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 2016

September 2016

Contents

Summary

Against the backdrop of domestic political instability and lower rates of economic growth than initially expected, in the second quarter of 2016, total assets of banks in the Republic of Macedonia registered a decrease. The quarterly assets decline of the banking system, of 1.5%, was mostly pronounced in April and partially in May, when the unstable domestic environment and subsequently the deteriorating expectations of economic entities caused deposit withdrawal from the banking system.

In the second quarter of 2016, the decrease in deposits is present in almost any segment of the banking deposit portfolio, but was mostly pronounced in household denar deposits and simultaneously followed by a certain currency transformation of the denar deposits, contrary to the several year trend of constant denarization of the deposits in banks. Such developments, followed by the growing demand for foreign currencies in the exchange market, imposed the need for a certain tightening of the monetary policy, expressed through increasing CB bills interest rate and reserve requirement rate for bank liabilities in denars with FX clause. Also, the National Bank once again allowed the banks to place in foreign currency deposits with positive interest rates. The positive spillover effects from the National Bank measures and partially soothing domestic political turmoil in the summer period halted the reduction of deposits of non-financial entities by July, and in August 2016, a monthly increase in deposits was registered, still without any solid indications for returning the previously withdrawn back to the banking system.

The reduction of deposits in the banking system had no significant spillover effects on banks' lending activity. If we exclude the effects of the transfer of part of fully provisioned non-performing loans in the off-balance sheets, which is mandatory for the banks until 30 June 2016 at the latest, and in conditions of one of the highest deposit withdrawals in the last fifteen years, credits register a solid quarterly increase of 2.4% (or an annual increase of 8.2%). Most of the credits in the second quarter of 2016 were directed towards households, in the form of consumer and housing loans, but the credit support for the trade companies is also important, as well as from the construction and other professional, scientific and technical activities which are the main bearers of the annual growth of the GDP in the second quarter of 2016.

In the second quarter of 2016, non-performing loans recorded a significant decline, mainly due to the amendments to the regulation of the National Bank, requiring from banks to transfer all claims that have been fully provisioned for more than two years to off-balance sheets, by 30 June 2016 at the latest. After the mandatory "cleansing" of loan portfolios from old and completely written-off non-performing loans the quality indicators of banks' credit exposure improved, decreasing the non-performing to total loans ratio to 7.5%. However, if we exclude the effects of the transfer of part of fully provisioned non-performing loans to the bank's off-balance sheets, credit portfolio quality registers certain deterioration, mainly concentrated in corporate loans. On the other hand, increase in non-performing reconstructed loans in the second quarter of 2016, absolutely and as a percentage in total reconstructed loans, leads to reduced banks' success for adjusting to the agreed loan terms towards the current client difficulties. However, the threat for the banks' own funds from materialization of the credit risk arising from non-performing loans is not high due to their high coverage with impairment, but also because of the satisfactory volume and quality of banks' own funds.

Deposits' withdrawal from the banking system, in the second quarter of 2016, had an impact on the liquid banks assets, which decreased for more than 10% compared to 31.3.2016. However, the higher amount of previously accumulated liquid assets and the NBRM instruments for creating liquid assets, successfully offset this crisis in the domestic banking system and even ensured sound credit growth rates as the main income source for the banking system. The banking system profitability is on a stable level, and the banks nearly constantly increase the return capital and assets rates, for a longer period back. The growth in deposits in August 2016 was completely used for another increase of the liquid assets and improve the liquidity indicators of the banks, after the decrease registered in the second quarter of 2016.

Capital adequacy ratio (15.6% on 30.6.2016) registered a slight decrease in the second quarter of 2016, mostly deriving from solid credit activity of the banking system, despite the quarterly growth of own funds. Namely, the new amount of own funds was fully used to cover the credit risk of new lending activity, and part of the "available" capital above the minimum requirement for covering risks still representing nearly half (48.6%) of total own funds was also used for this purpose.

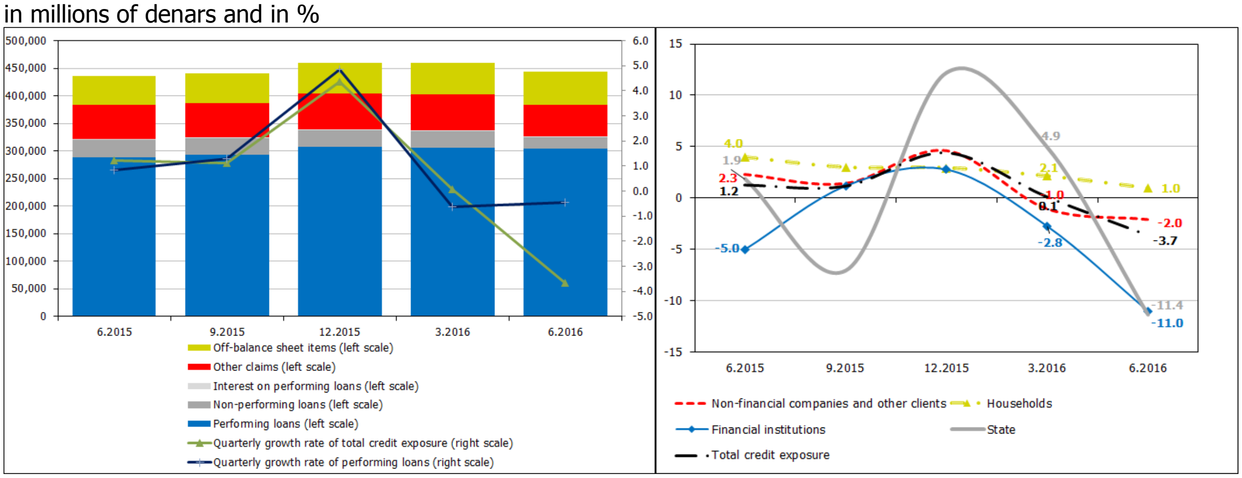
The developments in the second quarter once again confirmed the stability and resilience of the banking system. The return of the deteriorated confidence to the public is the main challenge in front of which the banks are standing in the upcoming period, which mostly depends from the possibility to eventually overcome the negative effects from the unstable domestic environment and subsequently stabilization of the economic entities' expectations. With the return of previously withdrawn deposits in the banking system and faster attraction of new savings helps to maintain the banking system stability and strengthen its basic function – financial mediation between the savers and borrowers. On the other hand, the efficient financial mediation conducted from a secure and stable banking system represents an important precondition for future accelerated economic growth and development.

I. Bank Risks

1. Credit risk

In the second quarter of 2016, the effects from the measure taken by the National Bank reflected according to which banks are required, by June 2016 at the latest to transfer all claims that have been fully provisioned for more than two years to off-balance sheets. This reflected on the volume of non-performing loans and on the quality indicators of the banks' loan portfolio, accordingly. As a result to this, in the second quarter the share of non-performing loans in total loans significantly decreased (from 10.9% in March to 7.5% in June 2016). However, if the effect of this measure is excluded, the quality of the portfolio compared to the previous quarter is almost unchanged in household loans, whereas slightly worsens in the loan portfolio of non-financial companies. In the second quarter of 2016, the amount of non-performing reconstructed loans continues to increase. In terms of concentration, there is a certain decrease in the credit risk, observed through the share of large exposures to non-financial entities in the banks' own funds, which also continues to decrease in the second quarter of 2016. The coverage of non-performing loans with allocated impairment is high and grows, which indicates a satisfactory capacity of the banking system to absorb potential credit losses. Also, the results from the stress test conducted for the second quarter of 2016 show greater resilience of the banking system to the shocks.

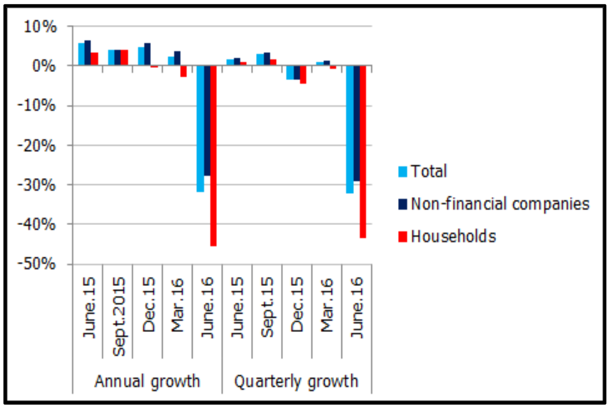
Chart 1
Credit exposure, according to structure (left) and according to sectors (right)
in millions of denars and in %



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

In the second quarter of 2016, total credit exposure of the banking system decreased by Denar 16,833 million or by 3.7% on quarterly basis and reached Denar 443,155 million. The decrease is mainly due to conducted process of transferring

Chart 2
Dynamics of non-performing loans.
in %

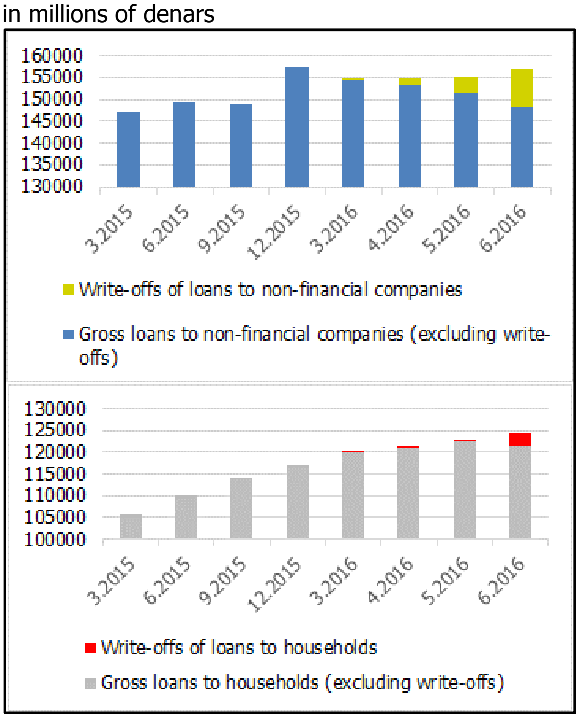


Source: NBRM's Credit Registry, based on data submitted by banks.

the fully provisioned non-performing loans (longer than two years) in off-balance sheets[1].

This process led to significant decrease of the non-performing loans both on a quarterly and annual basis.

Chart 3
Write-off and credits of non-financial companies (up) and households (down)
in millions of denars

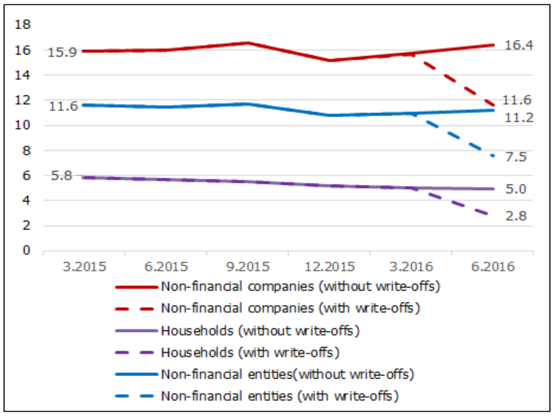


Source: NBRM's Credit Registry, based on data submitted by banks.

Despite the significant decrease in non-performing loans, the household loans maintain positive quarterly growth, whereas non-financial entity loans register a decline[2].

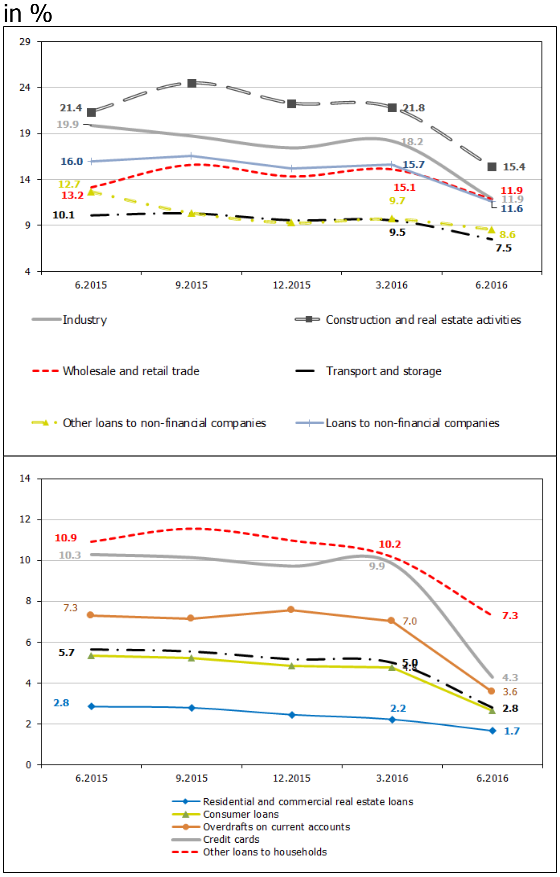
[1] Decision on amending the Decision on credit risk management ("Official Gazette of Republic of Macedonia No. 223/15), according to which the banks (by 30.6.2016 at the latest) are required to transfer on off-balance sheets claims which are fully provisioned for longer than two years. Banks are required to write-off non-performing claims which are fully provisioned longer than two years.
[2] Detailed processing of the changes in loans, without and with the effects of the write-offs, is given in the part II.2.1 Credit activity.

Chart 4
Share of non-performing loans in total gross loans, in%
in %



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

Chart 5
Rate of non-performing loans of non-financial companies - by activity (up) and to households - by credit product (down)
in %



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

1.1 Non-performing loans (non-financial entities)

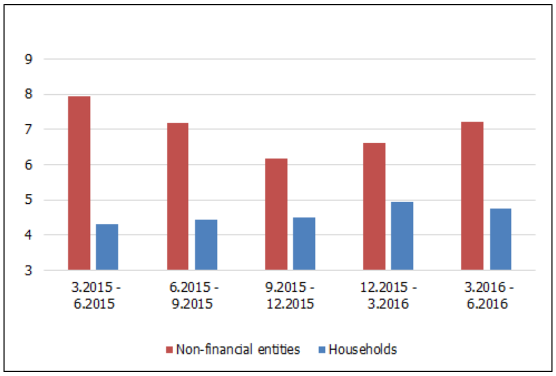
In the second quarter of the year, **non-performing loans, as the main measure for the changes in the quality of the banking system credit portfolio, significantly decreased (by 32%).** The decline is entirely due to the mentioned change in the credit risk regulation, whereby in the first six months of the year a total of Denar 11.331 million of non-performing principle was written-off (which almost entirely was conducted in the second quarter of the year). If we exclude the effects from write-offs of the non-performing loans on this basis (in the period March-June 2016), the non-performing loans growth would have been moderate and would have amounted to 5.8% on an annual basis (4.7% on a monthly basis, respectively).

Most or 76% from the write-offs of non-performing loans are write-offs of non-performing loans of non-financial entities.

The changes in total and non-performing loans resulting from the write-offs led to significant decrease of the rate[3] of non-performing loans of non-financial entities, which on 30 June amounted to 7.5% (without the write-offs it would have been 11.2%)**.**

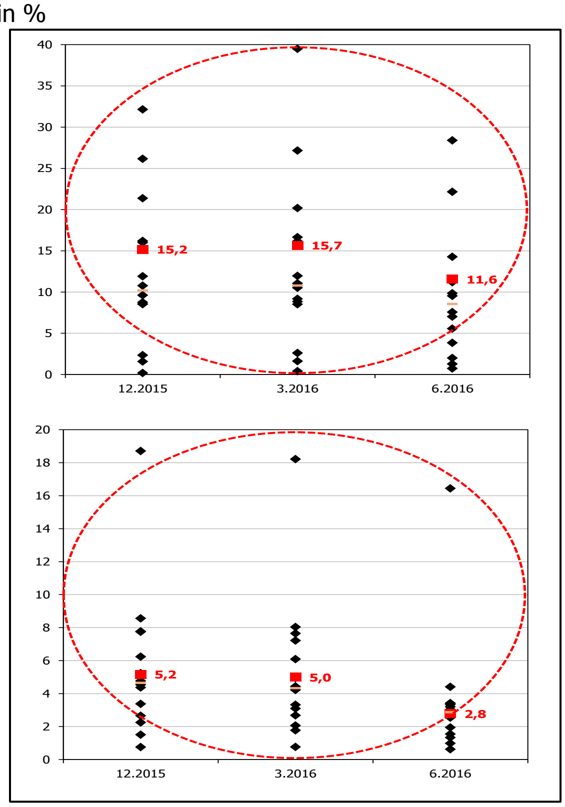
[3] The rate of non-performing loans shows the share of nonperforming loans in total loans.

Chart 6
Percentage of credit agreements who have shifted from regular to non-performing status
In % of the amount of loans with initial regular status



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

Chart 7
Share of non-performing loans to total loans to companies (top) and households (below), by individual bank
in %



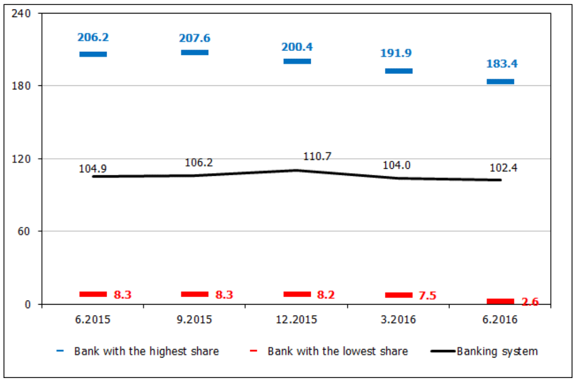
Source: NBRM's Credit Registry, based on data submitted by banks.

Within the "non-financial entities" sector, in the second quarter of 2016, the rate of non-performing loan decreased to 11.6%. But, if we exclude the effect from the write-offs, this rate would have amounted to 16.4% and would have worsened by 0.6 p.p. According to individual activities, "construction and services related to real estate" still have the highest rate of non-performing loans. In "construction and services related to real estate" and "industry", there is a more significant decrease in the rate of non-performing loans, as a result of the dynamics of non-performing and total loans and as a result of the effects from the write-offs.

In households, the rate of non-performing loans decreased to 2.8% (without the write-offs, almost unchanged and would have been 5%). There is a more significant decrease of the rate of non-performing loans in "credit cards" and "overdrafts on current accounts", which means that these claims of the households had most of the write-offs. The decrease is the lowest in residential and commercial real estate loans.

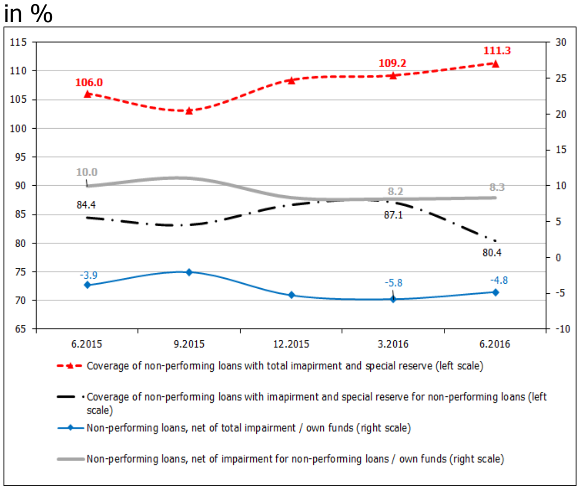
The volume and the trend of shifting from regular to non-performing status enables additional information for the credit risk level. The participation of the credit agreements which have shifted from regular to non-performing, on quarterly basis, registers worsening of the placements quality in non-financial entities (increases from 1.5% to 1.9%) and a minimal worsening in households (from 1.0% to 1.1%). However, the volume of the change of the claims status, from regular to non-performing is not high.

Chart 8
Share of large exposures to non-financial companies in banks' own funds
in %



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

Chart 9
Coverage of non-performing loans and share of net non-performing loans in banks' own funds
in %



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

Similar are the movements in rates of non-performing loans by banks. Despite in three banks, in other banks, decrease of the rates of non-performing loans of non-financial entities are registered. The rates of non-performing loans of the households, decrease in every bank.

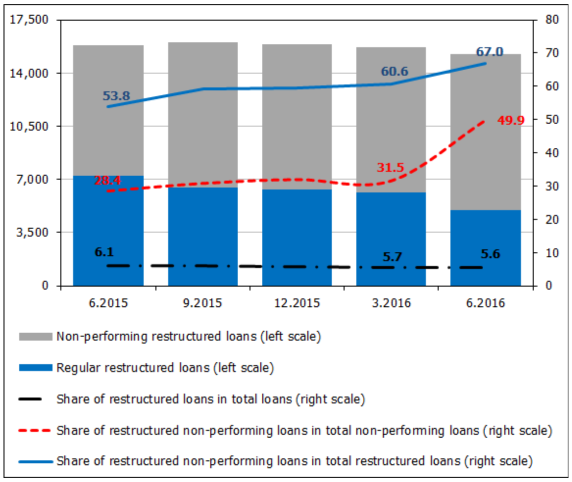
At the end of the second quarter of 2016, the concentration of credit exposure, followed through the presence of large exposures[4] towards non-financial entities in banks' own funds, registers a decrease in credit risk exposure compared to the previous quarter**.**

The coverage of non-performing loans with allocated impairment is high. The high provision level of non-performing loans enables satisfactory capacity of the banking system to absorb the unexpected credit losses. Compared to the previous quarter, as a result to the conducted write-offs, the coverage of non-performing loans with impairment of the non-performing loans decreased, but continues to be high.

Increase of the share of non-performing reconstructed loans in total reconstructed loans is registered. In the second quarter of 2016, due to the increase in the amount of non-performing reconstructed loans, their share in total reconstructed loans reached 67%. Due to this growth, and also to the mentioned transfer of fully provisioned non-

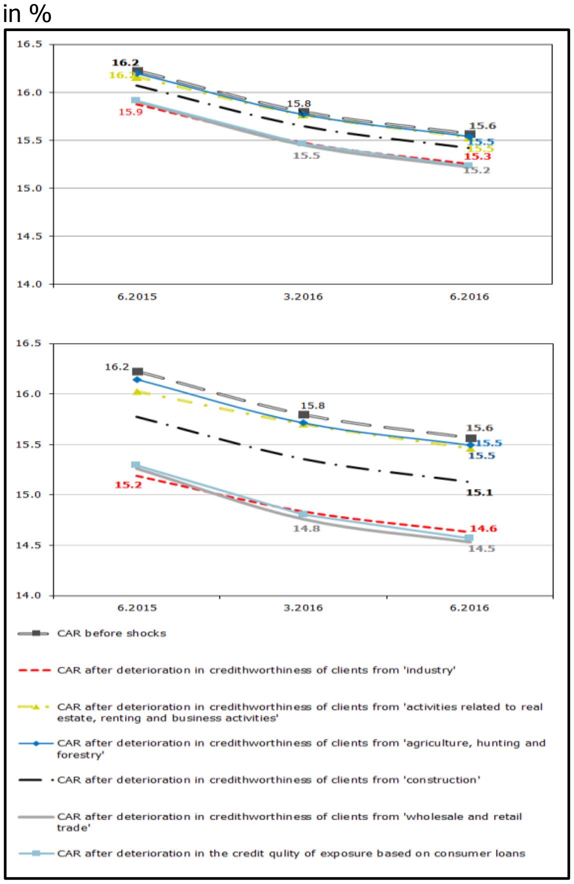
[4] Large exposure to a person or persons related thereto is an exposure equal to or higher than 10% of bank's own funds.

