rate - interest rate which remains unchanged over the entire period, i.e. the bank has no right to change the interest rate, which is nominally set in the contract.

<sup>31</sup> Adjustable interest rate - interest rate which is adjusted on the basis of a decision of the bank, rather than on the basis of a reference interest rate or index. By using the unilaterally adjustable interest rates, banks pass their own interest rate risk on their customers, and they may serve as an instrument for managing banks' liquidity and profitability.



Chart 40

Balance of the interest sensitive assets (top) and liabilities (bottom), by items in the balance sheet and the type of interest rates in millions of denars

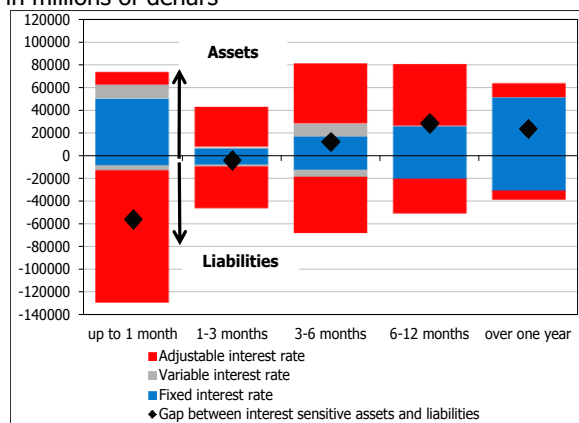


Source: NBRM, based on the data submitted by banks.

Chart 41

Composition of Interest sensitive assets and liabilities, by maturity and type of interest rate

in millions of denars



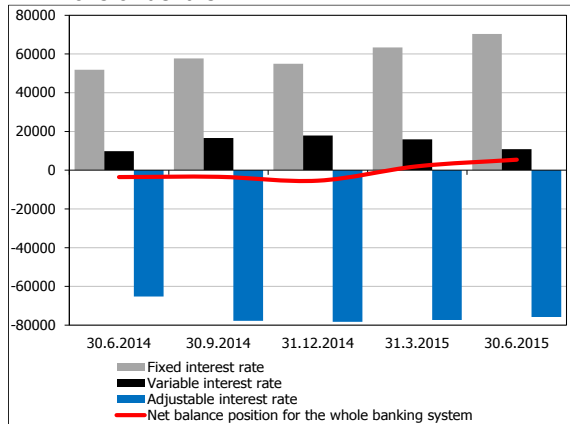
Source: NBRM, based on the data submitted by banks.

In the second quarter of 2015, the structure of interest sensitive assets and liabilities recorded some changes, but items with adjustable interest rates remained dominant. With the assets with fixed interest rate, the loans took the primacy from the investments in securities.

**Adjustable interest rates play the main role in almost all maturity buckets of the interest sensitive assets and liabilities up to one year<sup>32</sup>.** Applying this type of interest rates minimizes the risk to banks from changing interest rates in the banking book. The assets and liabilities with fixed interest rate prevail on a longer term (over one year). On the part of assets, it is due to loans with fixed interest rate which in the first few years already, are treated as assets with fixed interest. In the liabilities with fixed interest rates (over one year), the banks' loan-based liabilities prevail. The variable interest rates are the least used.

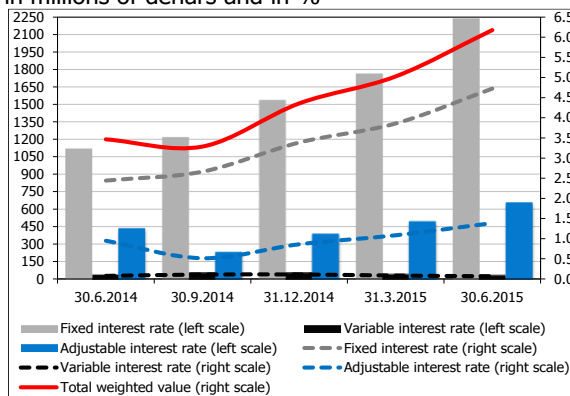
<sup>32</sup> Exception are interest sensitive assets in the maturity bucket up to one month, where the positions with fixed interest rate prevail, as a result of banks' placements in securities.

**Chart 42**  
Gap between interest sensitive assets and liabilities, by type of interest rate in millions of denars



Source: NBRM, based on the data submitted by banks.

**Chart 43**  
Weighted value (left scale) and total weighted value of banking book to own assets ratio (right scale), by type of interest rate in millions of denars and in %



Source: NBRM, based on the data submitted by banks.

**The gap between interest sensitive assets and liabilities is significantly increasing in positions with fixed interest rates**, mainly due to increase in loans with the assets and the reduction in time deposits with in liabilities. On the other side, the gap between the items with adjustable and variable interest rates narrowed. Despite these developments, the gap amount (negative) between the positions with adjustable interest rates, remains the largest, arising from the high share of deposits with adjustable interest rates.

**In the last four quarters, total weighted value of the banking book<sup>33</sup> and own funds ratio registered an upward trend (6.2% as of 30 June 2015), but well below the prescribed maximum of 20%.** The increase in this ratio is due to the net weighted value of items with fixed interest rate for maturity buckets over one year. The maintenance of this low ratio with the own funds will continue as long as there is widespread use of adjustable interest rates by the banks, which provides an opportunity for banks to unilaterally change the interest rates. Expectations of the National Bank in the upcoming period should gradually come to reduce the use of this type of interest rates, which consequently would require expansion of capacity and establish systems for banks to manage the risk of changes in interest rates.

<sup>33</sup> The total weighted value of the banking book shows the change of the economic value of this portfolio as a result of the assessment of the change in the interest rates by using a standard interest rate shock (parallel positive or negative change in interest rates by 200 basis points). The total weighted value of the banking book of the banking system is obtained by aggregating the weighted values of the banking book of individual banks.

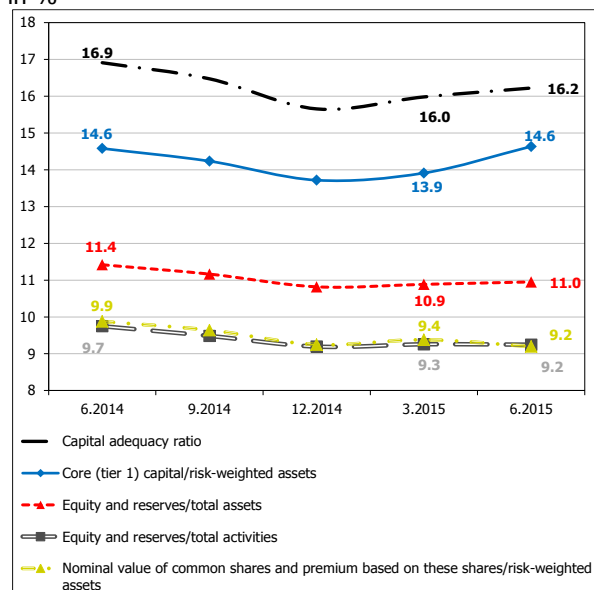




## 5. Insolvency risk

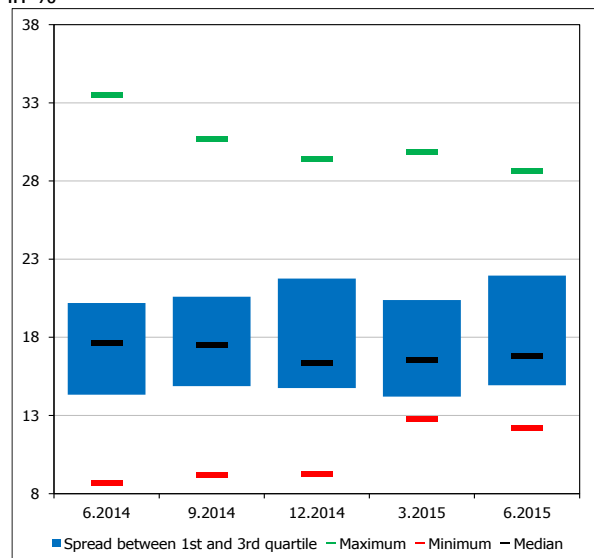
The indicators of solvency and capitalization of the banking system, in general, increased in the second quarter of 2015. The own funds of the banking system registered a quarterly growth, which is mostly caused by the increase of own funds with a major bank. The new amount of own funds was largely "used" to increase the "free" capital above the minimum level required to cover the risks. However, part of the new amount of regulatory capital was "used" to cover the credit risk arising primarily from the increased portfolio of small loans and claims on other trade companies. The results of the stress test conducted on 30 June 2015, are generally better compared to the end of the first quarter of 2015.

Chart 44  
Solvency ratios  
in %



Source: NBRM, based on the data submitted by banks.

Chart 45  
Distribution of capital adequacy ratio in the banking system  
in %

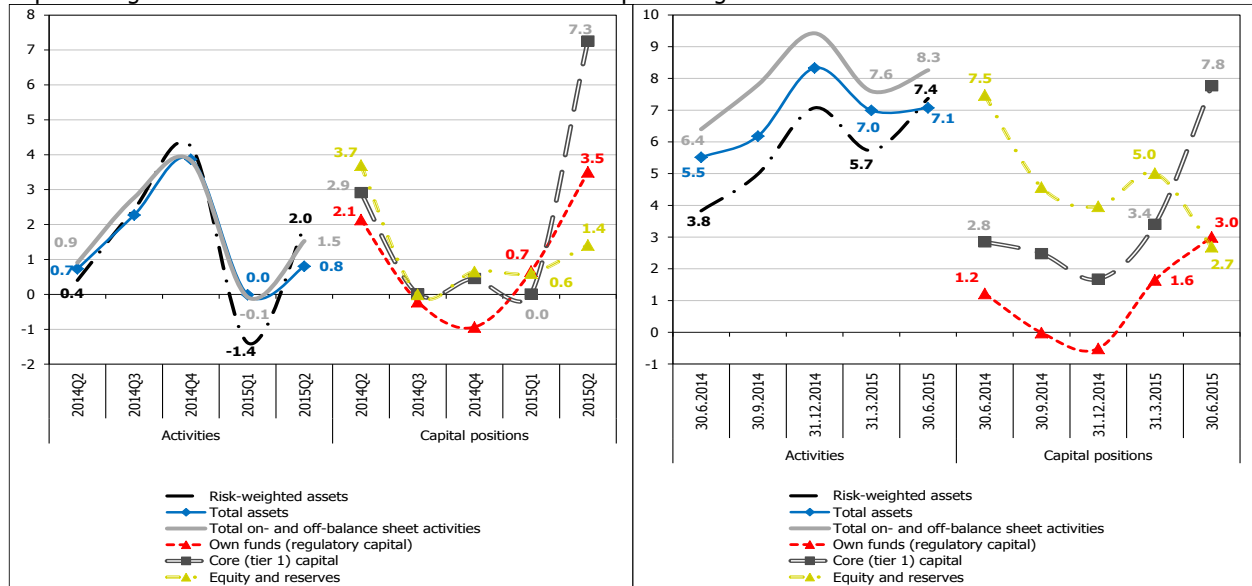


Source: NBRM, based on the data submitted by banks.

### 5.1 Solvency and capitalization indicators of the banking system and level of risk of the activities

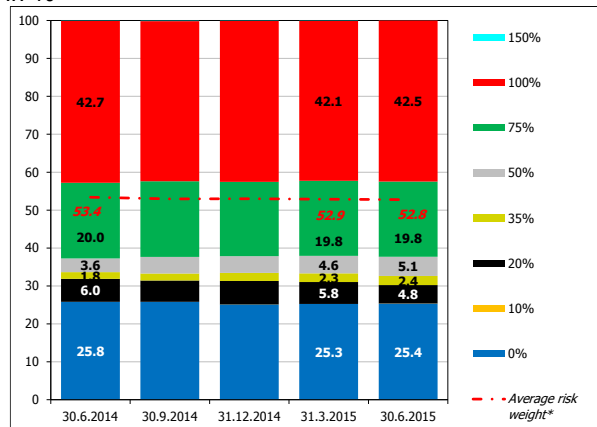
The indicators of solvency and capitalization of the banking system improved in the second quarter of 2015. The biggest improvement is registered in the ratio between core capital and risk-weighted assets (of 0.7 percentage points) and the capital adequacy ratio rose by 0.2 percentage points and is twice the prescribed regulatory minimum. After the slight changes in the first quarter of the year, the capital positions of the banking system recorded solid growth rates, which, in the second quarter of 2015, exceeded the growth rates of the banks' activities. As of 30 June 2015, all banks reported a capital adequacy ratio higher than 12%.

Chart 46  
Growth rates of components of solvency ratios, quarterly (left) and annual (right) in percentage



Source: NBRM, based on the data submitted by banks.

