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 THIRD QUARTER OF 2016

December 2016

Contents

Summary

Changes in the setup of the monetary instruments made by the National Bank in the second quarter of 2016, mainly in response to the speculative reactions and irrational negative perceptions among the public about the impact of political developments on the stability of banks, led to the expected positive spillover effects during the third quarter of 2016. Thus, in this quarter, there was a gradual stabilization of the expectations of the economic agents and positive foreign exchange market developments, as well as calming the turbulent developments in the deposit market. Also, in the third quarter of 2016 the seasonal inflow of foreign currency led to a net purchase of foreign currency by the National Bank, further contributing to the stabilization of the foreign exchange market developments. This, in turn, created conditions total activities of the banks to begin to register an upward movement. The total assets of the banks registered growth, on both annual (of 4.1%) and quarterly basis (of 1.7%). However, the existing uncertainty in the domestic daily political environment is still a significant risk factor for the performances of the banking sector.

Stabilization of the expectations and behavior of economic agents positively affected all segments of the deposit portfolio of banks. Both corporate deposits and deposits of the household sector registered a quarterly increase, and Denar and foreign currency deposits made almost equal contribution to the growth formation of total deposits. However, the propensity of households new deposits to be denominated in foreign currencies is still somewhat more pronounced, which also reflected on stagnation of the previously noticeable process of the denarization of deposits. In addition, demand deposits made the largest contribution to the quarterly growth of deposits, which is a clear signal that the existing uncertainty reflects on the behavior of depositors, especially in terms of lower propensity to invest in longer maturities. To some extent, the caution of depositors to invest in banks at longer maturities is motivated by the low interest rates offered by banks for deposits, which reached historically the lowest level in the third quarter of 2016. The annual growth rate of total deposits (of 3.5%) at the end of the third quarter of 2016 is more than twice lower than the growth rate of deposits projected by the National Bank (7.4%)[1] for this period of the year.

The gradual recovery of the deposit activity, combined with the given opportunity for placement of the banks' foreign currency deposits with the National Bank at higher rates of return, compared with the rates of return obtained from foreign banks, led to a greater propensity of banks to invest in liquid financial instruments. The growth of banks' liquid assets was 5.5% on a quarterly basis, which allowed almost complete recovery of the liquid assets that are used during the second quarter for amortization of the crisis episode with the outflow of deposits. The increase in banks' liquid assets contributed to the improvement of most liquidity indicators, which was slightly more pronounced in the liquidity indicators in foreign currency. In the third quarter, there was a modest improvement of the maturity profile of assets and liabilities, which caused a narrowing of the gap between them, according to contractual residual maturity.

The positive changes in the dynamics of deposits had no major impact on bank lending. On a quarterly basis, loans to non-financial entities registered a modest quarterly increase of 0.2% and a slowdown in the annual pace of growth which was 2.9%. In the third quarter of 2016,

[1] According to the April projections of the NBRM.

there was a gradual depletion of the effects of the regulation on obligatory transfer of part[2] of non-performing loans to the off-balance sheet record that banks were required to begin it no later than 30 June 2016. If we exclude the effects of this transfer, the annual and quarterly growth rate of lending activity would amount to 7.4% and 0.5%. Volatility in the domestic environment and the turbulence on the deposit market during the preceding quarter of the year caused a decrease in the willingness of banks to take credit risk of financial arrangements with domestic enterprises, which caused a reduction of lending to non-financial companies. In contrast, the banks' attention remained focused toward household lending, primarily due to the increased level of diversification in retail lending, compared to corporate lending and expectations for lower losses from credit risk in this sector. Following the failure in the growth of deposits, there is also failure, but significantly smaller, in the annual growth rates of banks' loans, compared with the projected rates (7.9%)[3] by the National Bank for this period of the year.

The obligatory "cleansing" of credit portfolios from all claims for which banks fully covered the credit risk at least two years before, is the main engine for the improvement of credit risk indicators. Their share in the total loans at the end of the third quarter of 2016 dropped to 7.4%. But, if we exclude the effects of regulatory measure, the quality of the loan portfolio registers a slight deterioration, concentrated mainly in corporate loans. The relatively high coverage of non-performing loans with allocated impairment indicates limited effects of a possible full uncollectability of these loans on the own funds of the banking system.

The quality of the regular loan portfolio of the banking system improves, whereby the average risk level of regular loans has registered a decrease in the third quarter of 2016, which is still smaller compared to the fall in the annual rates of uncollectability of the regular credit exposure. In the regular loan portfolio of banks, there are also specific risk factors whose adverse impact can cause the losses of the possible materialization of the credit risk to exceed expectations (allocated provisions) of banks. This primarily concerns the concentration ratio in banks' credit portfolios, the high costs or the impossibility to sale the established collateral for loans (at a good price), or the presence of loans where it is harder to identify on time the financial problems of the customer (e.g. loans with an approved grace period or loans with a single repayment of principal). In addition, the qualitative dimension of the process of restructuring of claims has great importance to the future dynamics of the quality of credit portfolios, i.e. the extent to which the banks will be successful in the re-assessment of the creditworthiness of their customers and the appropriate adjustment of the contractual terms of loans. The impact of some of these factors on the loan portfolio of banks is closely related to the further developments in the domestic political environment, primarily because of the returning correlation between political conditions and economic agents' expectations for the future path of the economic growth rate and subsequently, for their incentives to consume and invest.

During the first nine months of 2016, banks showed a higher amount of operating profit compared to the same period last year, which allowed them to continue the trend of increasing their profit margin, as well as the rates of return on equity and assets. Generator of the continuous improvement of the profitability of banks is the growth of net interest income from the operations with the household sector, but contribution was also made by the improvement

[2] Non-performing loans that have been fully booked for more than two years.
[3] According to the April projections of the NBRM.

of the operational efficiency of banks and the reduction of the relative importance of the costs recognized by banks for impairment of loans and other assets.

According to the taken positions in the banking book, the banking system, and consequently its performance are at risk of future increase in interest rates. On the other hand, banks through the application of the adjustable interest rates in the contracts for deposits and loans actually replace the interest risk exposure with exposure to legal and reputation risk, thus taking an indirect credit risk because of the sensitivity of the creditworthiness of the customers from upward changes in interest rates.

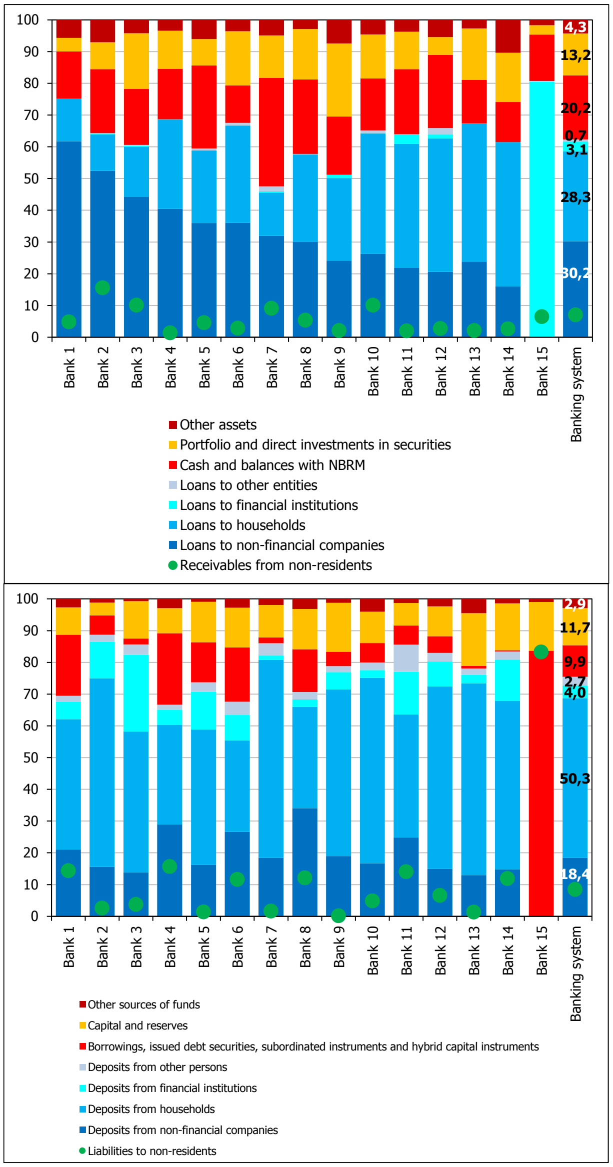
The solvency ratios of banks in the third quarter of 2016 showed a slight improvement, resulting from the growth of capital positions, but also because of the reallocation of external liquidity of banks from investments in deposits in foreign banks in foreign currency deposits with the National Bank, which caused a decrease in the level of risk of banking activities. At the end of the third quarter of 2016 the capital adequacy ratio is 15.7% and provides enough room to absorb any unexpected losses for banks. In order to cover the banks' exposure to the risks of the operation, the dominant place of the core capital in the structure of banks' own funds is a favorable fact, as well as half of the own funds are "free", above the minimum level required to cover risks. The new amendments to the Banking Law, adopted in October 2016, which will apply from March 2017, mean the introduction of the new rules of the Basel Committee and the European regulations on the so-called capital buffers, whose fulfillment will be an additional support for the solvency of banks.

However, regardless of the satisfactory solvency position and modernization of the regulatory framework, for the functioning and performance of domestic banks, it is vital the political processes in the country to receive normal and usual course. Hence, the stabilization of the domestic environment and the subsequent effects on the expectations of economic agents will inevitably bring improved working conditions of banks, which should lead to a better allocation of financial resources in the economy, as one of their key functions as financial institutions.

I. Structure of the banking system

1. Main features of the business models of banks

Chart 1
Structure of the assets (top) and liabilities (bottom) of banks, as of 30 September 2016
in %



Source: NBRM, based on data submitted by banks. The order of banks is coincidental.

Banks in the Republic of Macedonia apply a traditional business model in their work – collecting deposits from the domestic private sector and their placement in loans intended for the domestic non-financial sector. Deposits from households, with a share which exceeds 50%, are the most important source of financing of the banking system, although in the second and in the third quarter of 2016, their share in the total liabilities somewhat decreased by around 1.5 percentage points. Analyzed by banks, in eleven banks deposits from households have the highest share in total sources of financing, in three banks deposits from households and non-financial companies have almost even share, and through one bank, credit lines are being marketed from the international financial institutions. Although liabilities on loans, subordinated and hybrid capital instruments and deposits from financial institutions, together, make up around 14% of the total sources of financing of the banking system, the analysis by individual bank suggests that in different banks these sources of funds have more significant share, of around 25% or more (in total in six banks), which together with the collected deposits from certain major non-financial companies has highlighted the importance of wholesale funding in these banks in the system[4]. Loans to non-financial companies[5] still have the highest share in the assets of the banking system (of around 30%), although in recent years, there is a trend of more enhanced household lending, whose share in assets, in the first three quarters of 2016, increased by around 2 percentage points. Analyzed by banks, seven banks are more oriented toward lending to non-financial companies, five banks mostly lend households, two banks are almost evenly oriented in lending activity to both sectors, and one bank mostly marketed loans to domestic banks.

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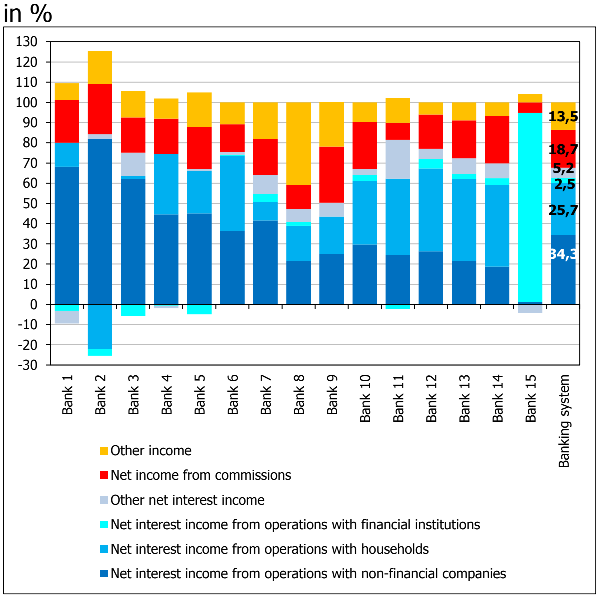
[4] The wholesale funding derives from financial institutions and large companies, which, by definition, apply to rather informed economic agents.
[5] Loans to non-financial companies and households are analyzed on a net basis (taking into account impairment and accumulated amortization of loans), but the conclusion would not change if the analysis of the loans is made on a gross basis.

The level of euroisation, measured by the share of deposits and loans with currency component, in the total deposits and loans to non-financial entities is around 44% and 46%, respectively[6], and **registers a downward trend over the recent years** (in the deposit portfolio, this trend was halted[7] in the second quarter of 2016). Just over 10% of the assets of the banking system are constantly invested in securities (mainly CB bills issued by the NBRM and government securities), but only small part of them are part of the trading book (as of 30 September 2016, the trading book accounts for 0.1% of the total assets of banks). The domestic banking system achieves modest scope of activities with non-residents (with some differences by banks), whose share, on both the assets side and on the liabilities side, registers a downward trend in the recent period and as of 30 September 2016 reduced to around 8%.

Chart 2
Structure of total income of banks in the past twelve months (1 October 2015-30 September 2016)
in %



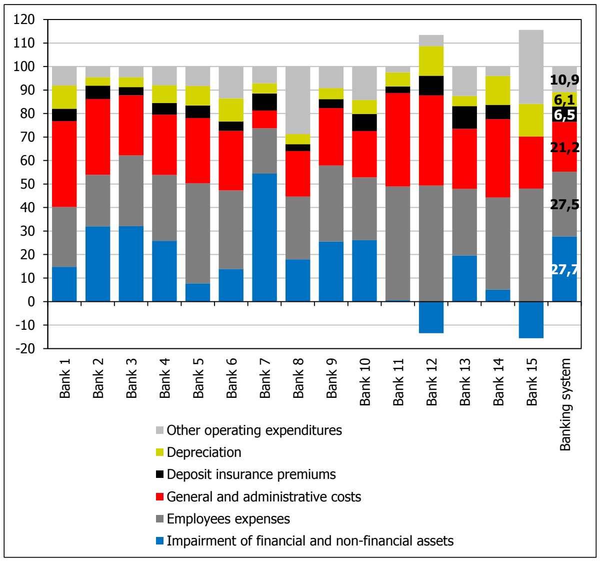
Source: NBRM, based on data submitted by banks. The order of banks is coincidental.

The analysis of the structure of total income confirms the application of the traditional business model in banking operations. Namely, around two-thirds of the total income of the banking system constantly account for net interest income, rather successfully dimensioned by banks according to the set profit targets (even in an environment of historically low interest rates), through active implementation of the contractual possibility of adjusting interest rates in credit, but much more in deposit products. The present trend of reorientation of banks toward operation with households and the trend of declining interest rates on deposits from households have caused certain increase (of around 5 percentage points in the last year) in the share of net interest income from working with households in the total income of the banking system.

[6] For more details on the currency structure of loans and deposits see the section on Banks' activities.

[7] The unstable domestic environment, media speculations about the (in)stability of deposits in banks and subsequently worsened expectations of economic agents triggered deposit withdrawals from the banking system in April and May 2016, which were simultaneously followed by conversion of Denar deposits into foreign currency deposits. These developments contributed to stopping the downward trend of the euroisation, present several years.

Chart 3
Structure of total expenditures of banks in the past twelve months (1 October 2015 - 30 September 2016)
in %



Source: NBRM, based on data submitted by banks.
The order of banks is coincidental. Expenditures on commissions, interest rates, exchange rate differentials, etc. are included in the top chart, where income on this basis is presented on a net basis.

Impairment of financial and non-financial assets and staff costs have individually the highest shares in the total expenditures of the banking system. Impairment still has the highest individual share in the total expenditures of the banking system, although this share almost constantly decreased since 2012, when it was the highest (in the past year, from 1 October 2015 - 30 September 2016, the share of impairment in the total expenditures decreased by 2.3 percentage points). Simultaneously, the banks gradually increase the share of staff costs in total expenditures, which is currently almost at the same level as that of impairment (in the past twelve months, the share of staff costs in total expenditures increased by 0.8 percentage points). There are significant differences in the structure of expenses between individual banks. Particularly evident is the difference in the share of impairment in the total expenditures of individual banks, which probably indicates the specific (individual, separate for each bank) nature of the current banks' exposure to credit risk.

2. Number of banks and ownership structure of the banking system

As of 30 September 2016, eighteen depository institutions operate in the Republic of Macedonia, i.e. fifteen banks and three savings houses[8]. The number of these financial institutions remains unchanged compared to the previous quarter. The number of banks that are owned by foreign shareholders (eleven), and the number of subsidiaries of foreign banks (six) is also unchanged.

Table 1
Structure of the number of banks and major balance sheet positions, by banks' majority ownership (as of 30 September 2016)
in millions of denars and in %

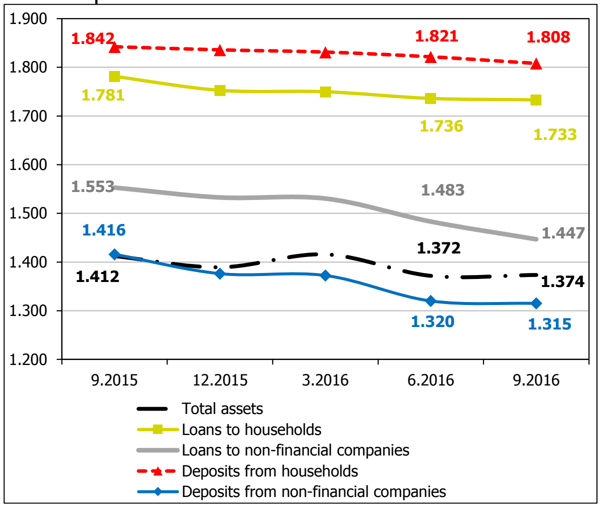
Type of ownership	Number of banks	Capital and reserves		Assets		Loans to non-financial sector		Deposits from non-financial sector		Total revenues*		Financial result*	
		Amount	In %	Amount	In %	Amount	In %	Amount	In %	Amount	In %	Amount	In %
Banks in dominant ownership of foreign shareholders	**11**	**35.186**	**70,9%**	**296.114**	**69,9%**	**209.801**	**76,7%**	**210.697**	**69,6%**	**16.403**	**72,7%**	**4.953**	**83,9%**
- subsidiaries of foreign banks	*6*	*31.045*	*62,6%*	*244.878*	*57,8%*	*173.067*	*63,3%*	*174.811*	*57,8%*	*13.606*	*60,3%*	*4.501*	*76,3%*
- Austria	1	2.256	4,5%	17.856	4,2%	11.408	4,2%	12.216	4,0%	1.213	5,4%	191	3,2%
- Bulgaria	1	1.182	2,4%	8.012	1,9%	4.992	1,8%	5.642	1,9%	335	1,5%	-16	-0,3%
- Greece	1	14.216	28,7%	85.616	20,2%	60.999	22,3%	64.523	21,3%	4.897	21,7%	2.167	36,7%
- Slovenia	1	6.667	13,4%	67.513	15,9%	48.853	17,9%	52.368	17,3%	3.994	17,7%	1.220	20,7%
- Turkey	1	4.140	8,3%	33.122	7,8%	22.930	8,4%	19.768	6,5%	1.651	7,3%	484	8,2%
- France	1	2.585	5,2%	32.759	7,7%	23.885	8,7%	20.295	6,7%	1.515	6,7%	454	7,7%
- other banks in dominant foreign ownership	*5*	*4.141*	*8,3%*	*51.235*	*12,1%*	*36.734*	*13,4%*	*35.886*	*11,9%*	*2.796*	*12,4%*	*453*	*7,7%*
- Bulgaria	2	1.662	3,3%	16.917	4,0%	11.247	4,1%	12.318	4,1%	896	4,0%	251	4,3%
- Germany	1	1.757	3,5%	20.313	4,8%	15.736	5,8%	13.014	4,3%	1.109	4,9%	286	4,8%
- Switzerland	2	721	1,5%	14.005	3,3%	9.752	3,6%	10.554	3,5%	792	3,5%	-84	-1,4%
Banks in dominant ownership of domestic shareholders	**4**	**14.430**	**29,1%**	**127.577**	**30,1%**	**63.781**	**23,3%**	**91.894**	**30,4%**	**6.153**	**27,3%**	**949**	**16,1%**
- private ownership	*3*	*12.069*	*24,3%*	*112.173*	*26,5%*	*63.740*	*23,3%*	*91.894*	*30,4%*	*5.977*	*26,5%*	*845*	*14,3%*
- state ownership	*1*	*2.362*	*4,8%*	*15.404*	*3,6%*	*40*	*0,0%*	*0*	*0,0%*	*176*	*0,8%*	*103*	*1,8%*
Total:	**15**	**49.616**	**100,0%**	**423.691**	**100,0%**	**273.582**	**100,0%**	**302.591**	**100,0%**	**22.556**	**100,0%**	**5.902**	**100,0%**

Source: NBRM, based on data submitted by banks.
*Total income and financial result are calculated for the last twelve months (1 October 2015-30 September 2016).