Chart 10
Dynamics of reconstructed loans
in millions of denars and in %



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

Chart 11
Capital adequacy ratio, by activity, before and after the first (top) and the second (bottom) simulation for both sectors
in %



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

performing loans in off-balance sheet, their share in total non-performing loans evidently increased (49.9%). However, the share of non-performing reconstructed loans in total loans is not high (amounts 5.6%) and is minimally reduced compared to the previous quarter.

1.2 Stress test simulation of the banking system's sensitivity to higher credit risk

Regular stress tests are aimed to investigate the sensitivity of the banking system during the deterioration of the quality of certain segments of the loan portfolio. They consist of simulations of hypothetical migration of 10% (first simulation) and 30% (second simulation) of credit exposure to non-financial companies (by activity) and households (by credit product), separately, and to the two sectors jointly, to the following two higher risk categories. **The results of the simulations show resilience of the banking system to the simulated shocks. However, the results are weaker** compared to the previous quarter, which is due to the lower initial capital adequacy before the stimulation in this quarter was conducted. Also, the stimulations for hypothetical shift of certain percentage towards non-performing exposure indicate minimal increase of the number of the banks whose capital adequacy will decrease under 12%.The largest decrease in the capital adequacy ratio during the implementation of the two simulations was recorded in the case of deterioration of the creditworthiness of clients from the "industry" and "wholesale and retail trade businesses", as well as in the exposure based on consumer loans.

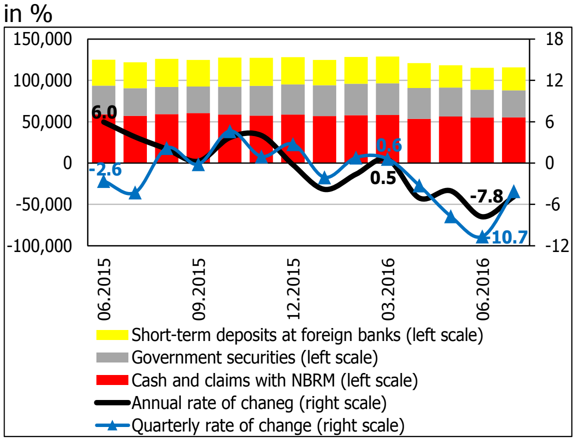
2. Liquidity risk

In the second quarter of 2016, domestic banks faced pronounced turbulences of the deposit market and realization of the liquidity risk as a result of the registered outflow of deposits, caused mainly by the psychological reaction of the households on the unfavorable domestic political environment. Given the satisfactory volume of liquidity assets available, the banks managed to continuously conduct their operational activity, and even use them for financing the increase of their credit activity. As a result, liquid assets on banks level registered double-digit quarterly decrease, which is one of the larges decreases in the last fifteen years. However, the liquid assets continues to secure satisfactory coverage (even with certain reduction) by category liabilities. The decline in liquid assets was registered both in denar liquid assets and in liquid instruments nominated in foreign currencies, which subsequently caused decrease of liquidity indicators. Such movements let to unfavorable changes in the structure of the assets and liabilities of the banks according to their residual maturity (increase of the maturity noncompliance), which imposes significant restriction in terms of further maturity transformation from the banks. In order to stabilize the expectations of the economic entities and prevent them from further pressures of the foreign exchange market, the National Bank in the second quarter of 2016 increased the interest rate of CB bills by 0.75 p.p and also changed the conditions for placing foreign currency deposits from banks. Such changes in the structure of some instruments of the monetary policy have already contributed in claiming the turbulences in the deposit market and is expected to bring about entire stabilization of the expectations of the economic entities.

2.1. Dynamics and composition of liquid assets

At the end of the second quarter of 2016, liquid assets[5] on banking system level amounted to Denar 115,212 million and registered a quarterly decrease of Denar 13,760 million, by 10.7% respectively. Such significant quarterly decrease also caused a decline of the liquid assets on an annual basis, by Denar 9,750 million, by 7.8% respectively. The main reason for the decline in liquid assets was the necessity of the banks to meet the increased demand for assets from the economic entities during the second quarter of 2016, which was reflected with the quarterly outflow of the deposits out of the banking system, and also with the increased

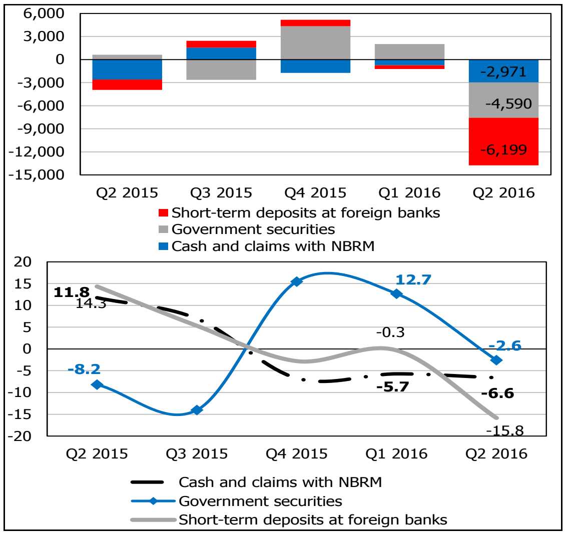
Chart 12
Liquid assets, structure and growth
in %



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

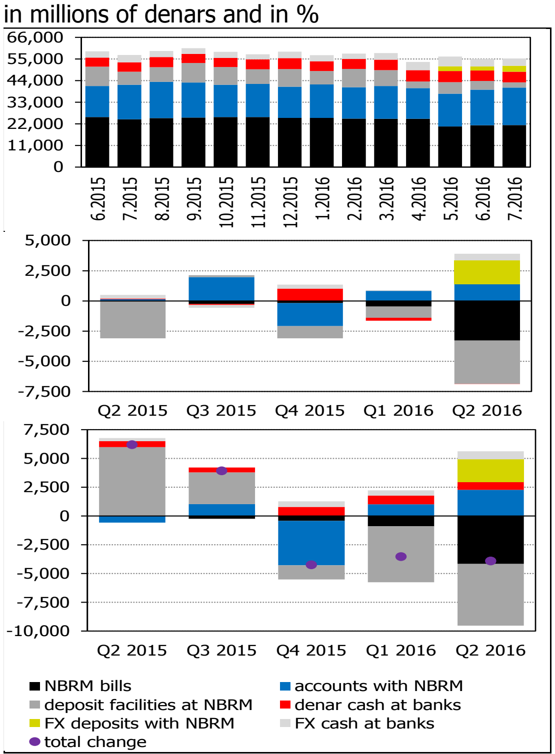
[5] The liquid assets encompass: 1) assets and claims on the National Bank, which include cash, assets on the accounts of banks with the National Bank, deposit facility with the National Bank and CB bills; 2) short-term deposits with foreign banks, including the assets of the banks on their correspondent 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 13
Quarterly absolute (up) and annual relative (down) change of liquid assets by individual components
in millions of denars and in %



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

Chart 14
Amount of cash and claims on National bank (up), their absolute quarterly (middle) and and annual (down), by instruments
in millions of denars and in %

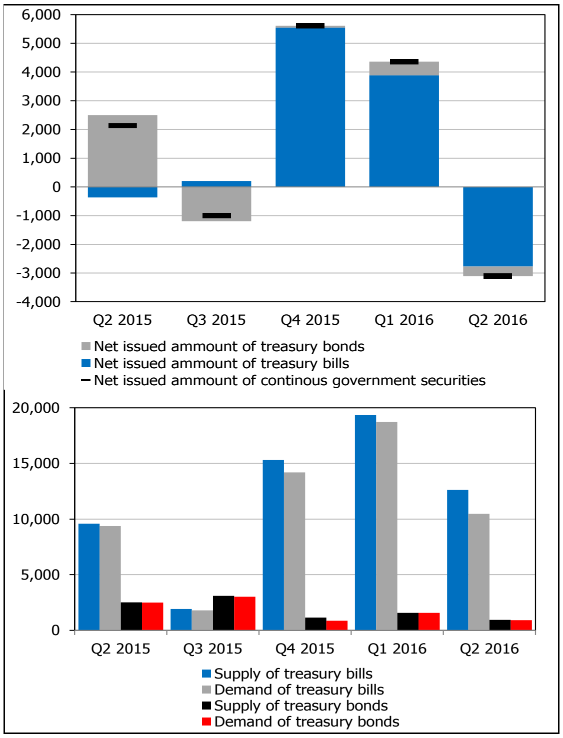


Source: NBRM, based on the data submitted by banks.

foreign currency demand. Deposits' instability and consequently to that, the fall of banks' placements in liquid financial instruments, primarily were caused by psychological reactions of the economic entities, especially on the households and the deterioration of their expectation as a result of the prolonged instability of the domestic political environment. Amid, such instable circumstances of the deposit market, some banks, during the second quarter of 2016, used instruments for securing liquidity from the National Bank (available credits overnight and repo transactions). Despite the decries in deposits as the most important source of banks' financing, amid modest yields of the liquid financial instruments, banks continued increasing the credit activity, which also contributed in decreasing their placements in liquid financial instruments. The decrease in liquid assets of the banks in the second quarter of 2016 was present in all individual components, whereby it was mostly evident in short-term foreign currency assets in the foreign banks. Hence, in the structure of liquid assets of the banks came to a quarterly decrease of the share of short term deposits in foreign banks (from 25.2% to 22.9%), at the expense of the increase of the structural share of the cash assets and banks' placements in the National Bank's instruments (from 45.0% to 47.8%).

The cash and the banks' claims at the National Bank, in the second quarter of 2016, registered a decline by 5.1% (6.6% on an annual basis), which was almost equally caused by reduction of investments in the monetary policy instruments of the National Bank – denar

Chart 15
Net issued amount of government securities (up) and supply and demand of government securities (down)
in millions of denars

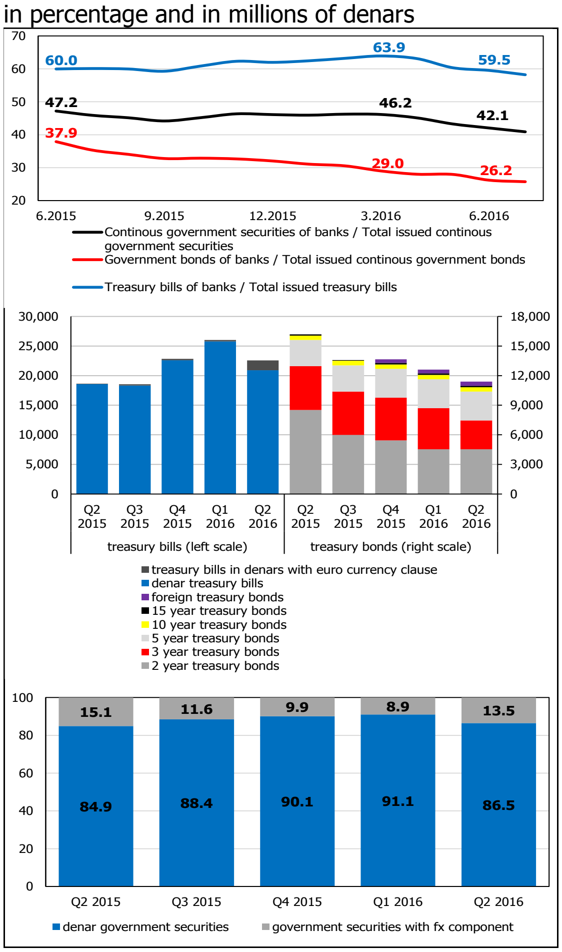


Source: NBRM, based on the data submitted by banks.

deposit facilities[6] and CB bills[7]. The amount of denar deposit facilities with the NBRM, in the second quarter of 2016, almost halved and three quarters in a row registers a decrease. As a reaction to the outflow of deposits of the banks and the necessity of depreciating the negative expectations of the economic entities and strengthened pressures of the foreign currency market, **in May 2015, the National Bank increased the interest rate on CB bills by 0.75 percentage points (from 3.25% to 4.0%), amid unchanged manner of conducting auctions**[8], whereby their amount, compared to the amount of deposit facilities, registered a decline of 13.3% during the second quarter of 2016, **the National also conducted a change in the conditions for placing foreign currency deposits of the domestic banks with the National Bank**[9], which enables the banks to place foreign currency deposits with the National Bank on interest rates which are higher than the negative interest rates which prevail for the placements in euros in the international financial markets. This opportunity represents an attractive alternative of investing foreign currency liquid assets from domestic banks, which contributes to a notable increase in the amount of placed foreign currency deposits with the National Bank at the end of the second quarter of 2016. Banks' funds available at the National Bank[10] registered an increase in the

[6] 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), the 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 first quarter of 2016, the interest rates on these deposits equaled 0.25% on overnight deposits and 0.5% on seven-day deposits.
[7] During the second quarter of 2016, the auctions were organized through a volume tender and limited offered volume which in May 2016 decreased from Denar 25.500 million to Denar 22.000 million and with a limited volume with which banks can participate in auctions, with what the National bank sterilized a smaller amount of the assets in the system.
[8] According to the Decision on CB bills (Official Gazette of the Republic of Macedonia No. 166/13, 30/15, 35/15 and 148/15), while conducting CB bills auctions through volume tender and determined limited amount, National Bank can limit the amount with what individual banks can participate and offer during the auctions, on the basis of their percentage share in total denar liabilities on the banking system level, on the basis of calculating the reserve requirement, for the fulfilling period, which starts on the day of the auction.
[9] On 5.5.2016, the National Bank Council adopted a new Decision on the foreign currency deposit with the National Bank of the Republic of Macedonia (Official Gazette of the Republic of Macedonia No. 87/16), where the key change compared to the provision of previously applicable Decision on foreign Currency deposit with the National Bank of the Republic of Macedonia ("Official Gazette of the Republic of Macedonia" No. 42/2011), is in the manner of determining the interest deposit interest rates in euros which banks may place with the National Bank. Namely, with the previously applicable decision, these interest rates were equal to the interest rates for the assets placed in the central banks in the Euro area, in the international financial institutions and yields of the government securities of the countries members of the euro area, and with the new Decision the interest rates will be determined by the Governor.
[10] In May 2016, the National Bank Council adopted a new Decision on reserve requirement ("Official Gazette of the Republic of Macedonia" No. 87/16) which increased the rate for reserve requirements for banks liabilities in domestic currency with currency

Chart 16
Relative importance of banks on government securities' primary market (up), structure of the investments in government securitites by instrument (middle) and by currency characteritics (down)
in percentage and in millions of denars



Source: Ministry of finance and National bank, based on the data submitted by banks.
Note: Structure of investments in government securities s shown by their nominal amount.

second quarter of 2016, primarily due to the necessity to of the banks to answer the increased demand for liquidity from the economic entities and outflow of household deposits from banks. Also, in the second quarter of 2016, the same reasons also caused increase in the amount of cash available to banks, both in denar and foreign currency cash.

In the second quarter of 2016, a decrease in government borrowing was registered through issuing government securities, which is perceived through the negative net issued[11] amount of government securities of Denar 3,108 million. Even though the amount offered of government securities was lower compared to the first quarter of the year, still the weaker demand significantly contributed for decreasing the overall net issued amount of government securities.

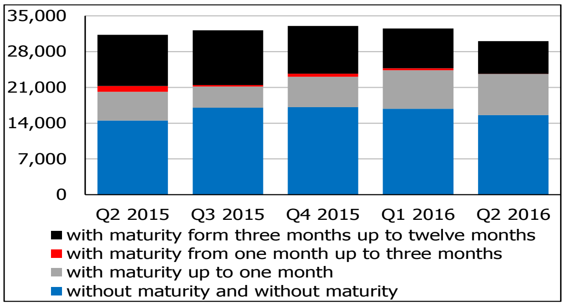
The banks' share in the issued continuous[12] government securities, during the second quarter of 2016 declined and by the end of June amounted to 42.1%, which is less by 4.1 and 5.1 percentage points on a quarterly and annual basis, respectively. Also, **this is historically the lowest level of the banks' share in total amount of issued continuous government securities**. A constant reduction of banks' share in the primary market of continuous government net bonds is registered, as well as in the amount of continuous government bonds owned by the banks. Despite that, the enhancement of non-compliance between the assets and liabilities of the banks according to their residual maturity acts as an additional restricting factor in terms of banks' interest for investing government securities which have longer initial deadlines for

clause from 20% to 50%, in order to further maintain the low propensity of the economic entities for savings through this type of deposits in the domestic commercial banks. According to this Decision, the average daily outstanding amounts on the bank account at the National Bank are used to meet the total calculated reserve requirement of banks based on their liabilities in denars and liabilities in denars with FX clause, as well as 30% of the calculated reserve requirements of banks on the basis of their foreign currency liabilities. Banks can fully utilize their assets on the account with the National Bank on a daily basis.

[11] Net issued amount is obtained as a difference between the realized amount of the auctions of government securities for a determined period of time and the amount of government securities with a maturity in the identical period of time.

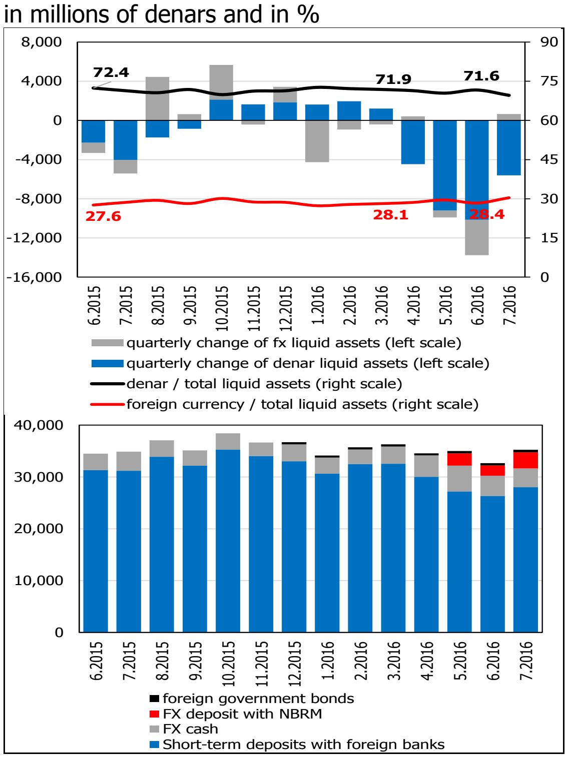
[12] During the second quarter 2016, the return of CB bills was 1.5% for three months CB bills in denars with FX clause in Euros, to 2.6% for one year denar CB bills, whereas government bonds are issued with a coupon interest rate of 3.7% for ten year bonds with a FX clause in Euros, 3.9% for ten year denar bonds and 4.3 for fifteen year bonds with a FX clause in Euros.

Chart 17
Movements of short-term deposits in foreign banks
in millions of denars



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

Chart 18
Liquid assets according to their currency characteristics – relative meaning and absolute quarterly change (up) and instrument structure (down)
in millions of denars and in %



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

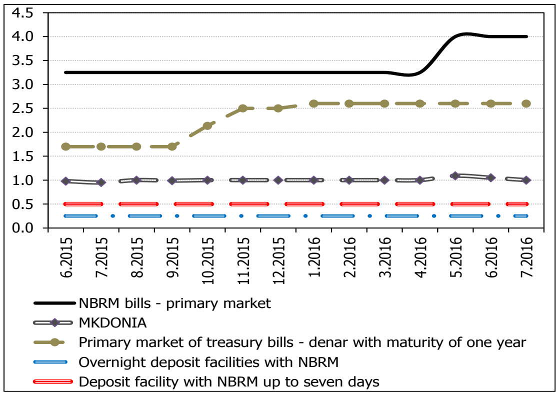
submission, since such investments would further express the maturity non-compliance.

In the structure of government securities owned by banks, treasury bills prevail (with a share of around two thirds), which corresponds with the structure of total issued amount of government securities (where treasury bills prevail with almost 92%). Compared to the end of the first quarter of 2016, **in the structure of treasury bills owned by the banks, the share of denar treasury bills with FX clause increased, even though the amount of treasury bills owned by the banks declined.** Hence, the share of government securities with currency component where banks have invested in the total banks' government securities portfolio increased from 8.9% to 13.5%. Government bonds in which banks have invested registered a decrease, both on quarterly (by Denar 1,208 million) and annual basis (by Denar 4,759 million). **Government bonds owned by banks are mainly composed by continuous government bonds issued from the Republic of Macedonia** (over 96%), whereby bonds with shorter initial maturity blocks prevail. Investments in government bonds issued by foreign countries occupy 3.8% of total government bonds invested by the banks.

Deposits placed in foreign banks with a residual maturity less than a year declined in the second quarter of 2016. The decrease of these assets is due to insignificant, and negative yield that these assets have, and also due to deposits withdrawal by the households during the second quarter of 2016 was followed with foreign currency demand. In the structure of deposits placed in foreign banks, the overnight assets without confirmed maturity dominate, which automatically are available for the banks in order to conduct payment transactions.