Chart 47  
Structure of total on-balance sheet and off-balance sheet exposure, by risk weights in %



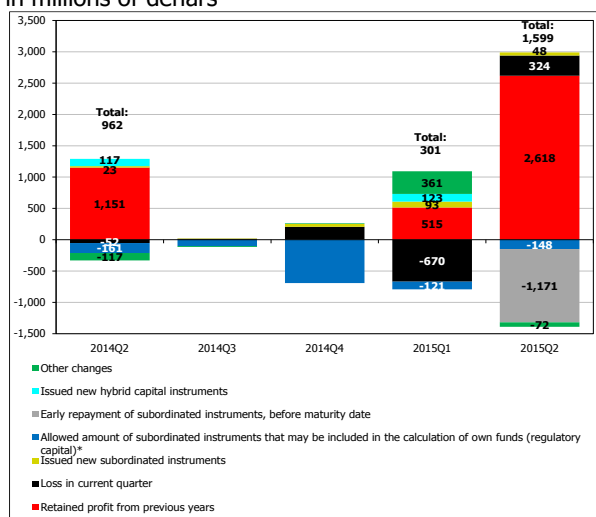
Source: NBRM, based on the data submitted by banks.  
Note: \*The average risk weight of total on-balance sheet and off-balance sheet exposure is calculated as a ratio between credit risk weighted assets and net on-balance sheet and off-balance sheet exposure of banks.

**The level of risk of the banking activities (measured as a ratio between credit risk-weighted assets and the total on-balance sheet and off-balance sheet exposure) remained almost unchanged.** In the second quarter of 2015 there were no significant changes in the structure of total on-balance sheet and off-balance sheet exposure of the banking system, according to individual, regulatory determined risk weights. Hence, the average risk weight of the total balance sheet exposure of the banking system<sup>34</sup> decreased by, minimal 0.1 percentage point and as of 30 June 2015 amounted to 52.8%.

<sup>34</sup> Calculated as a ratio between credit risk weighted assets and total on-balance sheet and off-balance sheet exposure of banks

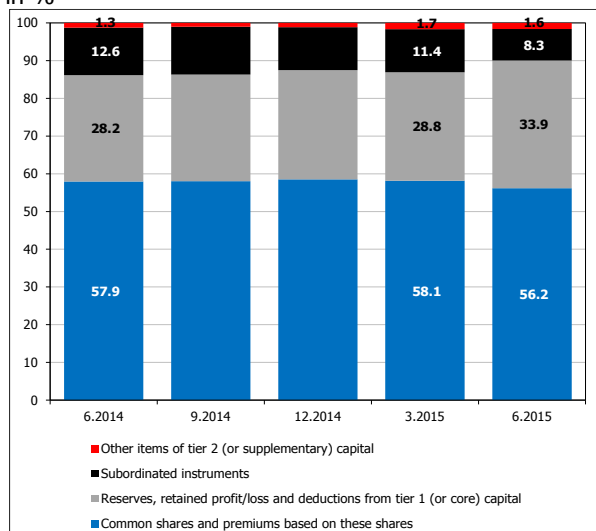


**Chart 48**  
Structure of the quarterly growth of own funds  
in millions of denars



Source: NBRM, based on the data submitted by banks.  
Note: \* Refers to the changes in the amount of already issued subordinated instruments arising from the compliance/non-compliance with the regulatory rules for inclusion of these instruments in the calculation of own funds.

**Chart 49**  
Structure of own funds  
in %



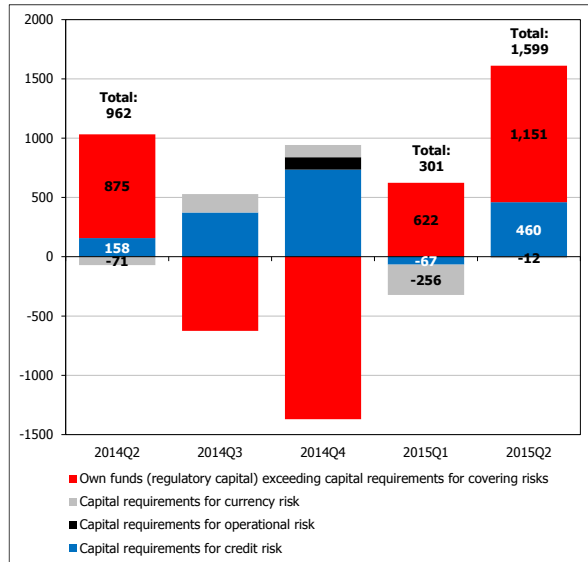
Source: NBRM, based on the data submitted by banks.

## 5.2 Movements and quality of the own funds of the banking system

The own funds of the banking system increased by Denar 1,599 million (or 3.5%), which is mostly conditioned (over 60%) by the growth in the own funds with a major bank. Namely, in the second quarter of 2015, a bank belonging to a group of large banks initiated a procedure for reallocation of part of retained gain available for distribution to shareholders, into a profit limited for distribution to shareholders, which also enabled the bank to include this position in determining the core capital and the own funds. Such strengthening of the bank's core capital is done with an intention to make early payment of liabilities based on subordinated instruments, which in the calculation of own funds, at present, have been included at discounted value (due to uptake of the instruments in the last five years to maturity) and at the same time, in amount far lower (about 50%) than the amount of the said reallocation of retained gain from previous years. An additional reason for the increase in the own funds of the banking system is reinvesting of the profit for 2014, conducted with some of the banks (amounting to 459 million), as well as halving the amount of current loss in the second quarter of 2015, registered in banks which worked at a loss, compared to the loss shown in the first quarter of 2015. The share of the core capital in the total own funds (before deductibles of core and additional capital) increased by 3.2 percentage points and on 30 June 2015 reached the level of 90.1%, which further strengthened the already high quality of the own funds of the banking system.

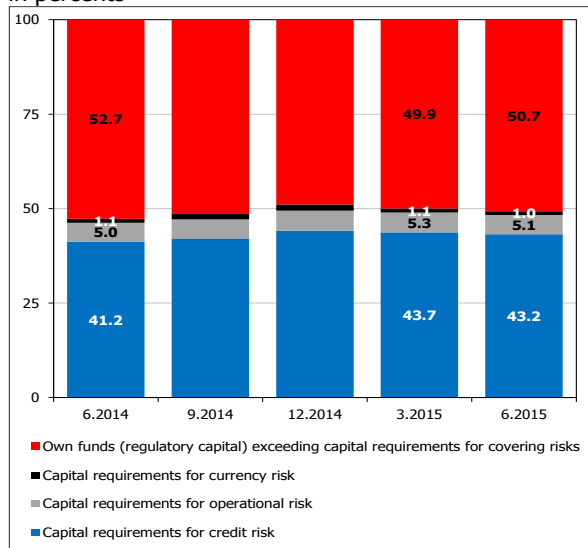
More details about the level of own funds of individual groups of banks are presented in Annex 34.

**Chart 50**  
Structure of quarterly growth of own funds, by the purpose for covering risks in millions of denars



Source: NBRM, based on the data submitted by banks.

**Chart 51**  
Structure of own funds according to the use for covering risks in percents



Source: NBRM, based on the data submitted by banks.

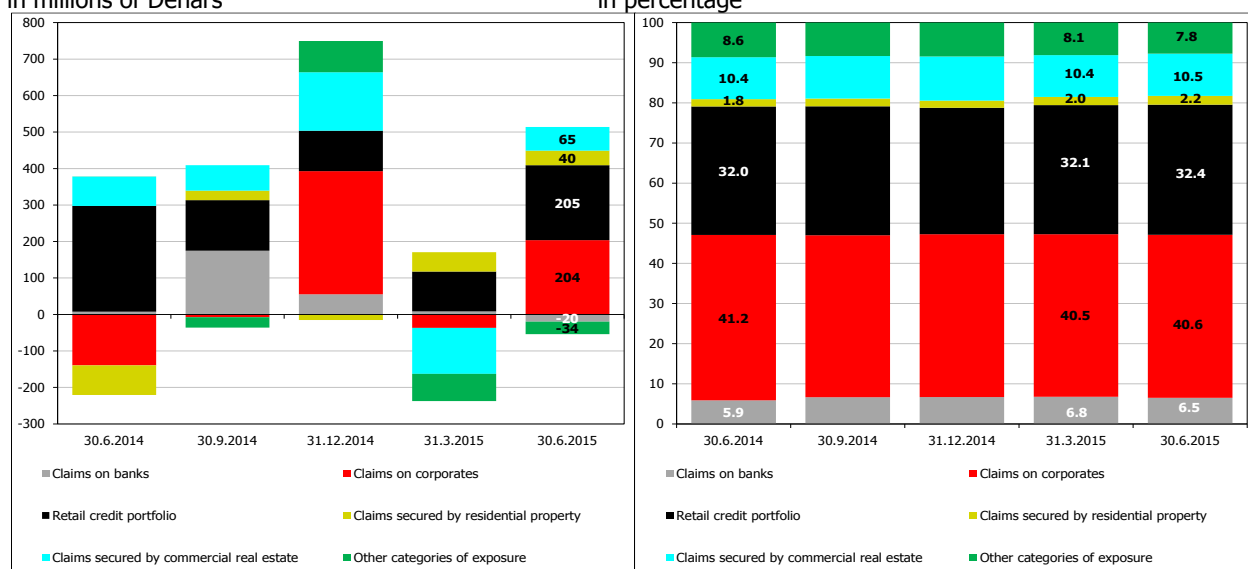
### 5.3 Movements and structure of capital requirements and available capital of the banking system

The new amount of own funds was largely "used" to increase the "free" capital above the minimum level required to cover the risks. However, part of the new amount of regulatory capital was "used" to cover the credit risk arising primarily from the increased portfolio of small loans and claims on other trade companies. Thus, in the second quarter of 2015, the "free" capital above the capital requirement for covering risks rose by Denar 1,151 million, or 5.1%. At the same time, the growth of capital requirements for covering risks<sup>35</sup> was lower and amounted to Denar 448 million, or 2%. The increase in capital requirements was contingent upon the growth of regulatory capital requirements for credit risk (by Denar 460 million or 2.3%), which are largely derived from the increased retail loan portfolio and the higher amount of receivables from other trade companies. Own funds above the capital requirement for covering risks make up more than half of the total own funds.

<sup>35</sup> Capital requirements are determined at the level of 8% of the risk weighted assets.



**Chart 52**  
 Quarterly growth rates (left) and structure (right) of capital requirements for credit risk, by exposure category  
 in millions of Denars in percentage



Source: NBRM, based on the data submitted by banks.

More details on the capital requirements for covering risks and the capital adequacy ratio, by individual group of banks, are given in Annex 35.

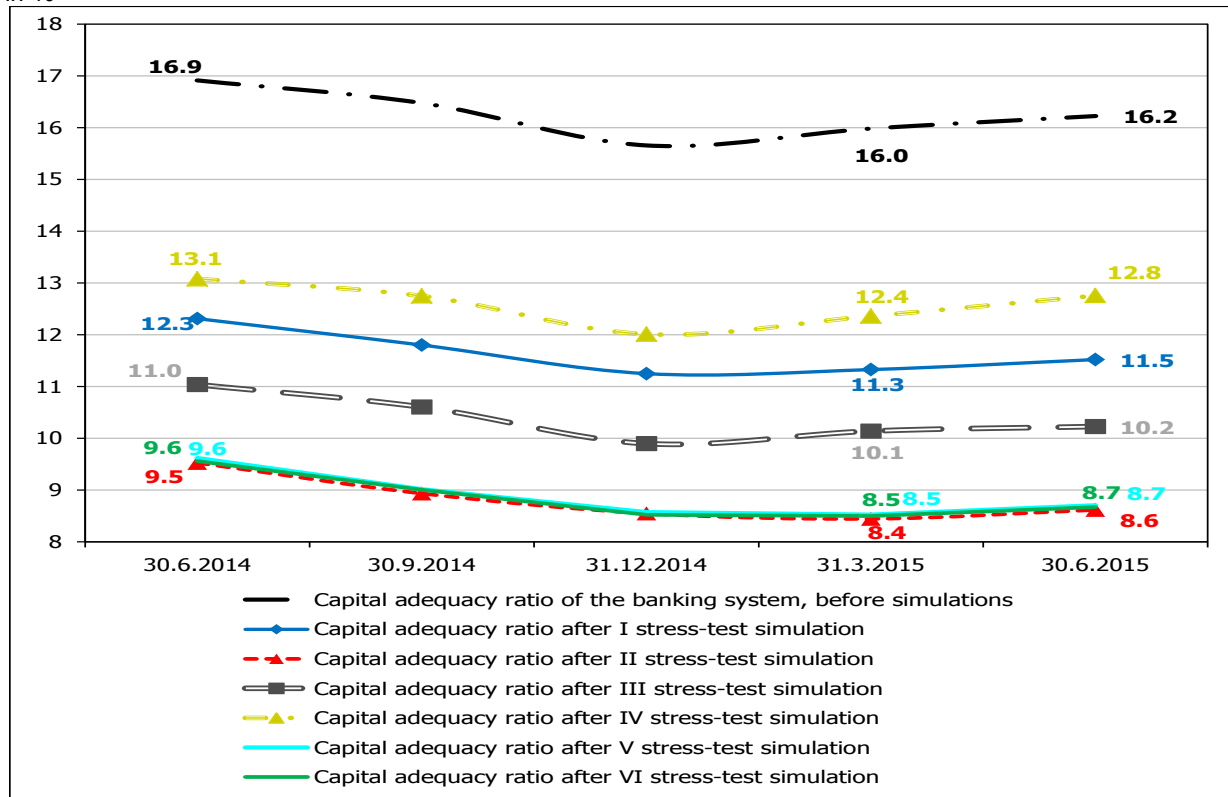
#### 5.4 Stress testing of the resilience of the banking system to hypothetical shocks

The stress testing of the resilience of the banking system and individual banks in the Republic of Macedonia to simulated shocks indicates better results, i.e. higher resilience of the banking system compared with 31 March 2015. Better results of stress tests are due mostly to the increase of the capital adequacy of the banking system in the second quarter of 2015. The capital adequacy of the banking system does not go below 8% in any of the simulations, although individual banks reveal hypothetical need for recapitalization in the event of possible materialization of the simulated extreme shocks.