Banks in predominant ownership of foreign shareholders prevail in the banking system of the Republic of Macedonia, which, thus, can be influenced by economic and non-economic risk factors associated with parent entities of banks and their countries of origin[9]. In the third quarter of 2016, there were no significant changes in the ownership structure of banks. Banks in dominant ownership of foreign shareholders prevail in all major banks' balance sheet positions. Their dominance is particularly

[8] Savings houses account for only 0.6% in total assets of depository financial institutions (banks and savings houses), 0.8% in total loans to non-financial entities and 0.4% in total household deposits, which is unchanged compared to the previous quarter. Given the rather low shares of savings houses in the total activities of depository financial institutions, their risk profile and scope of activities are analyzed annually, in the financial stability reports of the Republic of Macedonia.
[9] However, it should be borne in mind that domestic banks are separate and independent legal entities established in the Republic of Macedonia, with their own management bodies and own capital.

Chart 4
Herfindahl index*
in index points



Source: NBRM, based on data submitted by banks.
*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 points, the concentration ratio is considered to be acceptable.

Table 2
Indicators of concentration of major balance sheet positions in the three and the five largest banks
in %

Position	CR3	CR5
Total assets	58,7	74,2
Loans to households	63,3	79,4
Loans to non-financial companies	56,7	75,3
Deposits from households	70,7	80,0
Deposits from non-financial companies	51,4	74,9
Financial result*	69,8	85,7
Total revenues*	61,5	75,5

Source: NBRM, based on data submitted by banks.
*Total income and financial result are calculated for the last twelve months (1 October 2015-30 September 2016).

pronounced in lending and financial result, which indicates more aggressive performance of these banks in the credit market and higher profit margins. In the third quarter of 2016, the share of banks in dominant ownership of foreign shareholders in the overall financial result increased by 3.8 percentage points, which was mainly due to the higher annual profit registered in large banks. Also, this group of banks increased its share by 1.1 percentage points in the total capital and reserves, which is a result of reinvestment of profit in 2015, again present in one large bank.

Several banks in the banking system stand out according to the size, and whose achievements have a leading role for the entire banking sector and the domestic economy. Concentration in the banking system is constantly decreasing. In the third quarter of 2016, the shares of the three and the five largest banks in the system in total assets are almost unchanged, and as of 30 September 2016 equal 58.7% and 74.2%, respectively. In contrast, ten banks have an individual share of less than 5% and they jointly constitute around a quarter of the assets of the banking system. Moreover, part of them do not create sufficiently high and stable income that would provide continuous[10] positive financial results and long-term prospects for survival.

[10] For the first time in nine years, the three smallest banks in the system registered profit at the aggregate level, as of 30 September 2016.

II. Bank Risks

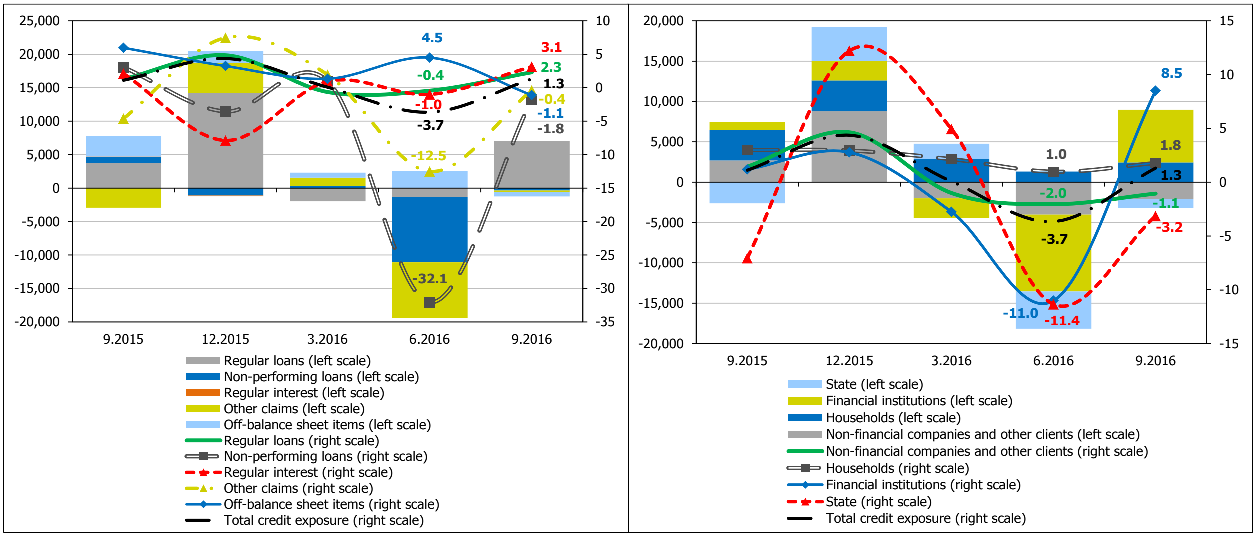
1. Credit risk

After the more substantial "cleansing" of banks' credit portfolios from the old and fully booked non-performing loans in June 2016, in the third quarter of 2016, the share of non-performing in total loans recorded only slight downward movement to 7.4%. The quality of the loan portfolio of the banking system continues to be influenced by the amendments to the regulation of the National Bank[11] that requires from banks to constantly transfer all claims that have been fully booked for more than two years to the off-balance sheet record, although the effects of regulatory changes are far weaker compared to the last quarter. If we exclude the effects of this measure, the loan portfolio quality registers a slight deterioration which is concentrated in corporate loans, for which the reduced bank lending made an appropriate contribution to the segment of corporate clients. The threat for the banks' own funds from the existing non-performing loans is not high due to their high coverage with allocated impairment, but also because of the satisfactory volume and quality of banks' own funds. Although the percentage of impairment of regular loans is higher than the historical annual rates of default on the regular credit exposure, losses due to materialization of credit risk may exceed the banks' expectations, especially amid adverse business conditions. Such overcoming is mostly possible when there is a significant concentration in credit portfolios, but also in loans where it is harder to identify on time the financial problems of the customer (loans with an approved grace period or with a single repayment of principal).

After the decline registered in the last quarter (mostly due to the aforementioned regulatory changes), in the third quarter of 2016, the total credit exposure of the banking system grew by 1.3% and reached Denar 448,944 million. The growth of the total credit exposure in the third quarter of 2016 is mostly due to the increase in the placements with financial institutions (of Denar 6,531 million, or 8.5%), which in turn, is solely due to the foreign currency, and to a lesser extent Denar banks' deposits placed with the National Bank. In general, in this quarter, banks provided weaker credit support for the non-financial sector, which is reflected through the smaller volume of the new lending.

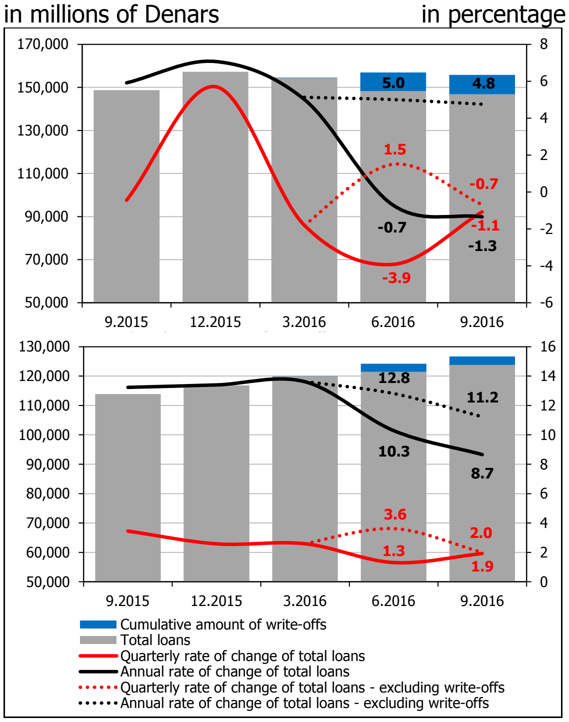
[11] Decision on amending the Decision on credit risk management (Official Gazette of the Republic of Macedonia No. 223/15) that requires from banks by 30 June 2016 to transfer all claims that have been fully booked for more than two years to the off-balance sheet record. This requirement continues for non-performing claims that will meet these criteria. Despite the write-off of these claims, the banks reserve the right for their collection.

Chart 5
Quarterly growth of credit exposure according to the items (left) and the sector (right)



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

Chart 6
Dynamics of total loans and write-offs of non-financial companies (top) and households (bottom)

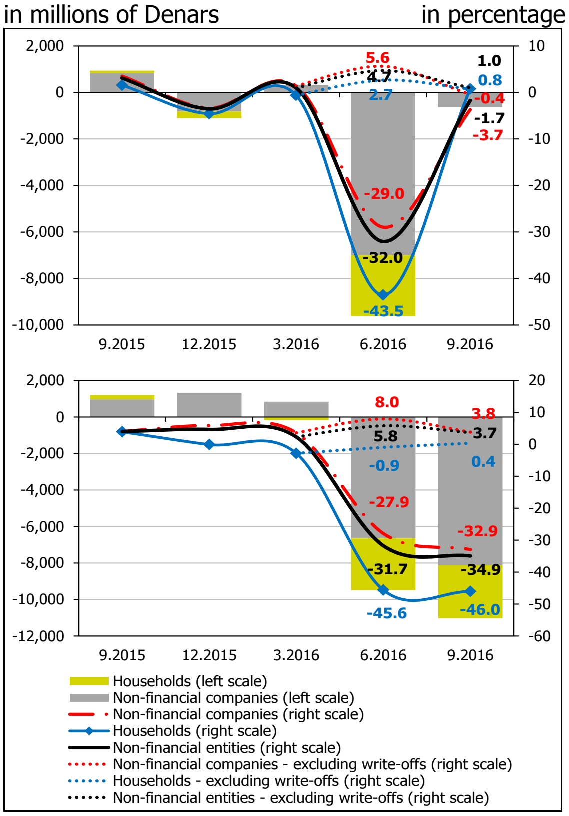


Source: NBRM, based on the data submitted by banks.

In this quarter, banks were engaged in "cleansing" of assets, by writing off part of the fully booked non-performing loans and, to a lesser extent, through the sale of foreclosed assets due to outstanding claims, and the movements in the balance sheets indicate slightly higher recovery of due claims (amid their quarterly decrease of Denar 628 million, or by 21.9%). In such conditions, the total credit exposure to non-financial entities registered a very small increase (of Denar 398 million, or by 0.1%), which amid a further reduction of corporate loans fully stems from the enhanced credit support to households. Enhanced household lending (after the certain slowdown in the last quarter) indicates banks' perceptions of the lower level of credit risk of retail lending because of the high dispersion of claims, based on both the amount and the number of customers.

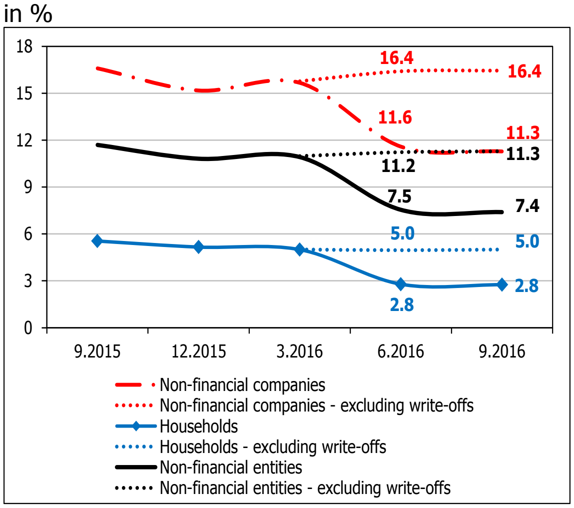
By excluding the effect of regulatory changes for mandatory write-off, the quarterly growth of the credit support to the corporate sector continued to move downwards (-0.7% versus -1.1% with the effect of the write-offs). The impact of regulatory changes is still less

Chart 7
Quarterly (top) and annual (bottom) growth rate of non-performing loans to non-financial entities and individual sectors
in millions of Denars in percentage



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

Chart 8
Share of non-performing loans to total loans of non-financial entities, and by sector
in %



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

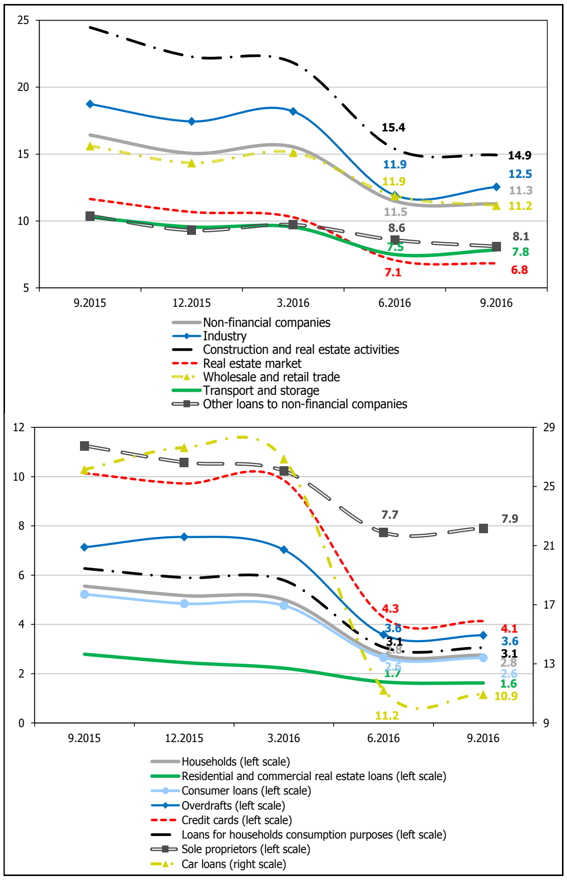
pronounced in household lending (the quarterly growth of household lending is 2.0%, by excluding the effect of the write-offs, as opposed to 1.9%, if we take actual mandatory write-offs of claims into consideration).

1.1. Materialization of credit risk in banks' balance sheets

Non-performing loans of the banking system declined by only 1.7% during the third quarter of 2016. The significant slowdown in the downward movement in non-performing loans indicates gradual depletion of the effects of the regulatory requirement for "cleansing" of credit portfolios from all claims for which banks fully covered the credit risk at least two years before. As a result of this amendment to the regulation on the credit risk, in the first nine months of the year Denar 12,009 million of non-performing principal were written off, which were almost entirely incurred in the second quarter of the year, with a significantly smaller amount of written-off claims in the third quarter. The largest portion, or 76% of the write-offs of non-performing loans refer to non-financial companies.

If we exclude the effect of regulatory changes, non-performing loans to non-financial entities would register quarterly growth of 1% (compared to the decline of 1.7%), while the reduction of non-performing loans to non-financial companies would be with lower intensity and would amount to only 0.4% (compared to the decline of 3.7%). As for non-performing loans to households, the amount of mandatory write-offs is relatively small and the growth rate of non-performing loans remains unchanged and low (0.8%). However, the write-offs on this basis have far more remarkable impact on the annual dynamics of non-performing loans, which would have a positive trend in both sectors. Also, by isolating the effect of the write-offs, the annual growth of non-performing loans to non-financial entities would be moderate and would amount to 3.7%.

Chart 9
Share of non-performing loans in total loans to 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.

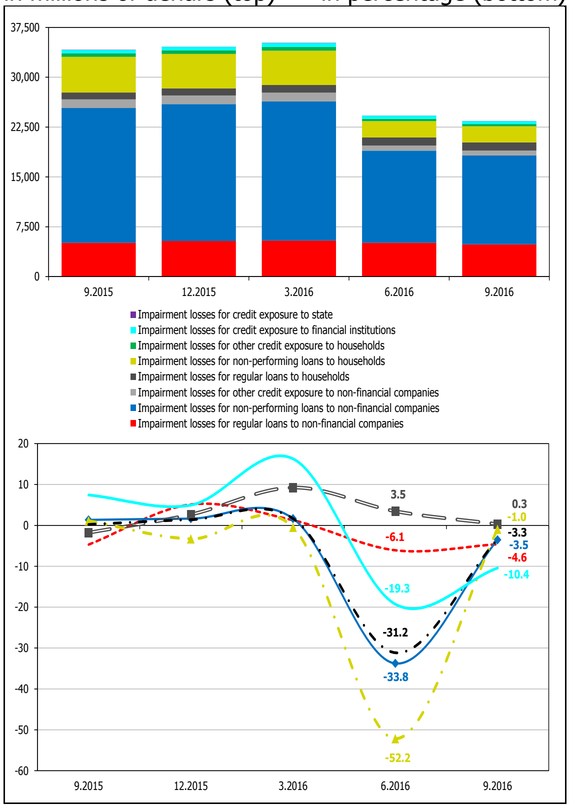
Changes in the level of total and non-performing loans as a result of the write-offs led to a reduction of the rate[12] of non-performing loans to non-financial entities, which as of 30 September 2016 was reduced to 7.4% (without the effect of regulatory changes would amount to 11.3% or by only 0.1 percentage points higher compared to the previous quarter).

Within the non-financial companies sector, the rate of non-performing loans continued to move downwards to 11.3% in the third quarter. If we exclude the effect of the write-offs, this rate would be unchanged compared to the previous quarter and would amount to 16.4%. According to the rate of non-performing loans, the credit risk is the highest among banks' claims on non-financial companies from construction and real estate services, and industry. But it should be emphasized that exactly in these two activities, including wholesale and retail trade, there is a further reduction of the credit risk, which, apart from the effect of the write-offs, results also from the reduced annual rates of default on exposures from these activities. This reduction can be associated with the performance of these activities. Thus, construction sector is among the leading sectors of economic growth and the currently improved "performances" of this activity are associated with the increased activity in the field of several larger public infrastructural projects. Reduced risk of companies from the trade activity is indicated by the favorable assessments of the current business and financial status of these companies[13], as well as the growth of the value of turnover in retail trade and wholesale trade.

The risk to banks of household lending is lower. The rate of non-performing loans in this sector amounts to 2.8% (without the effect of the write-offs would amount to 5%), which is unchanged compared to the previous quarter. By credit products, further reduction of

[12] The rate of non-performing loans is the share of non-performing loans in total loans.
[13] Source: Business Tendency Survey in retail trade for the third quarter of 2016, SSO.

Chart 10
Structure (top) and quarterly rates of change (bottom) of impairment, by sector
in millions of denars (top) in percentage (bottom)



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

the rate of non-performing loans[14] was registered in credit cards, which is probably[15] a consequence of the mandatory write-offs of this type of claims on households and the slower lending on this basis after the introduction of the higher capital requirements for overdrafts on transaction accounts and credit cards[16] introduced to limit the potential risks of the rapid growth of long-term consumer loans.

The rate of non-performing loans to non-financial entities was maintained almost stable (7.5%) by the end of October 2016, indicating a gradual depletion of the effect of the mandatory implementation of write-offs, in accordance with regulatory changes.

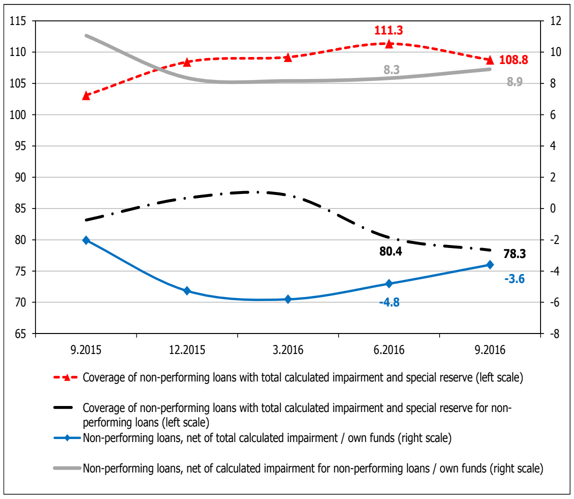
1.2. Banks' capacity to deal with any loss from non-performing loans

In the third quarter of 2016, impairment of the total banks' loan portfolio decreased by Denar 807 million or 3.1%. At an evidently slower pace than the last quarter, the release of impairment stems from the impairment of non-performing loans (mainly due to the aforementioned transfer of the fully booked non-performing loans to the off-balance sheet record), but also from regular loans.