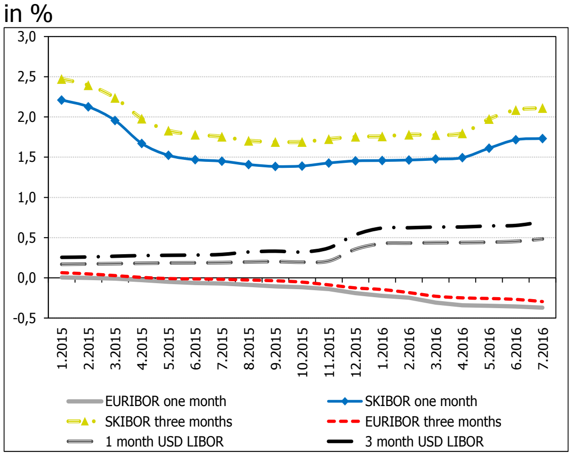
Almost two thirds of the reduction of banks' liquid assets are due to the decline of denar liquid assets. However, as a result to almost identical quarterly decrease rates (of little

Chart 19
Movement of basic domestic interest rates
in %



Source: the National Bank

Chart 20
Movement of basic interbank interest rates SKIBOR, EURIBOR and LIBOR for American dollar
in %



Source: National Bank and ЕММИ European Money Market Institute web page for EURIBOR and Federal Reserves Bank web page from St. Louis (so called FRED) for LIBOR for American dollars.

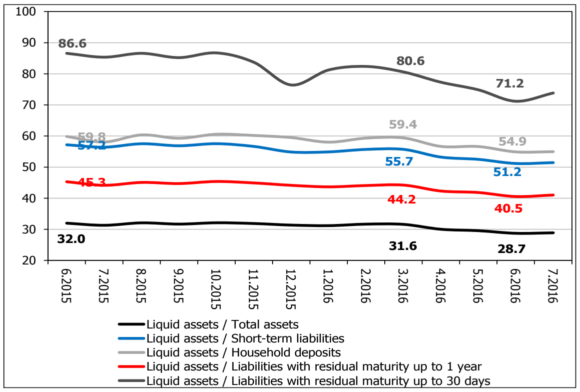
above 10%), greater changes in the structure of foreign currency liquid assets according to currency characteristics failed to take place. Therefore, banks' currency liquid assets at the end of the second quarter of 2016 have a share of 28.4% in the total banks' liquid assets, which compared to the first quarter of 2016 is more by 0.3 percentage points. Given the changes of the manner of determining of the amount of interest rate for currency deposits of banks with the National Bank, this instrument appeared once again in the structure of their share of 6.0% at the end of the second quarter of 2016.

The outflow of the deposits from bank, imposed a necessity that the National Bank should meet the negative expectations and soothe the foreign currency market pressures, **through upward correction of the interest rates for CB bills.** Thus, in the beginning of May 2016 an increase of the interest rate for CB bills by 0.75 percentage points was registered and it amounted to 4.0%. On the other hand, the interest rate of denar deposit facilities with the National Bank remain unchanged, as well as the interest rates that the Ministry of Finances offered for the treasury bills. During the second quarter of 2016, the interest rates of the domestic interbank market (SKIBOR) registered increase, which confirms the theoretical rule for a more efficient transfer effect from increasing the interest rates of the monetary policy instruments over the interest rates of the interbank market. Despite this, in the second quarter of 2016, the trend of divergence between euro interest rates and dollar interest rates continued in international interbank markets.

2.2. Liquidity indicators

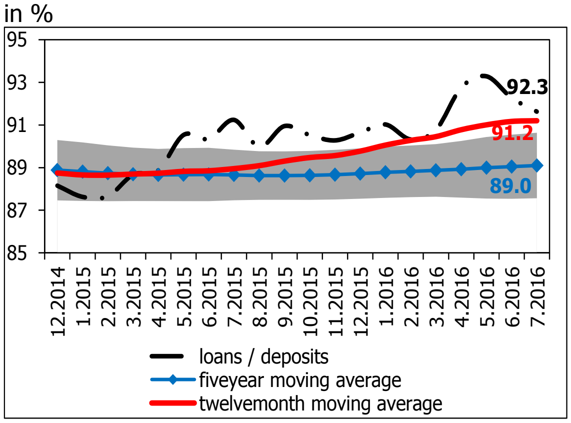
Liquidity indicators of the banking system[13] in the second quarter of 2016 pointed to a decline, which is a reflection of the developments in the deposit market and the necessity of the bank to use part of the liquid assets for repayment of the deposits outflows. The share of liquid assets in total assets at the end of 2016 amounted to 28.7%, which is the lowest level after the global financial crisis and is smaller by 2.9 and by 3.3 percentage points on a quarterly and annual basis, respectively. Liquidity indicators decrease partially is due to the continuous growth of banks' credit activity, which amid deposits' decrease in the second quarter of 2016 was financed through the conversion of the liquid financial instruments. Decrease was registered in all indicators of the coverage of individual category liabilities with the liquid assets, which was especially pronounced in household deposits which had the greatest contribution in the deposits withdrawal. **Liquidity indicators in individual banks also decrease.** At the end of the second quarter of 2016, the share of liquid assets in total assets ranged from 13.7% to 37.4% (from 13.7% to 41.3% on 31.3.2016) with a median of 26.2%. The coverage of short-term liabilities with liquid assets ranged from 26.9% to 74.0% (from 28.0% to 98.2% on 31.3.2016), with a median of 51.5%, while the coverage of liabilities with residual maturity up to 30 days ranged from 64.0% to 83.2% (from 72.4% to 89.7% on 31.3.2016), with a median of 73.0%.

Chart 21
Liqudity indicators for the banking system
in %



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

Chart 22
Dynamics of loan/deposit ratio of non-financial entities
in %

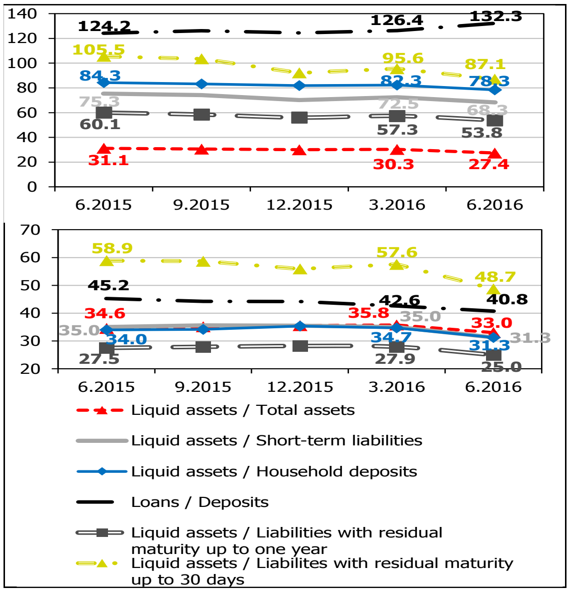


Source: NBRM, based on the data submitted by banks.
Note: The shaded part in the chart denotes the range of one standard deviation above and below the five-year moving average of the indicator.

The outflow of deposits in the second quarter of 2016 contributed to further increase the ratio between loans and deposits of non-financial entities. Thus, on 30.6.2016, this indicator amounted 92.3%[14] and increased by 1.5 percentage points on a quarterly basis and 1.0 percentage points on an annual basis. This indicator is above its five-year

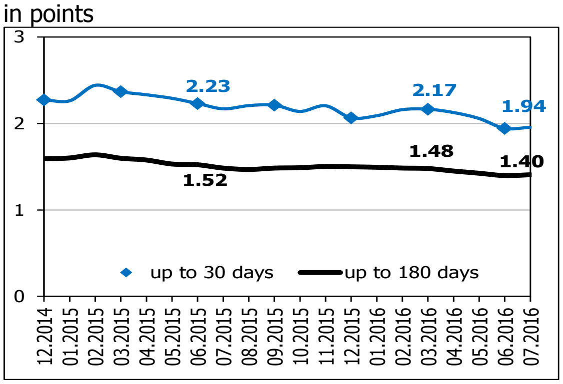
[13] The calculation of liquidity ratios of the banking system does not include resident interbank assets and liabilities.
[14] If we exclude the effect of non-performing loans that are fully provisioned for more than two years, from balance to off-balance sheet, this indicator would have been higher by 3.8 p.p.

Chart 23
Banking system liquidity indicators, according to currency structure - Denars (top) and FX (bottom)
in %



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

Chart 24
Liquidity ratios of the banking system
in points



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

and twelve-month average. Observing by banks, at the end of the third quarter of 2016, this ratio ranged from 70.1% to 125.3%. In the four banks, whose joint share on 30.6.2016 amounted to 20.7%, credit/deposit indicator is above 100%.

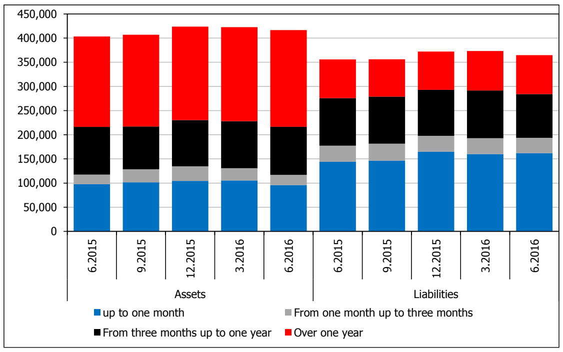
The decrease in liquidity indicators in the second quarter of 2016 was also registered according to currency characteristics of liquid assets and liabilities[15]. **The decrease was slightly stronger in denar liquidity indicators compared to the decrease in foreign currency liquidity indicators.** The decrease in denar liquidity indicators is due to borrowing activity of the liquid assets' drop and the deposits' drop, while the decrease in foreign currency liquidity indicators was mostly under the influence of the decrease of foreign currency liquid assets, and partially from foreign currency deposits' drop, which corresponds with high difference on the contribution of foreign currency and near deposits in the total quarterly deposit's drop.

Liquidity ratios of the banking system[16] presented as ratio between assets and liabilities that fall due in the following 30 and 180 days, significantly exceed the prescribed minimum of 1. The liquidity interest rate has a maturity up to 180 days has a significant decrease, which for the first time is under 2 (regulatory minimum is 1).

[15] Denar liabilities (deposits) and liabilities (deposits) in denars with a FX clause are accepted and returned from the banks in denar and subsequently, they will create cash flow (inflow and outflow in denars). According to the Law on Foreign Exchange Operations, banks accept and return foreign currency deposits in the respective foreign currency and therefore, have an expected cash flow (inflow or outflow) in foreign currency.
[16] 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, 19/12 и 151/13) and pursuant to this Decision, the minimal regulated level of these rates amounts to 1.

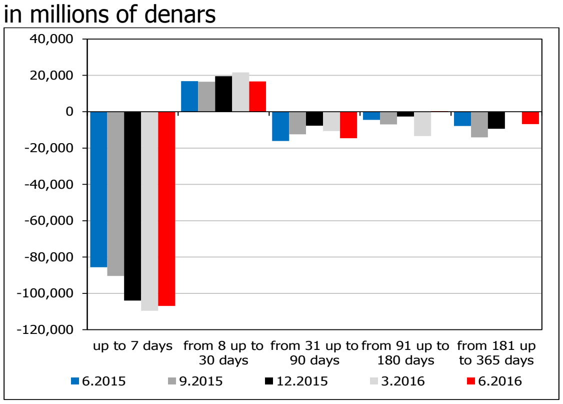
2.3. Maturity structure of assets and liabilities

Chart 25
Structure of banks' assets and liabilities by their contractual residual maturity
in millions of denars



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

Chart 26
Contractual residual maturity (mis)match between assets and liabilities, by maturity bucket
in millions of denars



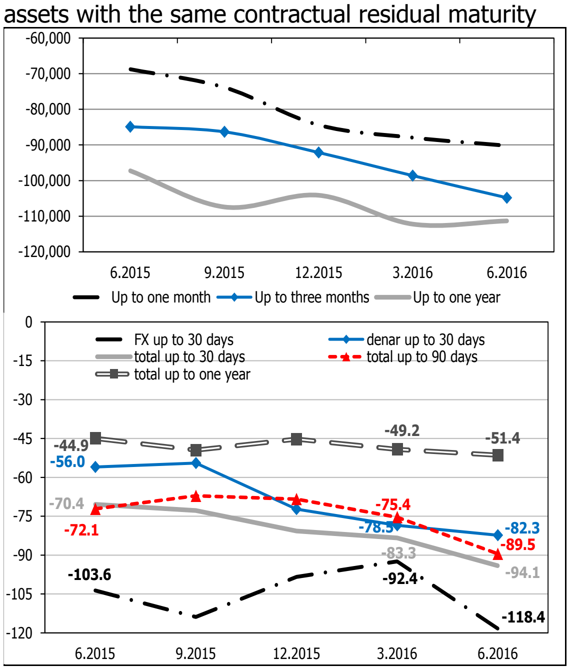
Source: NBRM, based on the data submitted by banks.

The quarterly decrease in deposits and banks' liquid assets, amid continued growth of their lending activity, influenced **the structure of banks' assets and liabilities according to their contractual residual maturity**. Thus, in the second quarter of 2016, **the average residual contractual maturity of banks' assets increased**. This was primarily due to divergent changes in the most important categories of assets - decrease in liquid assets where financial instruments with mainly shorter contractual maturity play a leading role, and growth of long-term loans to non-financial entities. On the other hand, in the second quarter of 2016, **the average residual maturity of banks' liabilities decreased** due to the outflow of deposits, which was present in all maturity buckets with a maturity greater than one month. As a consequence of these changes in the maturity structure of assets and liabilities, there was a decrease in the gap between them, in individual maturity buckets. The maturity bucket up to 7 days still has the largest mismatch between assets and liabilities according to their contractual residual maturity, which usually results from the inclusion in this maturity bucket of banks' liabilities on demand and without determined maturity.

Changes in the maturity profile of banks' assets and liabilities in the second quarter of 2016 caused **a widening of the aggregate negative difference[17] between total assets and liabilities according to their contractual residual maturity.** This is most pronounced in the aggregate gap between assets and liabilities up to 90 days. In terms of currency characteristics, given the change in the currency preference of the depositors and, consequently, a significantly greater decrease in Denar deposits compared with foreign currency deposits, the aggregate difference in foreign

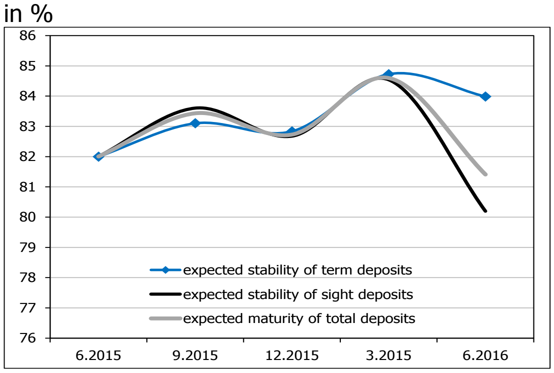
[17] Both in absolute amount and in percentage, expressed in terms of the total assets with the same contractual residual maturity.

Chart 27
Dynamics (top) and relative importance (bottom) of the cumulative (mis)match between banks' assets and liabilities according to the contractual residual maturity
in millions of denars and percentage of cumulative assets with the same contractual residual maturity



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

Chart 28
Expected stability of deposits with residual maturity up to three months, by banks
in %



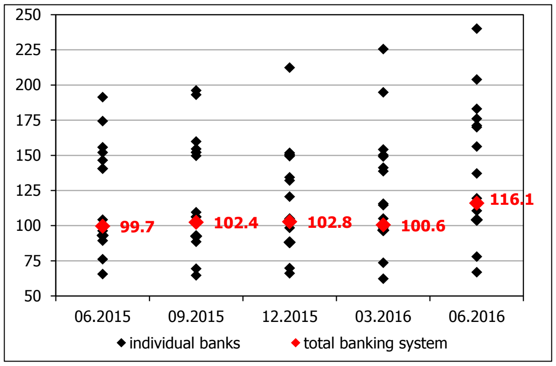
Source: NBRM, based on the data submitted by banks.

currency up to 30 days significantly widened (the aggregate difference between the denar assets indicated a significantly smaller widening). This widening of the absolute volume and relative importance of the mismatch between assets and liabilities according to their contractual residual maturity, signals that in most banks, there is a high level of utilization of the potential for "healthy" maturity transformation and they are facing serious restrictions to further intensify this process.

Regardless of the turbulences associated with the deposit base during the second quarter of 2016, banks have maintained the established expectations about stability of deposits (Annex 30). Thus, as of 30 June 2016, banks expected that 84.0% of time deposits with residual maturity up to three months will remain in the banks, while for total deposits with residual maturity up to three months, the percentage of the expected stability is lower and is 81.4%. Moreover, there is a certain decline in the percentage of expected stability compared with the previous few quarters, which is more evident in demand deposits, while regarding the time deposits, it is more modest. The decline in this percentage in the second quarter coincides with the withdrawal of deposits from banks.

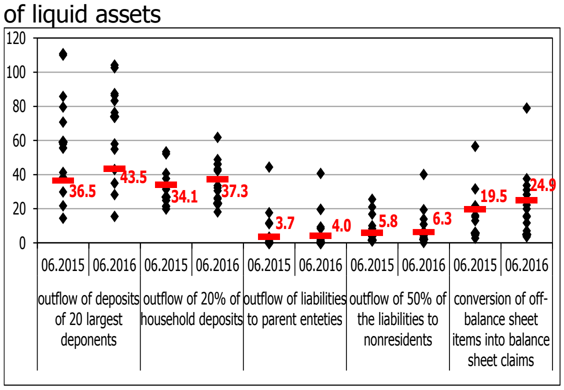
2.4. Stress-simulations for liquidity shocks

Chart 29
Reduction of liquid assets in the simulation of combined liquidity shocks
in %



Source: NBRM calculations, based on data submitted by banks

Chart 30
Contribution of individual combined shocks to the decline in the liquid assets in the simulation of a combined liquidity shock
as percentage of decline of liquid assets



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

In the second quarter of 2016, banks faced one of the liquidity shocks that are assumed in the usual stress-test simulations, but slightly milder. **Given that part of the banks' liquid assets were used to absorb such outflows of sources of financing, quite expectedly at the end of the second quarter of 2016, there were poorer results of the simulations of assumed liquidity shocks** in the form of combined outflows of sources of financing[18] outside the banks within 30 days. In particular, the combination of several extreme liquidity outflows absorbs the liquid assets of the banking system as a whole and by about 15 percentage points higher compared with the end of the first quarter of 2016. If for the purposes of this simulation, these liquid assets also include other financial instruments[19] that are assumed to have been recoverable relatively quickly and easily or convertible into cash within 30 days, then the banking system would have hold sufficient liquid assets, but their decline is sharper by nearly 9 percentage points compared with the results of the previous quarter. Also, there is an increase in the relative dispersion of the results of the simulations by banks, primarily due to the different volume of the outflow of deposits with individual banks and, consequently, the different impact on the liquid assets of individual banks.

When applying individual assumed liquidity shocks, banks show that they hold sufficient liquid assets to repay simulated outflows. The simulations of outflow of deposits of 20 largest depositors and outflow of 20% of

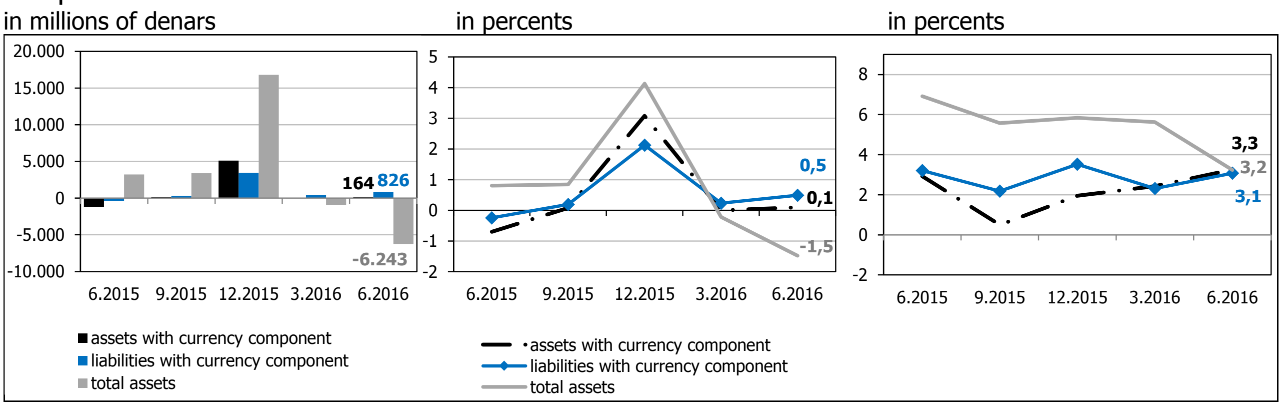
[18] The simulation assumes outflow of: deposits of the twenty largest depositors, 20% of household deposits, liabilities to parent entities (with the exception of liabilities on subordinated instruments and hybrid capital instruments that are excluded from the simulation as according to the regulations for calculating capital adequacy their early repayment is limited), 50% of the liabilities to non-residents (excluding liabilities to non-resident parent entities of banks which are already covered by one of the previous simulations) and 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 MBDP AD Skopje, because of the legal restriction to serve in a deposit market and hence in the presentation of results this bank is excluded in all indicators.
[19] 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 foreign non-government issuers, 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 simulated outflow of households' foreign currency deposits.

household deposits still have the largest individual effect for the decline in the liquid assets, indicating that regardless of their volatility during the second quarter of 2016, the sources of financing of domestic commercial banks are still primarily based on deposits and on deposit market developments, including economic agents' expectations.

3. Currency risk

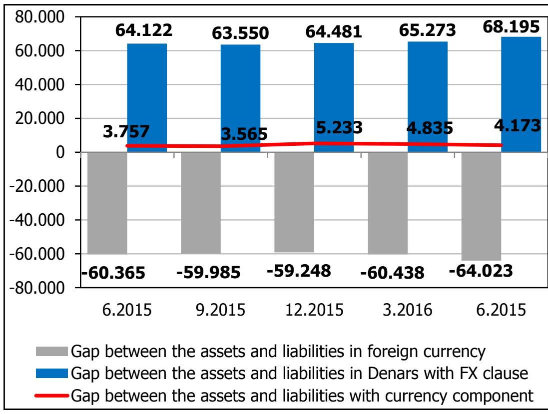
In the second quarter of 2016, banks in the Republic of Macedonia reduced the already relatively low exposure to currency risk. The gap between assets and liabilities with currency component is positive, has a relatively small share in the banks' own funds and for the second consecutive quarter declined. The euro is the most common currency of assets and liabilities with currency component, which also additionally contributes to reducing the level of currency risk to which banks are exposed due to the strategy of maintaining stable nominal exchange rate of the denar against this currency. On the other hand, the pound has seen a more pronounced volatility and mostly downward movements in the second quarter of 2016 (due to the market uncertainty in the eve of the Brexit referendum), but this currency, same as the US dollar, the Swiss franc and the Australian dollar, has a very small share in the banks' balance sheets, so that its impact on the level of currency risk is negligible. All banks maintain their positions within the prescribed aggregate currency position requirement of 30% of own funds. Speculations on the stability of banks and deposits with them, given the present uncertainty due to the political crisis, led to an increased demand for foreign currency (in cash or on accounts in banks) in the first half of 2016, which caused a slowdown and interruption of denarization of banking activities.