Chart 53

Comparison of results from simulations of credit and combined shocks

in %



Source: NBRM, based on the data submitted by banks.

\*Stress testing includes the following simulations:

I simulation: Increasing the non-performing credit exposure to non-financial entities by 50%;

II simulation: Increasing the non-performing credit exposure to non-financial entities by 80%;

III simulation: Migration of 10% of the regular to a non-performing credit exposure to non-financial entities;

IV simulation: Reclassification in category "C - non-performing" of the five largest credit exposures to non-financial entities (including related entities);

V simulation: Increasing the non-performing credit exposure to non-financial entities by 80% and increase in interest rates from 1 to 5 pp.;

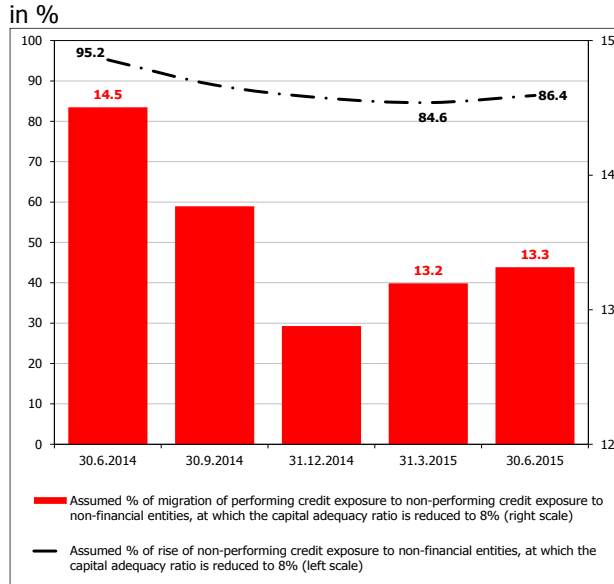
VI simulation: Increasing the non-performing credit exposure to non-financial entities by 80% depreciation of the Denar exchange rate by 30%, and increase in interest rates from 1 to 5 pp.;

\*\*Note: Credit exposure to non-financial entities includes the total credit exposure decreased by the exposure of banks to financial institutions and the government, i.e. to customers from the "financial activities and insurance activities" and "public administration and defense and compulsory social security"

The hypothetical shocks on the part of the credit risk have the greatest impact on the stability of the banking system. Within the credit exposure to non-financial entities, the simulations show that the capital adequacy of the banking system would drop to the legal minimum of 8% only if the non-performing credit exposure rises by 86.4%, i.e. in case of migration of 13.3% of the credit exposure from regular to non-performing. These simulations



**Chart 54**  
 Necessary deterioration of the quality of credit exposure to cause a decline in the capital adequacy of the banking system to 8%  
 in %



Source: NBRM, based on the data submitted by banks.

would result in almost doubling of the share of non-performing in the total credit exposure to non-financial entities (from the current 10% to 18.7%). However, these are rather extreme and less likely simulations, especially in the short term. For comparison, in the second quarter of 2015, only 0.6% of the regular credit exposure to non-financial entities migrated to non-performing exposure (in the last six years, the historic maximum for this data was 2.1% and was reached in the second quarter of 2009).



### **III. STRUCTURAL FEATURES, SIGNIFICANT BALANCE SHEET CHANGES AND PROFITABILITY OF THE BANKING SYSTEM**



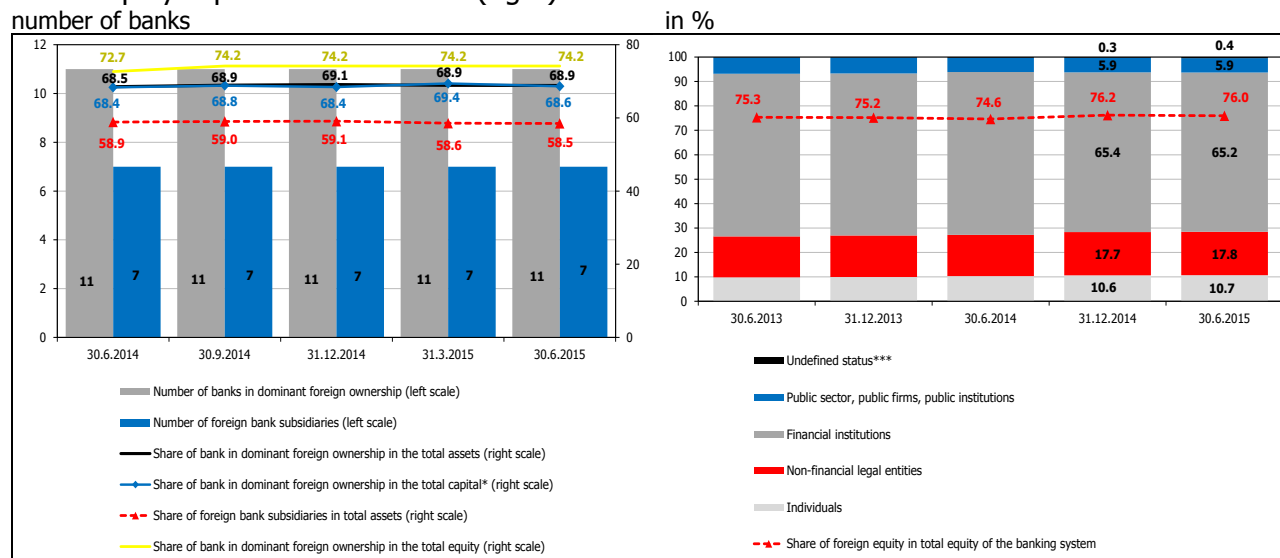
## 1. Number of banks and ownership structure of the banking system

As of 30 June 2015, the number of institutions that perform banking activities in the Republic of Macedonia is unchanged compared to the previous quarter, amounting to fifteen banks and three savings houses<sup>36</sup>.

Eleven banks are predominantly owned by foreign shareholders, and seven of them are subsidiaries of foreign banks.

Chart 55

Number and market share of banks in dominant foreign ownership (left) and ownership structure of the equity capital of all banks \*\* (right)



Source: NBRM, based on data submitted by banks.

\*Capital and reserves comprise the equity capital and premiums based on paid-in shares, reserves, retained earnings (accumulated loss) and revaluation reserves. Capital and reserves are reduced by the current loss.

\*\*Equity capital includes face value of paid-in common and preference shares.

\*\*\*The term "undefined status" includes the shares owned by entities that can not be identified, which are in bankruptcy or liquidation proceedings or whose bankruptcy or liquidation proceedings were closed.

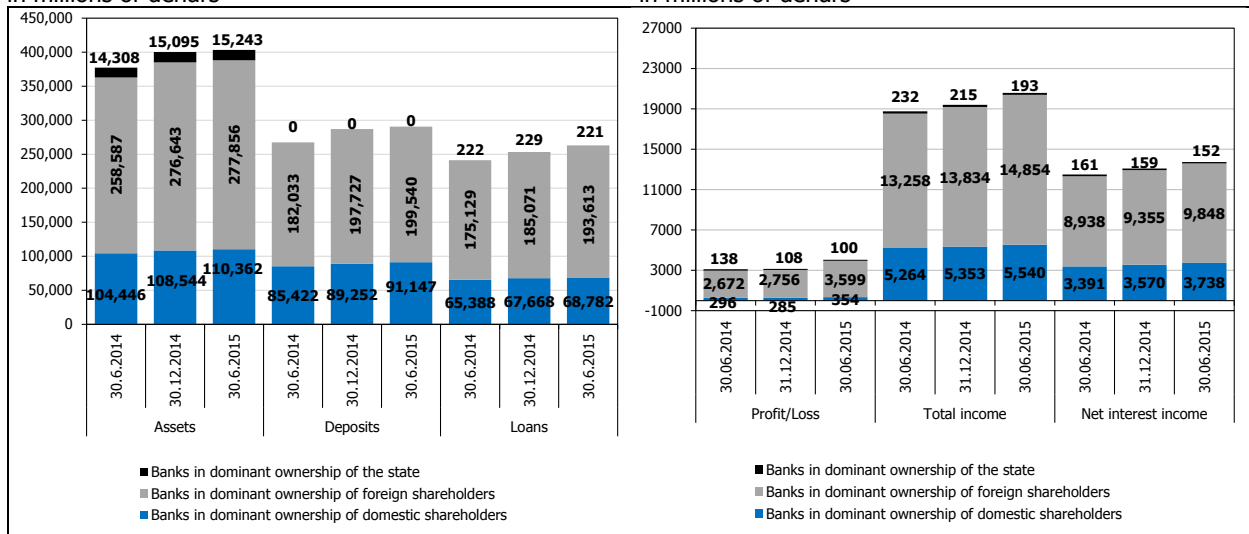
Banks in predominant ownership of foreign shareholders have the largest share in the equity capital of the banking system, which in the last four quarters was unchanged at 74.2%. Unchanged is also the share of the equity capital of subsidiaries of foreign banks, which accounts for 59.2%. On the other hand, the share of foreign capital in the total equity capital of the banking system reduced in the last two quarters and totaled 76.0% as of 30

<sup>36</sup> The analysis of savings houses is not covered in this Report due to their insignificant role in the banking system (banks and savings houses), accounting for only 0.7% of total assets and 0.9% and 0.3% of total loans and total deposits of non-financial entities. The risk profile and the scope of activities of savings houses is analyzed in the reports on the financial stability of the Republic of Macedonia.

June 2015<sup>37</sup>. Financial institutions prevail in the ownership structure of the equity capital, with a share of 65.2%.

**Banks in predominant foreign ownership are most present in capital positions, but also in all the important positions of banks' balance sheets.**

Chart 56  
Structure of major banks' balance sheet positions, by banks' majority ownership  
in millions of denars



Source: NBRM, based on data submitted by banks.

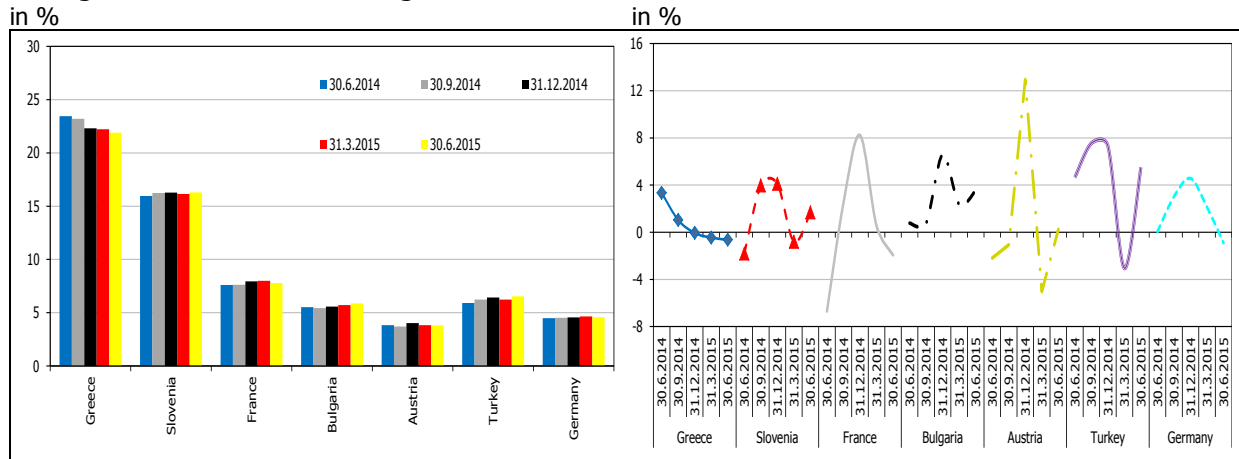
Note: The categories of the income statement are annualized. Categories are annualized by summing up the values in the last twelve months for the respective categories of the income statement.