The coverage of non-performing loans with allocated impairment is high, which indicates a satisfactory capacity of the banking system to absorb potential (expected) credit losses. Contrary to the previous quarter when the coverage with total impairment increased[17], the downward movement of the indicator in this quarter is caused by the more pronounced release of impairment (amid the generally weaker volume

[14] Except for car loans, where this rate is traditionally the highest.
[15] The National Bank has data only for the sectoral structure of the mandatory write-offs (households and non-financial companies).
[16] According to the amendments to the Decision on the methodology for determining the capital adequacy (Official Gazette of the Republic of Macedonia No. 47/12, 50/13, 71/14 and 223/15), measures were introduced to slow down the high growth of long-term consumer loans. The measure increased capital requirements for newly approved consumer loans (approved after 1 January 2016) with maturity equal to or longer than eight years. Also, in order to prevent the redirection of the borrowing to overdrafts on transaction accounts and credit cards, higher capital requirements were introduced for the growth based on these products, realized in relation to 31 December 2015.
[17] As a consequence of the larger percentage decrease in non-performing loans compared to the percentage decrease in total impairment.

Chart 11
Coverage of non-performing loans and share of net non-performing loans in banks' own funds
in %



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

of new lending and recovery of part of due claims), compared with the reduction of non-performing loans as a result of the write-offs. The coverage of non-performing loans with their own impairment decreased, but remains high.

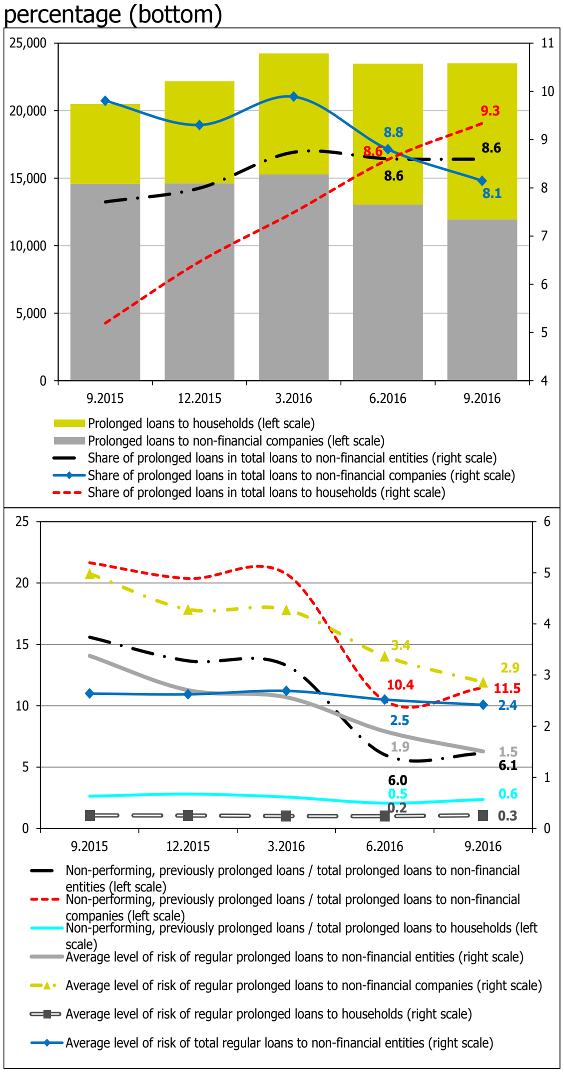
Given the high coverage of non-performing loans, adverse effects of any total loan default on the own funds of the banking system are limited. The non-provisioned portion of non-performing loans absorbs only 8.9% of the total own funds of the banking system. Thus, under an extreme assumption of full uncollectability of non-performing loans, the capital adequacy ratio of the banking system would be by only 1.4 percentage points lower than the current level (almost identical to the previous quarter, 1.3 percentage points).

1.3. Other possible sources of materialization of credit risk

In the third quarter of 2016, the annual default rate of credit exposure with a regular status [18] amounted to 1.7% and is slightly lower compared to the average risk level of regular loans to non-financial entities[19] (2.4%), determined by banks. This points to the conclusion that banks are more careful and have allocated impairment greater than the the the one pointing to the historical rate of default on the exposures with a regular status. Analyzed by activity (in non-financial entities) and credit products (in households)[20], the annual default rates registered a generally downward trend, which in the last quarter is mostly pronounced in the "construction and activities related to real estate". The favorable shift in the annual default rate of exposure from

[18] The annual default rate of credit exposure is calculated as a percentage of credit exposure with regular status, which for a period of one year transforms into exposure with non-performing status.
[19] Calculated as a ratio between impairment of regular loans and gross amount of regular loans.
[20] Credit exposure for financing natural persons' consumption includes credit exposure of natural person on the basis of consumer loans, overdrafts, credit cards, car and other loans, except residential and commercial real estate loans.
"Credit exposure to real estate markets" means credit exposure to non-financial companies which deal with construction and activities related with real estate, as well as credit exposure to natural persons, on the basis of loans for purchase and renovation of residential property.

Chart 12
Dynamics of prolonged loans and structural indicators (up) and indicators for their quality (down)
In millions of Denars and in percentage (top) and in percentage (bottom)

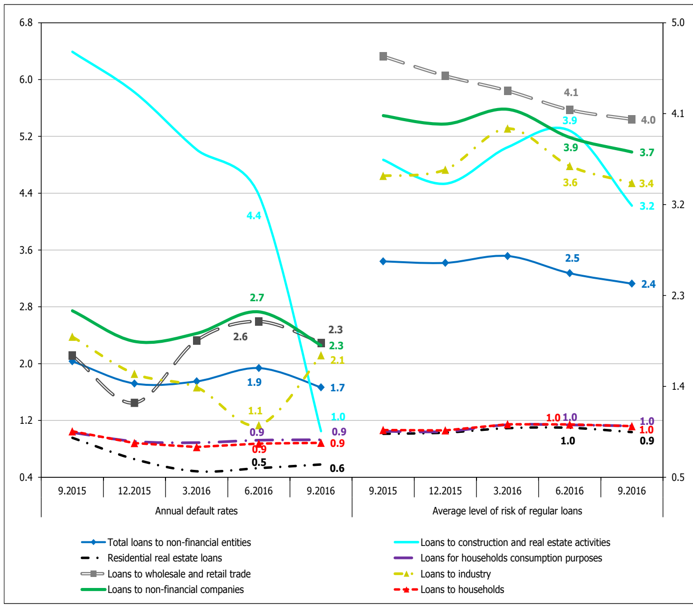


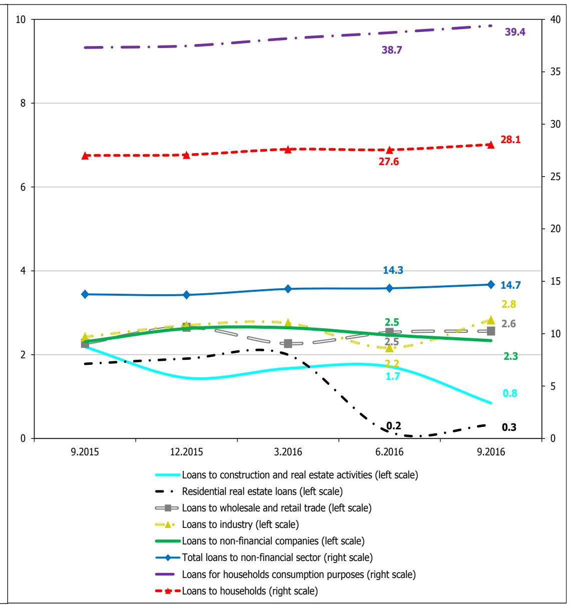
Source: NBRM's Credit Registry, based on data submitted by banks.
The more significant increase of the amount of prolonged loans to households in 2015 was due to the change in reporting prolonged loans, depending on that if the deadline of submission is conducted individually or as part of the conducted consolidation of more loans in one or refinancing one loan with another.

this activity, partially, is due to the high starting point (significant deterioration of the credit portfolio quality in the third quarter of the previous year, 2015). Also, in the same quarter of 2015, new credit exposures have been approved for construction companies whose quality, in the following one year period (30.9.2015-30.9.2016) was maintained at a solid level. Such movements point to signs of halting the trend of deterioration of the exposure quality from the riskiest classified activity within the "non-financial companies" sector which, however, remains to be confirmed in the following period. **Average risk level of regular loans also registered a downward trend, but its decline is however lower compared to the decrease of annual default rates of regular credit exposure, which confirms the banks' cautiousness while assessing the regular loans' quality.**

Despite the adequate coverage of regular loans with allocated impairment (taking into account the historic annual default rates), the high share of loans for which a certain collateral was established **should be highlighted** (85.3% of total regular loans to non-financial entities), which "mitigates" the credit risk level taken by the banks (high level of coverage with collateral is primarily typical for claims by non-financial companies). Banks' more conservative politics in terms of credit coverage with collateral enable higher security while lending, but on the other hand could have an restrictive impact on the volume of the banks' credit activity. Also, the established credit collateral can be the source of additional costs for the banks (costs for regular assessment of the value of established collateral, costs for takeover and sale of the set collateral, inability to sell the property at a good price.).

Chart 13
Annual default rates* of credit exposure with regular status and average risk level of regular loans (left), and share of unsecured regular loans in total regular loans (right), by activity and credit products
in %

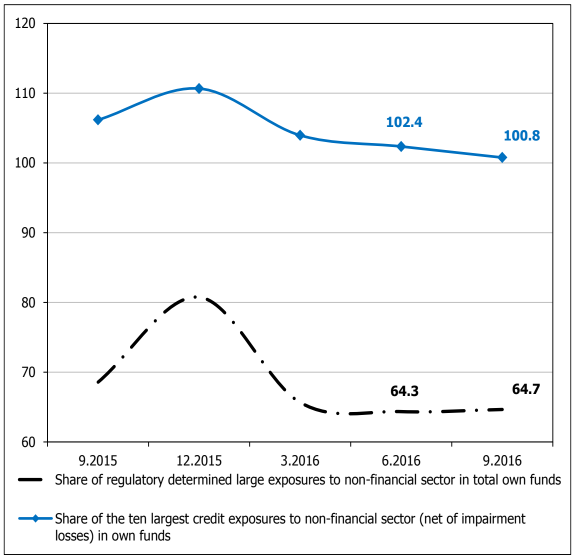




Source: NBRM's Credit Registry, based on data submitted by banks.
*Note: The annual default rate of credit exposure is calculated as a percentage of credit exposure with regular status, which for a period of one year transforms into exposure with a non-performing status.

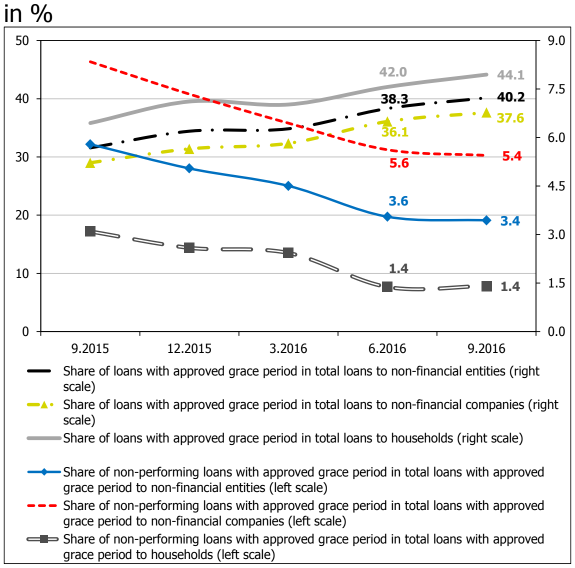
Despite the higher percentage in total allocated impairment for regular loans, compared to the historic annual default rates of regular credit exposure, as well as the high share of loans with collateral, the loses from the potential materialization of the credit risk could exceed banks' expectations (allocated provisions). Overcoming the expected loses from the potential materialization of the credit risk is possible mostly due to the significant concentration on the credit portfolios of some banks, high costs or inability to sell the credit collateral (at a good price), as well as due to the presence of loans where the change in the financial situation is not easily evident or loans where banks have no insights in customers regularity in covering liabilities on loan basis (ex. loans with approved grace period or loans with a single payment of principle).

Chart 14
Indicators for the concentration level of credit exposures to non-financial entities
in %



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

Chart 15
Indicators for the credit quality with approved grace period
in %



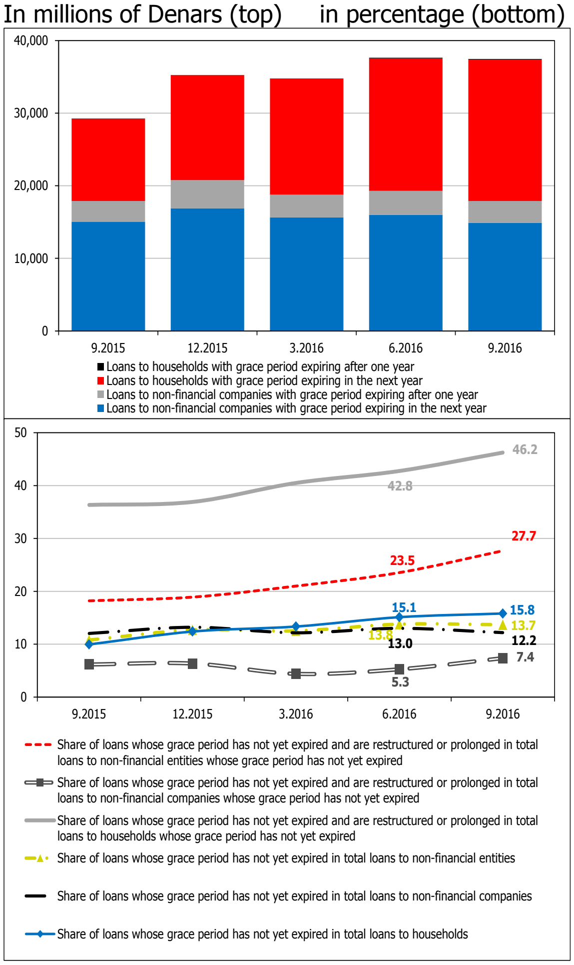
Source: NBRM's Credit Registry, based on data submitted by banks.

The relatively high concentration in the credit portfolios of individual banks, both in individual clients and according to some other client characteristics (for example, affiliations to individual activities), **points to a more pronounced connection of the loans quality with performances of individual segments of credit portfolios, which amid unfavorable business conditions could increase the losses due to performances in credit risk, above the banks' expectations.** At the end of the third quarter of 2016, ten larges exposures to non-financial entities by individual bank occupy a significant part of banks' own funds (100.8%), and in an interval from 4.1% to 198.1%, by individual bank. The average risk level of these exposures of banks is usually low and corresponds with A and B risk categories but in the structure of the large exposures of some banks, higher risk exposures were observed. Given the high share of large exposures in own funds, maintaining of their low risk level is especially important, because in the event of materialization of the risk of these exposures and the impossibility of their collection, the effect on banks' own funds would be substantial.

Prolonged loans, where, according to the regulation, the change in the contractual lending terms through the extension of maturity of the liabilities is not associated with the poor financial condition of the clients, account for 8.6% of total loans to non-financial entities. This share is on a similar level in both segments of non-financial sector (8.1% in non-financial companies and 9.3% in households), but a more pronounced upward trend of the share of the prolonged loans in the household portfolio is present. However, the exceptional high quality of the prolonged loans to households should be highlighted[21].

[21] Measured by the rate of non-performing, previously prolonged loans in total prolonged loans to households (0.6% on 30.9.2016) and average risk level of regular prolonged loans to households (0,3% on 30.9.2016).

Chart 16
Structure of loans with grace period that has not yet expired on the relevant date (up), and indicators for their structure and quality (down)
In millions of Denars (top) in percentage (bottom)



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

Loans with approved grace period[22] are significantly present in banks portfolios and they account for around 40% of total loans to non-financial entities (i.e. 37,6% and 44,1% of total loans to non-financial companies and households, respectively), with somewhat more pronounced trend in the last year. The largest share of loans with approved grace period points to increased flexibility of the banks and the readiness to meet their clients' specific needs (for example, financing a specific project). However, the fact that these credit banks have lower opportunity for a timely insight in the client's financial situation should be considered, until the approved grace period expires (during which only the interest is paid). Most of the loans with a grace period (58.9% and 75.9% of loans to non-financial companies and households, respectively) have a relatively short grace period, no longer than one year, and the quality level, measured by the share of non-performing in total loans with grace period[23] amounts to 3.4%. In the "non-financial companies" segment this share is higher and amounts to 5.4%, whereas in households is lower and reduces to 1.4%. The greater presence of these loans amid simultaneous improvement of their quality in the last year is a sign that banks appropriately assess the risks of this type of loans, thus is calculated that there is a lower probability that these loans could bring to the materialization of the credit risk of the banks.

Almost 28% of loans whose grace period has not yet expired are part of the conducted restructuring and prolonging, which points to somewhat higher risk level of these loans. Hence, the percentage of impairment of loans with grace period, that has not yet expired (amounts to 5.9%) is somewhat higher compared to the total credit portfolio (2.4%) and after the expiry of the grace period, somewhat higher default rates and rates of non-performing loans can be expected in these loans.

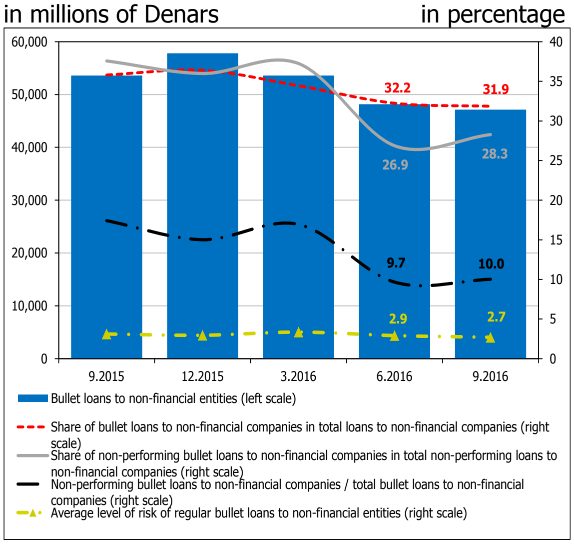
[22] Grace period is calculated as the difference between the date of the fist submission of the principle and the approval date of credit agreements where this difference is greater than 31 days.
[23] Mainly for credits where the grace period is approved during restructuring.

Bullet loans represents a special credit category, in which banks have no insight of the clients' regularity in settling their liabilities on the basis of the principle until the deadline of loan submission. Bullet loans are significantly present in the banks' portfolios, especially in the segment of non-financial companies, where at the end of the third quarter of 2016, around one third of the loans have a clause for single repayment of principal. Namely, in the structure of "bad" credit portfolio[24] of non-financial companies, non-performing bullet loans occupy significant 28.3%.

Despite the higher risk level of these loans perceived through the higher rate of non-performing loans (10.0%) compared to the total portfolio, the impairment, determined by banks, for the regular bullet loans (2.7%) is on the same level as the total credit portfolio (2.4%), as a result to which the losses from the materialization of the credit risk in these loans can be higher than expected by the banks.