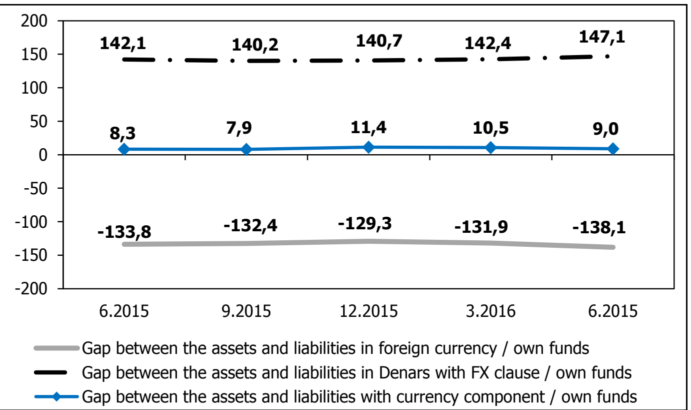
Chart 31
Quarterly (left and middle) and annual (right) growth of assets and liabilities with currency component



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

Chart 32
Structure of the gap between assets and liabilities with currency component (left) and share of the assets and liabilities with currency component in own funds (right)



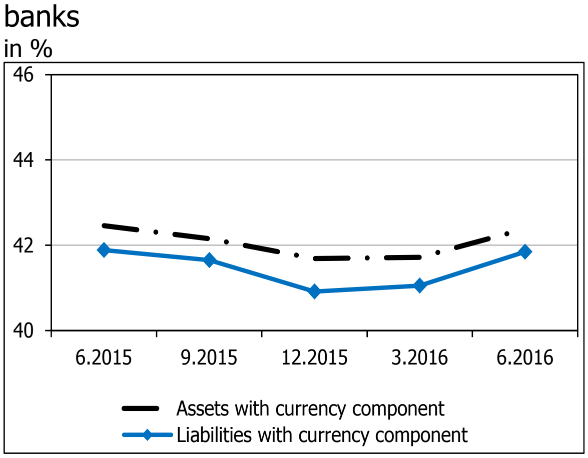


Source: NBRM, based on the data submitted by banks.

In the second quarter of 2016, the gap between assets and liabilities with currency component fell by Denar 662 million, reducing to Denar 4,173 million as of 30 June 2016. The narrowing of this gap arises from the higher increase in the liabilities with currency component (Denar 826 million)[20] compared to the slower growth of assets with currency component (Denar 164 million).

The narrowing of the gap between assets and liabilities with currency component, amid a simultaneous increase in own funds[21], contributed to the reduction of the share of this gap in own funds of the banking system by 1.5 percentage points. On the other hand, the share of the currency component in the banks' balance sheets (assets and liabilities) increased, which started to move upwards from the previous quarter. This is mainly due to the decrease in the denar component in the balance sheets (liquid assets and Denar deposits).

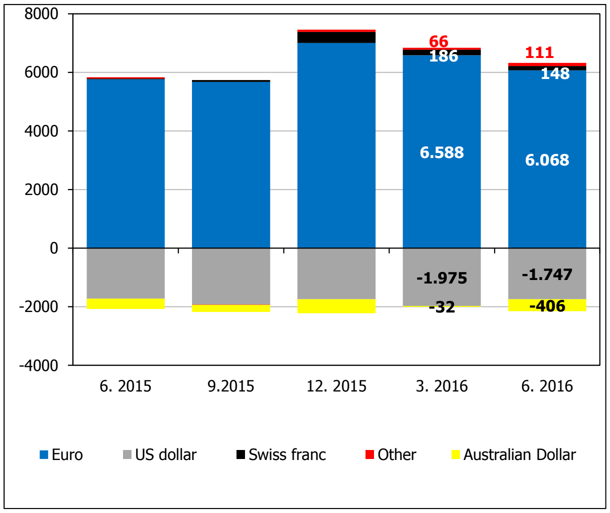
Chart 33
Share of the assets and liabilities with currency component* in the total assets of banks



Source: NBRM, based on the data submitted by banks.
*Within the assets, loans are shown on a net basis i.e. adjusted for the impairment. MBDP AD Skopje is not included.

[20] Foreign liabilities increased by Denar 794 million. Current accounts and other short-term liabilities in foreign currency increased by Denar 2,059 million, compared to the decrease observed in deposits of natural persons in foreign currency, which amounted to Denar 1,392 million.
[21] Banks' own funds increased by Denar 526 million. This calculation excludes MBDP AD Skopje.

Chart 34
Dynamics and structure of the gap between assets and liabilities with currency component, by currency
in millions of denars



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

Analyzed by currency, the euro made the largest contribution to the narrowing of the gap between assets and liabilities with currency component. The gap between assets and liabilities in this currency went down by Denar 521 million.

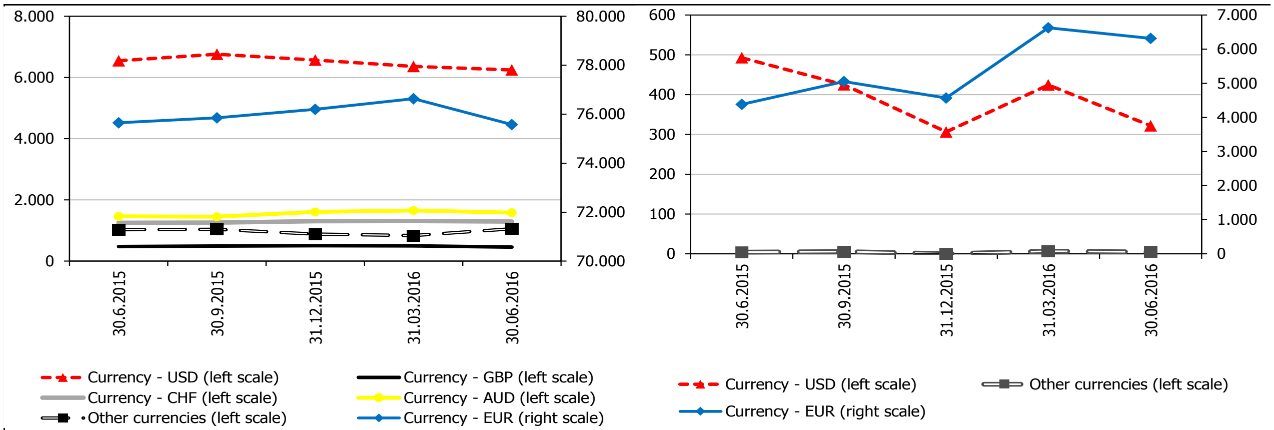
Table 1
Structure of assets and liabilities with currency component, by currency
in %

Currency	31.03.2016		30.06.2016	
	Assets	Liabilities	Assets	Liabilities
Euro	89,0	87,6	89,2	87,8
US dollar	6,5	7,9	6,6	7,8
Swiss franc	1,6	1,6	1,6	1,6
Australian Dollar	1,2	1,3	1,0	1,3
Other	1,7	1,7	1,6	1,6
Total	**100,0**	**100,0**	**100,0**	**100,0**

Source: NBRM, based on data submitted by banks.

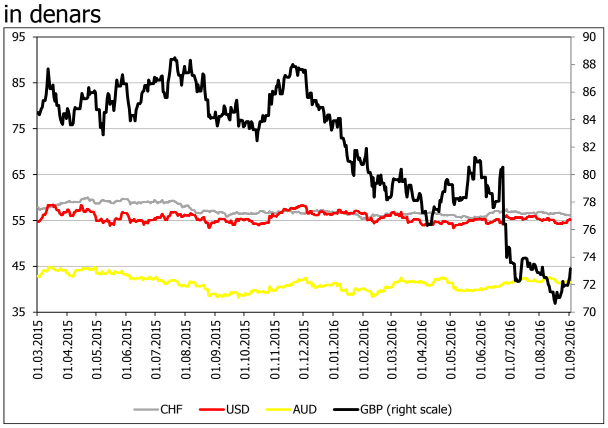
The euro is the most common currency of assets and liabilities with currency component. Loans and deposits in euros accounted for 98.4% and 88.6%, respectively, of total loans, i.e. deposits with currency component. Natural persons had the highest share in Euro deposits, which accounted for 85.1% in total Euro deposits. These deposits decreased by 1.4% compared to the previous quarter, but still have a major role in the currency structure of deposits of natural persons. Euro deposits of non-financial companies also registered a decrease, which stood at 4.7%.

Chart 35
Deposits in foreign currency* of the natural persons (left) and non-financial corporations (right)
in millions of denars



Source: NBRM.
*Deposits do not include transaction accounts of natural persons and non-financial entities.

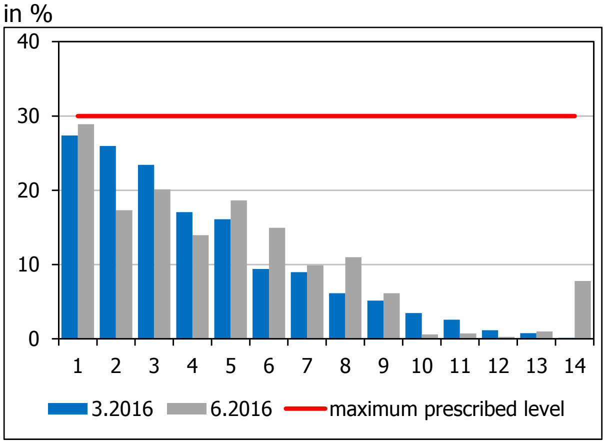
Chart 36
Exchange rate of the denar against the British pound, US dollar, Swiss franc and the Australian dollar
in denars



Source: NBRM.

Due to the high presence of the euro, in the strategy of maintaining stable nominal exchange rate of the denar against the euro, the Macedonian banking system has a relatively little exposure to currency risk. The British pound, despite the fact that registers more pronounced volatility and mostly downward movements for two consecutive quarters, poses no danger to the banks, because this currency has insignificant presence in their balance sheets (less than 1% of the assets, i.e. liabilities with currency component).

Chart 37
Aggregate currency position to own funds ratio, by bank
in %



Source: NBRM.

As of 30 June 2016, all banks complied with the aggregate currency position requirement of 30% of own funds. Most banks registered growth of this position, for which the increase in the open foreign currency position in euros in those banks made the largest contribution.

Table 2
Distribution of banks by share of open currency position, by currency and the aggregate currency position in own funds

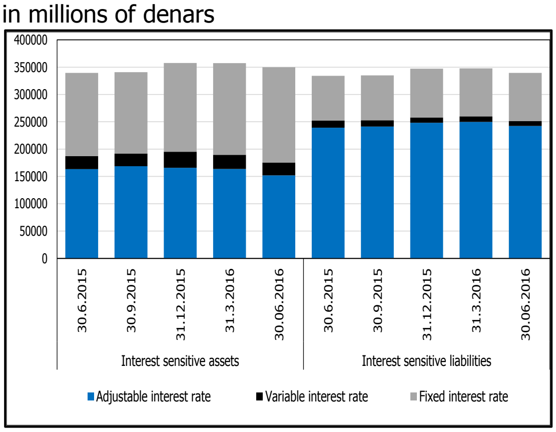
Items	Number of banks										
	Open currency position by currency / own funds										Aggregate currency position / own funds
	Euro		US Dollar		Swiss franc		Australian Dollar		Other		
	Long	Short	Long	Short	Long	Short	Long	Short	Long	Short	
under 5%	2	3	9	5	7	6	8	1	13	1	4
from 5% to 10%	2										3
from 10% to 20%	6										5
from 20% to 30%	1										2
over 30%											

Source: NBRM, based on data submitted by banks.

4. Interest rate risk in the banking book

In the second quarter of 2016, banks in the Republic of Macedonia registered no change in the exposure to the interest rate risk in the banking book, compared to the previous quarter. The increasing use of fixed interest rate (in the first few years), especially in loans to households, further determines the growth of the ratio between the total weighted value of the banking book and own funds. On the other hand, the use of adjustable interest rates mitigates the potential risk to banks of losing income in case of higher lending market interest rates.

Chart 38
Structure of interest sensitive assets and liabilities, by type of interest rates
in millions of denars



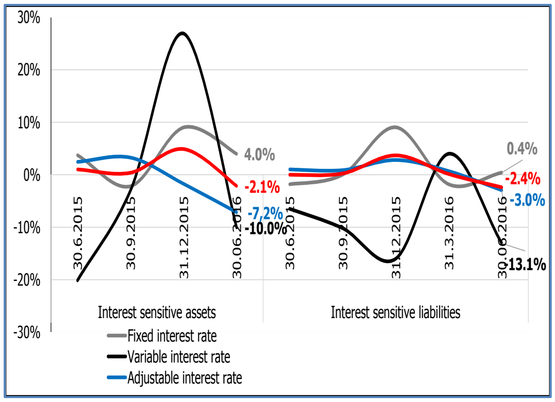
Source: NBRM, based on the data submitted by banks.

Interest sensitive assets and liabilities, as of 30 June 2016, accounted for 84.0% and 81.5% respectively of the banks' assets (as of 31 March 2016: 84.5% and 82.3%, respectively). The level of interest sensitive assets and liabilities decreased compared to the previous quarter.

In the interest sensitive assets, the assets with fixed interest rate had the highest share due to lending with fixed interest rate[22] and banks' investments in debt securities. While the adjustable interest rates prevail in the structure of the interest sensitive liabilities, mostly through deposits.

[22] Banks have started to gradually reduce the use of adjustable interest rates, thus offering products with fixed interest rate for the first few years of the repayment of the loan (which according to the regulations are treated as positions with fixed interest rate for the entire amount of the loan in the period while the interest rate is fixed). After the expiry of the period in which the interest rate is fixed, these credits will be with variable or adjustable interest rate.

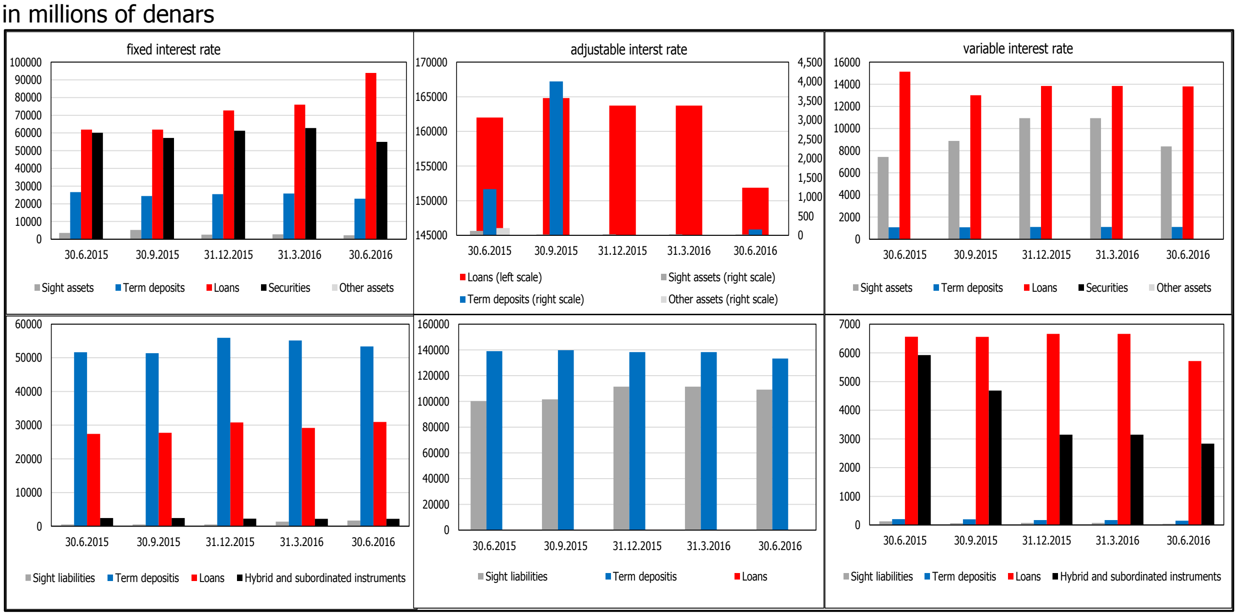
Chart 39
Quarterly growth of interest sensitive assets and liabilities, by type of interest rates



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

Interest sensitive assets decreased quarterly, mostly due to lower lending with adjustable interest rate[23] and reduced banks' investment in debt securities. Lending with adjustable interest rate decreased by 7.2%, but still remains the most important position in the structure of the interest sensitive assets. In the second quarter, this decrease is a consequence of the increase in written off claims[24] and growth in lending with fixed interest rate. Loans with fixed interest rates registered a quarterly increase of 23.6%, mostly in consumer and housing loans with fixed and relatively low interest rates for the first few years of the loan and after that period, they turn into adjustable interest rates.

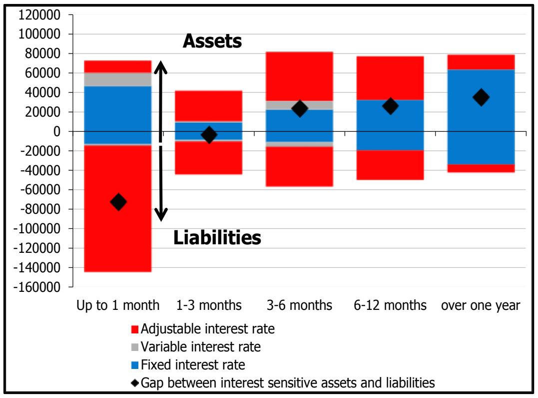
Chart 40
Interest-sensitive assets (up) and liabilities (down), by on-balance sheet items and type of interest rates
in millions of denars



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

[23] For more details see the section II.2 Banks' activities.
[24] Result of the Decision on credit risk management of the NBRM banks adopted in December 2015, which requires from banks to write off all claims that have been fully provisioned for more than two years by 30 June 2016.

Chart 41
Composition of the interest sensitive assets and liabilities, by maturity and type of interest rates
in millions of denars

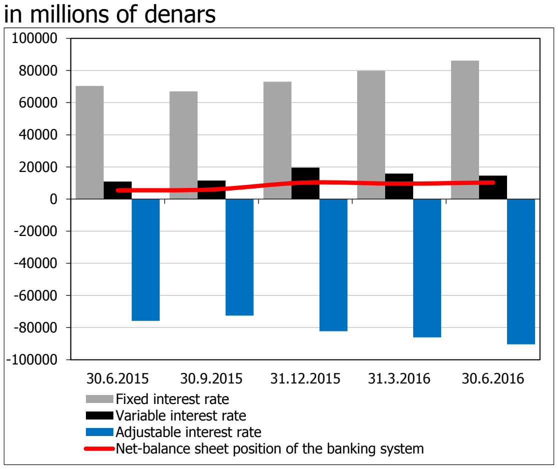


Source: NBRM, based on the data submitted by banks.

The quarterly decline in interest sensitive liabilities is due to the decrease in deposits with adjustable interest rates on early redemption deposits[25] mostly in the household sector.

By residual maturity, the gap between interest sensitive assets and liabilities is the largest in the maturity bucket up to one month, but the gap in the maturity buckets of over six months is the most important. The interest rate risk is offset by the use of adjustable interest rates, including in the maturity bucket of over a year (because banks use products where the interest rates are fixed for the first few years after which they become variable or adjustable[26]).

Chart 42
Gap between interest sensitive assets and liabilities of the banking system (left) and by group of banks (right)
in millions of denars

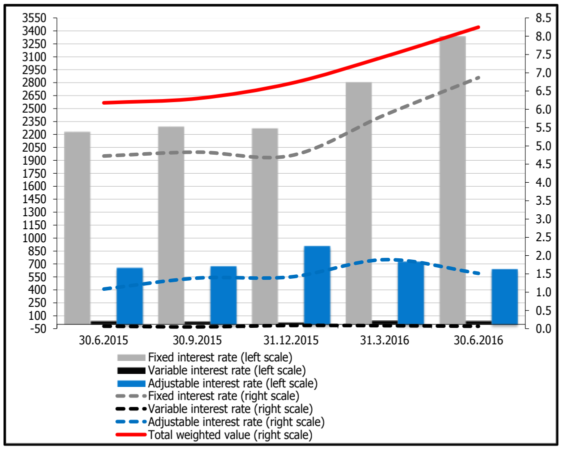


Source: NBRM, based on the data submitted by banks.

The gap between interest sensitive assets and liabilities, at the end of the second quarter of 2016, increased by Denar 722 million, or 7.5%. The growing gap is entirely due to the increase in the gap between the positions with fixed interest rate (due to the growth in loans on the assets side and the reduction in time deposits on liabilities side). Annex 33 shows the gap between interest sensitive assets and liabilities by group of banks.

[25] For more details on the movements of deposits see the section II.2.2 on Deposits of non-financial entities.
[26] For the purposes of reporting to the NBRM, these positions are presented under the applicable type of interest rate on the reporting date.

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 upward trend in the ratio between the total weighted value of the banking book[27] and own funds continued, and at the end of the second quarter of 2016, it amounted to 8.2%. Analyzing by banks, this ratio ranges from 0.1% to 16.4% with a median of 8.9%, which is below 20%[28]. Most of the growth in the total weighted value of the banking book is due to the positions with fixed interest rate.

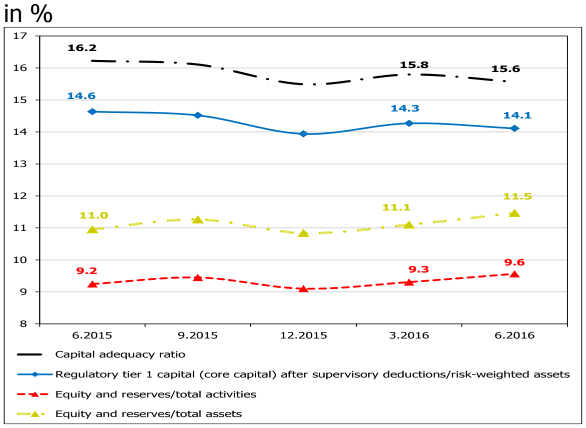
[27] The total weighted value of the banking book shows the change of the economic value of this portfolio as a result of the assessment of the change in the interest rates using a standard interest rate shock (parallel positive or negative change in interest rates by 200 basis points). The total weighted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

[28] According to the Decision on managing interest rate risk in the banking book (Official Gazette of the Republic of Macedonia No. 163/2008 and 144/2009), when total weighted value to own funds ratio exceeds 20%, the bank is required to propose measures to reduce this ratio, and the National Bank may also require allocation of appropriate amount of capital for the interest rate risk in the banking book.