According to the country of origin of the dominant foreign shareholder, there is a change in market shares, i.e. increase in the share of banks with a dominant owner from Turkey by 0.3 percentage points and from Bulgaria by 0.2 percentage points and a falling share of banks with dominant shareholder from France by 0.2 percentage points and from Greece by 0.3 percentage points.

<sup>37</sup> EBRD reduced its share in the equity capital of "TTK Banka AD Skopje" by 2.9 percentage points, i.e. from 18.9% to 16.0%. Also, change in the ownership of capital from foreign into domestic, through trading on the Macedonian Stock Exchange, was recorded in other three banks.

Chart 57

Market share of banks by assets (left) and growth rate of the banks' assets (right), by country of origin of the dominant foreign shareholder\*



Source: NBRM, based on data submitted by banks.

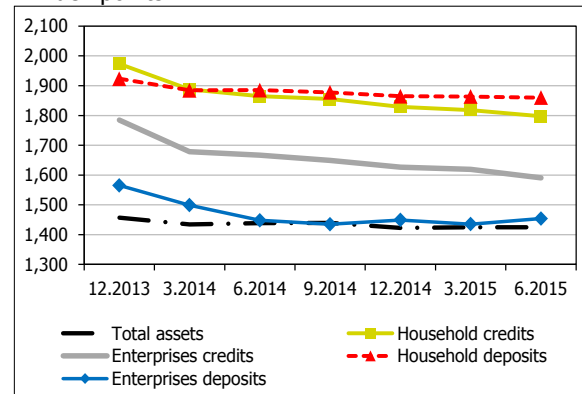
\*The bank in domestic ownership and banks without prevailing owner are not included in the chart.

Three banks have a prevailing shareholder from Bulgaria, two from Greece and one bank from Slovenia, France, Austria, Turkey and Germany.

Chart 58

Herfindahl index

in index points



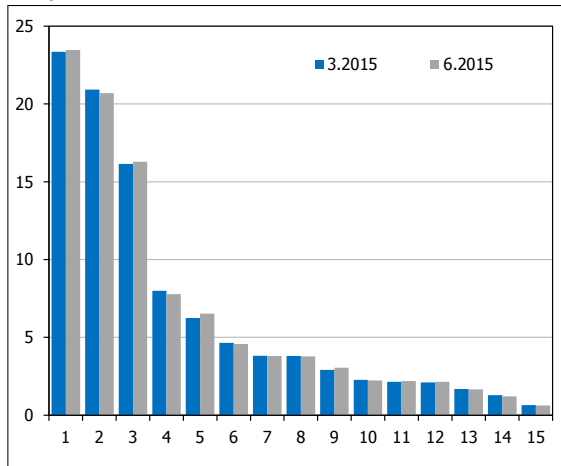
Source: NBRM, based on data submitted by banks.

**The concentration in the banking system according to the Herfindahl index<sup>38</sup> has shrunk.** The value of the Herfindahl index for household loans reduced within the acceptable frames for the first time in the analyzed period, so only the index for household deposits is above the acceptable limits.

<sup>38</sup> The Herfindahl index is calculated according to the formula  $HI = \sum_{j=1}^n (S_j)^2$ , where S is the share of each bank in the total

amount of the analyzed category (e.g., total assets, total deposits, etc..), where n is the total number of banks in the system. When the Herfindahl index ranges from 1,000 to 1,800 units, the concentration ratio in the banking system is considered acceptable.

Chart 59  
Share of individual banks in the total assets of the banking system in %



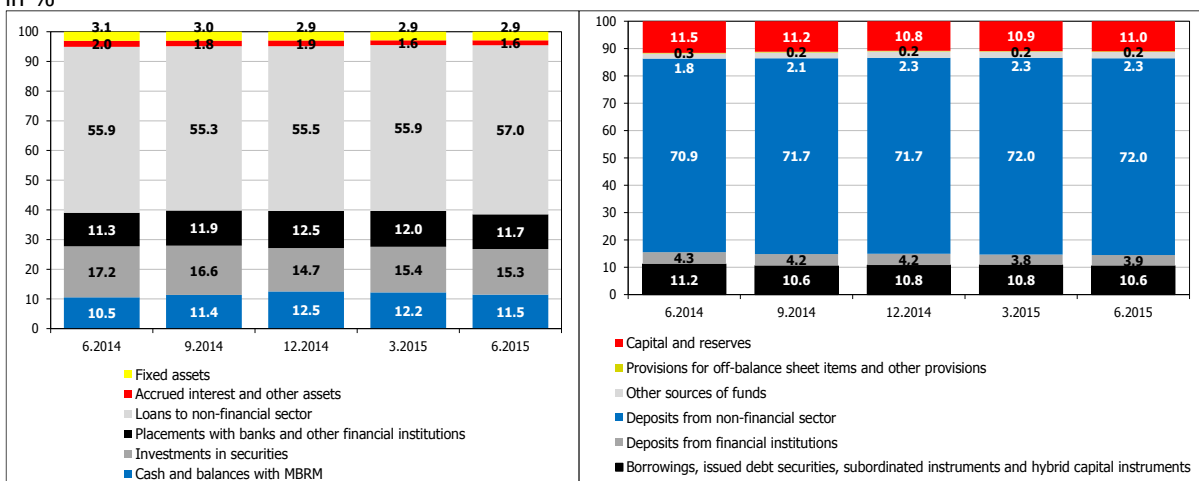
Source: NBRM, based on data submitted by banks.

Market share by individual bank decreases in most banks that already have a small share, which confirms the high concentration in the banking system. Three of the banks account for 60.4% of the total assets of the banking system, while ten banks individually constitute less than 5%.

## 2. Banks' activities

In the second quarter of 2015, total assets of banks grew at a moderate pace, both compared to the previous quarter, and compared to the same period last year. Increased credit support from the banks was mostly directed toward households, but with further support for the corporate sector, which significantly strengthened relative to the first quarter. Credit growth in the second quarter of the year was in a significant part "financed" by banks' liquid assets (even though they are still increasingly interested in investing in government bonds). Namely, in the second quarter of 2015, changes in public perceptions of the risks caused by the uncertainty about the outcome of the debt crisis in Greece, as well as domestic

Chart 60  
Structure of the assets (left) and liabilities (right) of the banking system in %

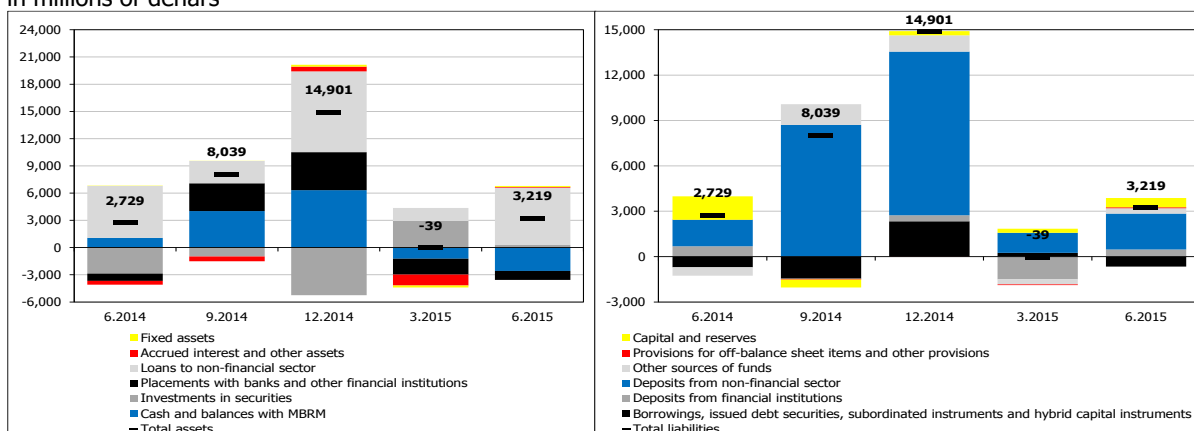


Source: NBRM, based on the data submitted by banks.

political developments caused a weaker performance in the deposit base of the "household" sector. Thus, the increase in banks' deposit potential fully resulted from the new denar deposits of the corporate sector, which also contributed to the reduction in the maturity of the deposit potential. Recent changes in the reserve requirement (from August 2015) are intended to stimulate households' longer term denar savings and in general, increase the supply of savings products in denars, thus expanding the opportunities for greater credit support to non-financial entities.

Chart 61

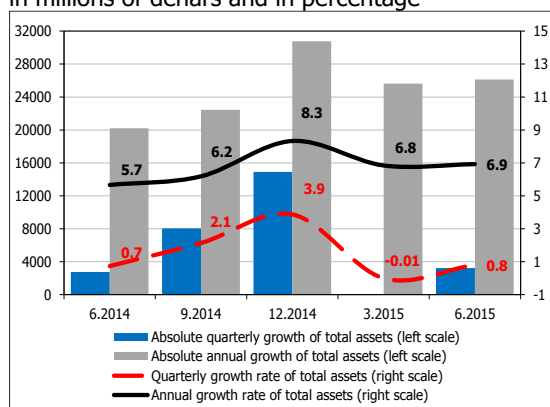
Absolute quarterly growth of the components of assets (left) and liabilities (right) of the banking system in millions of denars



Source: NBRM, based on the data submitted by banks.

Chart 62

Assets growth of the banking system in millions of denars and in percentage

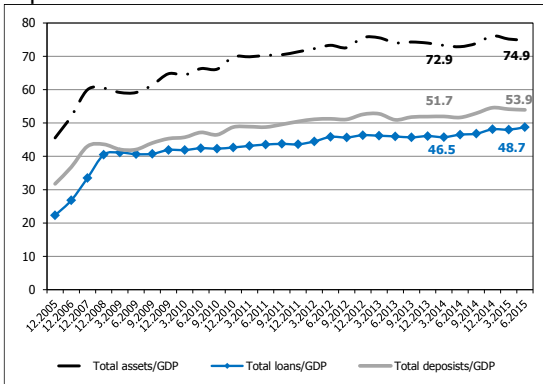


Source: NBRM, based on the data submitted by banks.

In the second quarter of 2015, total assets of the banking system recorded a minimally faster growth (on both quarterly and annual basis) and reached Denar 403,461 million. The quarterly dynamics of banking activities was mostly fueled by loans to non-financial entities, which grew rapidly, compared to deposits. Other more significant changes in the assets were the more substantial reduction in cash and balances on accounts with the National Bank<sup>39</sup>, the decline in the placements with banks and other financial institutions and the further increase in banks' investments in domestic long-term debt securities (mostly three-year and two-year government bonds in denars). These developments contributed to

<sup>39</sup> The decline in the category "cash and balances with the National Bank" is entirely due to the lower short-term deposits in denars (up to one month) with the National Bank (by Denar 2,840 million, or 23.1%). For more details, see section 2. Liquidity risk.

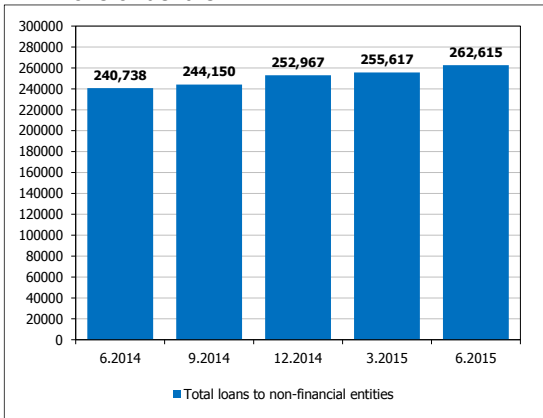
**Chart 63**  
Level of financial intermediation in the Republic of Macedonia in percents



Source: NBRM, based on the data submitted by banks.

small changes in the indicators of the level of financial intermediation.

**Chart 64**  
Amount of loans to non-financial entities in millions of denars



Source: NBRM, based on the data submitted by banks.