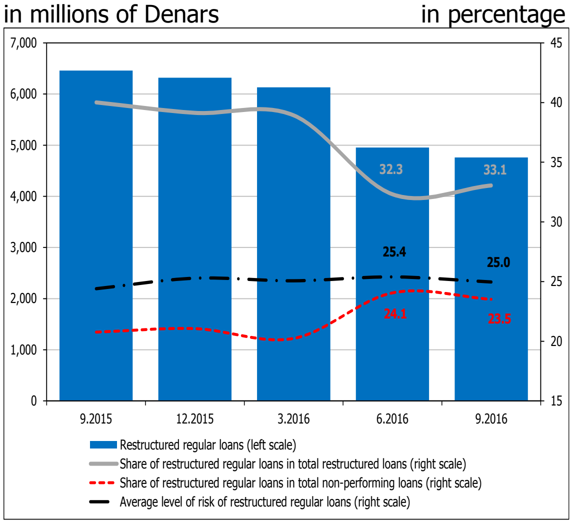
Signal for the materialization of the credit risk is the movement of restructured regular loans, which might receive a non-performing status if banks had not changed the credit terms to customers who are facing financial difficulties. The decrease of restructured regular loans (by Denar 194 million, or by 3.9% on a quarterly basis) is due to the solid payment of loans which have been previously restructured during the third quarter of 2016, which suggests better performances of banks in terms of timely perception of consumers' financial difficulties and consequently, timely and proper restructuring of the claims according to the needs and capabilities of their clients. Restructured regular loans occupy around one third of total restructured loans and register a small increase of the share compared to the previous quarter. However, the share of restructured regular loans in total non-performing loans is 23.5%. Thus, if

Chart 17
Dynamics of bullet loans and indicators for their structure and quality
(in chart - SPL)
in millions of Denars in percentage



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

Chart 18
Dynamics of restructured regular loans and indicators for their quality
in millions of Denars in percentage

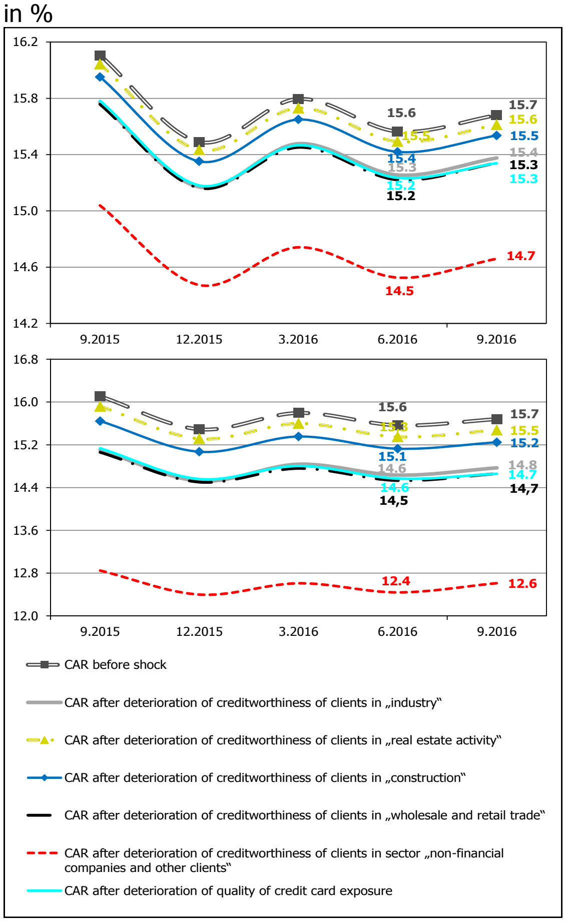


Source: NBRM's Credit Registry, based on data submitted by banks.

[24] Non-performing loan portfolio.

proven that restructuring was unsuccessful and banks haven't acceded on timely and appropriate easing of the credit load of the currently difficult financial situation of the customers, these loans would have received non-performing status, with what the rate of non-performing loans at the end of the third quarter of 2016 would be higher by 1.7 percentage points. The average risk level of restructured regular loans amounted to 25%, which corresponds to a risk category "C", in the structure of which non-financial companies prevail.

Chart 19
Capital adequacy ratio, by activity and credit products, after the first (top) and the second (bottom) simulation for both sectors
in %



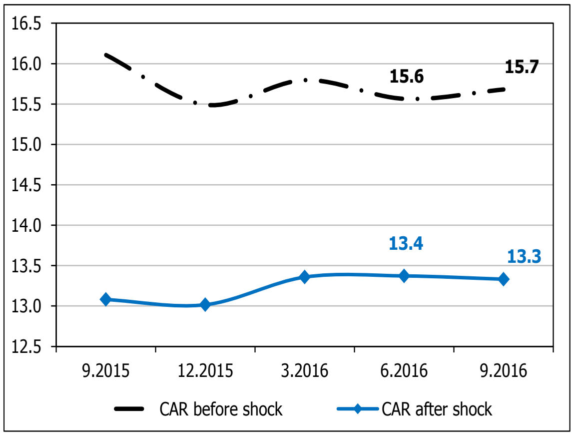
Source: NBRM's Credit Registry, based on data submitted by banks.

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

In order to examine the sensitivity of the banking system amid deterioration of the quality of certain loan portfolio segments, a simulation is conducted of hypothetical migration of 10% (first simulation) and 30% (second simulation) of the credit exposure to non-financial companies (by activity) and households (by credit products), separately, and to both sectors together, from the existing to the next two higher risk categories. **The results of the simulations show resilience of the banking system to the simulated shocks, and register moderate improvement in comparison with the previous quarter**. This is due to the higher capital adequacy of the banking system before the simulations, but also to the less pronounced sensitivity of some banks to the assumed shocks. Thus, the capital adequacy of the banking system does not decrease below 8% in any of the simulations, although individual banks reveal hypothetical need for recapitalization, but only in the event of simulated shocks of the second extreme simulation[25]. 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 to consumer loans.

[25] Capital adequacy decreases under 8% in only one bank during simulated shocks of the first simulation.

Chart 20
Capital adequacy ratio prior and after three combined shocks
in %



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

Three combined hypothetical simulations for the deterioration of the loan portfolio quality to non-financial entities are conducted as an additional test of the banking system's sensitivity to the materialization of the credit risk. In more details, it is supposed that all non-performing loans of non-financial entities are fully uncollected, the total restructured regular credit exposure obtains a non-performing status[26] and banks conduct new restructuring of the regular part of the loan portfolio which according to the volume corresponds with the amount of the restructur ed exposures which have obtained non-performing status i.e. banks replace the newly transformed restructured exposures to non-performing with conducting new restructuring (which have a regular status)[27]. The assumed redeployment of credit exposures, from the risk categories with a lower risk level to categories with higher risk level, aggravate the credit exposure structure and create additional impairment of banks. Hence, banks should allocate additional impairment in order to fully cover the losses from the non-provisioned part of non-performing loans, for the transformed restructured exposures to non-performing status and newly conducted restructuring. The new amount of impairment is treated as accounting unrecognized impairment, which means that it, as a deductible, directly decreases banks' own funds, and not the assets weighted according to risks. Amid this combined extreme simulation the capital adequacy rate of the banking system[28] decreases to 13.4% and is by 2.2 percentage points lower than the current level (identical to the suggested decrease in the previous quarter). Hence, the results show satisfying resilience of the banking system to the simulation shocks and are generally identical to the previous quarter.

[26] The restructured credit exposure is distributed in equal percentage in the risk categories which indicate non-performing status, i.e. by 33.3% in the risk categories "C-nef.", "D" and "E". Also, a percentage of the impairment is conducted for the restructured credit exposures which obtain non-performing status which corresponds with the individual risk categories with a non-performing status for the total credit portfolio of the banks.
[27] It is assumed that half of the new restructuring refer to the credit exposures classified in the risk categories "A" and "B". Also, the percentage of impairment for total restructured credit portfolio of banks is conducted on the new restructured exposures.
[28] By individual banks, capital adequacy ratio decreases below 8% in two banks only.

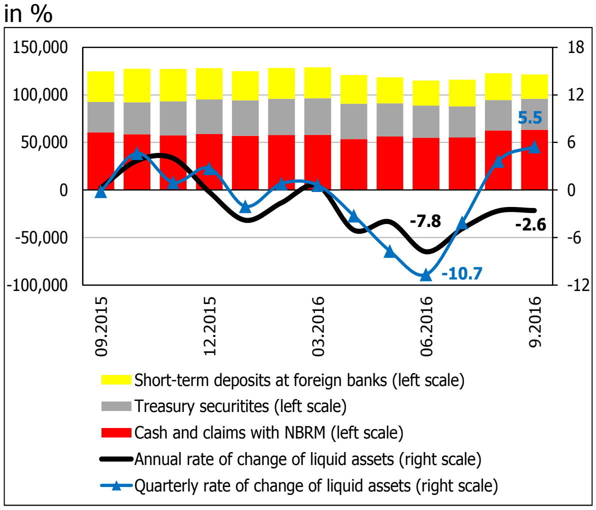
2. Liquidity risk

Unlike the previous quarter of the year when banks faced materialization of the liquidity risk due to the considerable outflow of deposits, in the third quarter of 2016, in conditions of stabilizing the expectations of economic entities, the liquid assets that banks of the Republic of Macedonia increased. The gradual recovery of the deposit activity, combined with the given opportunity for placement of the banks' foreign currency deposits with the National Bank at higher rates of return[29], compared with the rates of return obtained from foreign banks, led to a greater propensity of banks to invest in liquid financial instruments. The amount of liquid assets that banks have, was satisfying in the third quarter of 2016 which ensured continuous operation of the banks. In the third quarter of 2014, the growth of liquid assets enabled improvement of liquidity indicators, which is particularly visible in the foreign currency liquidity indicators. In the third quarter of 2016, the agreed maturity structure of assets and liabilities improved by reducing the gap between them. Simulations for hypothetically combined liquidity shocks point to satisfying resilience of the banking system to the assumed extreme liquidity outflows.

2.1. Dynamics and composition of liquid assets

At the end of the third quarter of 2016, liquid assets[30] in the banking system reached the amount of Denar 121,519 million, after the decline registered in the second quarter of 2016. Compared to the previous quarter of 2016, liquid assets are higher by Denar 6,307 million or by 5.5%, which is entirely due to the growth of cash and banks' assets placed at the National Bank. Other components of banks' liquid assets (banks' placements in government securities and short-term foreign currency assets in foreign banks[31]) decreased. Hence, the structure of banks' liquid assets registered a quarterly decrease of the share of government securities (from 29.4% to 26.9%) and short-

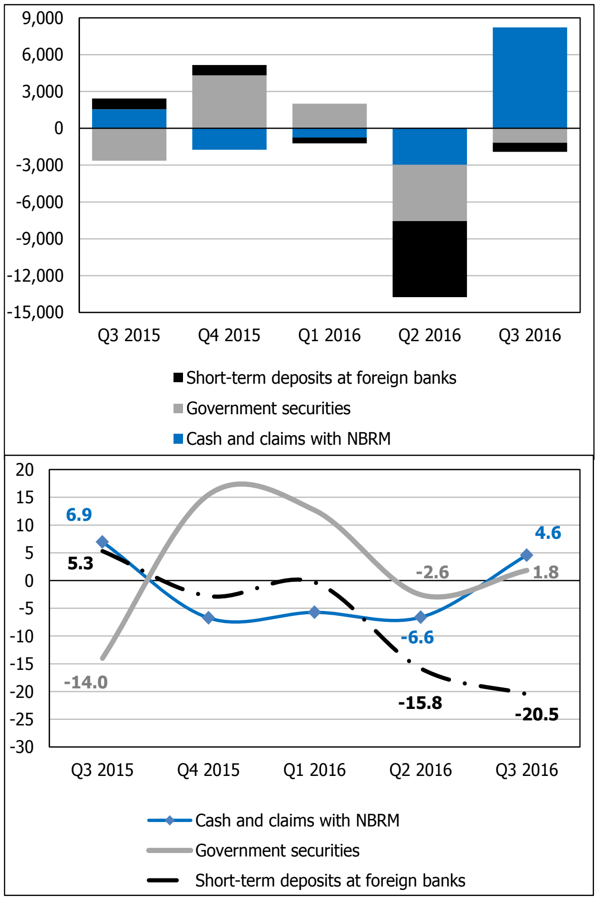
Chart 21
Liquid assets, structure and growth
in %



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

[29] The National Bank reactivated the instrument in May 2016.
[30] 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 placements in securities issued by central governments i.e. government securities issued by the Republic of Macedonia and foreign countries. For the purposes of analyzing the liquidity, assets and liabilities in denars with foreign exchange clause are considered denar assets and liabilities.
[31] Due to the interest rates movements in the international markets, placement of foreign currency assets in foreign currencies, almost brings no income to the domestic banks.

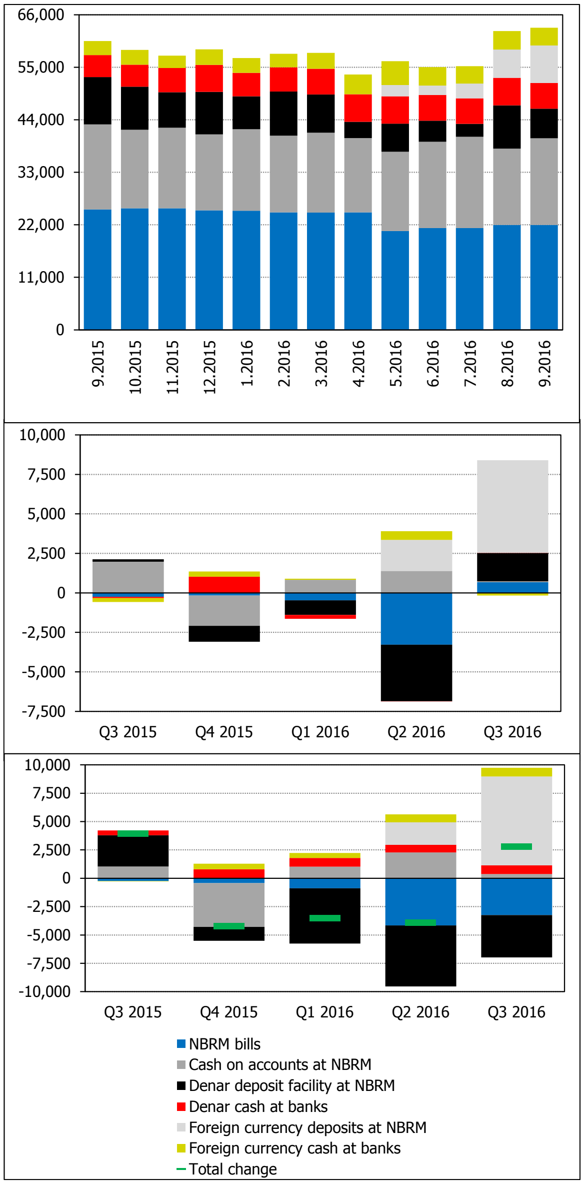
Chart 22
Quarterly absolute (up) and annual relative (down) change of liquid assets by individual components
in millions of denars and in %



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

term deposits with foreign banks (from 22.9% to 21.1%) in order to increase the share of cash and placements in the National Bank instruments (from 47.8% to 52.1%).

Chart 23
Amount of cash and claims with the National Bank (up) their absolute quarterly (middle) and annual (down) change, by individual instruments
in millions of denars

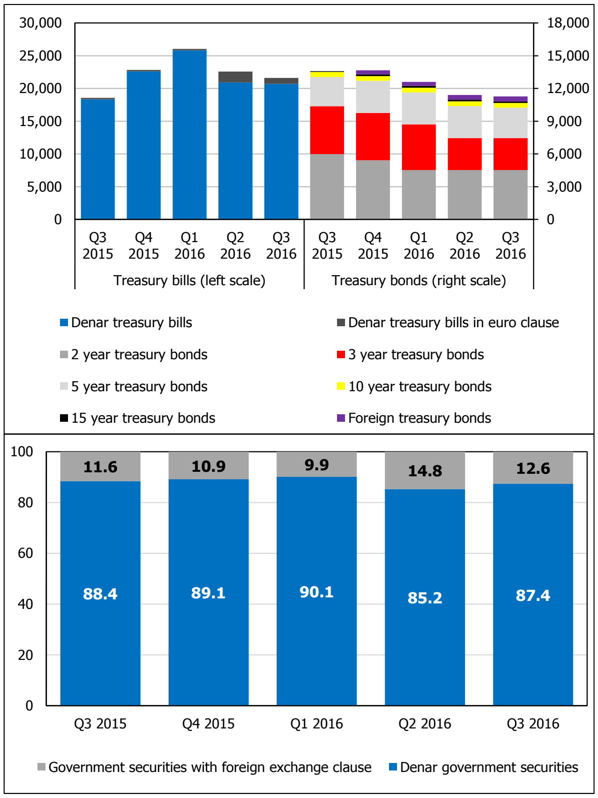


Source: NBRM, based on the data submitted by banks.

The increase of **cash and claims of the banks from the National Bank** in the third quarter of 2016 (by 14.9% on a quarterly basis, or by 4.6% on an annual basis) mostly was due to the increase in foreign currency deposits with the National Bank. Namely, reactivating the foreign currency deposit with the NBRM, as a monetary instrument, and **changing the conditions for placement of foreign currency deposits of domestic banks at the National Bank**[32], allowing banks to make placements at the National Bank with positive interest rate (unlike negative interest rates which dominate in placements in euros in the international financial markets), influenced the significant increase of the amount of placed foreign currency deposits with the National Bank[33]. **Hence, almost two-thirds of the growth of banks' liquid assets was determined by exactly the increase of the foreign currency liquid assets.** Hence, the changes in the structure of total liquid assets according to currency characteristics, were directed in increasing the share of foreign currency liquid assets of banks, which reached 31.0% (from 28.4% in the previous quarter).

[32] 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 provisions of the previously valid 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 method for determining the deposit interest rate in euros which banks will place with the National Bank. Namely, with the previously valid Decision these interest rates were equal to the interest rates placed in the central banks in the euro area, in the international financial institutions and yields of treasury bills of the member states of the euro area, and with the new Decision, the interest rates are determined by the Governor.
[33] NBRM ceased to hold auctions of foreign currency deposits starting from 28.10.2016. The Decision on the foreign currency deposit with the NBRM remains in force, which enables reactivation of this instrument according to the market circumstances.

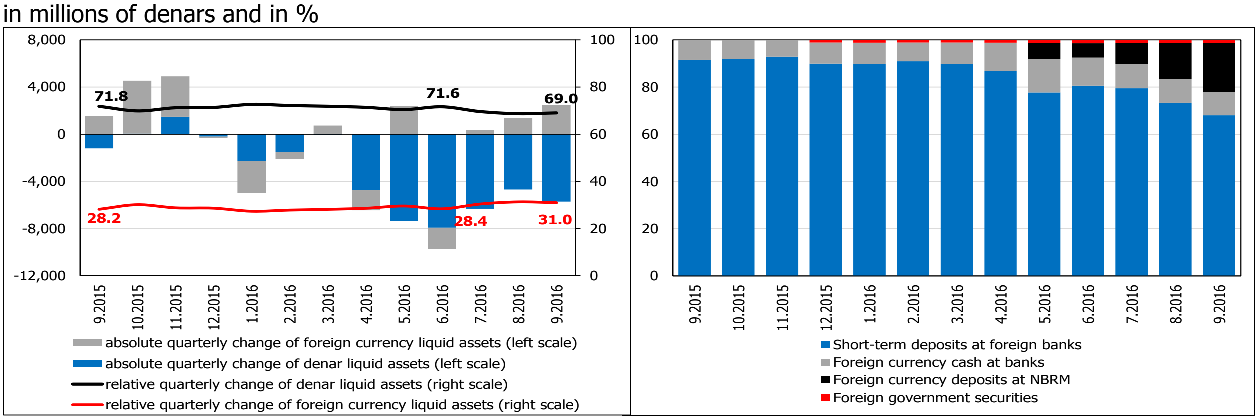
Chart 24
Structure of investments in government securities - by instrument (up) and by currency characteristics (down)
in millions of denars and in %



Source: Ministry of Finance and NBRM, based on data submitted by banks.
Note: Structure of investments in government securities is presented according to their nominal value.

In the third quarter of 2016, the total nominal amount of issued **continuous[34] government securities** registered an increase, by 0.4% on a quarterly basis, i.e. by 10.2% on an annual basis (September 2016 - September 2015). However, banks' placements in domestic government securities registered a quarterly decline of 3.4% (according to their nominal value), in which almost 90% was determined by the decrease of banks placements in treasury bills (according to their nominal value, placements in government securities registered decrease of Denar 991 million, or by 4.4%, whereas investments in domestic government bonds decreased by Denar 155 million or by 1.4%). However, banks still have the role of the most important investor in the primary market of government securities with a share of almost 40.0% in the total value of issued government securities. In the structure of government securities owned by banks, stronger participation of government bills, compared to government bonds is evident, which suggests a stronger inclination of banks to invest in government securities with shorter contractual maturity. This is confirmed by the fact that nearly three quarters of the maturity structure of the government bonds owned by banks, account for two-year or three-year bonds.

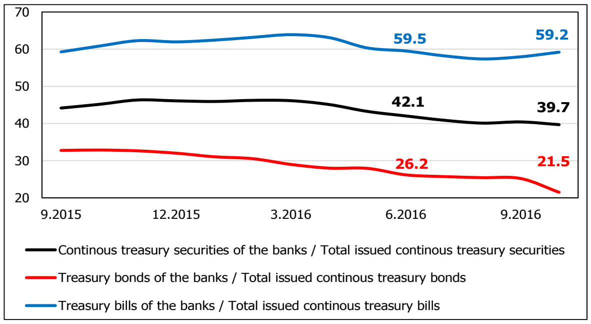
Chart 25
Liquid assets according to currency characteristics - relative importance and absolute quarterly change (left) and structure by instrument of liquidity in foreign currency (right)
in millions of denars and in %



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

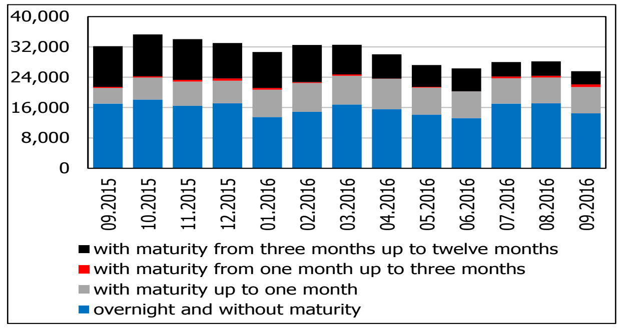
[34] Treasury bills and government bonds are considered as continuous government securities issued in the domestic financial market, and structural securities i.e. Bonds for dentionalization are not included.