5. Insolvency risk

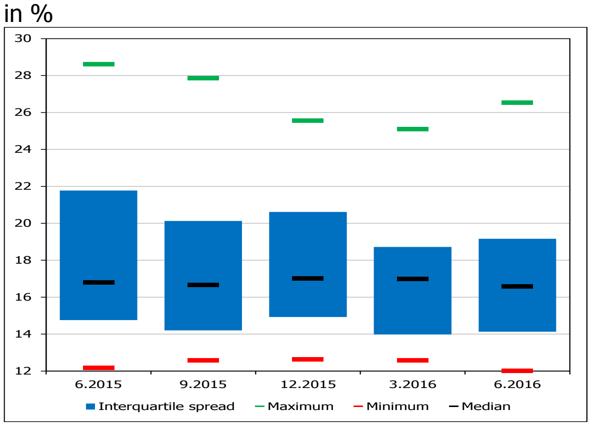
In the second quarter of 2016, the capital adequacy ratio recorded a slight decline and amounts to 15.6%. The own funds of the banking system registered a quarterly growth, which mostly stems from the retention of part of the profits generated in 2015 of the positions of the core capital. The growth of own funds was fully used to cover credit risk, which primarily resulted from the increased lending activity to households and non-financial companies (i.e. retail loan portfolio and claims on other trade companies). The risk content of banking activities recorded the highest growth for the last seven years, and the achieved risk level of 54.7% is the maximum in the last almost four years, which is a consequence of the reduction of banks' liquid assets which is included in the calculation of credit risk-weighted assets with risk weights of 0% and 20%, amid a simultaneous increase in lending activity to households and non-financial companies, whose risk weights amount to 100% and 150%, respectively. The results of most stress-test simulations conducted as of 30 June 2016, are better compared to the previous quarter.

Chart 44
Solvency ratios
in %



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

Chart 45
Measures for distribution of capital adequacy ratio in the banking system
in %

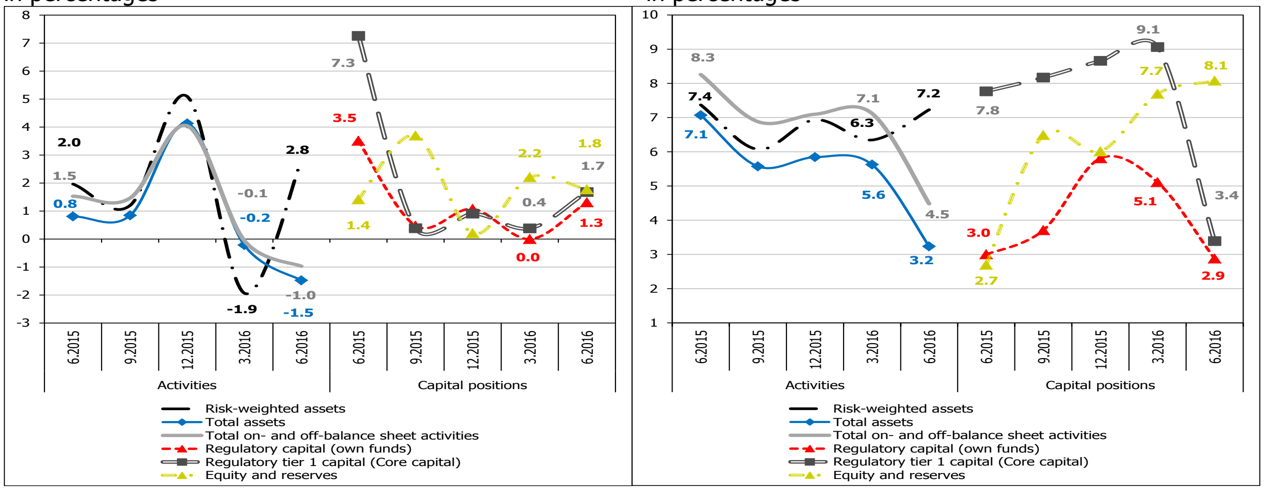


Source: NBRM, based on the data submitted by banks.

5.1. Indicators for solvency and capitalization of the banking system and risk level of the activities

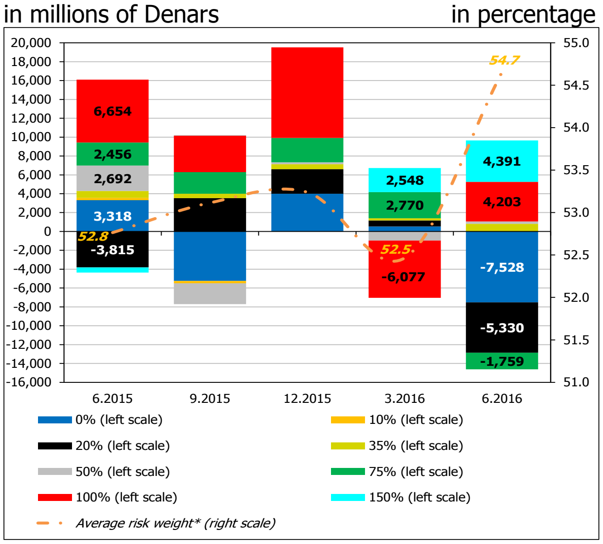
In the second quarter of 2016, the solvency and capitalization ratios of the banking system registered small, but divergent movements. The capital adequacy indicators and the ratio between the core capital and risk-weighted assets registered a slight deterioration of 0.2 percentage points. At the same time, indicators of the ratio between capital and reserves, on the one hand, and banks' activities, on the other hand, registered a modest improvement. In the second quarter of 2016, the individual capital positions of the banking system register mainly faster growth, which ranges from 1.3% to 1.8%. In contrast, banks' activities deepened the decline that began in the first quarter of 2016 and they decreased by 1% to 1.5%, mostly due to the outflow of liquid assets from the banking system. Exception is the movement of risk-weighted assets, which registered a quarterly growth of 2.8% (7.2%, on an annual basis), due to the further solid lending activity of the banking system (to households, but also to non-financial companies). As of 30 June 2016, all banks reported a capital adequacy ratio higher than or equal to 12%.

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



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

Chart 47
Quarterly changes in the total on-balance sheet and off-balance sheet exposure, by risk weights
in millions of Denars in percentage



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.

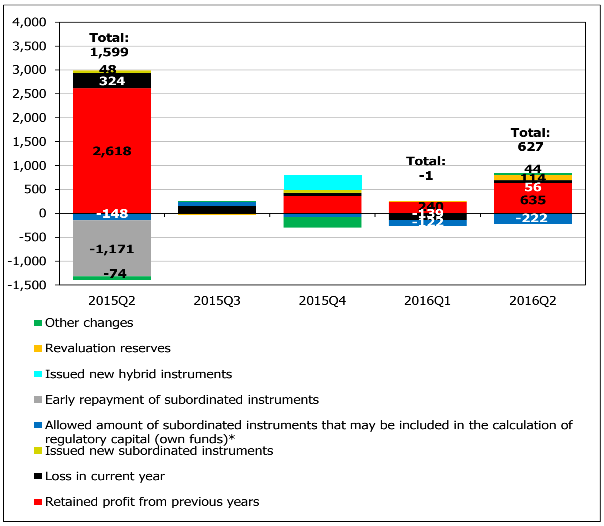
The quarterly increase in the risk content of banking activities is highest for the last seven years, and the achieved risk level of 54.7% is the highest in the last four years. The level of risk of the banking activities (measured as a ratio between credit risk-weighted assets and the total on-balance sheet and off-balance sheet exposure) increased by 2.2 percentage points and reached 54.7% as of 30 June 2016. This increase in the average risk weight is due to the reduction of banks' liquid assets (primarily investments in government securities and CB bills and placements with foreign banks), which is included in the calculation of credit risk-weighted assets with risk weights of 0% and 20%, amid a simultaneous increase in lending activity to households and non-financial companies, whose risk weights amount to 100% and 150%.

5.2. Movement and quality of the own funds of the banking system

In the second quarter of 2016, the own funds of the banking system went up by Denar 627 million (or 1.3%). Nine banks (partially or completely) retained the profit realized in 2015 of the positions of the core capital, amounting to Denar 635 million[29]. In contrast, in two banks, part of the subordinated instruments entered the last two, i.e. five years to the maturity date, which, under the regulations, are included at discounted value in the calculation of own funds. **The quality of own funds is high** with the share of core capital (after deductibles of core and additional capital) in total own funds of over 90%.

For more details about the level of own funds by group of banks see Annex 34.

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

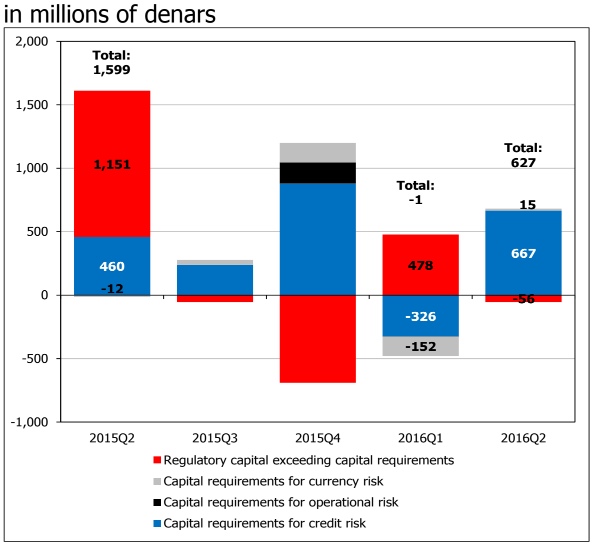


Source: NBRM, based on the data submitted by banks.
Note: * Refers to the changes in the amount of outstanding subordinated instruments arising from the compliance/non-compliance with the regulation for inclusion of these instruments in the calculation of own funds.

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

The growth of own funds was fully used to cover credit risk, and for this purpose, part of the "free" capital above the minimum level required to cover the risks was used. The capital requirement for credit risk registered a quarterly increase of Denar 667 million (or 3.1%), mostly resulting from increased claims based on retail loan portfolio and claims on other trade companies (i.e., lending to households and non-financial companies). Despite the quarterly decrease of Denar 56 million (or 0.2%), own funds above the capital requirement for covering risks still make up almost half (48.6%) of the total own funds.

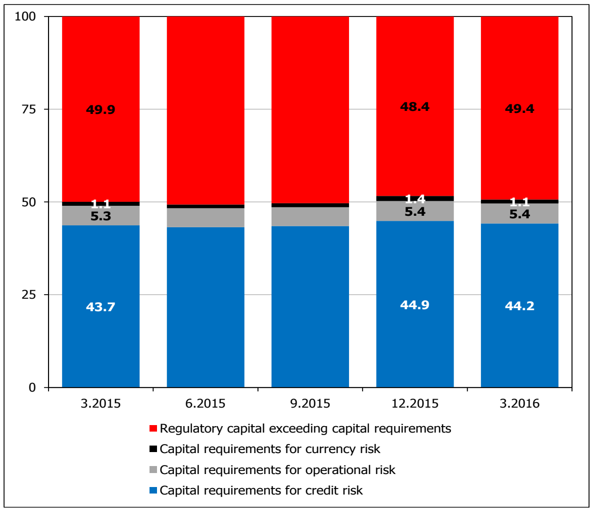
Chart 49
Structure of quarterly growth of own funds, by the purpose for covering risks
in millions of denars



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

[29] As of the second quarter of 2016, banks retained 47.6% of the profit realized in 2015 of the positions of the core capital. Yet another bank remains to make distribution of the profit realized in 2015.

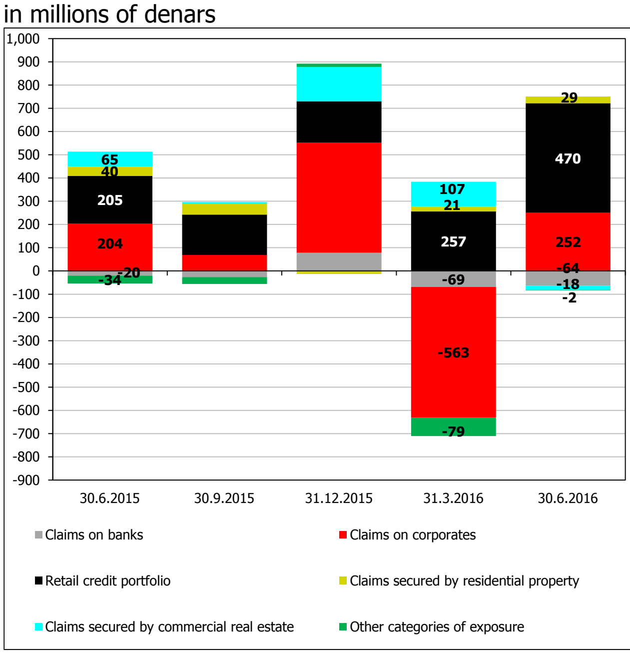
Chart 50
Structure of own funds according to the use for covering risks
in %



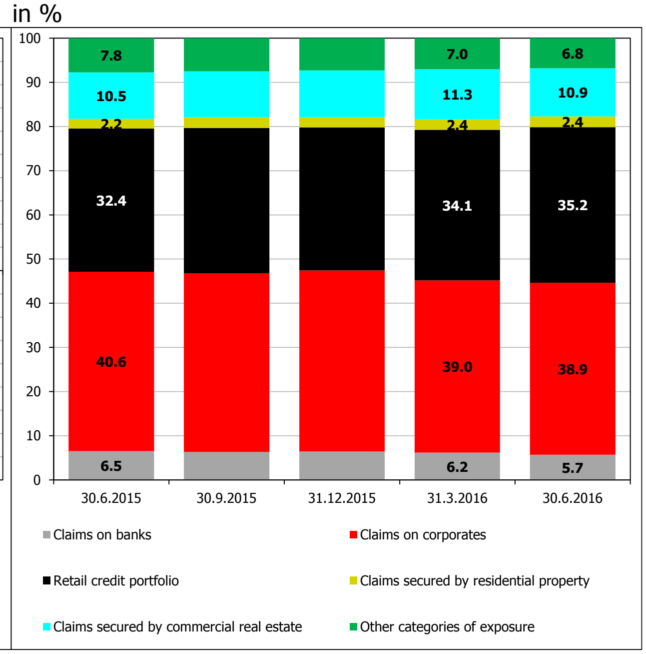
Source: NBRM, based on the data submitted by banks.

For more details of the capital requirements for covering risks and the capital adequacy ratio, by individual group of banks, see Annex 35.

Chart 51
Quarterly growth rates (left) and structure (right) of capital requirements for credit risk, by exposure category
in millions of denars

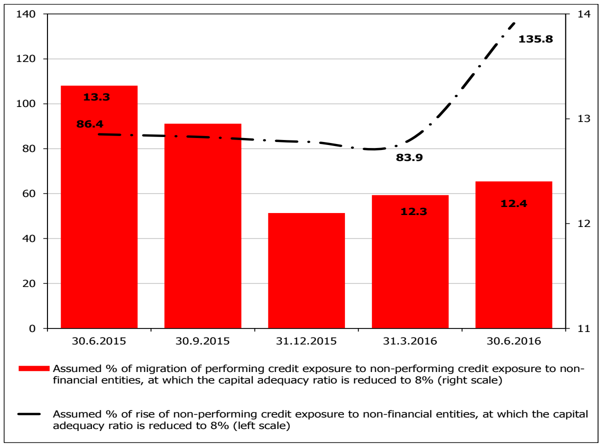


in %



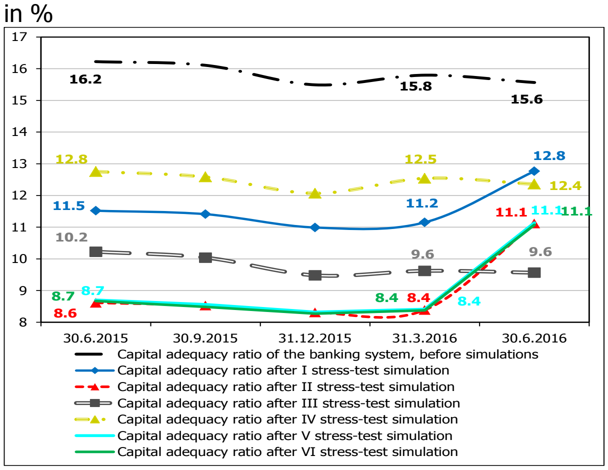
Source: NBRM, based on the data submitted by banks.

Chart 52
Necessary deterioration of the quality of credit exposure for the capital adequacy of the banking system to drop to 8%
in %



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

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 "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.

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 mostly improved results compared with 31 March 2016. The results of the stress test simulations that assume a certain percentage of increase of non-performing credit exposures, are significantly improved compared with 31 March 2016, mostly due to the transfer of fully provisioned non-performing loans to the off-balance sheets in the second quarter of 2016, as required by the recent amendments to the credit risk management regulations[30]. The results of the remaining stress test simulations are almost the same as on 31 March 2016. 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.

The hypothetical shocks on the part of the credit risk have the greatest impact on the stability of the banking system. Simulations show that the capital adequacy of the banking system would drop to the capital requirement of 8% only if the non-performing credit exposure to non-financial entities rises by 135.8%, i.e. in case of migration of 12.4% from regular to non-performing credit exposure. These simulations would lead to more than double share of non-performing in the total credit exposure to non-financial entities (from the current 6.4% to 15.1%). However, these are rather extreme and less likely simulations, especially in the short term[31].

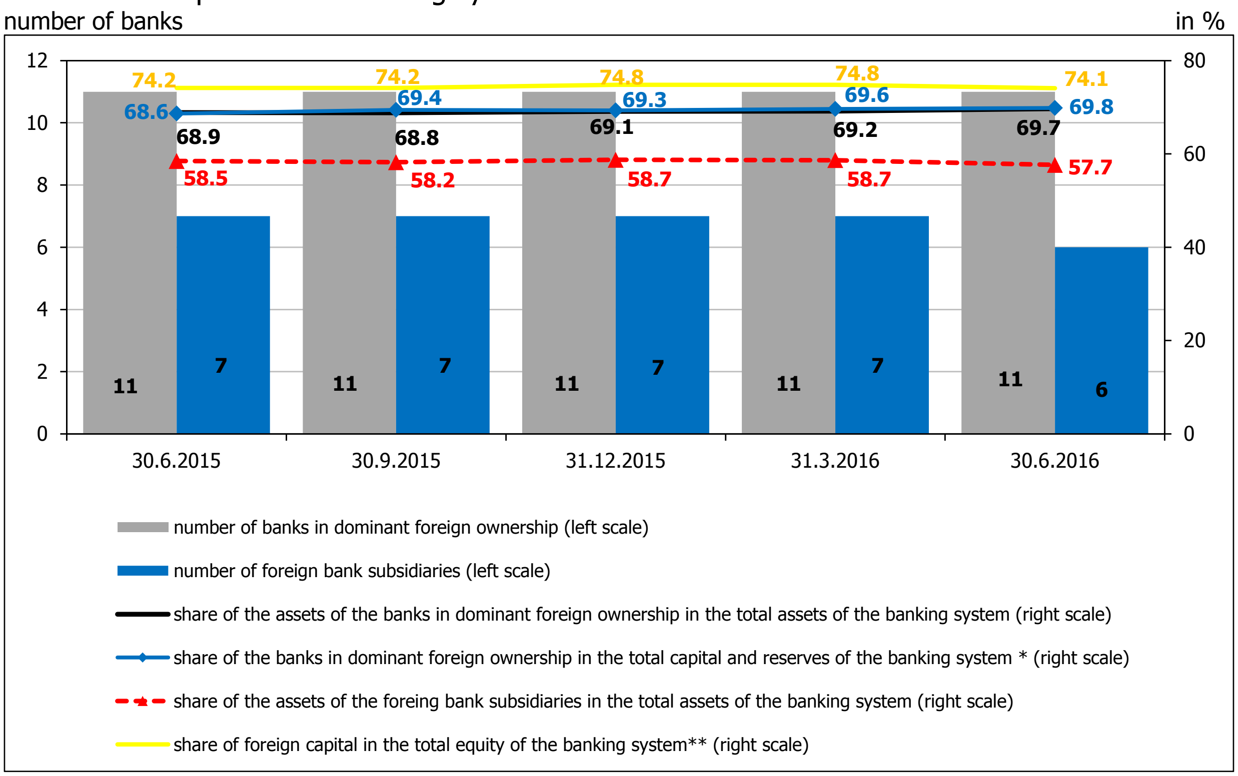
[30] More details about these changes in the regulations can be found in the section I.1. Credit risk
[31] For comparison, in the first quarter of 2016, only 0.9% of the regular credit exposure to non-financial entities migrated to non-performing exposure. In the last seven years, the historic maximum for this data was 2.1% and was reached in the second quarter of 2009.

II. STRUCTURAL FEATURES, SIGNIFICANT BALANCE SHEET CHANGES AND PROFITABILITY OF THE BANKING SYSTEM

1. Structure of the banking system

As of 30 June 2016, eighteen depository institutions operate in the Republic of Macedonia, i.e. fifteen banks and three savings houses[32]. The number of these financial institutions is unchanged compared to the previous quarter. The number of foreign owned banks is also unchanged (eleven), while the number of foreign bank subsidiaries was reduced by one[33] compared to the first quarter of 2016.