## 2.1 Loans to non-financial entities

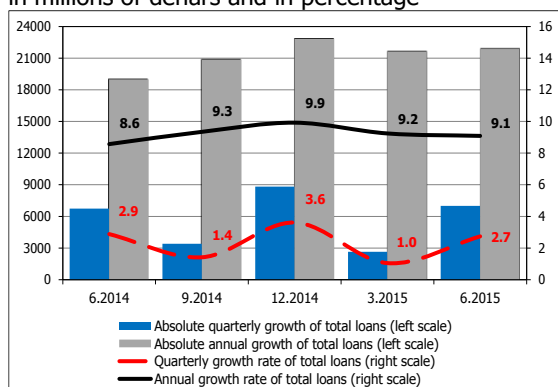
**In the second quarter of 2015, amid further growth of the domestic economy, the growth of bank lending to the non-financial sector<sup>40</sup>** showed a slight recovery, after slowing in the previous quarter. Total loans to non-financial entities increased by Denar 6,998 million (or 2.7%) on a quarterly basis, which is almost three times more compared to the previous quarter, when they grew by only 1.0% (usually the growth in the first quarter of the years is slow). In the second quarter of 2015, loans to households had the largest share in the growth in total loans to non-financial entities<sup>41</sup>. Namely, banks' credit support to households has increased significantly (by Denar 4,600 million or 4.4%), with the quarterly growth rate being the highest in the past few years, i.e. in the period after the onset of the financial crisis. Thus, these loans cause nearly two thirds (65.7%) of the total quarterly growth of loans to non-financial entities. The acceleration of credit growth was emphasized also in the corporate sector, with a quarterly growth rate that is several times

<sup>40</sup> Loans to non-financial entities include the loans to resident and non-resident non-financial entities, including loans to private and public non-financial companies (corporate loans), central government, local government, non-profit institutions serving households (loans to other clients), sole proprietors and natural persons (loans to households).

<sup>41</sup> Consumer loans and loans for the purchase and renovation of residential and commercial properties are the most widely used credit products in this segment (Annex 17).



**Chart 65**  
Growth of loans to non-financial entities  
in millions of denars and in percentage

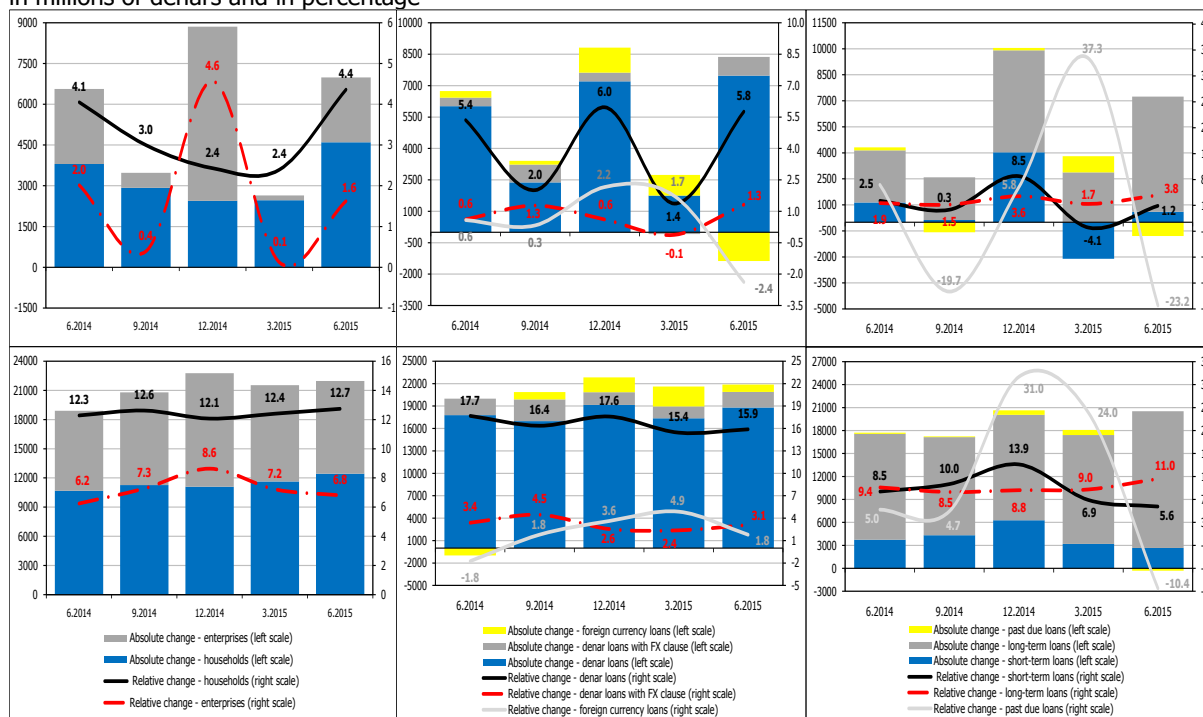


Source: NBRM, based on the data submitted by banks.

higher than the growth rate achieved in the previous quarter of the year<sup>42</sup>. In the second quarter of 2015, corporate lending remained supported by the non-standard monetary policy measure that encourages lending to net exporters and producers of electricity<sup>43</sup>.

**Regarding the currency, the quarterly increase in total loans was entirely due to Denar loans<sup>44</sup>**, with higher quarterly growth being recorded in Denar loans to companies (by Denar 4,768 million or 6.5%). On the other hand, in the second quarter of 2015, for the first time in six quarters (of registered growth), loans in foreign currency registered a quarterly decline, which almost entirely stems also from the corporate sector.

**Chart 66**  
Quarterly (top) and annual (bottom) growth of loans by sector, currency and maturity  
in millions of denars and in percentage



Source: NBRM, based on the data submitted by banks.

<sup>42</sup> Lending to the corporate sector on a quarterly basis grew by only Denar 2,387 million, or 1.6%, and constituted 34.1% of the growth of total lending activity (for comparison, in the fourth quarter of 2015, the share of corporate loans in total credit growth was 6.8%).

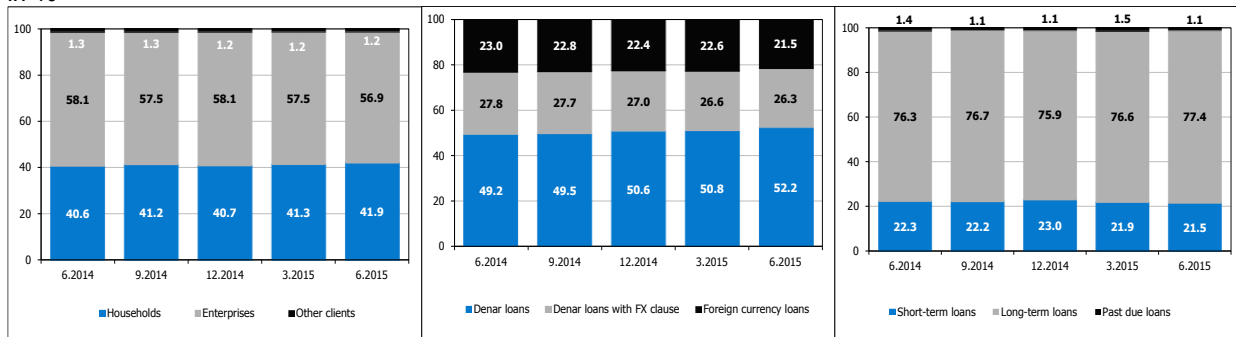
<sup>43</sup> The application of non-standard measure for reduction of the reserve requirement base of banks for the amount of new loans to net exporters and domestic electricity producers is extended to 31 December 2015.

<sup>44</sup> The quarterly growth of Denar loans accelerated to Denar 7,476 million, or 5.8%.

**In terms of maturity, long-term lending remains the main driver of the overall quarterly increase in total loans to non-financial entities and a positive movement was registered also in the short-term loans, despite the decline recorded in the previous quarter.**

Chart 67

Structure of total loans, by sector (left) and currency (middle), and by regular loans, by maturity (right) in %



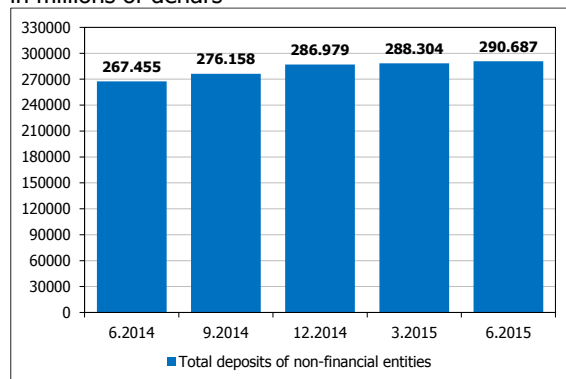
Source: NBRM, based on the data submitted by banks.

The annual growth rate of total loans at the end of June (9.1%) is almost unchanged compared to March 2015 (9.2%).

## 2.2 Deposits of non-financial entities

Chart 68

Stock of deposits of non-financial entities in millions of denars



Source: NBRM, based on the data submitted by banks.

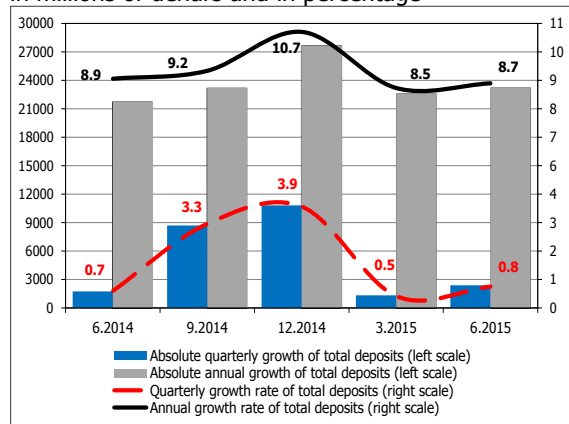
**In the second quarter of 2015, the deposit potential of the banking system continued to grow, both compared to the previous quarter and compared to the same period last year.** The main reason for the accelerated growth of deposits of non-financial entities<sup>45</sup> is the faster growth in corporate deposits, amid a negative contribution of household deposits.

**Denar deposits of companies, with a significant quarterly increase of Denar 4,483 million, or 9.5% (contrary to their sharper decline in the first quarter of the year) fully contributed to the growth of corporate deposits, and thus the growth of the**

<sup>45</sup> In the second quarter of 2015, the quarterly growth rate of the deposits of non-financial entities reached 0.8%, compared with the previous quarter, when it was 0.5% and was the lowest in the last seven quarters.



**Chart 69**  
Growth of deposits of non-financial entities in millions of denars and in percentage



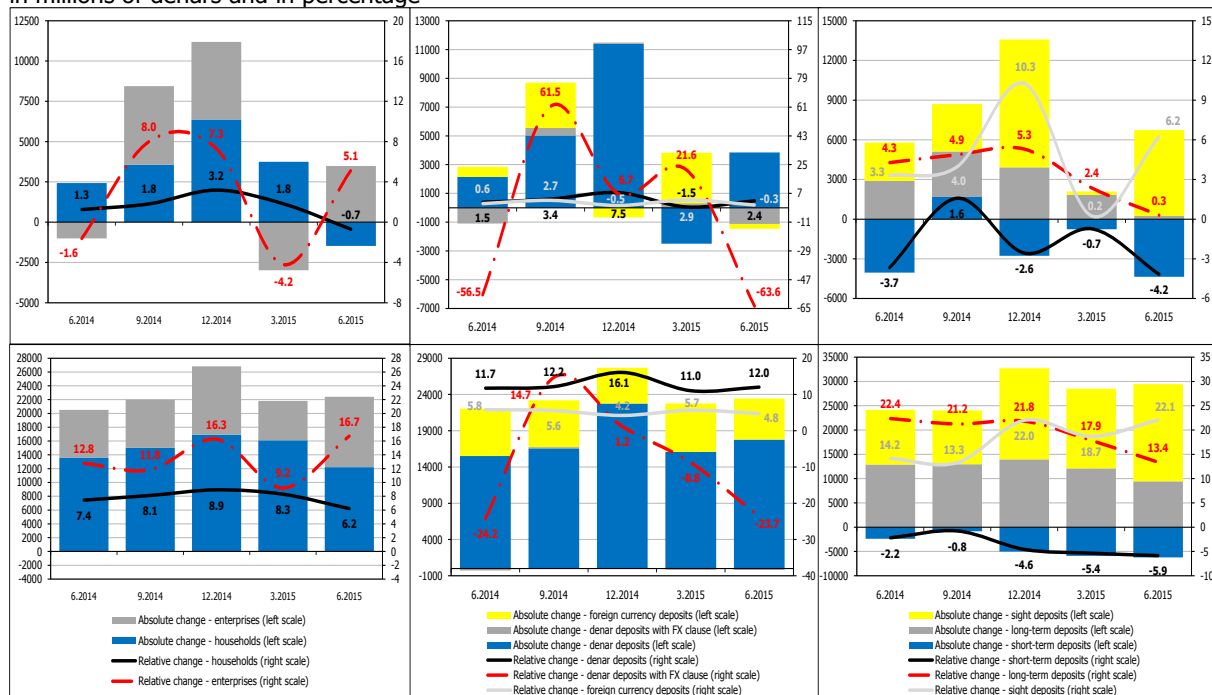
Source: NBRM, based on the data submitted by banks.