Chart 26
Relative importance of banks in the primary market of government securities
in %



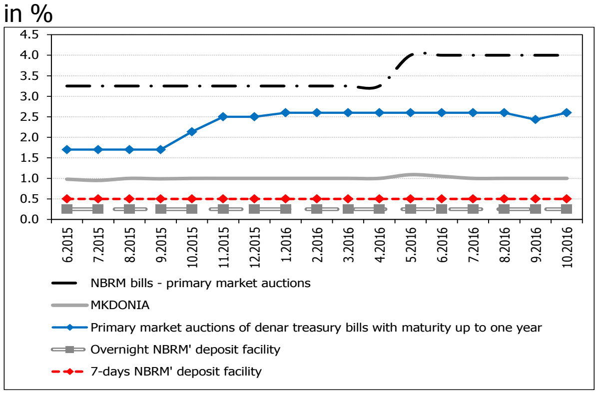
Source: NBRM, based on the data submitted by banks.

Chart 27
Movement of short-term deposits in foreign banks
in millions of denars



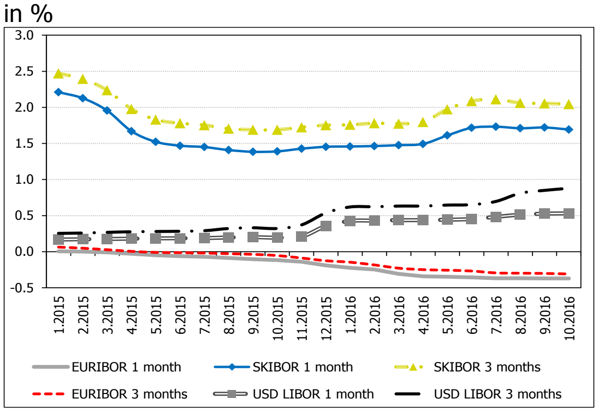
Source: NBRM, based on the data submitted by banks.

Chart 28
Movement of domestic key interest rates
in %



Source: the National Bank

Chart 29
Movement of key interbank interest rates SKIBOR, EURIBOR and LIBOR for US dollars
in %



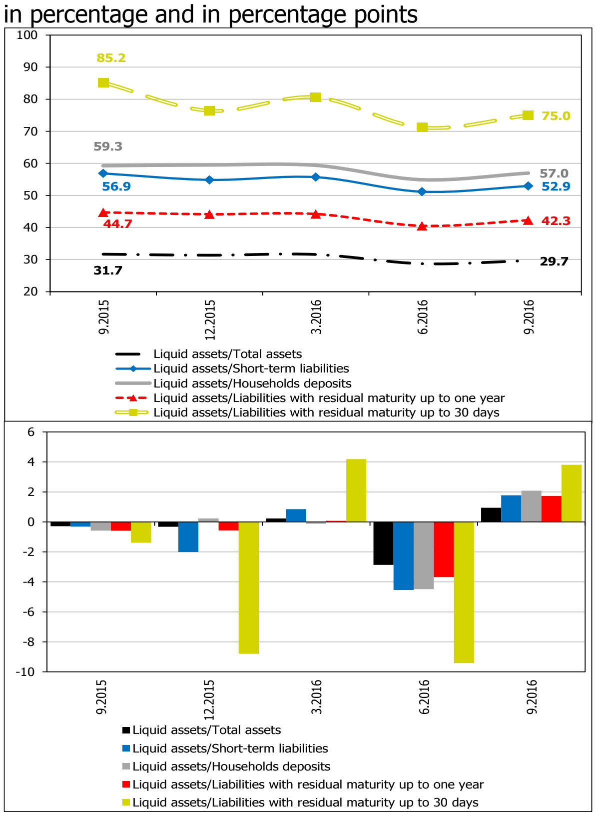
Source: National Bank and website of European Money Markets Institute for Euribor and website of Federal Reserves Bank in St. Luis (socalled FRED) for LIBOR for US dollars.

Assets placed in foreign banks with a contractual maturity lower than one year, are the most important foreign currency component of banks' liquid assets[35], which continued to decrease in the third quarter of 2016, but at a significantly slower pace compared to the previous quarter. Most of the short-term assets invested in foreign banks are placed overnight or are in the corresponding accounts of domestic banks abroad, which often bring low and even negative yields, reflecting the current position of the monetary instrument of the more important central banks in the world and low interest rates in the international financial markets.

After increasing the interest rate on CB bills (from 3.25% to 4.0%) in the beginning of May 2016 (as a reaction of the National Bank to the increased demand of foreign currencies and pressures on the deposit base of the banks), in the third quarter of 2016, the interest rates of the instruments of the National bank remained unchanged. Also, more significant changes were not registered in the interest rates of the domestic interbank market (SKIBOR and MKDONIA), and the key interest rates of international interbank markets remained exceptionally low, and even negative for some maturity. The stagnation of the level of key interest rates of the interbank markets in the

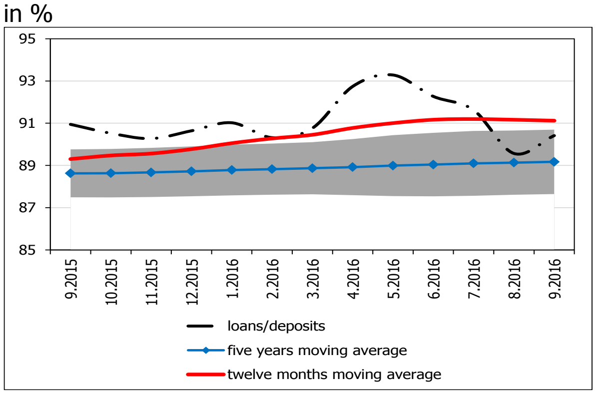
[35] Foreign currency liquid assets comprise the short-term deposits with foreign banks, including assets in corresponding accounts, investments in foreign government securities, foreign currency cash and placements of foreign currency deposits with the National Bank.

Chart 30
Movement (top) and quarterly change (bottom) of the liquidity indicators of the banking system
in percentage and in percentage points



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

Chart 31
Dynamics of loan/deposit indicator 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.

euro area corresponds with the unchanged position of the monetary policy of ECB in the third quarter of the year.

2.2. Liquidity indicators

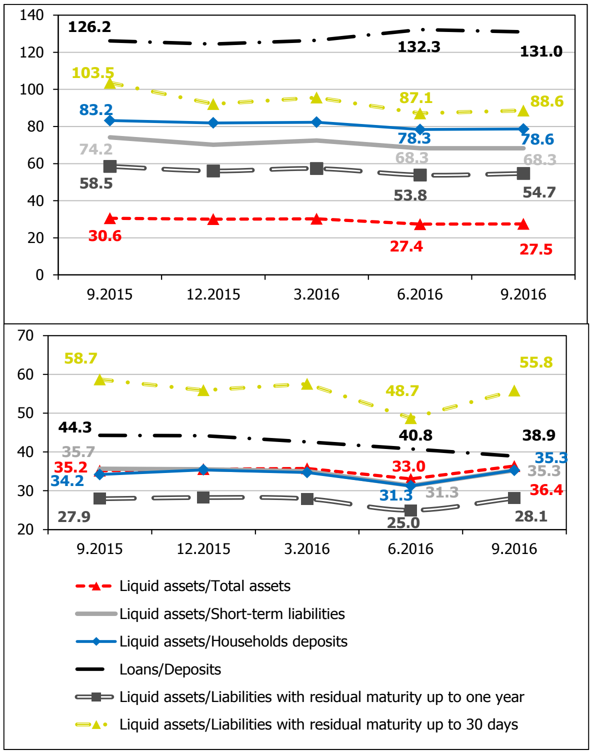
In the third quarter of 2016, the liquidity indicators of the banking system[36] register an improvement. This corresponds with the increase of liquid assets in this part of the year, which are in a satisfying volume, which enables banks to continuously fulfill their liabilities. Increase of the liquidity indicators of banks points to stabilization of the liquidity position of the banking system, after its decrease in the previous quarter of the year. Thus, the share of the liquid assets in total assets registered a quarterly increase, and in the end of the third quarter of 2016 reached 29.7%. The coverage of the different categories of banks' liabilities with liquid assets also increased.

Improvement of liquidity indicators is confirmed by individual banks[37]. Namely, at the end of the third quarter of 2016, by individual bank, liquid assets have a share from 15.8% to 40.2% in total assets (from 13.3% to 37.4% on 30.6.2016), coverage of short-term liabilities with liquid assets rages from 31.5% to 73.6% (from 26.9% to 74.0% on 30.6.2016), whereas coverage with liquid assets of liabilities with a residual maturity up to 30 days rages from 60.8% to 152.2% (from 64.0% to 83.2% on 30.6.2016).

The ratio between loans and deposits of non-financial entities, also shows improvement of the liquidity of the banking system. In the third quarter or 2016, this indicator was 90.4, which is a decrease by 1.9 percentage points compared to the previous quarter. The decrease was due to the higher growth rate in deposits compared to the growth

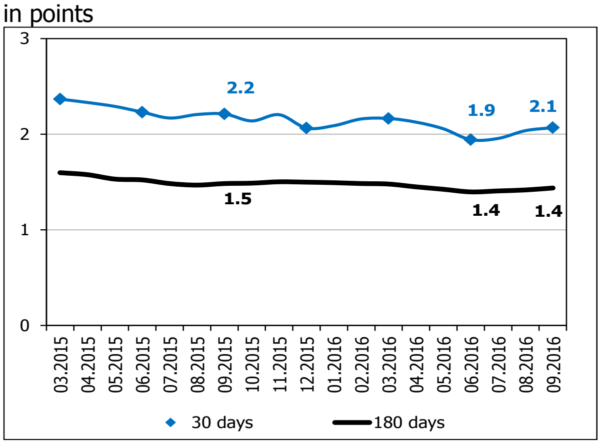
[36] Calculating the liquidity indicators on banking system level, resident interbank assets and liabilities are not taken into account.
[37] The indicators by banks are presented by excluding the respective indicators for the Macedonian Bank for Development Support AD Skopje, which due to the specific nature of activities, and especially due to the legal restriction for collecting deposits from non-financial entities, register especially high indicators for coverage of the liabilities with liquid assets.

Chart 32
Banking system liquidity indicators, according to currency structure - Denars (top) and foreign currencies (bottom)
in %



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

Chart 33
Liquidity ratios of the banking system
in points



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

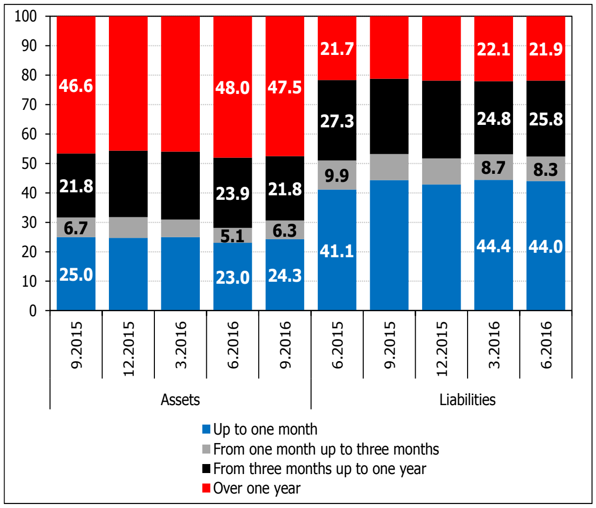
rate in loans to non-financial entities (due to the conducted regular write-offs, as well as mandatory write-offs of part of fully provisioned non-performing loans). If we exclude the effect from the write-offs, this indicator would amount to 94.3%, but would still be lower compared to the previous quarter, if we exclude the effects from the write-offs in that quarter. Observing by banks, at the end of the third quarter of 2016, this indicator ranged from 66.9% to 120.9%, with a median of 94.0%. In the four banks, the loan/deposit indicator is above 100% (on 30.9.2016, these banks have a share of 18.3% in the total assets of the banking system).

In terms of **currency characteristics of the liquidity assets and liabilities**[38], liquidity indicators in the third quarter of 2016 registered an increase, but with significant differences in dynamics. Given that the liquid assets in foreign currencies were the main generator of the quarterly decrease in liquid assets in the third quarter of 2016, the foreign currency liquidity indicators registered higher increase compared to the liquidity indicators in denars. However, indicators for denar liquidity continue to be on a high level compared to the indicators for foreign currency liquidity, which is due to the higher structural share of liquid assets in denars in the total liquid assets of the banks.

Liquidity ratios of the banking system[39] presented as ratio between assets and liabilities that fall due in the following 30 and 180 days, amount to 2.1 and 1.4 respectively, which exceeds the prescribed minimum of 1.

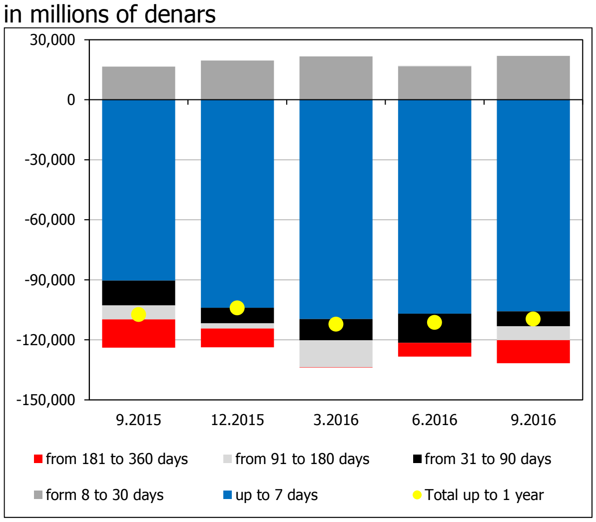
[38] Banks accept and return denar liabilities (deposits) and liabilities (deposits) in denars with foreign exchange clause in denars, creating cash flow (inflow or outflow) in denars. Foreign currency liabilities, according to the Law on Foreign Exchange Operations, banks accept and return foreign currency in the respective foreign currency and therefore, have an expected cash flow (inflow or outflow) in foreign currency.
[39] 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 and 151/13).

Chart 34
Structure of banks' assets and liabilities by their contractual residual maturity
in %



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

Chart 35
Structure of the gap between assets and liabilities, with a contractual maturity of one year
in millions of denars



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

2.3. Maturity structure of assets and liabilities

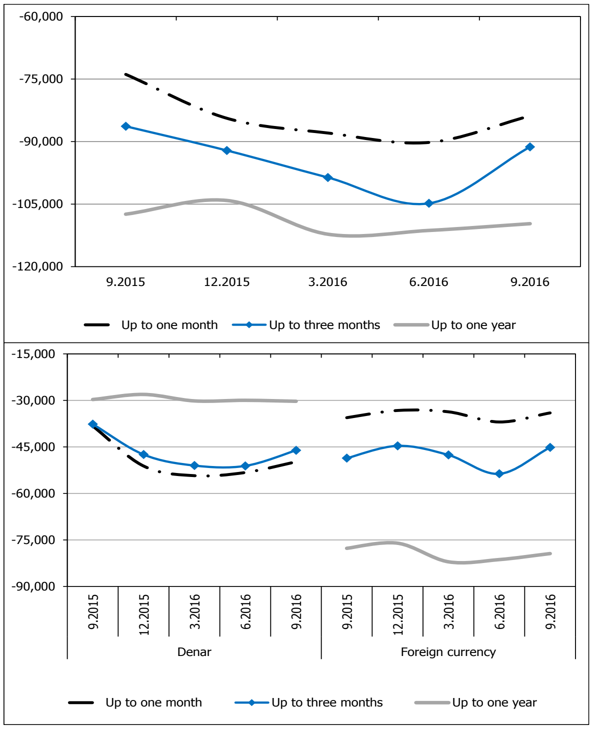
The structure of banks' assets and liabilities by contractual residual maturity underwent small changes in the third quarter of 2016. Namely, the increase of liquid assets, primarily through the growth of banks' assets with the NBRM, caused increase of the share of assets with a residual maturity up to three months (especially of the assets with maturity up to one month). In contrast, in banks' liabilities, in the third quarter, quarterly decrease of the share of liabilities with residual maturity up to three months is registered, whereas the share of liabilities with a residual maturity from three months to one year increased.

The improvement in the maturity profile of assets and banks' liabilities determined a remarkable **quarterly reduction of the aggregate negative difference[40] between assets and liabilities of banks according to their contractual residual maturity.** This movement was mostly pronounced in the foreign currency gap, whereas narrowing in the denar gap was somewhat smaller. The main driver of this improvement of the maturity mismatch between assets and liabilities according to their contractual maturity was the growth of liquid assets in the third quarter (generally foreign currency liquid assets). The maturity bucket up to seven 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.

During the third quarter of 2016, **banks maintained the expectations for the existing positive gap between assets and liabilities**, according to their residual maturity, both aggregately and by individual maturity segments (annex no. 33). In other words, despite the turbulences in the previous quarter

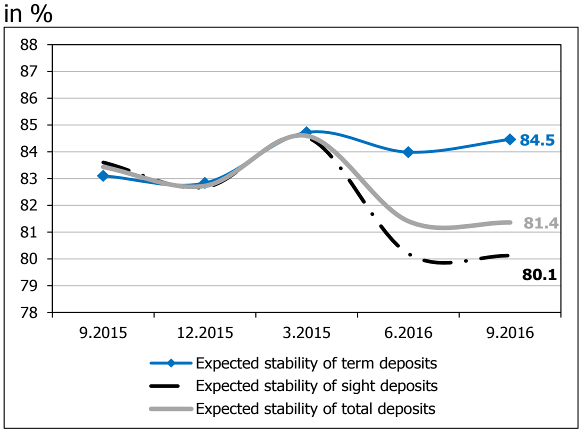
[40] Both in absolute amount and in percentage, expressed in terms of the total assets with the same contractual residual maturity.

Chart 36
Dynamics of aggregate (non)compliance between assets and liabilities of banks according to contractual residual maturity (up) and currency structure (down)
in millions of denars



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

Chart 37
Expected stability of deposits with residual maturity up to three months, by banks
in %



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

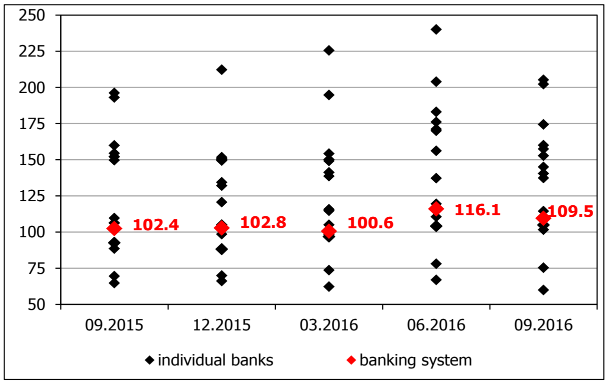
which shook the savers' confidence and caused withdrawal of deposits from the banks, banks however expect relatively high stability of the deposits as their main source of financing. Thus, as of 31.9.2016, banks expected 84.5% of time deposits with residual maturity up to three months (83.1% on 30.9.2015) to remain stable, i.e. to remain in the banks, while the percentage of expected stability of total deposits is somewhat lower and on the same level as in the previous quarter (81.4%).

2.4. Stress-simulations for liquidity shocks

In the third quarter of 2016, **simulations of liquidity shocks confirm the stable liquidity position of banks, mainly due to their satisfactory level of liquid assets.** Liquid assets on banking system level are at the amount which enables resilience, even during most extreme liquidity shock, which include combined outflows of several types of funding sources[41] outside the banks. The combination of

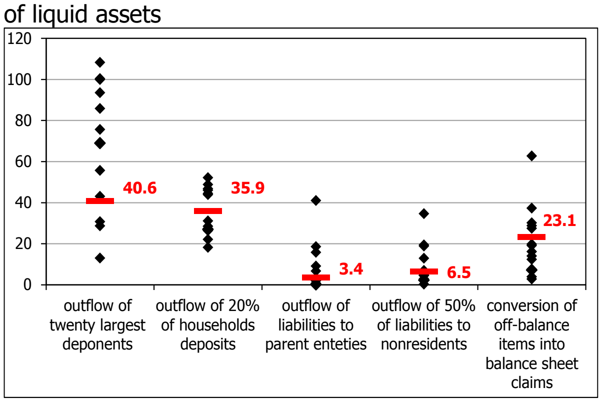
[41] The simulation assumes outflow of: deposits of the twenty largest depositors, 20% of household deposits, liabilities to parent entities (with the exception of liabilities on subordinated instruments and hybrid capital instruments that are excluded from the simulation as according to the regulations 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

Chart 38
Reduction of liquid assets in the simulation of combined liquidity shocks
in %



Source: NBRM calculations, based on data submitted by banks

Chart 39
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.

such extreme liquidity outflows fully absorbs the liquid assets of the banking system (over 100%). Compared to the previous quarter, the relative dispersion of the simulation results by banks decreases. If for the purposes of this simulation, the scope of liquid assets will be extended including other financial instruments[42], that are assumed to have been recoverable relatively quickly and easily or convertible into cash within 30 days, then the banking system would have enough liquid assets, i.e. the fall of liquid assets of the banking system would have been 96.8%, which means that even after such shocks, banks would have hold certain amount of cash.