Chart 54
Number of foreign bank subsidiaries, number of banks in dominant foreign ownership and their share in the capital of the banking system



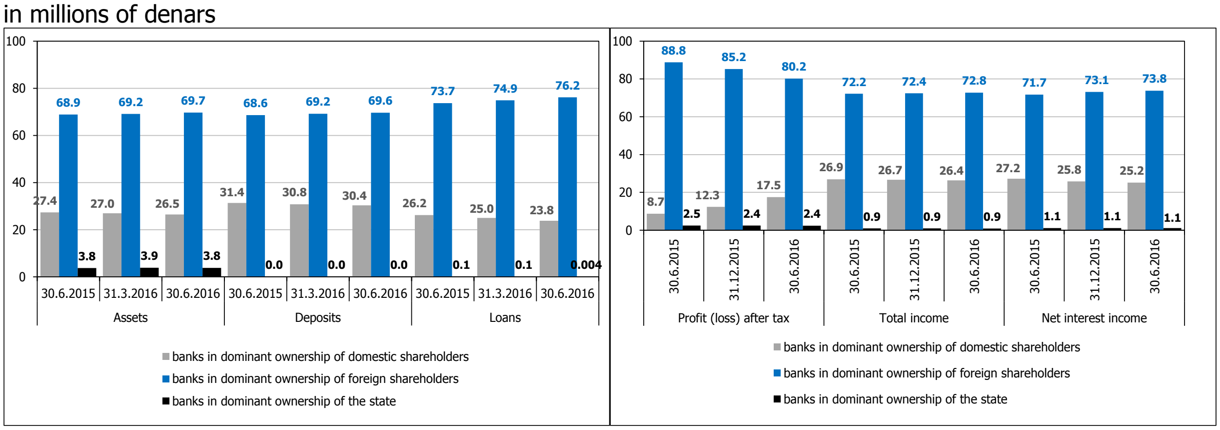
Source: NBRM, based on data submitted by banks.
*Equity includes face value of paid-in common and preference shares.
***Capital and reserves comprise of equity and premiums based on paid-in shares, reserve fund, retained earnings (accumulated loss) and revaluation reserves. Capital and reserves are reduced by the current loss.

The capital of the banks in the Republic of Macedonia is mostly foreign. The share of foreign capital in total equity of the banking system was 74.1%, which is a decrease compared to the first quarter of 2016

[32] The share of savings houses is only 0.6% of total assets of depository financial institutions (banks and savings houses), 0.8% of the total loans to non-financial entities and 0.4% of total household deposits. Therefore, savings houses are not analyzed in the quarterly report on risks in the banking system, but their risk profile and volume of activities is analyzed in the financial stability reports of the Republic of Macedonia.
[33] In May 2016, the entire shareholder capital owned by Alfa Bank from Athens was bought by Silk Road Capital, a company owned by a Swiss investor.

(of 0.7 percentage points). This reduction stems from the change in the ownership of one bank (from foreign bank to domestic nonfinancial entity). On the other hand, the share of capital and reserves increased by 0.2 percentage points, mostly due to the retained earnings by several banks. Due to the change in the ownership structure of one bank, the number of foreign bank subsidiaries decreased by one, which merely (by 1 percentage point) reduced the share of foreign bank subsidiaries' assets in total assets of the banking system.

Chart 55
Structure of major banks' balance sheet positions, by banks' majority ownership
in millions of denars

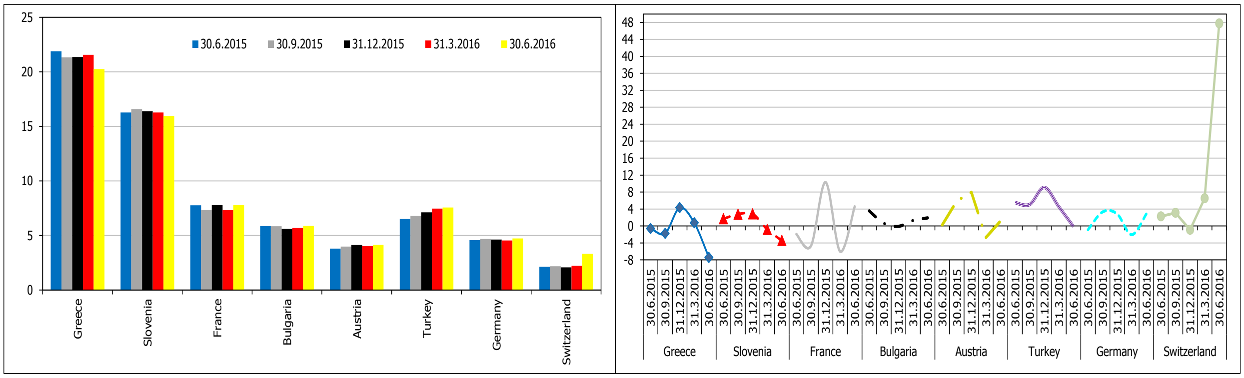


Source: NBRM, based on data submitted by banks.
Note: The categories of the income statement are annualized. Categories are annualized by summing up the values in the last twelve months for the respective categories of the income statement.

Banks with dominant foreign ownership have a leading role in the relevant items in the balance sheets of the banking system.

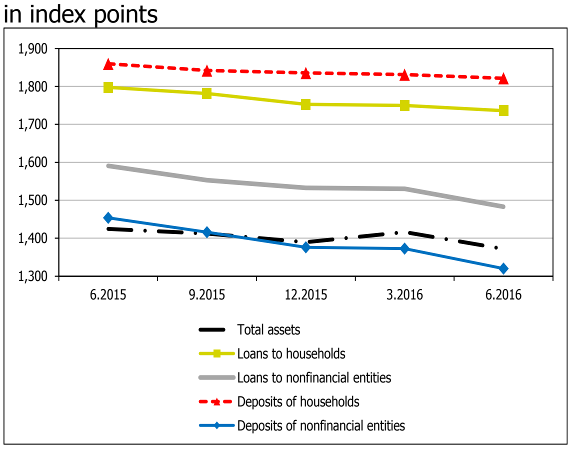
The share of foreign bank assets in total assets of the banking system was 69.7%, and increased quarterly by 0.5 percentage points. The share of mostly foreign owned banks continues to dominate the total financial result, although it fell by 5.0 percentage points. In the second quarter of 2016, banks with dominant foreign ownership reported profit, except for two smaller banks.

Chart 56
Market share (assets) of banks (left) and growth rate of banks' assets (right) by country of origin of the prevailing foreign shareholder*
in % in%



Source: NBRM, based on data submitted by banks.
*The bank in domestic ownership and banks without prevailing owner are not included in the chart.

Chart 57
Herfindahl index
in index points



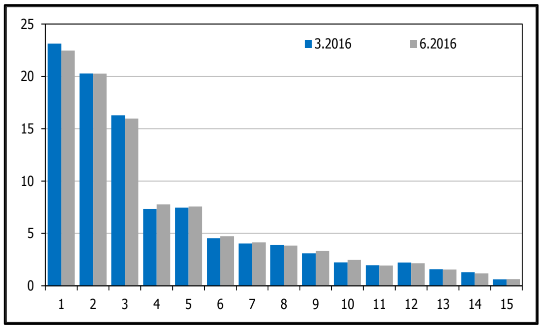
Source: NBRM, based on data submitted by banks.

Observing the country of origin of the prevailing foreign shareholder, small structural changes were registered compared to the first quarter of 2016, which are primarily the result of the purchase and sale of small volume of shares by institutional investors. The increasing share of Swiss shareholders in the total foreign capital (of 1.1 percentage point) and the declining share of Greek shareholders (of 1.3 percentage point) are an exception, and solely result from the aforementioned change in the ownership structure of one bank.

The concentration in the banking system is moderate, and measured by the Herfindahl index[34] it has shrunk. Only the Herfindahl index of household deposits is still above the acceptable level, but in the last eight quarters, it has been permanently declining.

[34] 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 denotes the total number of banks in the system. When the index ranges from 1,000 to 1,800 units, the concentration ratio is considered to be acceptable.

Chart 58
Share of individual banks in the total assets of the banking system
in %



Source: NBRM, based on data submitted by banks.

The movements and structures of the domestic banking system are determined by the three largest banks, taking into account the size of their assets. The three largest banks still account for almost 60% of the total assets of the banking system, while ten banks have an individual share of less than 5% (jointly making up 26% of the assets of the banking system). However, there is a gradual decrease in the share of major banks, and growth in the share of most medium-sized banks.

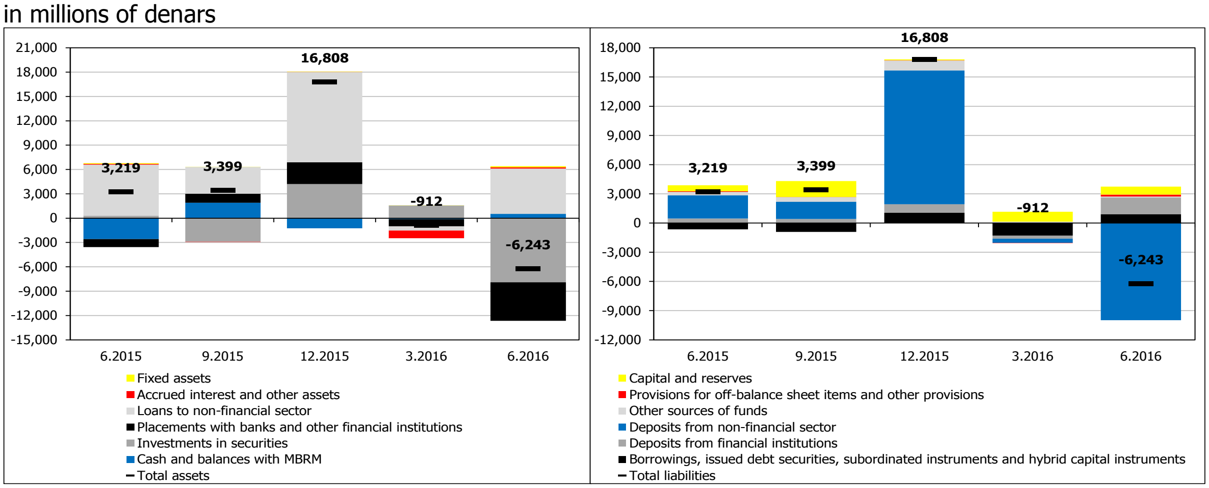
2. Bank activities

In the second quarter of 2016, amid continuing domestic political instability accompanied by speculation about the stability of banks and deposits and persistent external geopolitical tensions and worsening global economic environment (including the Brexit), the total activities of the Macedonian banking system registered a downward movement. Shaken public confidence, especially among households, led to withdrawals of deposits from the banking system, mostly pronounced in the second half of April and May 2016. This had a significant adverse impact on the denarization of banking activities, since the withdrawal was particularly pronounced in denar deposits. In such circumstances, banks were extremely effective in managing their liquidity (using the interbank market and monetary instruments of the National Bank to provide liquidity - repo and overnight credit facilities) and smoothly met all the deposit payment requirements that resulted in quarterly decline in assets, mostly in investments in liquid assets. The withdrawal of deposits from banks was also followed by increased demand for foreign currency on the foreign exchange market that created a need for interventions of the National Bank in the foreign exchange market. Simultaneously, the National Bank responded by tightening monetary policy, i.e. increasing the policy rate and the reserve requirement ratio for banks' denar liabilities with FX clause.

Chart 59

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

in millions of denars

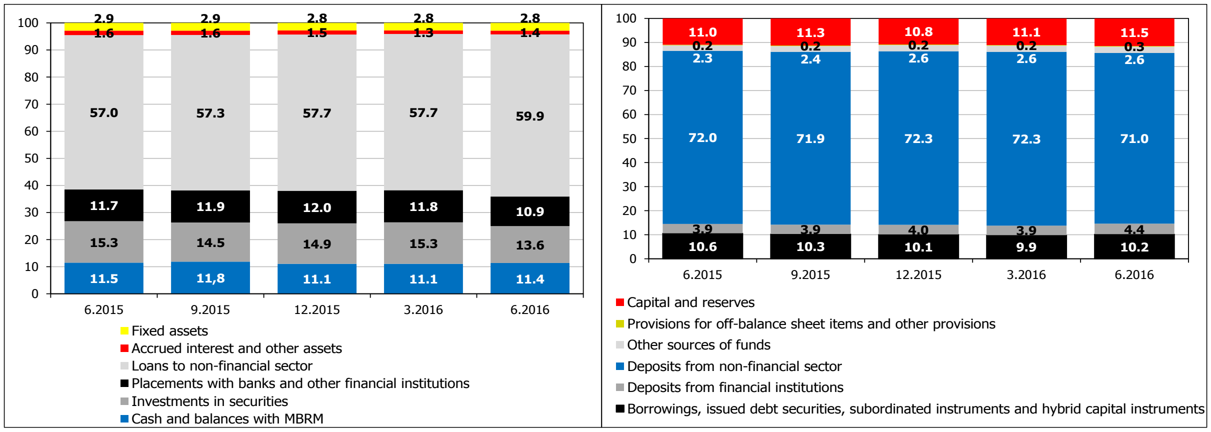


Source: NBRM, based on the data submitted by banks.

Note: Loans are presented on a net basis less impairment

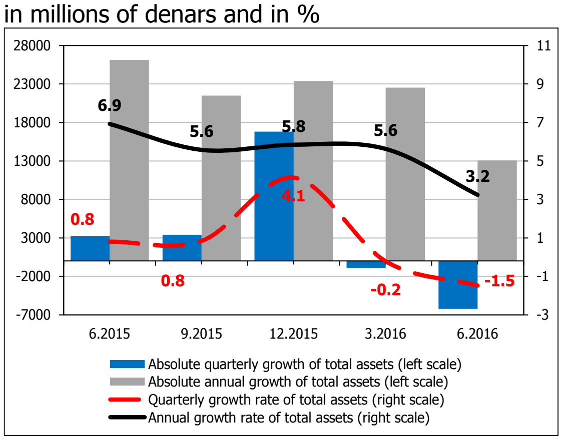
On the other hand, the decline in bank lending mostly reflected the strong decrease in non-performing loans, primarily influenced by changes in the NBRM regulations that required by banks to clean, by 30 June 2016, their loan portfolios from all claims that are fully provisioned for more than two years (to transfer them from on-balance to off-balance sheets). The effects of the transfer were mostly felt in the corporate sector whose loans have declined, while lending to households has increased. Excluding this effect, in the second quarter of 2016, lending registered solid growth, not only in households, but also in the corporate sector.

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



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

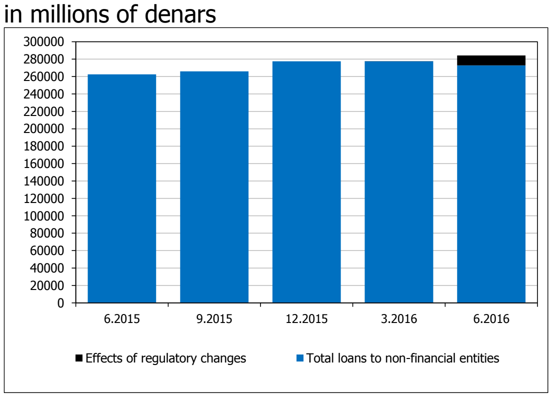
Chart 61
Assets of the banking system
in millions of denars and in %



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

As of 30 June 2016, total assets of the banking system were Denar 416,513 million. The reduction in bank assets of Denar 6,243 million, or 1.5% (compared to 31 March 2016), was mostly due to the lower banks' investments in securities, as well as the reduced placements with banks and other financial institutions. Changes in assets are a direct reflection of the decrease in the deposit base in this quarter.

Chart 62
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 2016, lending to non-financial entities by banks recorded a negative quarterly growth, while the annual rate of growth slowed down significantly. The reduction in total loans to non-financial entities[35] (by Denar 4,614 million, or 1.7%), is mostly due to the drastic fall of nonperforming loans, mostly affected by the

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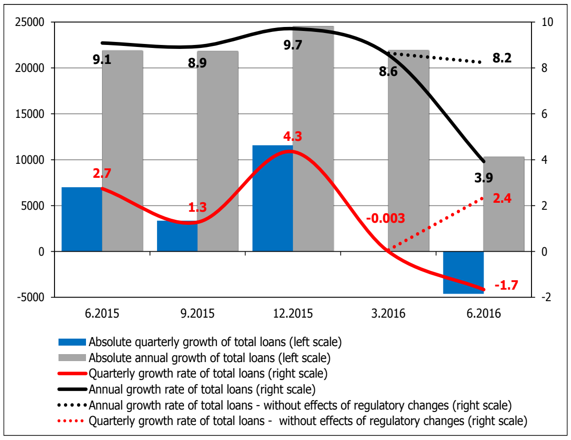
[35] Loans to non-financial entities include the loans to resident and non-resident non-financial entities, including loans to private and public non-financial companies, central government, local government, non-profit institutions serving households (loans to other clients), sole proprietors and natural persons (loans to households).

Chart 63
Growth of loans to non-financial entities
in millions of denars and in %

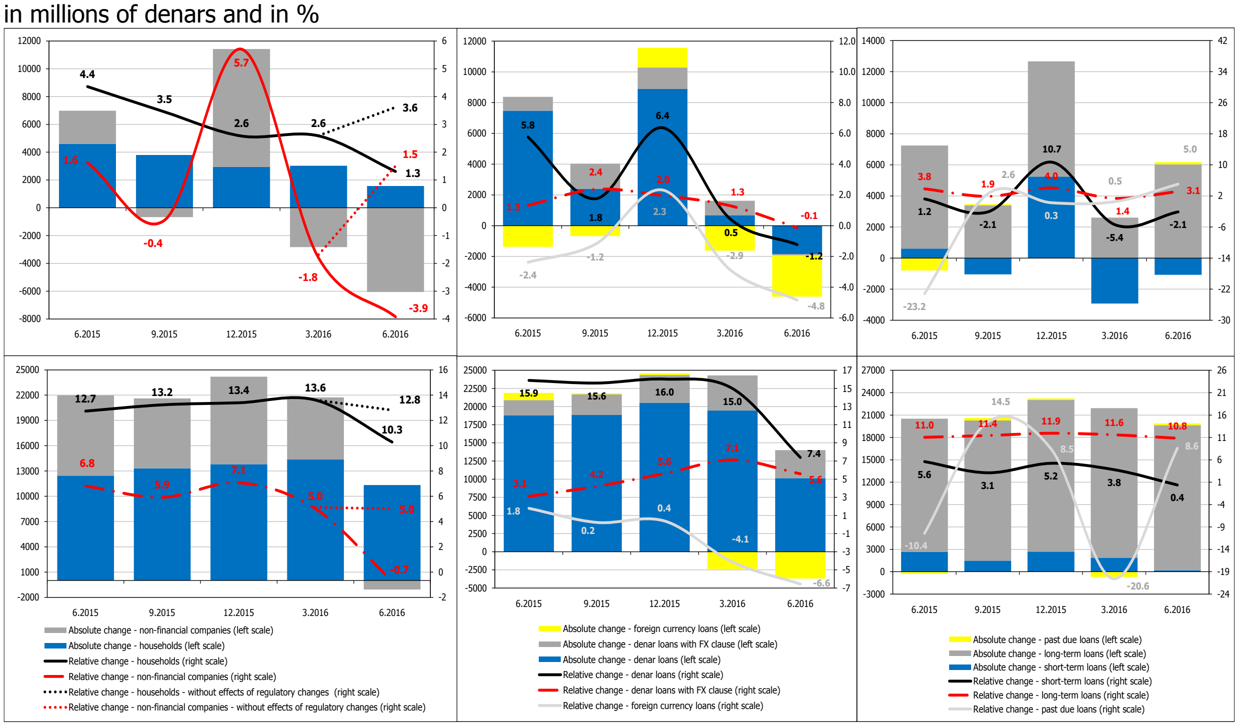


Source: NBRM, based on the data submitted by banks

change in the NBRM regulation[36] that required from banks to clean the balance sheets from claims whose credit risk has been fully covered for at least two years. If we exclude this effect, the quarterly growth rate of lending to non-financial entities by banks would have still been positive, i.e. would have climbed to 2.4% (from 0.1% in the first quarter of 2016). Despite the imminent slowdown, lending would register solid annual growth of 8.2% (slowdown of just 0.4 percentage points compared to the growth in the previous quarter).

Analyzed by sector, the effects of the decision were mostly felt in the corporate sector. The bank lending to corporate clients decreased significantly (by 3.9%)[37] while lending to households[38] continued

Chart 64
Quarterly (up) and annual (down) growth of loans by sector, currency and maturity
in millions of denars and in %



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

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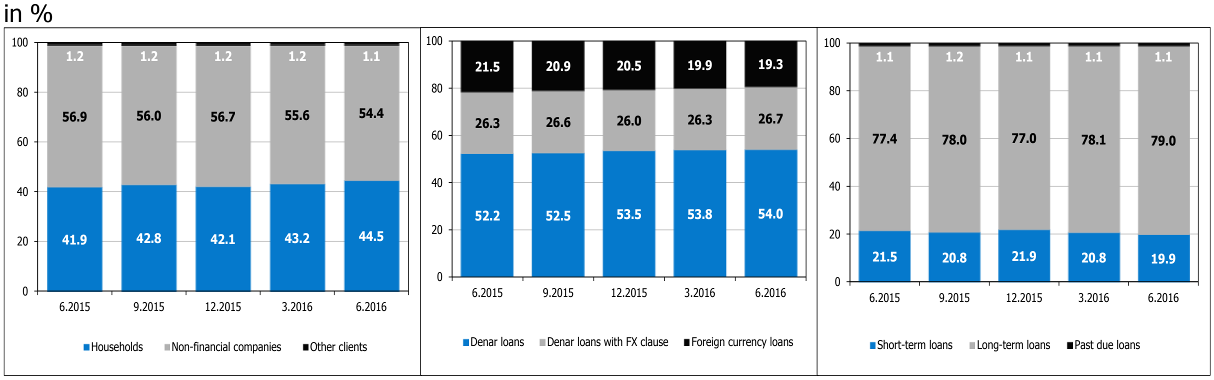
[36] Decision on amending the Decision on credit risk management (Official Gazette of the Republic of Macedonia No. 223/15), of December 2015. It require from banks, within the period from 1 January 2016 to 30 June 2016, to transfer to the off-balance sheets any claim that was fully provisioned for more than two years. Banks have still been required to continue to write off non-performing claims that are fully provisioned for more than two years.
[37] For comparison, in the first quarter of 2016, the quarterly rate of decline in loans to non-financial companies was 1.8%.
[38] Consumer loans and loans for the purchase and renovation of residential property are the most widely used credit products in the households.

to grow (by 1.3%), but at a slower rate compared to the previous quarter. If we exclude the impact of regulatory changes, lending to both sectors in this quarter has been rapidly growing.

Analyzed by currency, changes in total loans in the second quarter of 2016 are due almost equally to the decline in both denar and foreign currency loans. Yet, despite the decrease, denar loans retained the leading role in the currency structure of loans, with the highest share so far of 54%.