**deposit potential of the overall banking system.**

**In terms of maturity, the growth of corporate deposits fully stems from sight deposits, which registered a multiple increase on a quarterly basis<sup>46</sup>.** The contribution of short-term corporate deposits is negative again and it is higher than in the previous quarter. Same is the influence of the long-term corporate deposits (which decreased by 4.2%, as opposed to their growth of 7.9% in the first quarter of the year).

**In contrast to the positive developments in corporate deposits, deposits of the household sector fell in the second quarter of 2015.** Unlike the usual growth in the past few quarters, the deposits of the household sector decreased after a longer time, by Denar 1,476 million, or 0.7%. Within these frames, the largest quarterly decline was

**Chart 70**  
Quarterly (top) and annual (bottom) deposit growth by sector, currency and maturity in millions of denars and in percentage

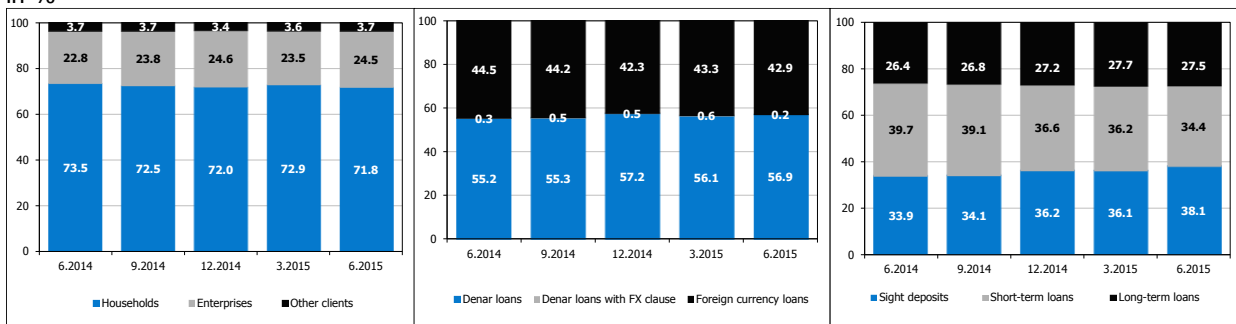


Source: NBRM, based on the data submitted by banks.

<sup>46</sup> The quarterly growth rate of sight deposits of the corporate sector at the end of June was 12.9%, compared to the decline of 4.2% at the end of March 2015.

recorded in the households' Denar deposits, which occupied more than 75.0% of the total decline in the deposits of this sector<sup>47</sup>. Analyzing the maturity structure, the decline in the deposits of the household sector is entirely a result of the reduction in short-term deposits, amid small growth of long-term deposits and sight deposits, compared to the growth of all three components in the previous quarter. Namely, the continued growth of long-term household deposits observed in the past few years, continued in the second quarter of 2015, but at a significantly slower pace, both quarterly and annually. The quarterly growth rate of long-term household deposits is 0.5% and is the lowest registered in the past few years. This movement of household deposits, in circumstances of retained favorable developments in the domestic economy, was mostly a result of political factors in the country, as well as developments in Greece. However, the decline in household deposits in this period was relatively small, which along with the further largest share of household Denar deposits in the total deposit base of banks is a sign of temporary downward movement and further propensity of households to save in Denars. The latest amendments to the Decision on the reserve requirement, which started to be implemented on 1 September 2015, encouraged longer term savings of households in domestic currency and created space for boosting banks'

Chart 71  
Total deposit structure by sector, currency and maturity  
in %

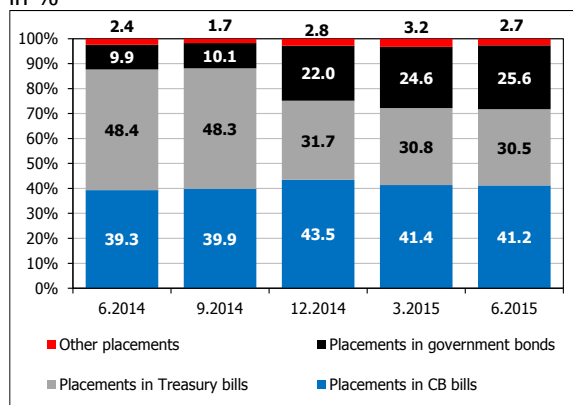


Source: NBRM, based on the data submitted by banks.

<sup>47</sup> Foreign currency household deposits fell by Denar 341.8 million, or 0.3%.

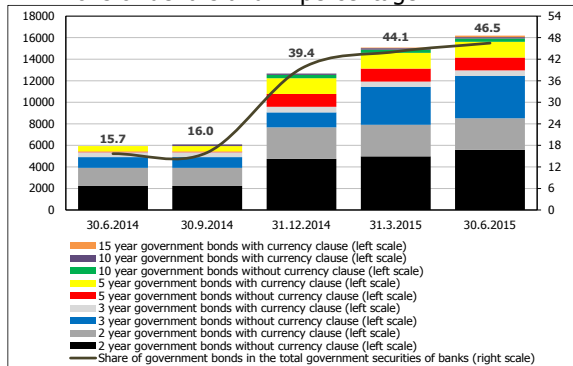


Chart 72  
Structure of the securities portfolio  
in %



Source: NBRM, based on the data submitted by banks.

Chart 73  
Banks' investments in government bonds  
(nominal value), by currency and maturity  
in millions of denars and in percentage



Source: NBRM, based on the data submitted by banks.

credit activity. The amendments reduce the reserve requirement rate for the bank liabilities to natural persons in domestic currency with contractual maturity over one year from 8% to 0%, with these liabilities obtaining the same treatment as the liabilities with maturity over two years (in domestic currency and in FX), for which since 2013 a rate of 0% has been applied. Having in mind that the amendment releases the banks from the obligation to allocate reserve requirement for the natural persons' denar deposits with maturity exceeding one year, this measure is expected to have adequate influence toward larger supply of denar savings products with more attractive interest rates.

### 2.3 Other activities

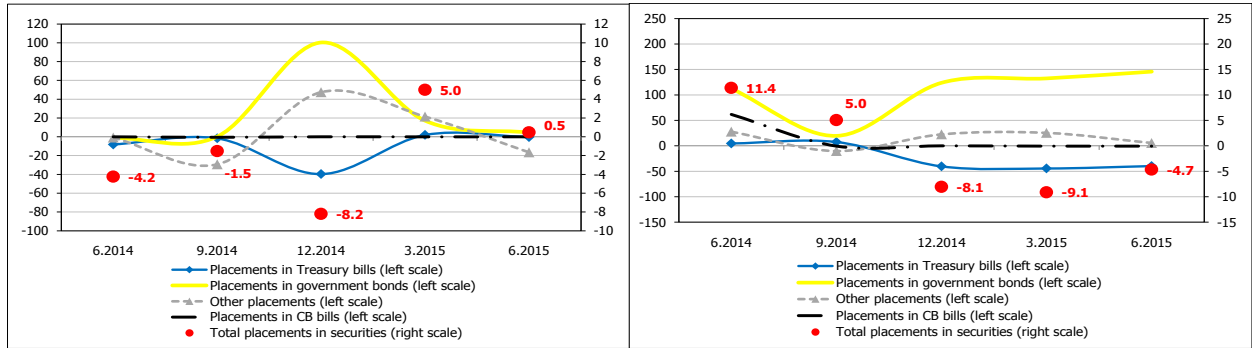
**In the second quarter of 2015, the portfolio of government securities continued to grow, but at a slower pace.** The quarterly growth of the securities portfolio (by Denar 287 million or 0.5%) is entirely based on the increase in banks' investments in domestic government bonds<sup>48</sup>. Slightly more than half, or 53.8%, of the growth of investments in government bonds refers to the two-year government bonds in denars, followed by three-year government bonds in denars (with a share of 38.6%). In contrast, banks' investments in treasury bills decreased (by Denar 55 million or 0.3%) in the second quarter of 2015<sup>49</sup>.

Banks' investments in CB bills did not register significant changes amid unchanged supply and unchanged interest rate on CB bills by the National Bank.

<sup>48</sup> As of 30 June 2015, the banks' investments in government bonds reached Denar 15,806 million, which is an increase of Denar 672 million, or 5.2% compared to 31 March 2015.

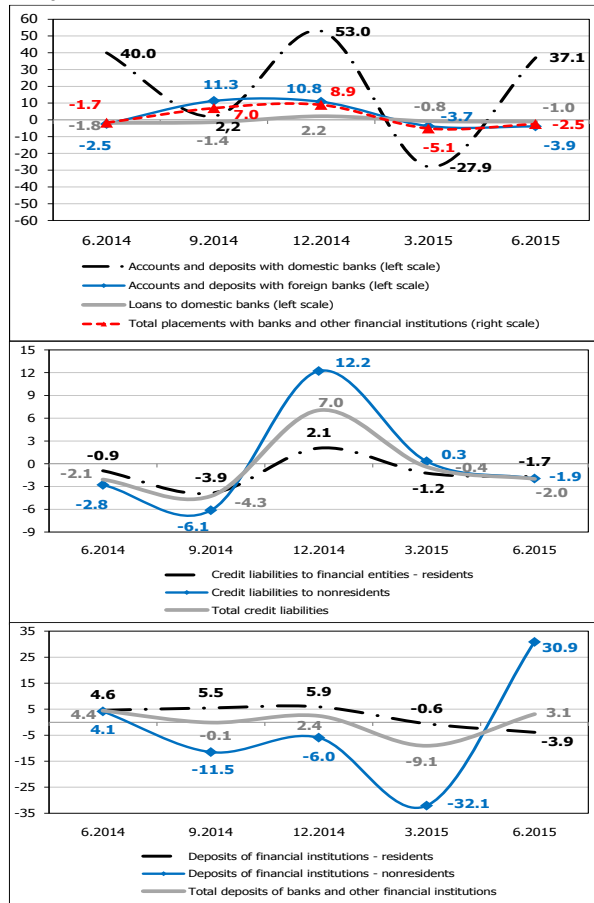
<sup>49</sup> In the second quarter of 2015, the offered amount of treasury bills amounted to Denar 15,735.2 million.

**Chart 74**  
Quarterly (left) and annual (right) growth rate of securities portfolio in %



Source: NBRM, based on the data submitted by banks.

**Chart 75**  
Quarterly growth rate of placements with financial institutions (top), loan liabilities (middle) and deposits of financial companies (bottom) in %



Source: NBRM, based on the data submitted by banks.

Quarterly **placements with banks and other financial institutions** are smaller by Denar 1,187 million, or by 2.5% (mainly due to the reduction of the assets on correspondent accounts with foreign banks), whereby their share in the total assets of banks reduced to 11.4% (from 11.8% in March 2015).

On the liabilities side, **liabilities based on loans** decreased on a quarterly basis, which was in most part (56.4%) a result of the reduced liabilities on the basis of the loans of non-residents - financial companies and to a lesser extent (33.5%) of the reduced liabilities based on loans of financial companies (residents), due to the reduced liabilities based on credit lines placed through "MBDP" AD Skopje.

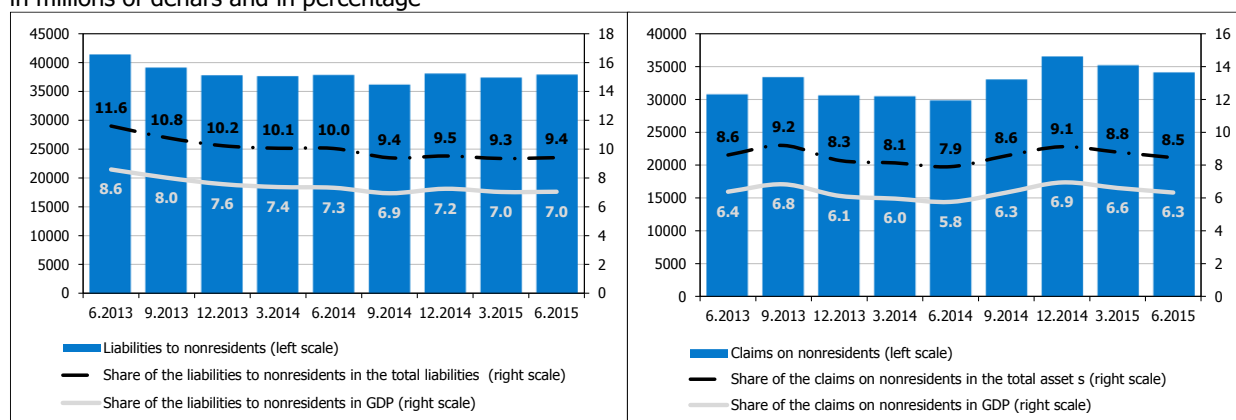
**Deposits from banks and other financial institutions** are a very small source of funding for banks (3.9% of total funding sources) despite their growth in the second quarter of 2015, mainly due to the increased short-term deposits in foreign currency of the members of the groups to which two medium-sized banks in the country belong<sup>50</sup>.