When applying individual assumed liquidity shocks, banks show that they hold sufficient liquid assets to settle simulated outflows. Of the liquidity shocks that are combined in this simulation individually most significant is the outflow of deposits of the 20 largest depositors. It is also evident that it has a different meaning for different banks, mainly due to the differences in the degree of concentration of deposits. Also, an important contribution is also that of the outflow of 20% of the household deposits, where there is a significant similarity in the importance of individual banks, stemming from the fact that for the domestic banking system the most important source of funding are household deposits, despite their instability in the second quarter of 2016. From among other shocks, somewhat bigger relative importance is observed in the simulation for turning selected off-balance sheet items into balance sheet claims, but with notable differences between individual banks. The other two shocks that are subject to combination (the share of liabilities to non-residents and funding from parent entities) have a modest share in the overall result of this simulation.

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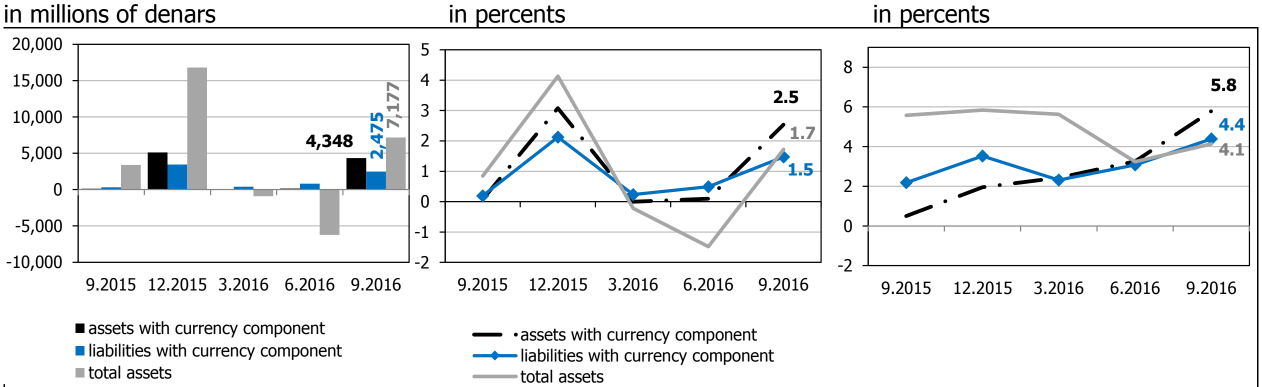
of liquidity shocks exclude the Macedonian Bank for Development Promotion AD Skopje, because of the legal restriction to serve in the deposit market.

[42] 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.

3. Currency risk

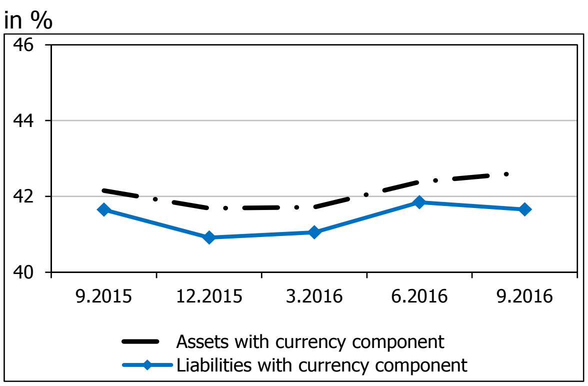
The exposure of the banking system of the Republic of Macedonia to currency risk remained low also in the third quarter of 2016, despite the increased share of assets and liabilities with currency component in the banks' own funds. The dominance of euro among foreign currencies, when implement the strategy for maintaining stable nominal exchange rate of denar against this currency, contributes to low bank exposure to exchange rate risk. Other currencies are less present in the banks' balance sheets, and as a result the generally downward movements in the value of the British pound present also in the third quarter of 2016 do not pose risk for increased currency risk of the banks. As of 30 September 2016, all banks were in line with the prescribed limit for the aggregate currency position, which equals 30% of banks' own funds.

Chart 40
Quarterly (left and middle) and annual (right) growth of assets and liabilities with currency component



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

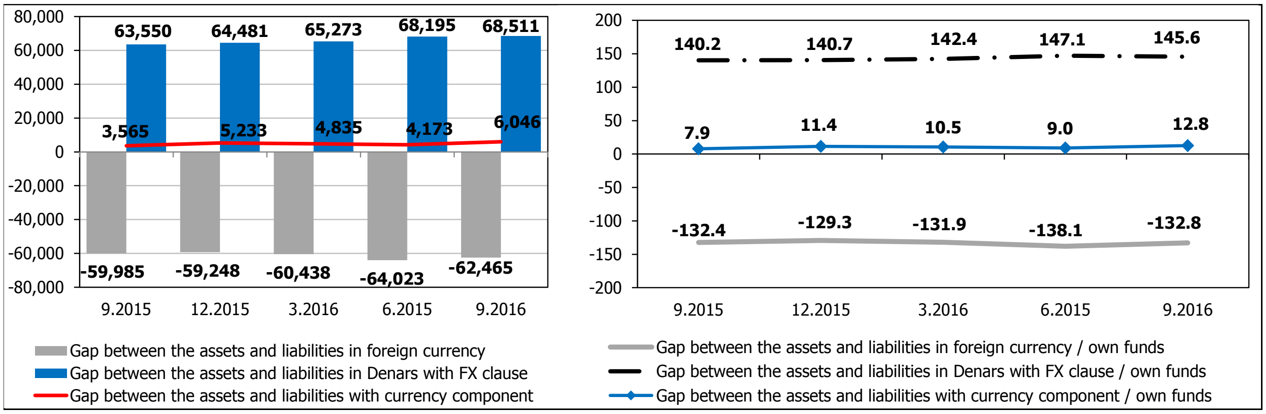
Chart 41
Share of the assets and liabilities with currency component* in the total assets of banks



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.

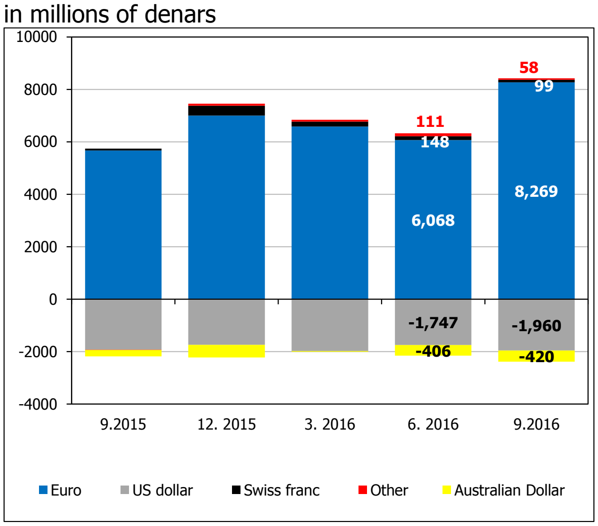
As of 30 September 2016, the positive gap between assets and liabilities with currency component equaled Denar 6,046 million, which is an increase of Denar 1,873 million compared to 30 June 2016. The gap widening arises from the higher growth in the assets with currency component (of Denar 4,348 million) relative to the increase in liabilities with currency component (by Denar 2,475 million). The gap widening between assets and liabilities with currency component, amid lower increase in the banks' own funds (Denar 693 million), contributed to its higher share in the own funds of the banking system by 3.8 percentage points.

Chart 42
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)
in millions of denars in %



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

Chart 43
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.

The domestic political developments, accompanied with the speculation about the stability of the denar exchange rate, have stabilized in the third quarter of 2016, which resulted in positive changes in the denar components of the balance sheets, as well. However, although the denar assets registered an increase in this quarter,[43] the increase is smaller in comparison with the assets with currency component, the share of which in the total on-balance sheet assets raised by 0.2 percentage points. On the other hand, the share of the liabilities with currency component in the total on-balance sheet liabilities decreased by 0.2 percentage points.

During the third quarter of 2016, the gap widening between assets and liabilities with currency component was solely due to the euro. The gap in euros increased by Denar 2,202 million.

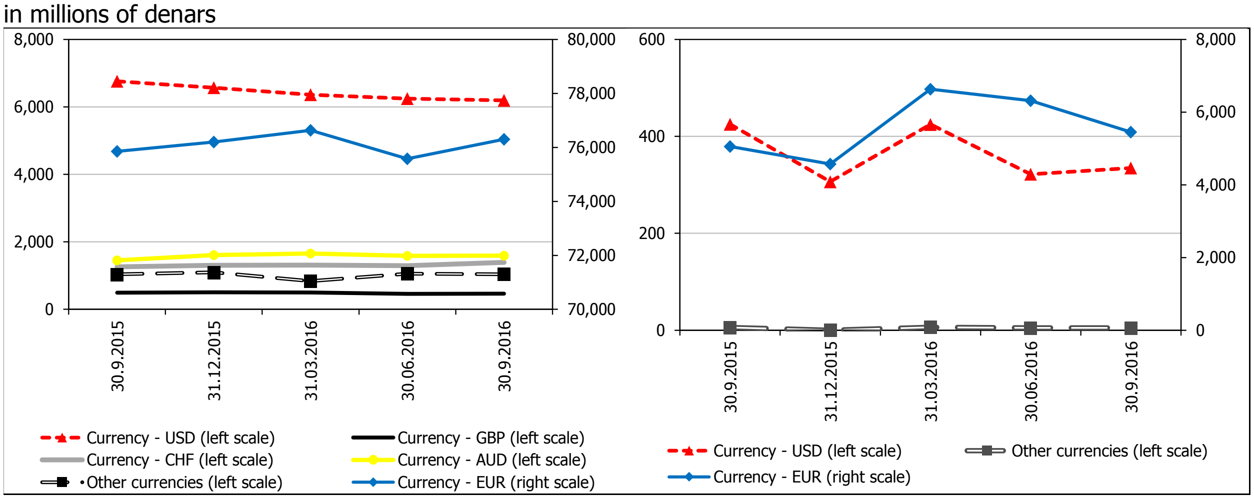
[43] During the previous quarter, the denar assets reduced by Denar 6.406 million, while the assets with currency component registered moderate growth of Denar 164 million.

Table 3
Structure of assets and liabilities with currency component, by currency
in %

Currency	30.06.2016		30.09.2016	
	Assets	Liabilities	Assets	Liabilities
Euro	89.2	87.8	89.3	87.6
US dollar	6.6	7.8	6.6	8.0
Swiss franc	1.6	1.6	1.7	1.7
Australian Dollar	1.0	1.3	0.9	1.2
Other	1.6	1.6	1.6	1.6
Total	**100.0**	**100.0**	**100.0**	**100.0**

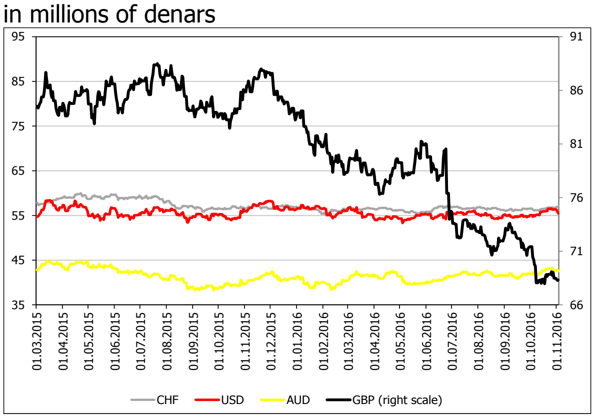
Source: NBRM, based on data submitted by banks.

Chart 44
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 45
Exchange rate of the denar against the British pound, US dollar, Swiss franc and the Australian dollar
in millions of denars



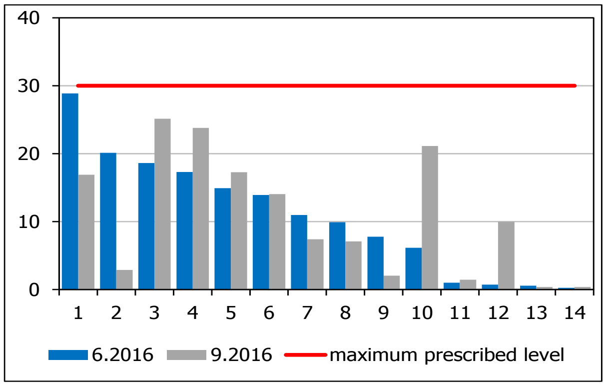
Source: NBRM.

The value of the **British pound continued to move downwards,** with its depreciation being more pronounced[44] compared to the preceding period (after the referendum). The changes in the value of the British pound did not affect significantly the domestic banking system, because the share of this currency in the banks' balance sheets is minor (0.5% and 0.6% in the assets, i.e. liabilities with currency component).

As of 30 September 2016, all banks adhered to the prescribed limit for the

[44] Such developments stems from the vagueness related to the announced negotiations about the exit of the United Kingdom from the EU, the initiation of which is expected until end of March 2017.

Chart 46
Aggregate currency position to own funds ratio, by bank
in %



Source: NBRM.

aggregate currency position, which equals 30% of the banks' own funds.

Table 4
Distribution of banks by share of open currency position, by currency and the aggregate currency position in own funds

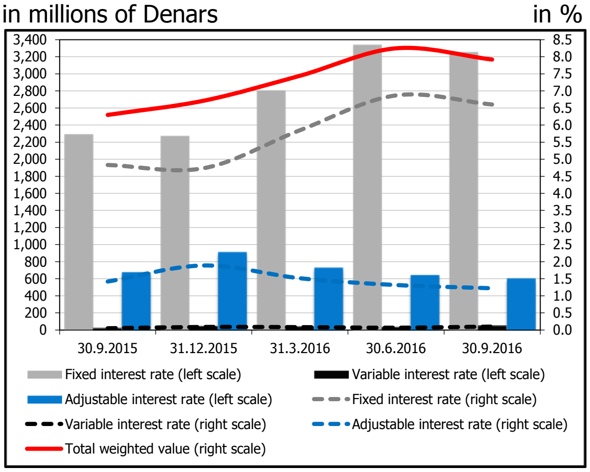
Items	Number of banks										
	Open currency position by currency / own funds										Aggregate currency position / own funds
	Euro		US Dollar		Swiss franc		Australian Dollar		Other		
	Long	Short	Long	Short	Long	Short	Long	Short	Long	Short	
under 5%	2	3	7	7	7	6	7	2	12	2	5
from 5% to 10%	3										2
from 10% to 20%	3										4
from 20% to 30%	3										3
over 30%											

Source: NBRM, based on data submitted by banks.

4. Interest rate risk in the banking book

In the third quarter of 2016, the exposure of the banking system to the interest rate risk reduced, due to the larger shortening of the average period until the next interest rates reassessment in the on-balance sheet asset items with adjustable interest rate, i.e. the average residual maturity date in the on-balance sheet asset items with fixed interest rate. The total positive gap between the interest sensitive assets and liabilities in the third quarter of 2016 increased, which stems from the growing gap in the items with fixed and variable interest rates. In contrast, the negative gap between on-balance sheet asset items and on-balance sheet liabilities items, where the period until the next interest rates reassessment does not exceed one year, registered narrowing, although it still remains relatively high. According to the positions in the banking book, the banking system is exposed to the risk of future increase in interest rates, which is relativized to large extent by applying adjustable interest rates. The implementation of clauses for unilateral adjustability of interest rates in credit and deposit agreements facilitates the banks in managing interest rate risk on one hand, but on the other, it exposes them to indirect credit risk, as well as legal and reputation risk.

Chart 47
The total weighted assets of the banking book*, by interest rate type, in absolute amount (left scale) and relative to own funds (right scale)
in millions of Denars in %



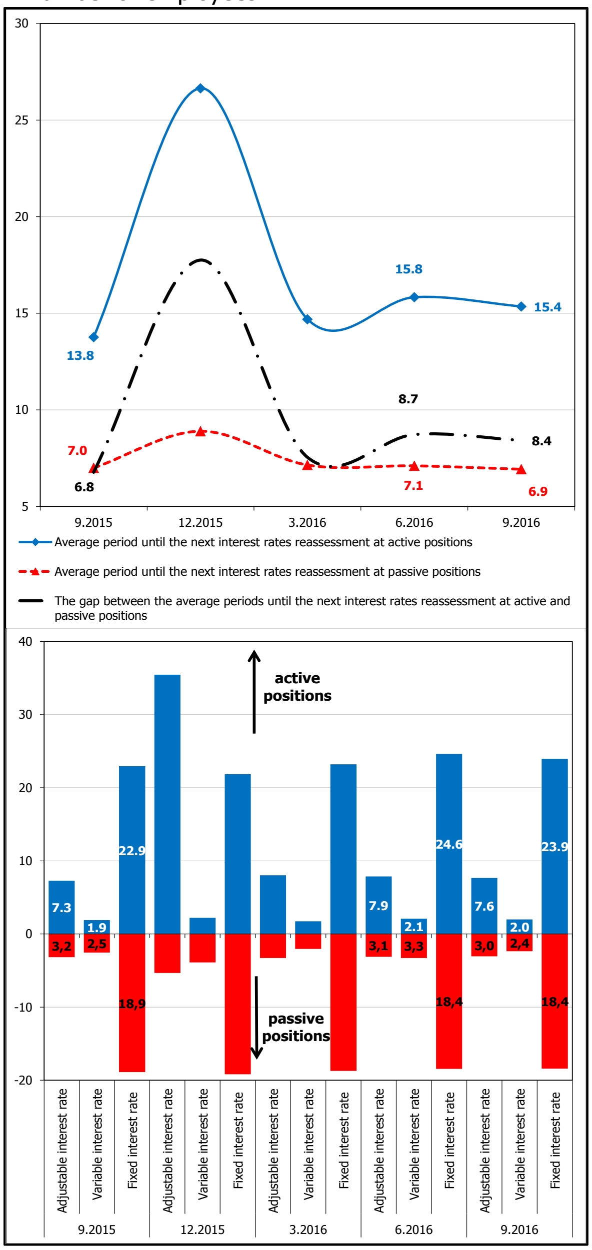
Source: NBRM, based on data submitted by banks.
*The total weighted value of the banking book denotes the potential loss of the economic value of this portfolio, given assumed unfavorable interest shock of ±2 percentage points.

In the third quarter of 2016, the indicator of exposure of the banking system to interest rate risk in the banking book registers a downward path. Thus the potential loss of the economic value of the banking book, given assumed unfavorable interest shock of ±2 percentage points registered an absolute fall and reduced to the level of 7.8% of the own assets of the banking system. Most of the quarterly decrease in the total weighted value of the banking book is due to the interest sensitive positions with fixed interest rate. Analyzed by bank, the correlation between potential losses in standard interest shock of ±2 percentage points and banks' own funds range from 0.8% to 15.7%, which is below the level of 20%[45].

The decrease in the exposure of the banking system to the interest rate risk in the banking book arises from the shortening of the average period from the next interest rate reassessment in the interest sensitive positions (i.e. the

[45] 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.