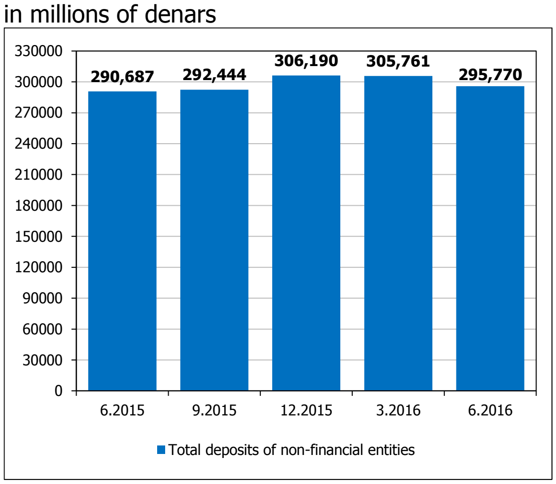
Chart 65
Structure of total loans, by sector (left) and currency (middle), and by regular loans, by maturity (right)
in %



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

Analyzed by maturity, the long-term funding further strengthened the already high share in the structure of total loans to non-financial entities. The growth of long-term loans almost entirely resulted from the household sector.

Chart 66
Stock of deposits of non-financial entities
in millions of denars

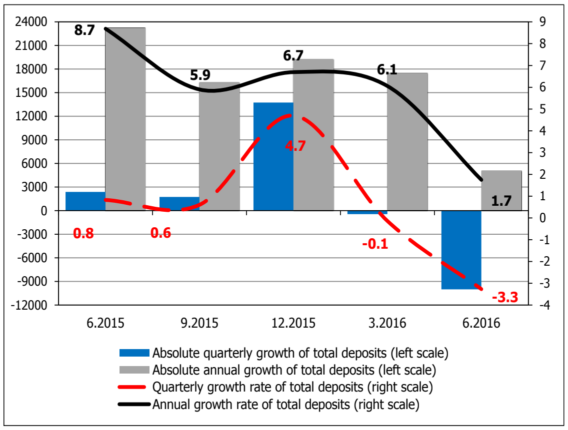


Source: NBRM, based on the data submitted by banks.

2.2. Deposits of non-financial entities

In the second quarter of 2016, due to the re-escalation of domestic political turmoil and speculations about the stability of deposits with banks, the banking system of the Republic of Macedonia faced withdrawal of deposits by households, which especially intensified in the second half of April and May 2016. In such circumstances, banks managed their liquidity effectively and executed all the requirements for payment of deposits

Chart 67
Growth of deposits of non-financial entities
in millions of denars and in %

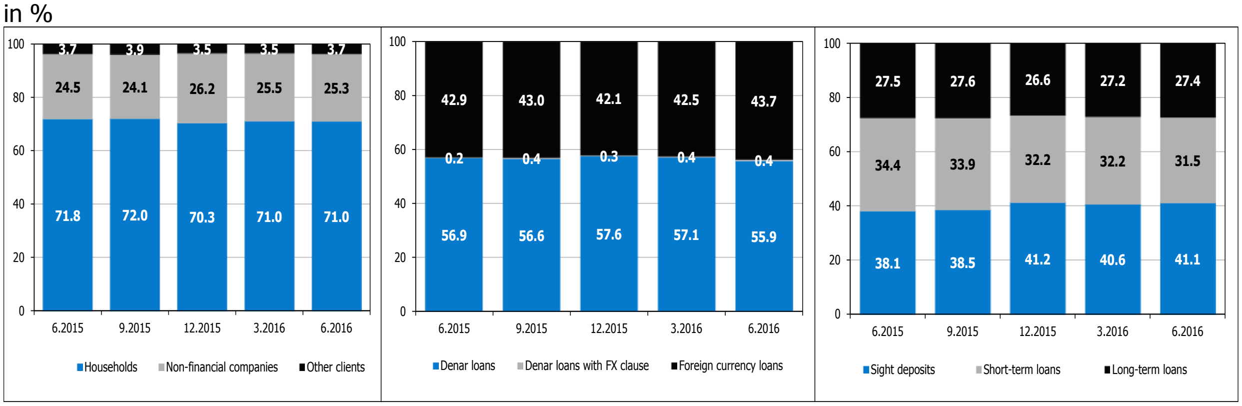


Source: NBRM, based on the data submitted by banks.

smoothly. In the last ten days of May 2016, the intensity of outflows calmed down and the overall situation stabilized.

The annual growth (June 2016 - June 2015) of total deposit base of banks significantly slowed down, while on a quarterly basis (June 2016 - March 2016) it decreased by Denar 9,991 million, or 3.3%. The largest contribution (73.3%) to the decrease in the deposit potential of the Macedonian banking system was made by the household deposits, which in the second quarter of 2016 decreased by Denar 7,321 million, or 3.4%[39]. However, households remain the most important depositor in the banks, accounting for 71% of total deposits as of 30 June 2016. Despite pressures on the banks' deposit base, in the second quarter of the year, the turnover on the currency exchange market significantly increased, and the demand for foreign currency grew. Thus, the National Bank not only it did continue intensively monitoring the deposit base and intervening to meet the demand for foreign currency in response to these changes, in early May 2016, it also tightened monetary policy by increasing its policy rate by 0.75 percentage points (from 3.25% to 4%).

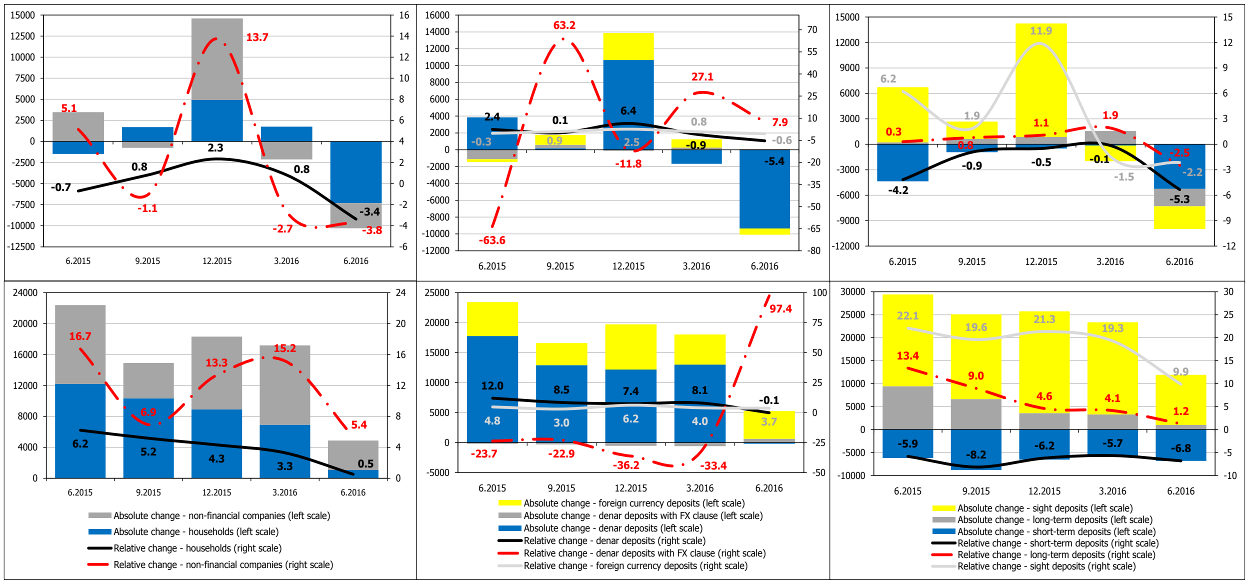
Chart 68
Total deposit structure, by sector, currency and maturity
in %



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

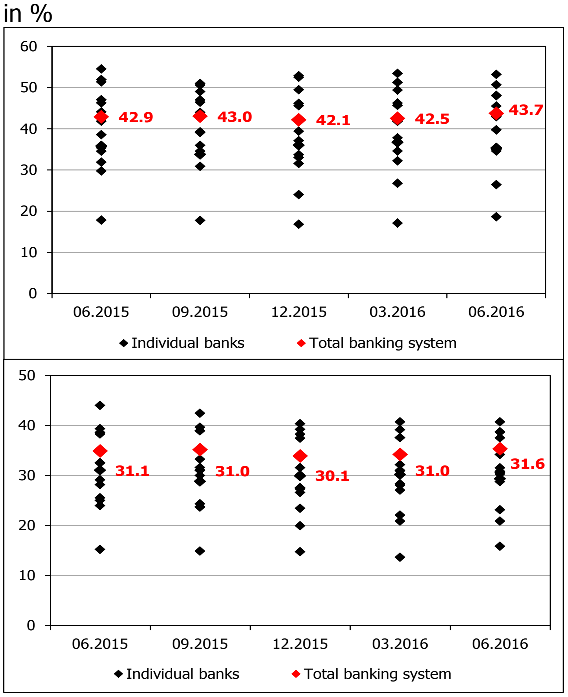
[39] Compared to the same period last year, the annual growth rate of household deposits registered a multiple decrease and hit a record low in the last decade.

Chart 69
Quarterly (up) and annual (bottom) deposit growth by sector, currency and maturity
in millions of denars and in %



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

Chart 70
Share of total foreign currency deposits (up) and foreign currency household deposits (below) in total deposits of the banking system
in %



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

Reduced confidence of economic entities due to the increased domestic political uncertainty, had an adverse effect on the denarization of bank deposits, thus reinforcing the preference to hold and save in foreign currency.

The quarterly decline of denar deposits in the previous quarter (0.9%) further accelerated in the second quarter and reached 5.4%. Total denar deposits reduced primarily as a result of the lower denar deposits of households (by Denar 7,263 million or 6.4%). However, most (or 55.9%) of the total deposit base is comprised of denar savings primarily of the household sector (63.8% of total denar deposits are household deposits). To support the process of denarization of deposits in the domestic banking system, in May 2016, the NBRM increased the reserve requirement ratio for banks' liabilities in domestic currency with FX clause[40]. Furthermore, given the increased need for maintaining a higher level of foreign currency liquidity in banks, amid negative interest rates on the international financial markets, the

[40] Decision on reserve requirement (Official Gazette of the Republic of Macedonia No. 87/16), that increased the reserve requirement ratio for banks' liabilities in domestic currency with FX clause from 20% to 50%.

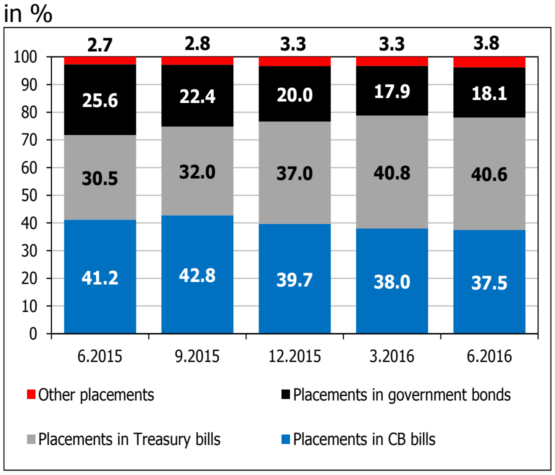
National Bank once again (after about 14 months) began holding auctions of foreign currency deposits at more favorable interest rates than those prevailing on the international financial markets[41].

Besides the fall in denar deposits, foreign currency deposits[42] also registered a quarterly decline, almost entirely caused by the non-financial companies.

In the second quarter of 2016, deposit denarization halted along with the shortening of their maturity. Short-term deposits kept on rapidly decreasing, same as in the past few quarters. Demand deposits also declined (mainly because of the corporate deposits), and for the first time in a long time, long-term deposits also reduced, which was particularly pronounced in households (already in July 2016, the reduction of these deposits slowed down).

2.3. Other activities

Chart 71
Structure of the securities portfolio
in %

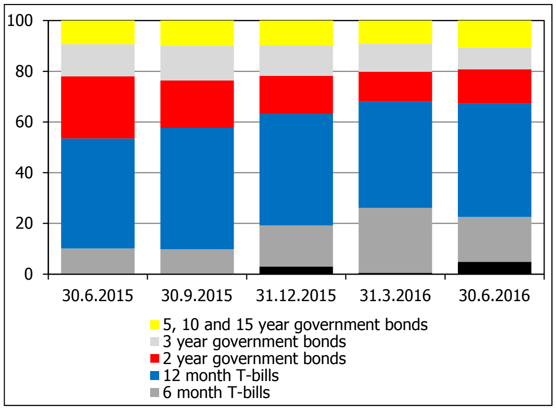


Source: NBRM, based on data submitted by banks.

Unlike the last two quarters, in the second quarter of 2016, **the banks' securities portfolio decreased** (by Denar 7.900 million, or 12,2%) as a response to the increased withdrawal of deposits from the banking system. Accordingly, the share of securities portfolio in total bank assets at the end of June 2016 reduced to 13.6% (from 15.3% at the end of March 2016). The largest contribution to the reduction of banks' portfolio securities was made by the quarterly decrease in investments in treasury bills (of Denar 3.372 million, or 12.8%)[43], with significant reduction (of Denar 1,281 million, or 11.1%) of banks' investments in domestic long-term debt securities (three-year government bonds). Amid reduced amount of offered CB bills to ensure greater liquidity in the

[41] Pursuant to the Decision on foreign exchange deposits with the National Bank, as of 13 May 2016, banks are allowed to place foreign currency deposits in the central bank at higher than the current negative interest rates prevailing in the international financial markets.
[42] Foreign currency deposits decreased by Denar 727 million, or 0.6%.
[43] The decrease in domestic short-term debt securities was mostly due to the six-month treasury bills, and slightly less to the twelve-month treasury bills.

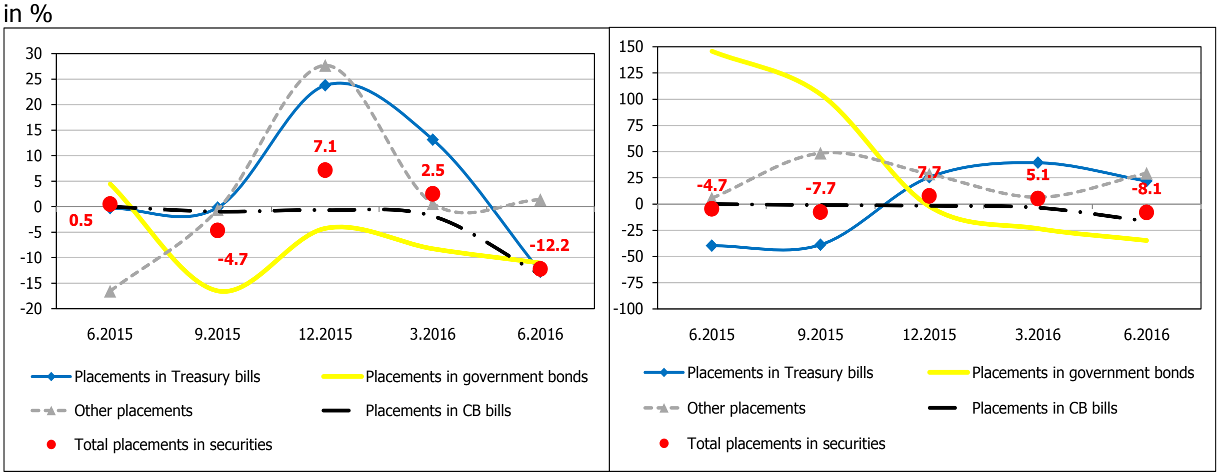
Chart 72
Maturity structure of banks' investments in government securities
in %



Source: NBRM, based on data submitted by banks.

system and increased interest rate[44] (as response of the National Bank to the higher uncertainty and deteriorating expectations of economic agents, accompanied by increased demand for foreign currency and pressures on the banks' deposit base), banks' investments in CB bills decreased (by Dennar 3,277 million, or 13.3%).

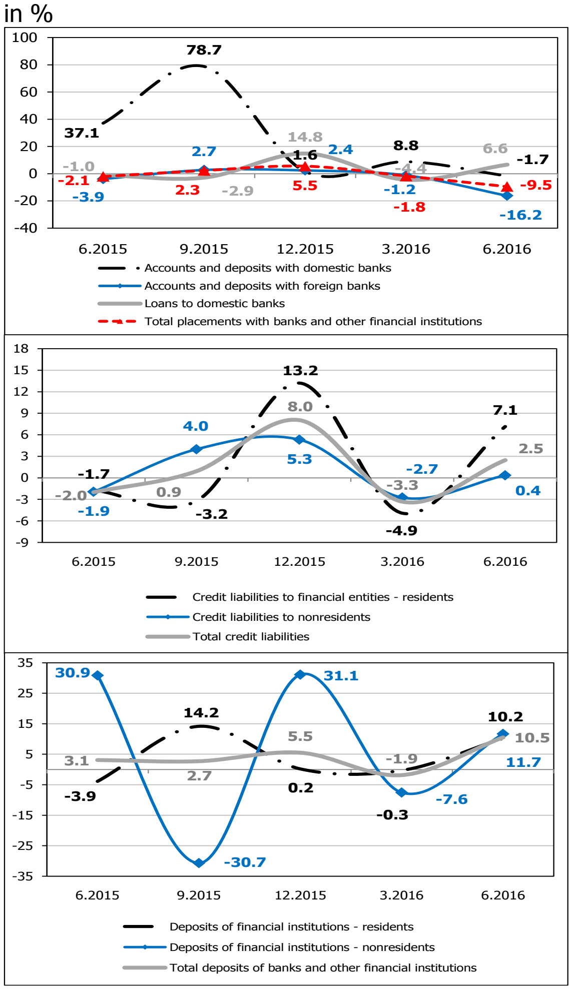
Chart 73
Quarterly (left) and annual (right) growth rate of securities portfolio
in %



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

[44] In early May 2016, the National Bank increased the interest rate on CB bills by 0.75 percentage points (from 3.25% to 4%).

Chart 74
Quarterly growth rate of placements with financial institutions (top), loan liabilities (middle) and deposits of financial companies (bottom)
in %



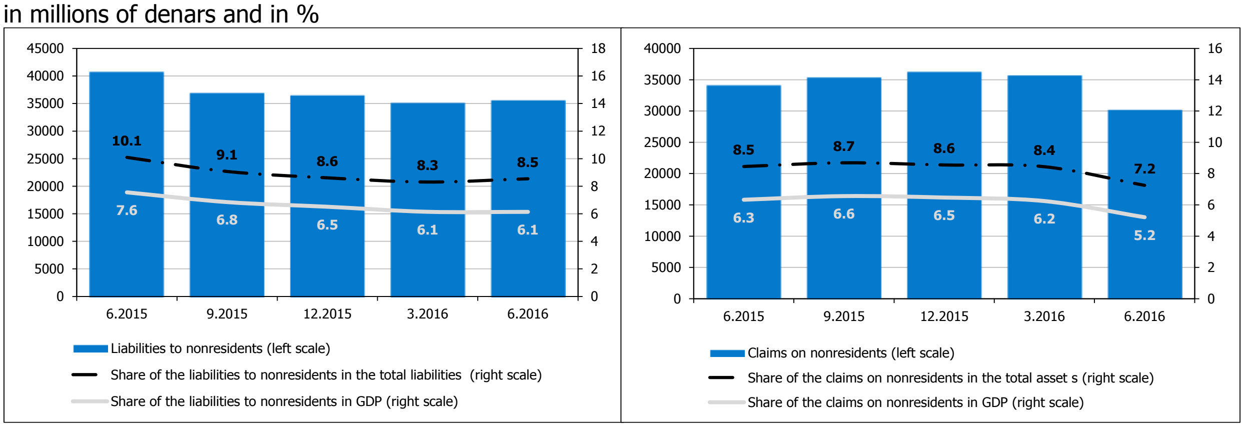
Source: NBRM, based on data submitted by banks.

In the second quarter of 2016, **placements with banks and other financial institutions** declined (by Denar 4,751 million, or by 9.5%), almost entirely caused by the decrease of balances on correspondent accounts with foreign banks, particularly pronounced in April and May 2016, due to the smooth payment of deposits and/or conversion into foreign currency and foreign currency deposits. A smaller portion of the reduction in placements with banks and other financial institutions is due to the lower short-term foreign currency deposits abroad (from three months to one year), mainly with one bank.

Analyzing liabilities, increased **loan liabilities** (by Denar 892 million or 2.5%) is mainly due to the increased interbank lending liabilities (short-term denar loans to banks), and less to the increased short-term foreign currency loan liabilities to non-resident financial companies.

In the second quarter of 2016, **deposits from banks and other financial institutions** are higher compared to the previous quarter (the largest increase was recorded by foreign currency current accounts of insurance companies and long-term denar deposits of pension funds). Notwithstanding the increase, deposits from banks and other financial institutions are still very small source of funding for banks (4.4% of total funding sources).

Chart 75
Liabilities to (left) and claims on (right) non-residents
in millions of denars and in %

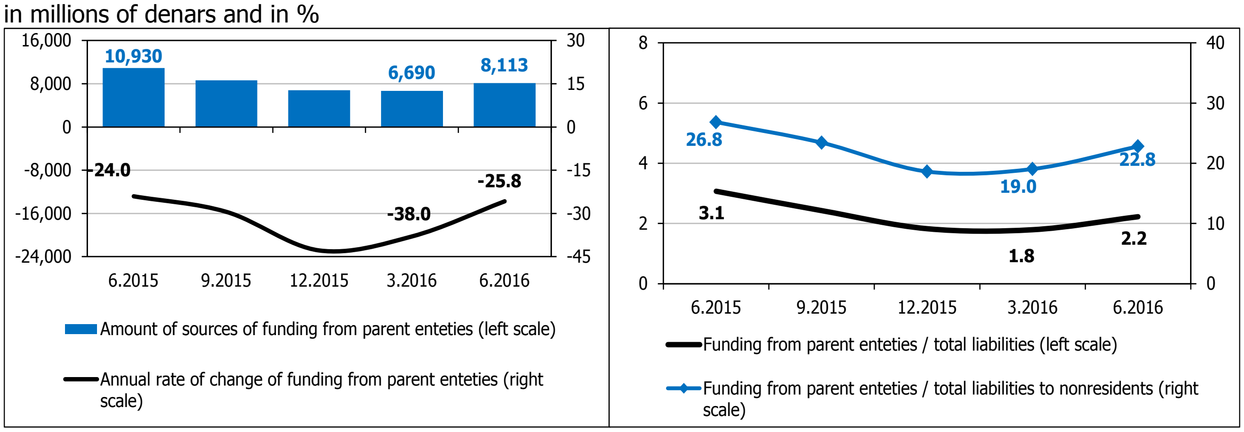


Source: NBRM, based on the data submitted by banks.