<sup>50</sup> The quarterly increase in short-term deposits in foreign currency of non-residents - financial companies (up to one month) amounted to Denar 494 million, or 46.2%.



**In the second quarter of 2015, banks in the Republic of Macedonia continued to carry out their activities mainly on the domestic market.** Liabilities to and claims on non-residents are low and occupy less than 10% of the total assets of the banking system<sup>51</sup>. The share of claims on and liabilities to non-residents in GDP is also low, and declined further, i.e. it was unchanged in the second quarter of 2015.

**Chart 76**  
Liabilities to (left) and claims on (right) non-residents in millions of denars and in percentage



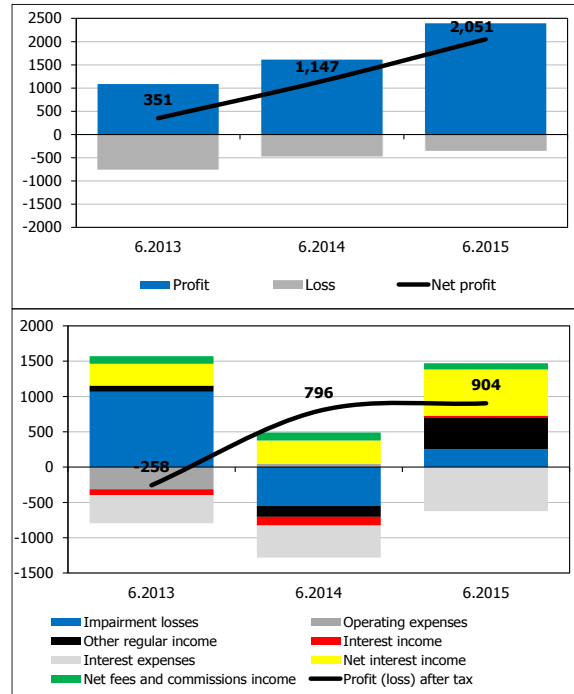
Source: NBRM, based on the data submitted by banks.

### 3. Profitability

**Profitability of the banking system continues to improve, with the profits generated in the first half of 2015 (amounting to Denar 2,051 million) being almost twice higher than the profits registered in the same period last year. The reason for the increased profits are the lower interest expenses and the growth of other regular income, despite the increase in the impairment of financial and non-financial assets (foreclosed assets). Profitability indicators have improved, and the banks' operational capability of generating revenues that cover their operating costs has increased, too. Compared with June 2014, the number of banks that have made profits and their share in total assets of the banking system remained unchanged (nine and about 68%, respectively). Positive financial results are generated mainly by larger banks, with almost 95% of the total financial result being concentrated in only three of them.**

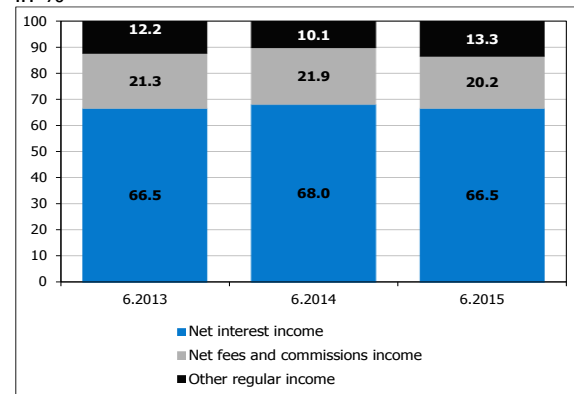
<sup>51</sup> Analyzed by individual bank, the share of banks' claims on non-residents in total assets ranges from 0.5% to 19.1%, while the share of banks' liabilities to non-residents in the total liabilities ranges from 0.9% to 23.0% (with the exception of "MBDP" AD Skopje).

**Chart 77**  
 Net profit after taxation (top) and annual change in main income and expenses (bottom)  
 in millions of denars



Source: NBRM, based on the data submitted by banks.

**Chart 78**  
 Structure of total income  
 in %



Source: NBRM, based on the data submitted by banks.

### 3.1 Income, expenses and indicators of profitability and efficiency of the banking system

In the first six months of 2015, **total income of banks** (total regular income<sup>52</sup> and extraordinary income) increased by Denar 1,185 million, or 12.9%, compared with the previous year and reached Denar 10,355 million. The largest contribution (of 55.2%) is that of the increased net interest income (by Denar 654.6 million or 10.5%), which, in turn, was due to the **sharper annual reduction of interest expenses** (by Denar 620.6 million, or 17.2%) compared with the **insignificant increase of interest income** (by Denar 34.0 million or 0.3%). An additional contribution (of 37.5%) to the increase in total revenues was that of the growth of other regular income (by Denar 443.9 million<sup>53</sup>, or 47.7%). In the first six months of the year, growth was also noticed in the net income from fees and commissions and extraordinary income, but with lower share in the growth of total income.

The structure of total income in the first six months of 2015 has partly changed compared to the previous year, **but the net interest income still has the largest share in the total income of banks.**

**Analyzing individual sectors, the increase in interest income in the first half of 2015**, primarily results from interest income from households, and to a lesser extent from non-financial companies. **The growth of interest income from households** (of Denar 162.3 million, or 4.3%) corresponds to the annual credit growth to this sector, in spite of the downtrend of interest rates on loans to households<sup>54</sup>. Income from non-financial

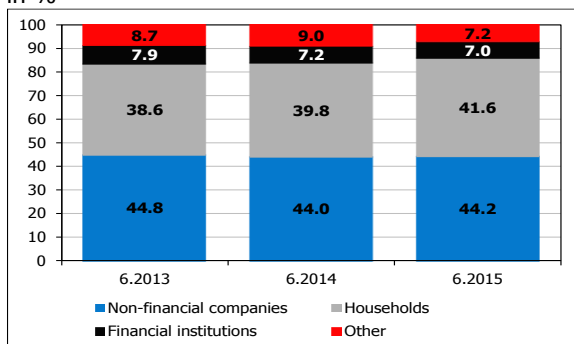
<sup>52</sup> Total regular income includes: net interest income, net commission income and other regular income (net trading income, net income from financial instruments carried at fair value, net income from exchange rate differentials, income from dividends and equity investments, net gains from sale of financial assets available for sale, capital gains from assets sales, release of provisions for off-balance sheet items, release of other provisions, income from other sources and income based on collected claims previously written off).

<sup>53</sup> The growth of other regular income (about 58%) is due to the capital profit from sale of assets of one bank.

<sup>54</sup> When comparing June 2015 with June 2014, interest rates on all types of loans (Denar with/without foreign currency clause and foreign currency loans) decreased.

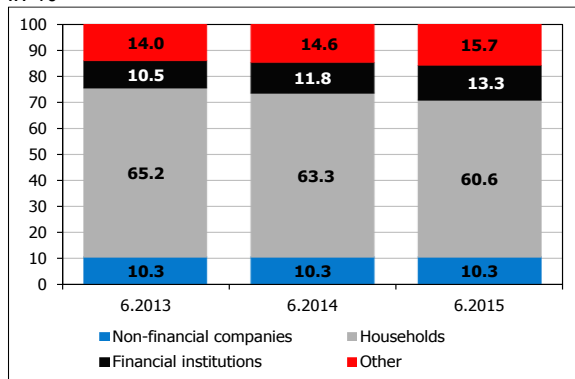


Chart 79  
Sector structure of interest income  
in %



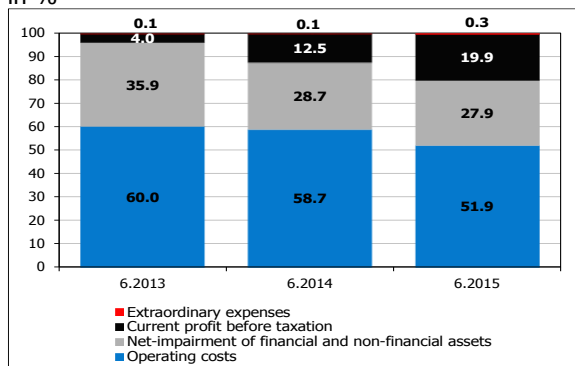
Source: NBRM, based on the data submitted by banks.

Chart 80  
Sector structure of interest expenses  
in %



Source: NBRM, based on the data submitted by banks.

Chart 81  
Usage of total income  
in %



Source: NBRM, based on the data submitted by banks.

entities has increased by Denar 13.5 million, or 0.3%. **Interest income from other entities<sup>55</sup> declined** by Denar 182.9 million or 21.1% mainly due to reduced investments in treasury bills. Interest income from financial companies also declined (by Denar 18.5 million or 2.7%) due to lower interest income from the central bank and other banks, and reduced volume of trading with interbank deposits.

**The largest contribution (of 76.6%) to the decline in the total interest expenses<sup>56</sup> is that of interest expenses from the household sector**, which registered an annual decline of Denar 475.2 million, or 20.8%, amid a reduction in household deposits<sup>57</sup> and interest rates<sup>58</sup> on deposits received from this sector. In spite of the pronounced decrease, interest expenses from the household sector still have the greatest share in the structure of interest expenses. In the first six months of 2015, **a decline in interest expenses was registered also in other sectors**, primarily due to the lower deposit interest rates compared with 2014<sup>59</sup>. Interest expenses from non-financial companies (for term deposits) and other entities (mainly interest expenses for financial companies - non-residents based on borrowings) had a contribution of 10.0% and 9.0%, respectively, in the overall reduction in interest expenses. Interest expenses from financial companies (for term deposits of pension funds and insurance companies) made smaller contribution (4.5%) to the reduction.

<sup>55</sup> This category includes interest income from investments in treasury bills and securities.

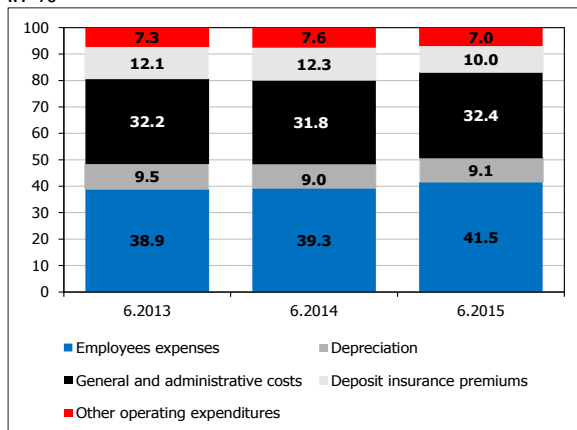
<sup>56</sup> Total interest expenses fell by Denar 620.6 million, or 17.2%.

<sup>57</sup> For more details on the movements of deposits see the section on Deposits of non-financial entities.

<sup>58</sup> When comparing June 2015 with June 2014, interest rates on household Denar deposits with and without foreign currency clause decreased by 0.9 and 2.8 percentage points, respectively, while foreign currency deposits of households fell by 0.2 percentage points.

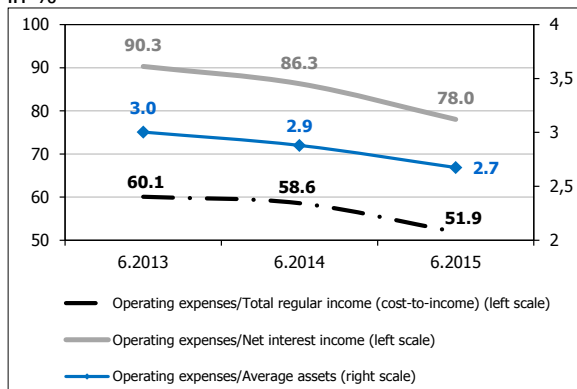
<sup>59</sup> Compared with the first half of 2014, interest rates on deposits decreased by 0.2 percentage points.

Chart 82  
Structure of operating costs  
in %



Source: NBRM, based on the data submitted by banks.

Chart 83  
Bank efficiency indicators  
in %



Source: NBRM, based on the data submitted by banks.

The share of operating costs<sup>60</sup> in total revenues decreased by 6.7 percentage points compared with the previous year and amounted to 51.9%. These costs, **together with impairment "spend" most of the total income of banks.** Reducing the share of these expenses contributed to the increased share of profits (before taxes) by 7.4 percentage points.