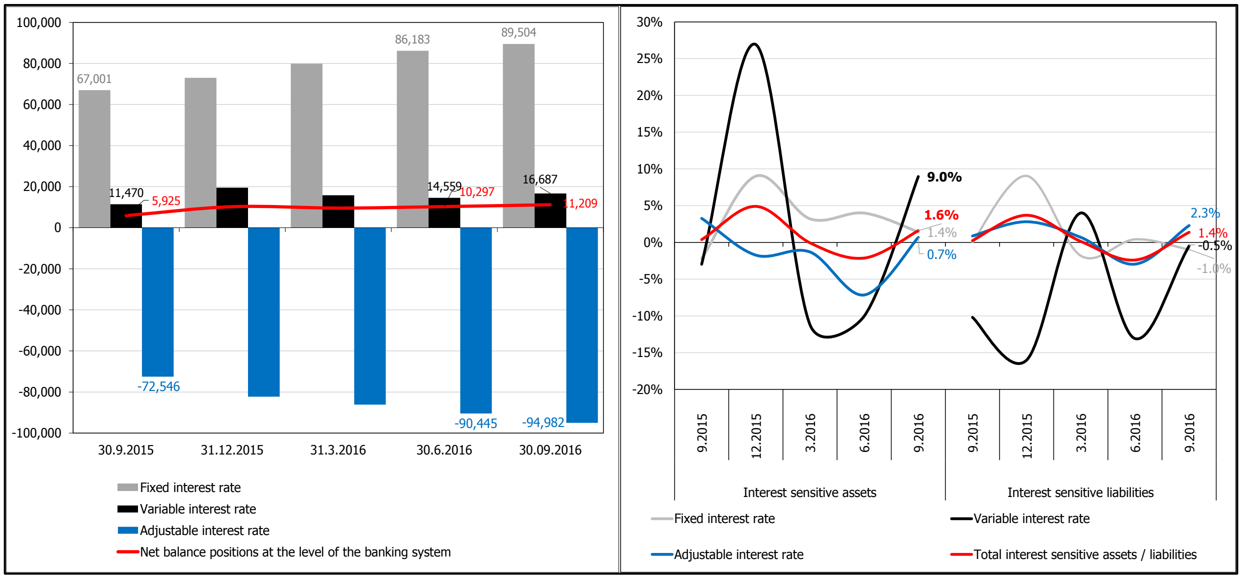
Chart 48
Average period until the next interest rates reassessment (average residual maturity of the positions with fixed interest rates), total (top) and by interest rate type (bottom)
in number of employees



Source: NBRM, based on data submitted by banks.

average residual maturity date in the positions with fixed interest rates), which was more pronounced in the on-balance sheet asset items. The gap between the average periods until the next interest rates reassessment in the asset and liabilities items remains positive, which exposes the banking system to risk of future interest rates growth. In the third quarter of 2016, the banks shortened the average period until the next interest rates reassessment by 0.4 months in the asset, i.e. by 0.2 months in the liabilities items. On the assets side, the decrease in the average period until the next change in the interest rates (i.e. maturity date in fixed positions) was most pronounced in placements in securities and term deposits with a fixed interest rate, as well as loans with adjustable interest rate, while in liabilities, the average period until the next reassessment of interest rates on liabilities based on loans with fixed interest rate and liabilities based on subordinated and hybrid capital instruments with a variable interest rate is shortened.

Chart 49
Gap between the interest sensitive assets and liabilities (left) and quarterly change in the interest sensitive assets (right), by interest rate type
in millions of denars in %



Source: NBRM, based on data submitted by banks.

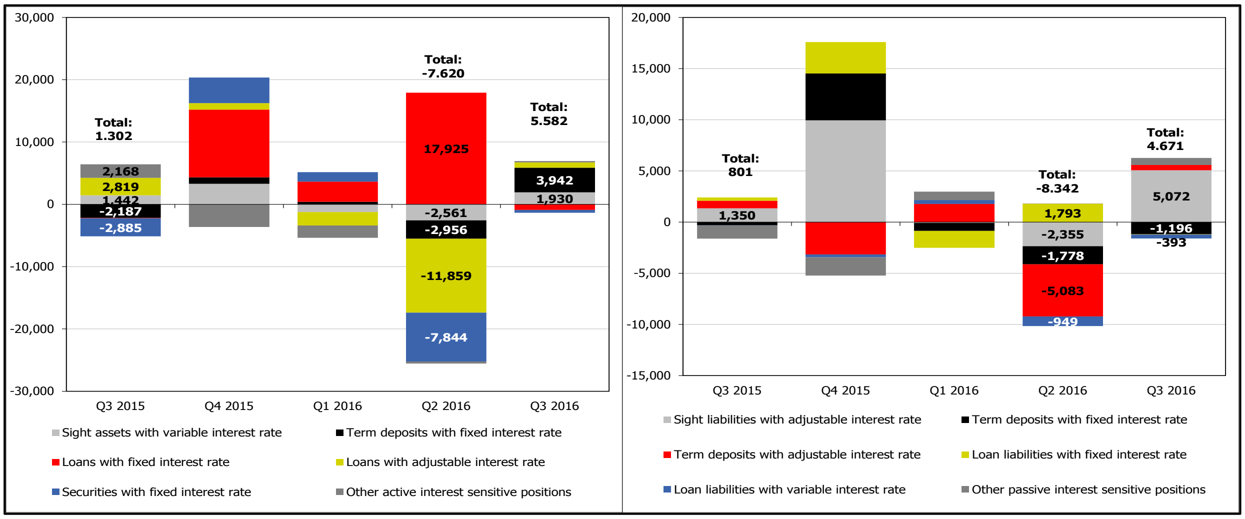
The gap between the interest sensitive assets and liabilities, in the third quarter of 2016 increased by Denar 912 million, or by 8.9% (7.5% in the second quarter of 2016), which stems from the widening of the positive gap in the positions with fixed and variable interest rates. Namely, the increased placements in term deposits with fixed interest rates[46], given simultaneously reduced liabilities based on term deposits with fixed interest rates, increased the gap between the positions with this type of interest rates by Denar 3,321 million (or by 3.9%).

The positive gap between positions with variable interest rate registered an increase of Denar 2,128 million (or of 14.6%), resulting from the rise in the sight deposits with variable interest rate, given simultaneous decrease in liabilities based on loans with variable interest rate. Finally, in the third quarter of 2016, the negative gap between the positions with adjustable interest rate additionally widened (by

[46] In the third quarter, in accordance with the Decision on foreign currency deposit of NBRM, the banks registered an increase in term deposits in NBRM. More information about the term foreign currency deposits with the NBRM are available in the Bank Activities section.

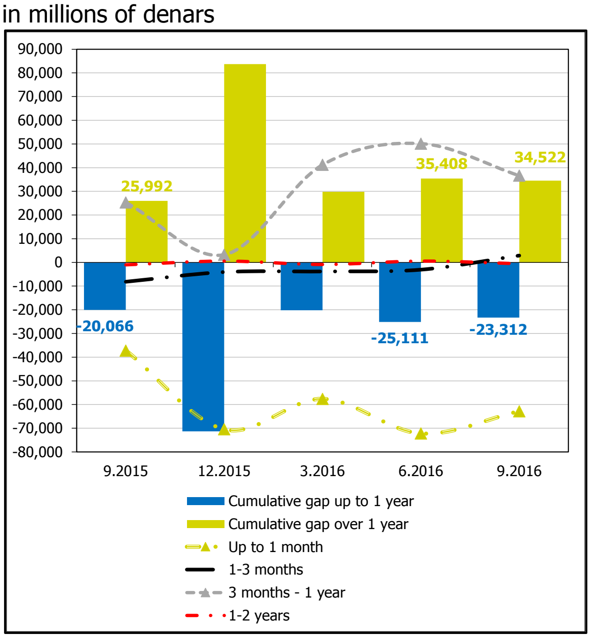
Denar 4,537 million, or by 5%), which arises from the higher rise in liabilities with adjustable interest rate (primarily demand liabilities and term deposits), in comparison with the assets growth with this interest type (primarily, placed loans with adjustable interest rate).

Chart 50
Structure of the quarterly changes of the interest sensitive assets (left) and liabilities (right), by type of instrument and interest rate type
in millions of denars
in millions of denars



Source: NBRM, based on data submitted by banks.

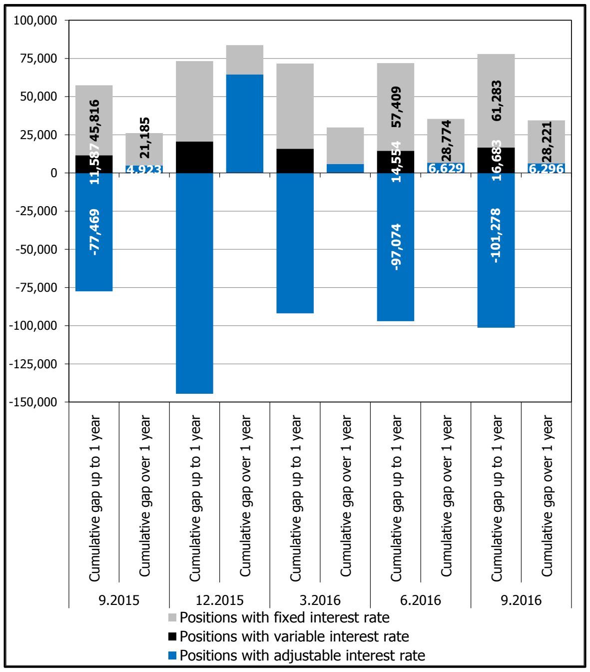
Chart 51
Gap between on-balance sheet asset and liabilities items, by the period until next interest rates reassessment
in millions of denars



Source: NBRM, based on data submitted by banks.

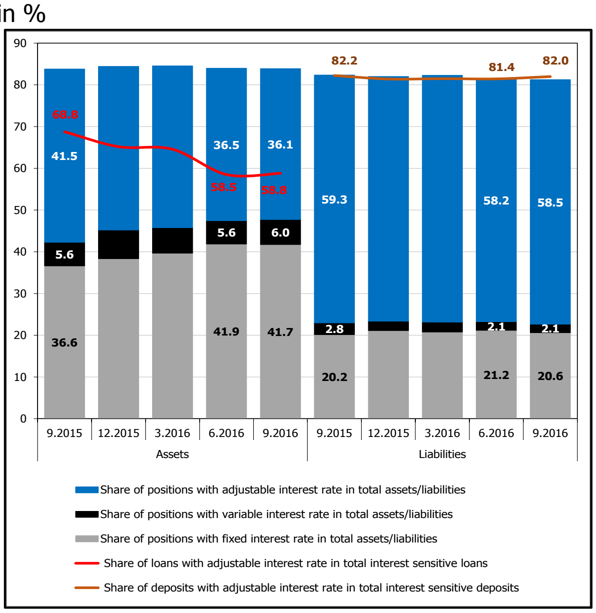
The negative gap between the interest sensitive assets and liabilities, where the period until next interest rates reassessment (i.e. the residual maturity in the items with fixed interest rates) is relatively short, and does not exceed one year, narrowed. Thus, the negative gap between asset and liabilities items, where the period until next interest rate reassessment is up to one year, reduced by Denar 1.8 billion and as of 30 September 2016 it reduced to the level of Denar 23.3 billion (47.3% of the own funds of the banking system). This gap is negative and exposes the banking system to a risk of higher interest rates. However, it should have in mind that the high negative gap between asset and liabilities interest sensitive positions, for which the banks announced that the possible reassessment of the amount of the interest rates would be made within a period not longer than one year, fully arises from the positions with adjustable interest rate. Hence, the risk of future

Chart 52
Gap structure of the asset and liabilities items, by interest rate type
in millions of denars



Source: NBRM, based on data submitted by banks.

Chart 53
Structure of assets and liabilities, by type of interest rate
in %



Source: NBRM, based on data submitted by banks.

rise in the interest rates and the consequences of possible materialization of this risk has been reducing substantially, having in mind that the adjustable interest rates are changing on the basis of a decision of a relevant bank body.

Adjustable interest rates are quite common in the bank operations, especially in the sources of funding where they prevail. In the previous one-year period, the share of the interest sensitive assets with adjustable interest rate in the total assets reduced, for the account of the positions with fixed interest rates, the share of which in the total assets registered an increase. More specifically, it is about enhanced lending at interest rates fixed only for a certain period, while after the expiration of that period, implementation of variable or most commonly, adjustable interest rates, are envisaged. The application of the clauses for adjustability of interest rates in credit agreements expose banks to indirect credit risk whose materialization would be realized in case of significant upward movement in interest rates. Additionally, the implementation of such clauses exposes domestic banks to legal and reputational risk, and it pertains not only to loans, but the deposits, as well.[47]. More details about the structure of the interest sensitive positions of the banks are provided in Annex 37.

[47] In October 2016, the NBRM sent a written recommendation to banks, which primarily refers to increase in transparency level in setting interest rates on loans and deposits. The NBRM expects from the banks to extend new loans and receive deposits at interest rates that will vary or not on the basis of parameters previously set clearly in the contracts.

5. Insolvency risk

In the third quarter of 2016, the capital adequacy ratio increased slightly and it equals 15.7%. The own funds of the banking system registered a quarterly increase, which arouse from the issue of shares by a bank and prolongation of the maturity date of a subordinated instrument with other bank. The banks' own funds fully cover the bank exposure not only of the most significant, i.e. the credit risk, but the other risks stemming from the operating, as well, with almost half of the own funds representing a free part over the minimal prescribed level. The risk level of the banking system (measured as a correlation between the credit risk weighted assets and the total ob-balance sheet asn off-balance sheet exposure), reduced, which is a result of the bank investments in short-term foreign currency deposit with the NBRM, which is included in the calculation of the credit risk weighted assets with a risk weight of 0%. The results of the performed stress-test simulations with the data as of 30 June 2016, improved compared to the previous quarter.

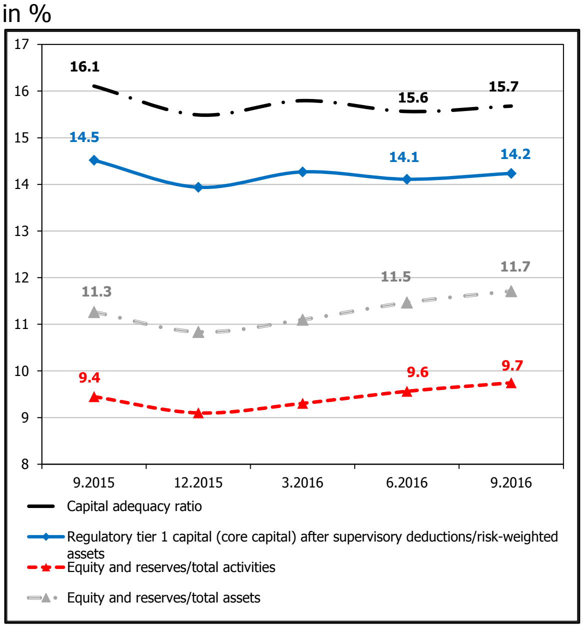
5.1. Indicators for solvency and capitalization of the banking system and risk level of the activities

As of 30 September 2016, all solvency indicators of the banking system improved.

In this quarter of 2016, all capital positions[48] of the banking system registered faster growth, which ranges from 0.7% to 3.9%. Furthermore, the risk weighted assets registered a quarterly increase of Denar 2,123 million, or by 0.7% (6.7%, annually), mostly because of the increase in the currency risk weighted assets[49], which augmented by Denar 1,782 million, or by 26.9%.

The credit risk weighted assets increased by only Denar 342 million, or by 0.1%, which is fully a result of the intensified household activity.

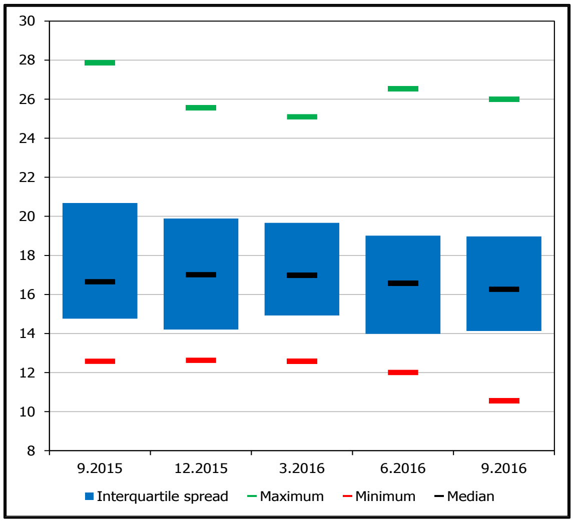
Chart 54
Solvency ratios
in %



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

[48] The capital and reserves grew on a quarterly basis by 3.9%, the face value of the common shares and the premium of these shares incremented by 2.8%, the Tier 1 capital by 1.6%, while the own funds by 1.4%.
[49] One bank met the conditions for including currency risk in the calculation of the capital requirement.

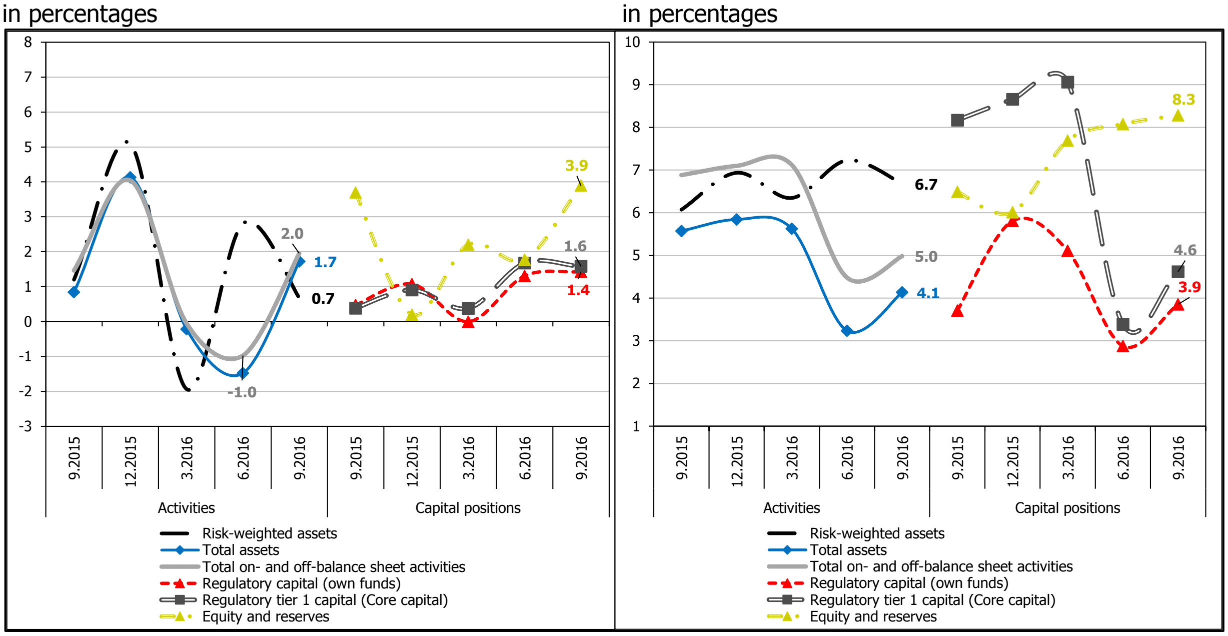
Chart 55
Measures for distribution of capital adequacy ratio in the banking system
in %



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

Analyzed by bank, the capital adequacy ratio as of 30 September 2016 increased in all banks by 10% (compared to 30 June 2016, when all banks registered an adequacy rate higher that 12%), with this rate being higher in seven banks. The increase is mainly supported by the higher rise in the banks' own funds relative to the rise in the risk weighted assets.

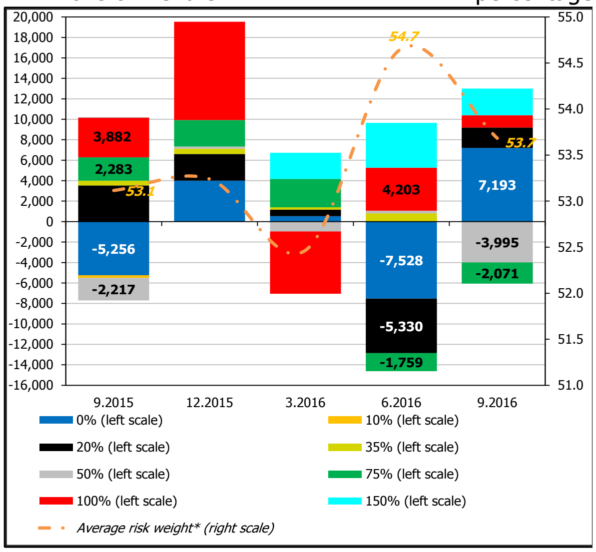
Chart 56
Growth rates of components of solvency ratios, quarterly (left) and annual (right)
in percentages
in percentages



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

Chart 57
Quarterly changes in the total on-balance sheet and off-balance sheet exposure, by risk weights

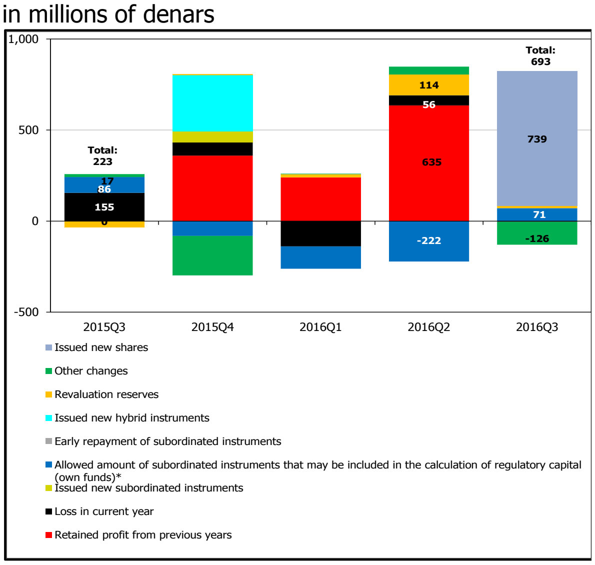
in millions of Denars | in percentage



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.