Banks in the Republic of Macedonia have been carrying out their activities mainly on the domestic market. The modest amount of banks' claims on non-residents declined further (by Denar 5,486 million or 15.4%) and their share in total assets of the banking system fell below 8%[45]. On the other hand, banks' liabilities to non-residents increased minimally[46], rising their share in total liabilities of the banking system to 8.5%[47]. Placements with non-residents are mainly liquid assets (correspondent accounts or short-term deposits) with foreign banks, while the bulk of liabilities to non-residents are long-term loans, mainly of MBDP AD Skopje to international financial institutions.

Macedonian banks are not dependent on using loans from their parent banks as a source of funding. Thus, the share of **banks' liabilities to parent entities** (including subordinated liabilities and hybrid capital instruments) in total liabilities of the domestic banking system and liabilities to non-residents, as of 30 June 2016, was 2.2% and 22.8%[48], respectively (1.8% and 19%, respectively, in the previous quarter).

Chart 76
Liabilities to parent entities of banks
in millions of denars and in %



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

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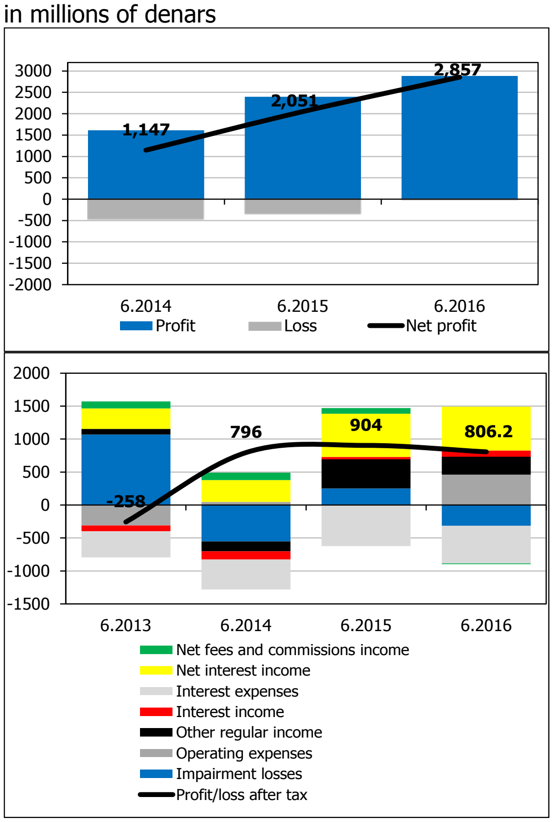
45 Analyzing by bank, the share of banks' claims on non-residents in total assets ranged from 0.3% to 16.9%.
46 Banks' liabilities to non-residents increased by Denar 460 million, or 1.3% quarterly.
47 Analyzing by bank, the share of banks' liabilities to non-residents in total liabilities ranged from 0.1% to 14.3%. MBDP AD Skopje was excluded from this analysis.
48 Analyzing by bank, the share of banks' liabilities to parent entities in total liabilities to non-residents ranged from 12.5% to 83.1%.

3. Profitability

Profitability of the banking system has been improving, despite the unstable domestic environment in the second quarter of 2016. Profits reported for the first half of 2016 increased by 10.5% compared to that earned in the same period last year, yet at a slower growth rate. Lower interest expenses are still generators of the improved profitable operations, with a quarterly contribution made by the reduced impairment of foreclosed property, and the growth of other regular income. Profitability indicators have improved same as the banks' operational capacity of generating income that covers operating costs, despite the growth in operating costs. As of June 2016, only three banks (six at the end of June 2015), making up 5% of the total assets of the banking system (32.8% at the end of June 2015) operated at a loss. Lending and deposit interest rates of banks continued to decline. Denar deposit interest rates remained the same in this quarter probably due to the increased NBRM policy rate (by 0.75 percentage points in May 2016).

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



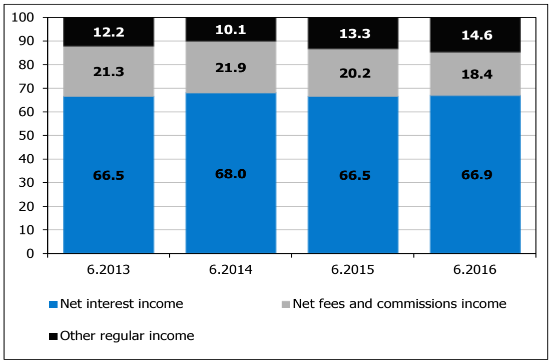
Source: NBRM, based on data submitted by banks.

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

In the first half of 2016, **banks' total income** (total regular income[49] and extraordinary income) increased by Denar 928.2 million, or 9.0%, compared to the same period of the previous year and reached Denar 11,283 million. The largest contribution (of 71.6%) to the growth of total income was made by the increased net interest income (by Denar 664.9 million or 9.7%), which, in turn, reflects the **sharper annual reduction of interest expenses** (of Denar 571.3 million, or 19.1%) compared with the **insignificant increase of interest income** (of Denar 93.6 million or 0.9%). An additional contribution (of 29.5%) to the increase in total revenues was that of the growth of other regular income (of Denar 273.8 million, or 19.9%).

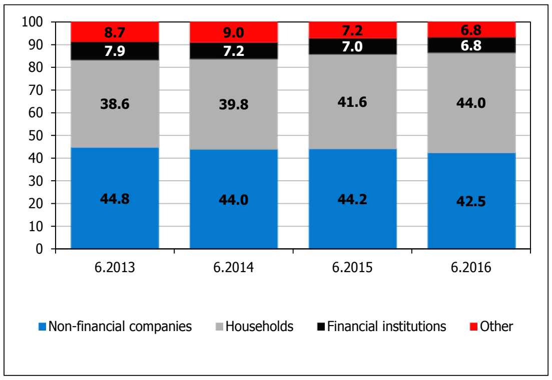
[49] Total regular income includes net interest income, net commission income and other regular income (net trading income, net income from financial instruments carried at fair value, net income from exchange rate differentials, income from dividends and equity investments, net gains from sale of financial 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).

Chart 78
Structure of total income
in %



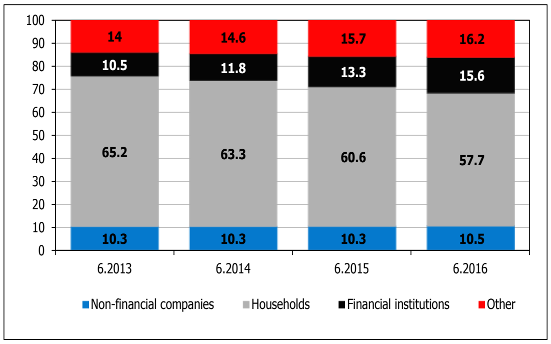
Source: NBRM, based on data submitted by banks.

Chart 79
Sector structure of interest income
in %



Source: NBRM, based on data submitted by banks.

Chart 80
Sector structure of interest expenses
in %



Source: NBRM, based on data submitted by banks.

The structure of total income in the first six months of 2016 has partly changed compared to the previous year, **but the net interest income still has the largest share in total income of banks.**

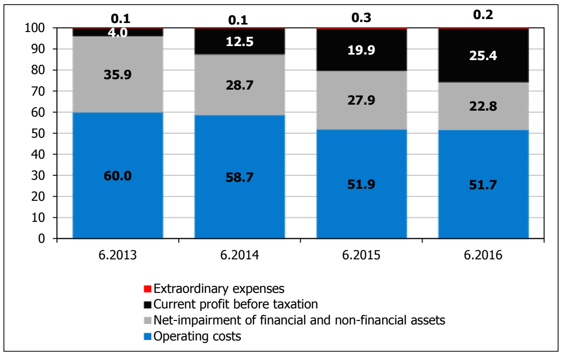
In the first quarter of 2016, the increase in interest income by sector results from the growth of interest income from households, amid decline in income from all other sectors. **The growth of interest income from households** (of Denar 296.0 million, or 7.4%) corresponds to the annual credit growth to this sector, in spite of the downtrend of interest rates on loans to households[50]. **Income from non-financial companies** decreased by Denar 100.7 million, or by 2.4%, mainly due to lower interest rates.

Because of the significantly slower growth of household deposits[51] and the downward trend of interest rates[52] on this sector's deposits, **interest expenses from the household sector made the greatest contribution (72.8%) to reducing total interest expenses.** In spite of the pronounced annual decrease (of Denar 416.2 million or 23.0%), interest expenses from the household sector still have the greatest share in the

[50] When comparing June 2016 with June 2015, interest rates on all types of household loans (denar loans with/without FX clause and foreign currency loans) decreased.
[51] The annual growth of household deposits as of 30 June 2016 was Denar 1,068 million (0.5%), and as of 30 June 2015, it was Denar 12,208 million, or 6.2%. The average amount of accepted household deposits for the first six months of 2016 dropped by Denar 10,342 million compared to the amount accepted for the first six months of 2015. For more details on the deposits movements see II.2.2. Deposits of non-financial entities.
[52] Comparing June 2016 with June 2015, interest rates on household denar deposits with and without FX clause decreased by 0.4 and 0.5 percentage points, respectively, while foreign currency deposits of households fell by 0.3 percentage points.

structure of interest expenses. In the first six months of 2016, **other sectors also reported lower interest expenses**, due both to the slower annual growth of accepted deposits, and the lower deposit interest rates compared to 2015[53].

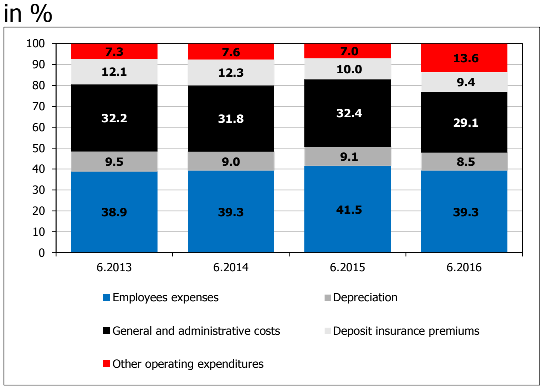
Chart 81
Usage of total income
in %



Source: NBRM, based on data submitted by banks.

Operating costs[54] together with impairment still "spend" most of the total income of banks. It is important that their share in total income is by 5.3 percentage points lower compared to the previous year.

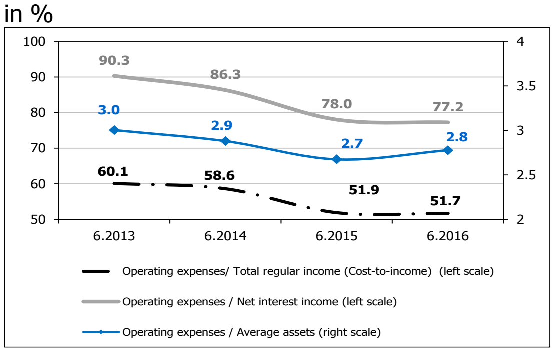
Chart 82
Structure of operating costs
in %



Source: NBRM, based on data submitted by banks.

In the first six months of 2016, banks' operating costs increased by Denar 460.0 million, or 8.6% relative to the previous year. The increase was mostly (90.7%) due to the increase in other operating expenses (other expenses[55] contributed 43.5%, other provisions[56] 40.7% and special reserves for off-balance sheet exposure contributed 6.5 %), which doubled their share in operating costs. Staff costs grew slower than in the first six months of 2015, but contributed 13.7% to the growth of operating costs. In contrast, general and administrative costs decreased. Slower growth of operating costs compared to the increase of the total regular income and net interest income ensured **continuing trend of improving banks' operational efficiency.**

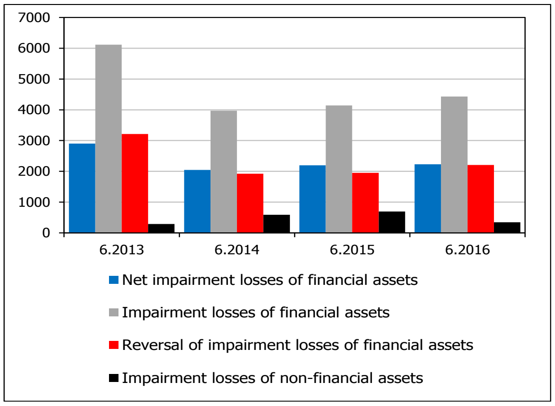
Chart 83
Bank efficiency indicators
in %



Source: NBRM, based on data submitted by banks.

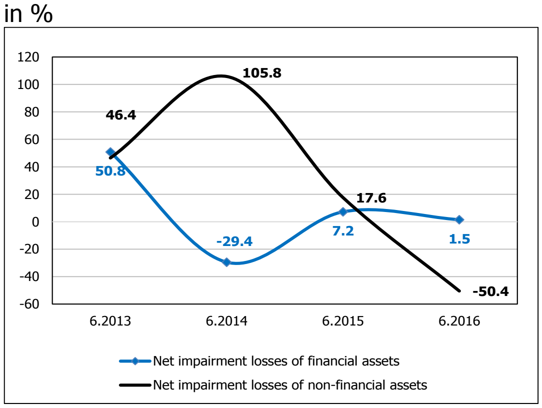
53 Compared with the first half of 2015, deposit interest rates decreased by 0.4 percentage points.
54 Banks' operating costs include staff costs, depreciation, general and administrative costs, deposit insurance premiums and other operating costs, except extraordinary expenses.
55 Other expenses include expenses from previous years, income taxes and contributions, expenses for fines, fees and court decisions and other costs. The growth in this quarter reflects the increase in other expenses due to the sale of foreclosed assets on credit by one bank that recognizes changes in gross income and expenses in accounting terms. If analyzed on a net basis, the growth of operating costs would be almost halved.
56 Provisions based on litigation of one bank.

Chart 84
Impairment of financial and non-financial assets
in millions of denars



Source: NBRM, based on data submitted by banks.

Chart 85
Annual growth rate of impairment loss
in %



Source: NBRM, based on data submitted by banks.

In the first half of 2016, banks allocated higher amount of impairment for financial assets (loans and similar claims) by Denar 32.5 million, or 1.5%[57]. Despite the increase in impairment, the share of net interest income used to cover the impairment of financial assets decreased from 31.8% (as of 30 June 2015) to 29.5% (as of 3o June 2016) due to the faster growth in net interest income.

Impairment of non-financial assets (foreclosed assets) almost halved compared to the same period last year, due to the reduction of foreclosed assets.

In the first half of 2016, the increased profit of the banking system had a positive impact on the main indicators of banks' profitability. Compared to the previous year, there was an increase in the rates of return on assets and equity, as well as improvement of the banks' profit margin[58], and all indicators calculated on the basis of items influenced by net interest income.

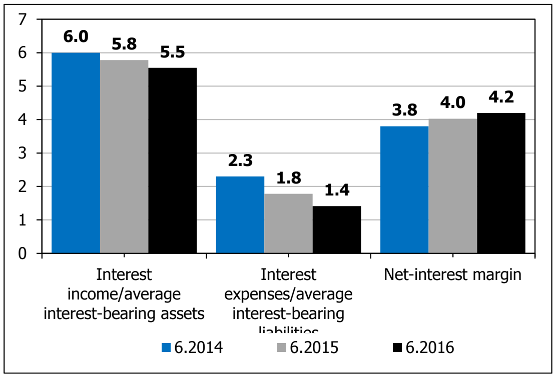
Table 3
Profitability and efficiency indicators of the banking system
in %

	6.2015	6.2016
Rate of return on average assets (ROAA)	1.0	1.4
Rate of return on average equity (ROAE)	9.4	12.2
Cost-to-income ratio	51.9	51.7
Non-interest expenses/Total regular income	58.3	40.0
Labor costs /Total regular income	21.6	20.3
Labor costs /Operating expenses	41.5	39.3
Impairment losses of financial and non-financial assets /Net interest income	41.9	34.0
Net interest income /Average assets	3.4	3.6
Net interest income /Total regular income	66.5	66.9
Net interest income /Non-interest expenses	114.1	114.2
Non-interest income/Total regular income	39.9	40.0
Financial result/Total regular income	19.8	25.3

Source: NBRM, based on data submitted by banks.
Indicators by groups of banks are shown in Annex 36.

[57] For comparison, in the first half of 2015, net impairment of financial assets (loans and similar claims), increased by Denar 147.6 million, or by 7.2%, on an annual basis.
[58] Profit margin is operating profit (loss) to total regular income ratio.

Chart 86
Net interest margin
in %

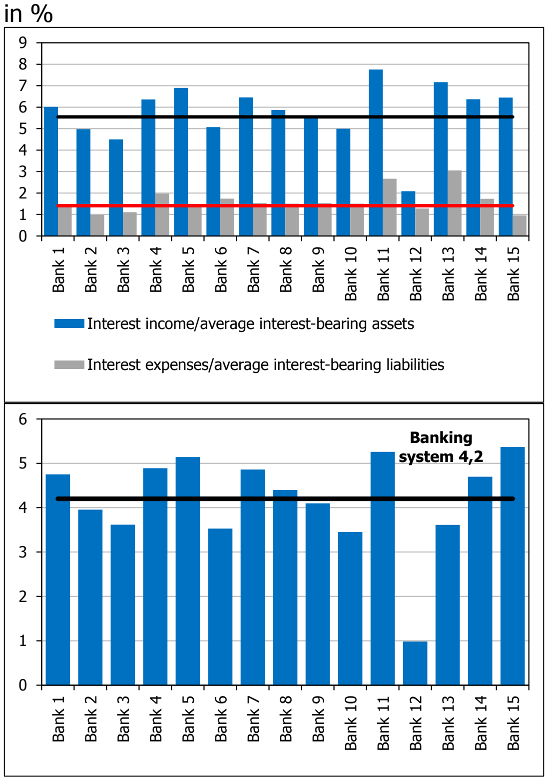


Source: NBRM, based on data submitted by banks.

The increase in net interest margin[59] compared to June 2015 reflects the pronounced annual growth in net interest income (of 9.7%) compared to the growth of average interest-bearing assets (of 5.1%). The faster growth of net interest income which is generator of growth of the interest margin is due to the reduced interest expenses, which contributed to the annual reduction of interest expenses per unit of interest-bearing liabilities. On the other hand, the lower lending interest rates amid higher interest-bearing assets slightly increased the interest income (0.9%), and decreased the interest income per unit of interest-bearing assets by 0.3 percentage points.

Analyzing by bank, eight of fifteen banks reported higher net interest margin than the net interest margin earned by the banking system.

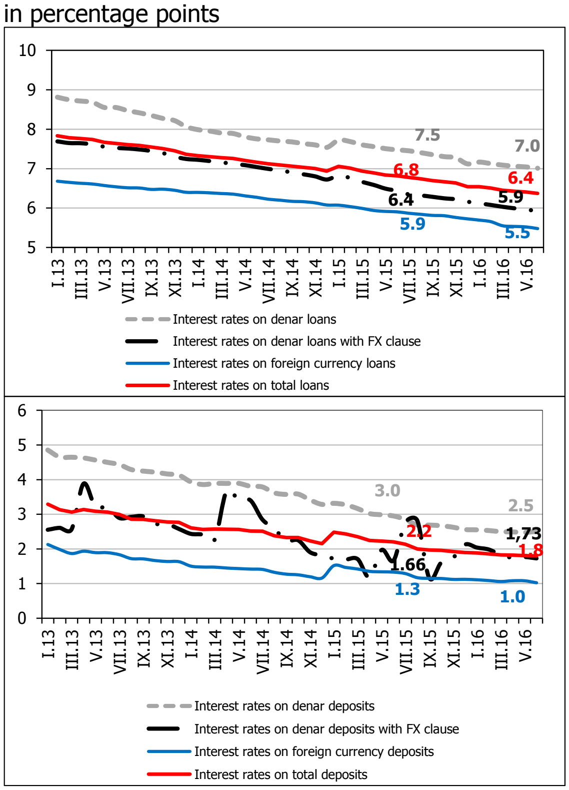
Chart 87
Income/expenses to interest-bearing assets/liabilities (top)
Net interest margin, by bank (bottom)
in %



Source: NBRM, based on data submitted by banks.

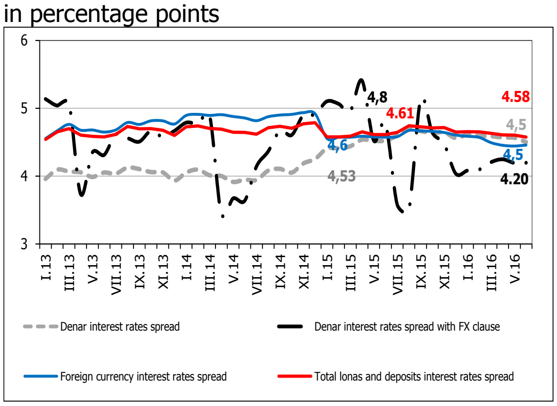
[59] Net interest margin is calculated as a ratio between net interest income and average interest-bearing assets. Average interest-bearing assets are calculated as the arithmetic average of the amounts of interest-bearing assets at the end of the first six months of the current year and the end of the previous year.

Chart 88
Lending (top) and deposit interest rates (bottom)
in percentage points



Source: NBRM, based on data submitted by banks.

Chart 89
Interest spread, by currency
in percentage points



Source: NBRM, based on data submitted by banks.

3.2 Movements in interest rates and interest rate spread

In the first half of 2016, banks' lending and deposit interest rates were further cut, although the NBRM policy rate increased by 0.75 percentage points[60].

Compared to June 2015, interest rates for all currencies have decreased[61]. Total interest rate spread as well as that in all currencies narrowed, reflecting the stronger cut in lending interest rate compared to the deposit interest rates, except the spread of interest rates on denar positions with FX clause that narrowed under the influence of the cut lending interest rates versus the growth in deposit interest rates. Generally speaking, all changes in interest rate spreads were lower than one percentage point.

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[60] In May 2016, under the influence of non-economic factors, due to the volatile environment in the country, the NBRM increased the interest rate to 4%.
[61] With the exception of denar deposits with FX clause that slightly increased on an annual basis (June 2016 - June 2015).

ANNEXES