**In the first six months of 2015, banks' operating costs** decreased by Denar 3.2 million, or 0.1% relative to the previous year. The decline was most noticeable in premiums for deposit insurance<sup>61</sup> (by Denar 124.8 million, or 18.9%) and in special reserve for off-balance sheet exposure (by Denar 31.2 million, or 13.5%). In contrast, staff costs registered the most pronounced growth of Denar 119.4 million, or 5.7%. **No significant changes were registered in the structure of operating costs**, i.e. they mainly consisted of staff costs and general and administrative expenses (74.0%).

**The trend of improving banks' operational efficiency, which began in 2012, continued in the first half of 2015.** Amid annual reduction of banks' costs, despite the increase in the total regular income, the amount of total regular income used to cover operating costs significantly reduced. Also other ratios between different types of costs and total regular income also decreased, which additionally confirms the improved operational efficiency of banks.

**In the first half of the year, the banks allocated a larger amount of impairment for both financial and non-financial assets.** Thus, in the first three months of 2015, net impairment recognized by banks for impairment of financial assets (loans and other similar claims) **reached Denar 2,193 million, which is an increase of**

<sup>60</sup> Banks' operating costs include: staff costs, depreciation, general and administrative expenses, deposit insurance premiums and other operating costs, except extraordinary expenses.

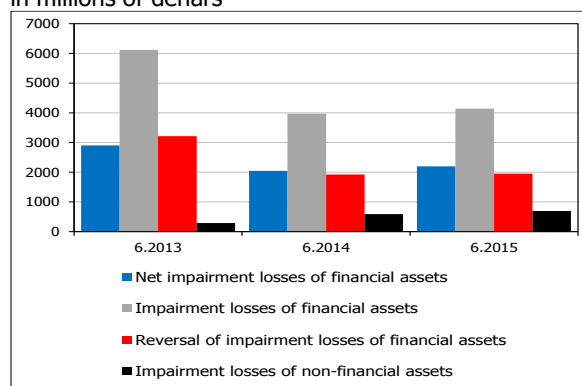
<sup>61</sup> As of 1 June 2014, the rate of deposit insurance premium was lower by 0.2 percentage points and equals 0.5% annually, but the fall in deposits as the basis for calculating the premium has also contributed to reducing these costs.





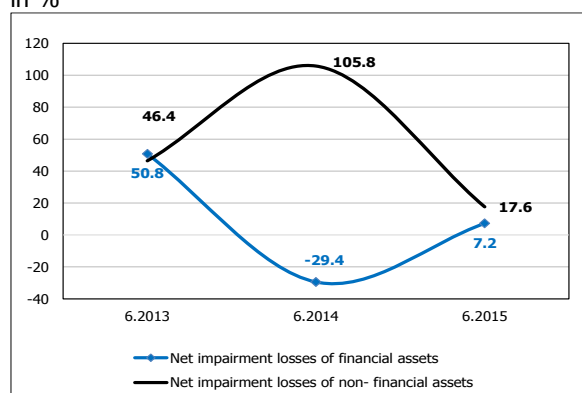
**Chart 84**  
Impairment of financial and non-financial assets

in millions of denars



Source: NBRM, based on the data submitted by banks.

**Chart 85**  
Annual growth rate of impairment loss in %



Source: NBRM, based on the data submitted by banks.

**Table 3**  
Profitability and efficiency indicators of the banking system in %

	6.2014	6.2015
Rate of return on average assets (ROAA)	0.6	1.0
Rate of return on average equity (ROAE)	5.4	9.4
Cost-to-income ratio	58.6	51.9
Non-interest expenses/Total regular income	64.8	58.3
Labor costs /Total regular income	23.0	21.6
Labor costs /Operating expenses	39.3	41.5
Impairment losses of financial and non-financial assets /Net interest income	42.3	41.9
Net interest income /Average assets	3.3	3.4
Net interest income /Total regular income	68.0	66.5
Net interest income /Non-interest expenses	104.9	114.1
Non-interest income/Total regular income	38.2	39.9
Financial result/Total regular income	12.5	19.8

Source: NBRM, based on the data submitted by banks.

Indicators by groups of banks are shown in Annex 36.

**Denar 147.6 million, or 7.2%**<sup>62</sup>. The increase in net impairment is due to the faster increase in gross impairment, i.e. covering expected credit losses by banks, compared with the increase of released impairment due to collection. Despite the increase in impairment, the share of net interest income used to cover the impairment of financial assets decreased from 32.8% (as of 30 June 2014) to 31.8% (as of 30 June 2015) due to the faster growth in net interest income.

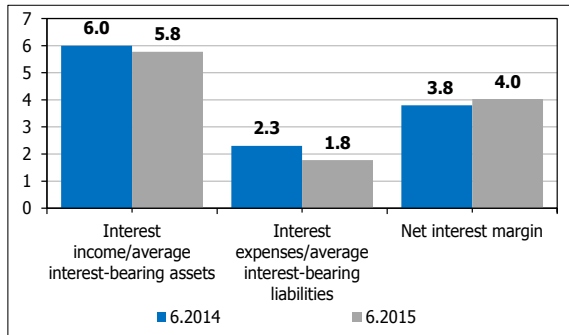
In the first six months of 2015, impairment of non-financial assets (foreclosed assets) also increased (by Denar 103.6 million or 17.6% and amounted to Denar 691.2 million), mainly due to the regular annual regulatory impairment of foreclosed assets.

**In 2015, the increased profit of the banking system had a positive impact on the main indicators of banks' profitability.** Compared to the previous year rates of return on assets and equity have increased, and banks' profit margin<sup>63</sup> has improved.

<sup>62</sup> For comparison, in the first half of 2014, net impairment of financial assets (loans and similar claims), decreased by Denar 854 million, or by 29.4%, on an annual basis.

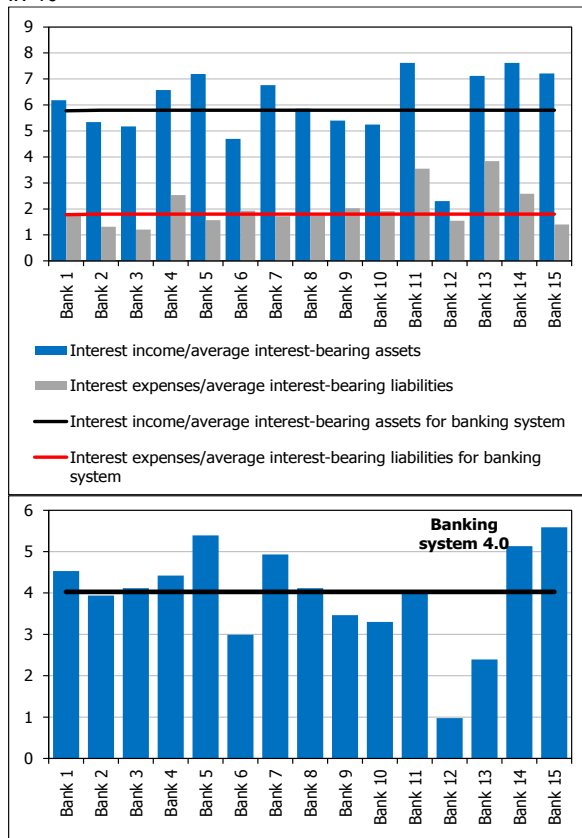
<sup>63</sup> Profit margin is the ratio of operating profit (loss) to total regular income.

Chart 86  
Net interest margin  
in %



Source: NBRM, based on the data submitted by banks.

Chart 87  
Income/expenses to interest-bearing assets/liabilities (top)  
Net interest margin, by bank (bottom)  
in %



Source: NBRM, based on the data submitted by banks.

The annual increase in the net interest margin<sup>64</sup> reflects the more evident annual growth in net interest income (by 10.5%) compared to the growth of the average interest-bearing assets (by 4.0%). In fact, the main cause of the increase in the interest margin again are the reduced interest expenses, which also contributed to the annual reduction of interest expenses per unit of interest-bearing liabilities. On the other hand, reduced lending interest rates have caused a slight decrease in interest income per unit of interest-bearing assets. Analyzing by bank, eight of fifteen banks reported higher net interest margin than the net interest margin earned by the banking system, which stood at 4.0% as of 30 June 2015.

### 3.2 Movements in interest rates and the interest rate spread

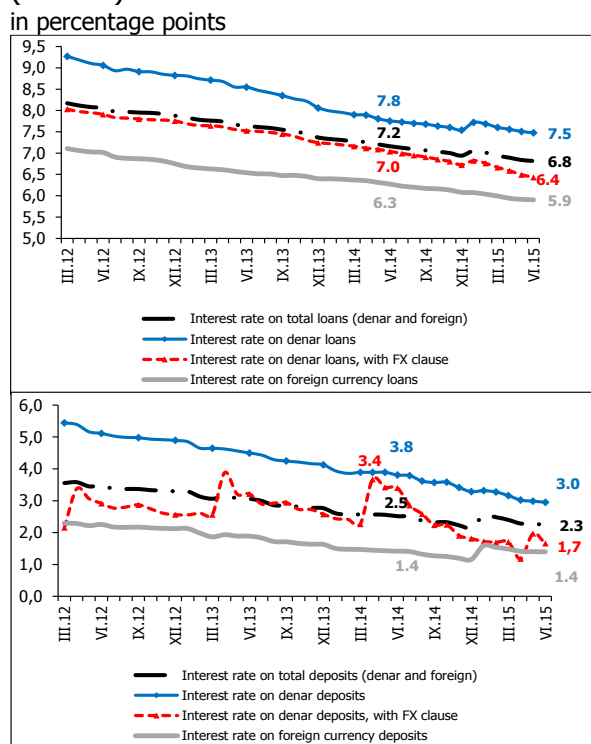
In the first half of 2015, lending and deposit interest rates of banks declined further, although the policy rate of the National Bank remained unchanged. Compared to the first six months of 2014, the spread minimally reduced (from 4.65 percentage points to 4.57 percentage points), mainly due to the sharper decline in deposit interest rates, but also because of methodological changes<sup>65</sup>.

<sup>64</sup> Net interest margin is calculated as a ratio between net interest income and average interest-bearing assets. Average interest-bearing assets are calculated as the arithmetic average of the amounts of interest-bearing assets at the end of the first six months of the current year and the end of the previous year.

<sup>65</sup> As of January 2015, data on interest rates of banks and savings houses have been collected under the new interest rate methodology. Data obtained under the new and the previous methodology are not fully comparable, so the annual difference for June 2015 (compared to June 2014), despite the change in relevant interest rate, includes the effect of the methodological



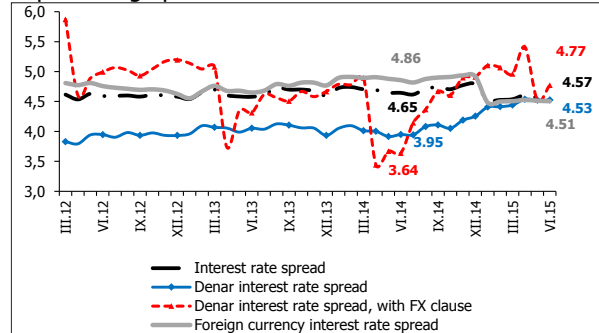
**Chart 88**  
Lending (top) and deposit interest rates (bottom)



Source: NBRM, based on the data submitted by banks.

In terms of currency, interest rate spread in foreign currencies decreased (by 0.4 percentage points), while the interest rate spread in denars increased (0.6 percentage points). This trend in foreign currencies is a result of the cut in interest rates on foreign currency loans (0.4 percentage points), compared to the interest rates on foreign currency deposits, which remained the same. Analyzing the Denar interest rate spread, deposit interest rates registered a faster decline (0.9 percentage points), compared to lending rates (which fell by 0.3 percentage points). Also, interest rates on deposits with foreign currency clause registered a faster decline (1.7 percentage points) compared to the interest rates on loans with foreign currency clause (which declined by 0.6 percentage points).

**Chart 89**  
Interest spread, by currency



Source: NBRM, based on the data submitted by banks.

difference. Differences between the old and the new methodology include: 1) banks and savings houses are now considered reporting entities, unlike previously when this function was performed only by banks; 2) household sector, besides natural persons and self-employed professionals, includes non-profit institutions serving households, unlike the old methodology; 3) inclusion of financial lease in the financial instrument - loans; 4) interest rates on sight deposits and overnight deposits are not included in the calculation of total deposits as in the old methodology, but are being recorded in a separate form; and 5) revolving loans are not included in the calculation of interest rates on overdrafts (as was the case in the old methodology), but are reported in a separate form. The new interest rate methodology mainly affected the level of deposit interest rates because interest rates on sight deposits and overnight deposits are no longer included in the calculation of interest on total deposits.



## **ANNEXES**