Chart 58
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.

The level of risk of the banking activities, measured as a ratio between risk weighted assets and the total on-balance sheet and off-balance sheet exposure) decreased by 1 percentage point and it is at the level of 53.7% as of 30 September 2016.

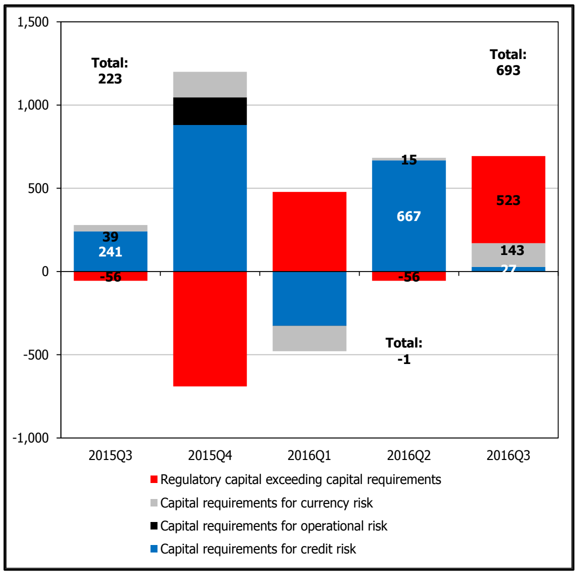
Such a decrease in the average risk weight is a result of the bank placements in foreign currency deposits with the NBRM, which in the calculation of the credit risk weighted asset is included with a risk weight of 0%[50] (and the bank assets with a risk weight of 50%reduced).

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

In the third quarter of 2016, the own funds of the banking system went up by Denar 693 million (or by 1.4%). The increase was determined by the issue of shares in one bank and prolongation of the maturity date of the subordinated instrument by a large bank. Namely, after a longer period (almost four years), one bank decided to conduct issue of new shares, after it previously paid dividend to its shareholders (using the unallocated gain from previous years[51]. In addition, the maturity date of one subordinated instrument was prolonged, because of which it is included in the calculation of the additional capital in its full amount (before the prolongation, the subordinated instrument, pursuant to the regulations, was included at a discount of 20%, annually)[52].

[50] The Decision on Foreign Currency Deposit with the National Bank of the Republic of Macedonia, enabled the banks to place foreign currency deposits in the central bank at positive interest rates.
[51] The issue totaled Denar 739 thousand.
[52] Pursuant to the regulations, in the calculation of the banks' own funds in the last five years until the maturity date, the amount of subordinated instruments is discounted by 20% per year.

Chart 59
Structure of quarterly growth of own funds, by the purpose for covering risks
in millions of denars

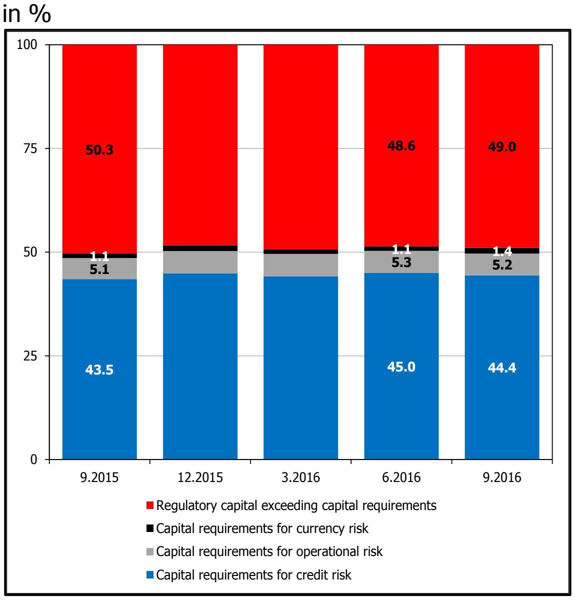


Source: NBRM, based on the data submitted by banks.

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 38.

Chart 60
Structure of own funds according to the use for covering risks
in %



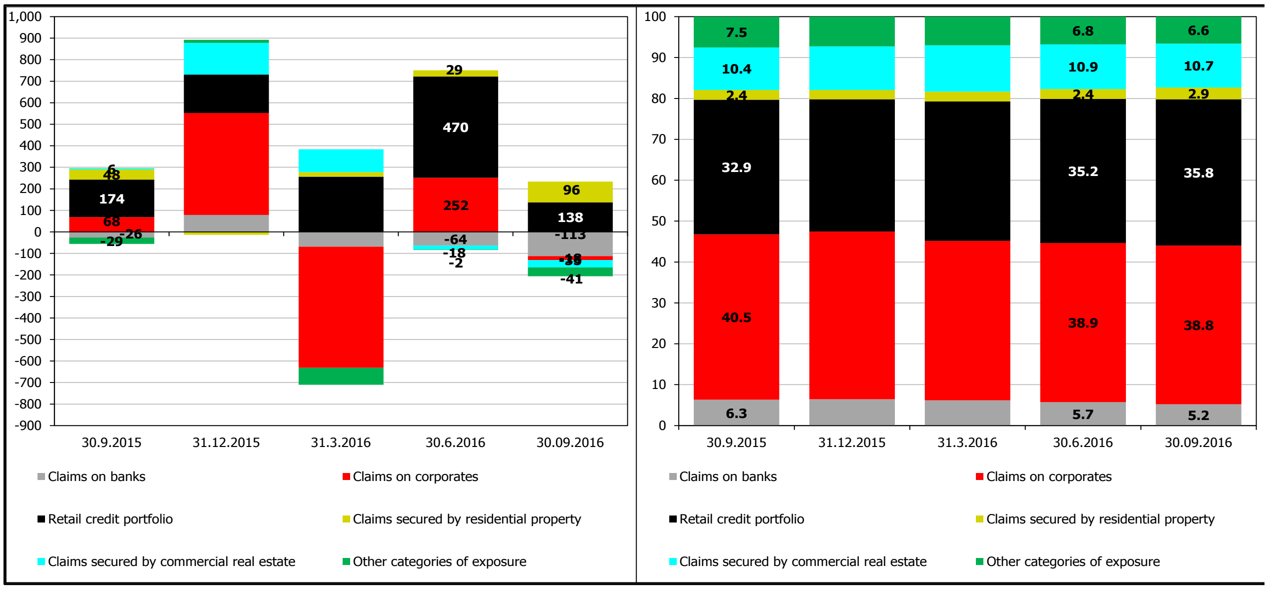
Source: NBRM, based on the data submitted by banks.

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

As of 30 September, the banks' own funds fully cover the banks' exposure to risks arising from the operations. The capital requirement for credit risk coverage registered a quarterly increase (of Denar 27 million, or 0.1%), resulting from increased claims based on retail loan portfolio and claims collateralized with office buildings. The own funds over the minimal level for risk coverage increased by Denar 523 million (or by 2.2%), representing almost half (49.0%) of the banks' total own funds.

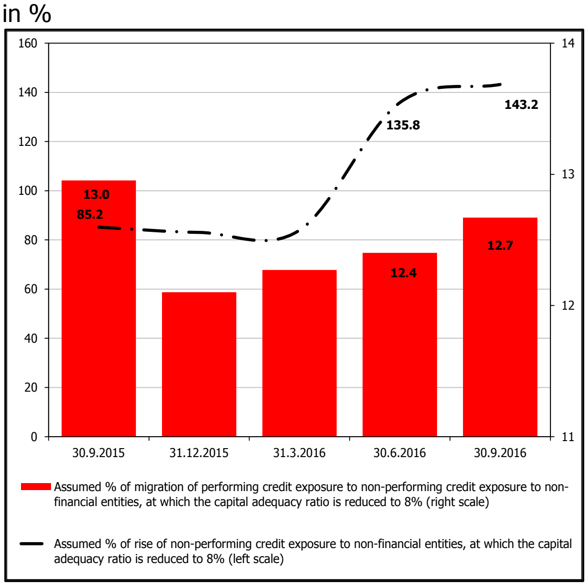
For more details on the capital requirements for covering risks and on the capital adequacy ratio, by group of banks, see Annex 39.

Chart 61
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 62
Necessary deterioration of the quality of credit exposure for the capital adequacy of the banking system to drop to 8%
in %

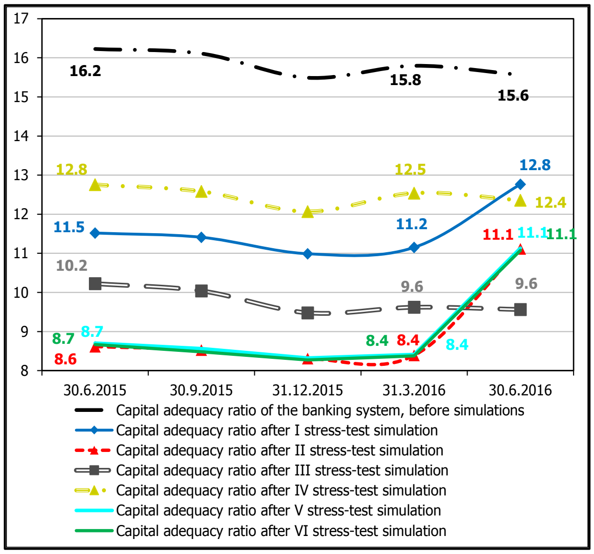


Source: NBRM, based on the data submitted by banks.

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 improved results compared with 30 June 2015. The results of the stress-test simulations, assuming certain percentage increase in the non-performing loan exposure, improve in comparison with 30 September 2016, while remain at the same level in case of other simulations. The capital adequacy of the banking system does not go below 8%, in none of the simulations. Such results of the stress-tests are mostly conditioned by increase in the capital adequacy of the banking system before simulations.

Chart 63
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"

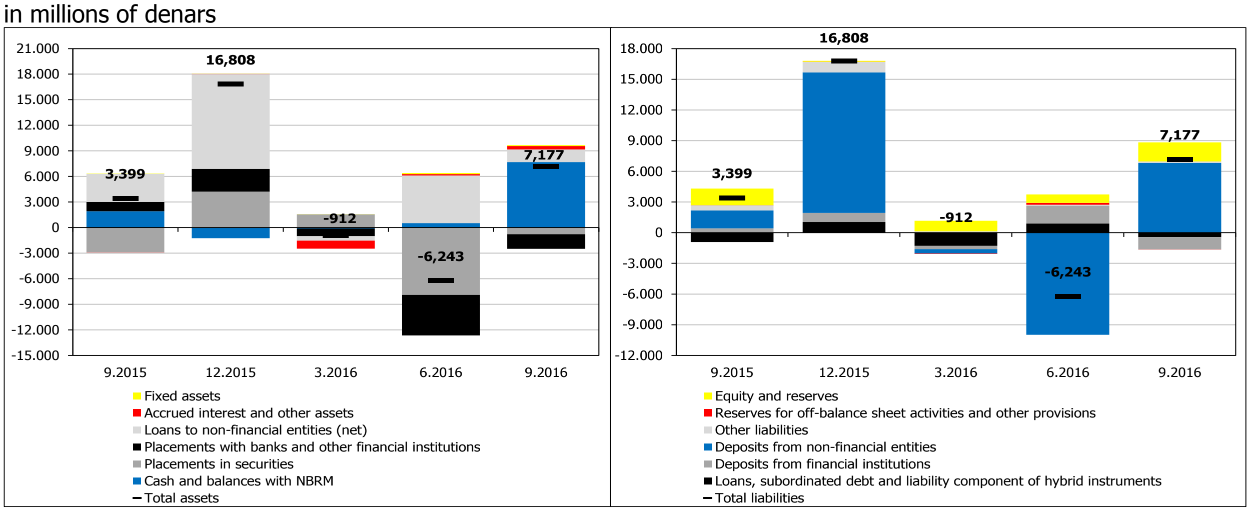
The hypothetical shocks on the part of the credit risk have the greatest impact on the stability of the banking system. Simulations show that the capital adequacy of the banking system would drop to the capital requirement of 8% (135.8% and 12.4%, respectively for the previous quarter) only if the non-performing credit exposure to non-financial entities rises by 143.2%, i.e. in case of migration of 12.7% from regular to non-performing credit exposure. These simulations would result in three-times higher share of non-performing in the total credit exposure to non-financial entities.

III. Major balance sheet changes and profitability of the banking system

1. Banks' activities

In the third quarter of 2016, in conditions of gradual stabilization of the situation and the perceptions of the economic agents regarding the domestic political developments, the total activities of the Macedonian banking system are moving upwards again, in comparison with both, the previous quarter and the same period of the previous year. After the situation with the deposit withdrawal by households calmed down, evident in April and May caused by the speculations about the stability of the banks and the foreign exchange rate, in the third quarter of 2016, the banks' deposit potential is increasing again, and what is more important, the increase stemmed more from the household sector, although the corporate deposits had substantial contribution in the new savings. The deposit withdrawal episode in the preceding quarter was associated with intensified preference for foreign currency, which in turn, caused a cease the denarization of the banks' deposit base. In the third quarter, the stabilization of the expectations and the behavior of the economic agents are perceived also through the solid quarterly increase in the denar deposits, given simultaneous increase in the foreign currency deposits. As for credit activity, an upward movement is also registered, although more moderate than in the preceding quarter, determined by the intensified credit support to households, given further decrease in corporate loans. From the aspect of currency, more significant increase has been registered in denar lending, given simultaneous decrease in the foreign currency loans. The banks' focus remains on household lending, mainly due to the perceptions for lower risks as a result of the larger diversification of retail loans in comparison with the corporate lending. The third quarter also registered gradual depletion of the effects of the amendments to the regulation of the National Bank to transfer part of the banks' doubtful and contested claims to the off-balance sheet record, introduced in December. After the reactivation of the foreign currency deposit with NBRM, as a monetary instrument, in the third quarter of 2016, the domestic banks began placing assets intensively in

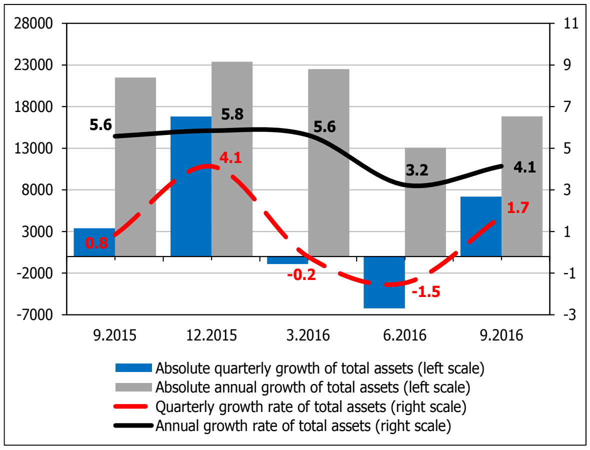
Chart 64
Absolute quarterly growth of the components of assets (left) and liabilities (right) of the banking system
in millions of denars



Source: NBRM, based on the data submitted by banks.
Note: The loans are presented on net basis, reduced by impairment.

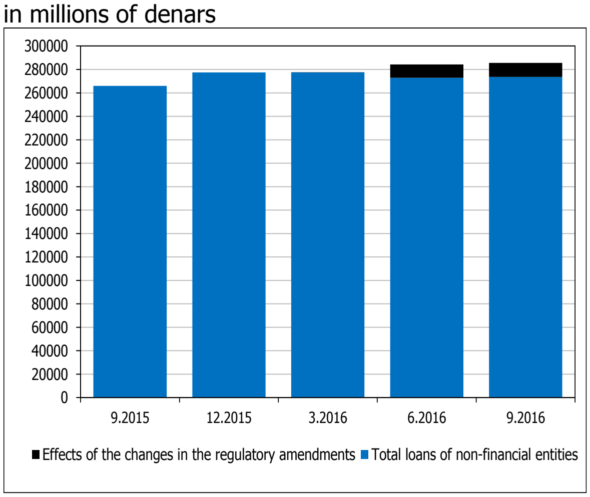
the short-term foreign currency deposits with the National Bank. Also, in the third quarter of 2016 the seasonal inflow of foreign currency led to a net purchase of foreign currency by the National Bank, further contributing to the stabilization of the developments on the foreign exchange market.

Chart 65
Assets of the banking system
in millions of denars and in %



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

Chart 66
Amount of loans to non-financial entities
in millions of denars



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

As of 30 September 2016, the total assets of the banking system amounted to Denar 423,691 million. The asset growth of the banks by Denar 7,1777 million, or by 1.7% (in comparison with 30 June 2016), can mostly be seen in the increase in the loans of the non-financial entities, which however, is more moderate compared to the preceding quarter. The changes in the assets are direct reflection of the solid quarterly increase in the deposit base, as opposed to the more substantial decrease registered in the second half of April and in May 2017.

1.1 Loans to non-financial entities

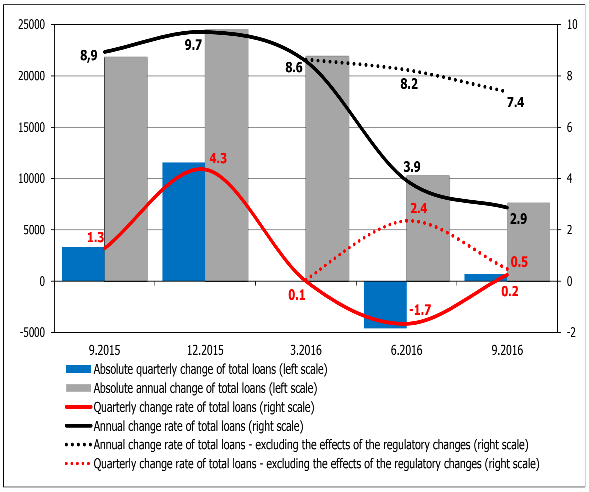
In conditions of gradual stabilization of the behavior of the economic agents and their expectations in the third quarter of 2016, the crediting of the non-financial entities by the banks register positive quarterly movement, while the annual growth dynamics decelerated. The loans to non-financial entities[53], on a quarterly basis, registered moderate growth of Denar 671 million (or 0.2%). Contrary to the decrease in the credit activity in the preceding quarter, (mostly as a result of the amendments to the legal framework of the National Bank[54], pertaining to transfer part of the doubtful and contested bank claims to the off-balance sheet record), in the third quarter of 2016, the ie effects of these regulatory amendments were far less intensive[55]. Namely, without the effect of the changes in the

[53] Loans to non-financial entities include the loans to non-financial entities, both resident and non-resident, household loans (self-employed professionals and the natural persons) and loans to other clients, (central government, local government and non-profitable institutions serving to households).

[54] Decision on amending the Decision on credit risk management (Official Gazette of the Republic of Macedonia No. 223/15), of December 2015. Pursuant to the decision, as of 30 June 2016, the banks were obliged to transfer all claims being fully reserved longer than two years, to the off-balance sheet record. The requirement for the claims transfer, which are fully reserves longer than two years, to the off-balance sheet record shall be valid after 30 June 2016.

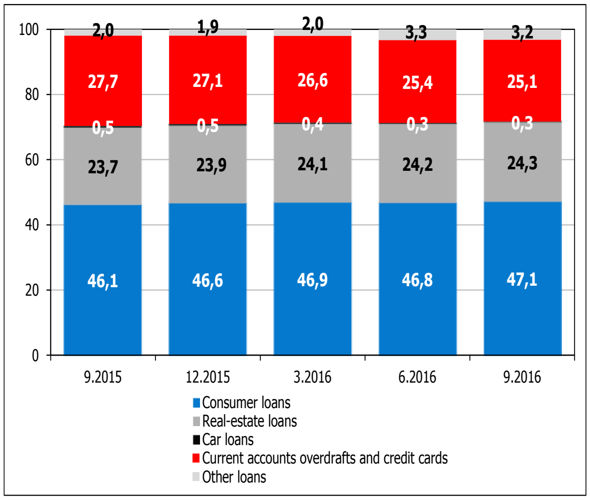
[55] Most of the filly provisioned claims were transferred to the off-balance sheet record in June 2016, in the amount of Denar 8,182 million, while in the following months, the amounts were much smaller (the average monthly amount of the write-offs for the July - October 2016 period totaled Denar 240 million).

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



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

Chart 68
Structure of loans to households, by product
in %



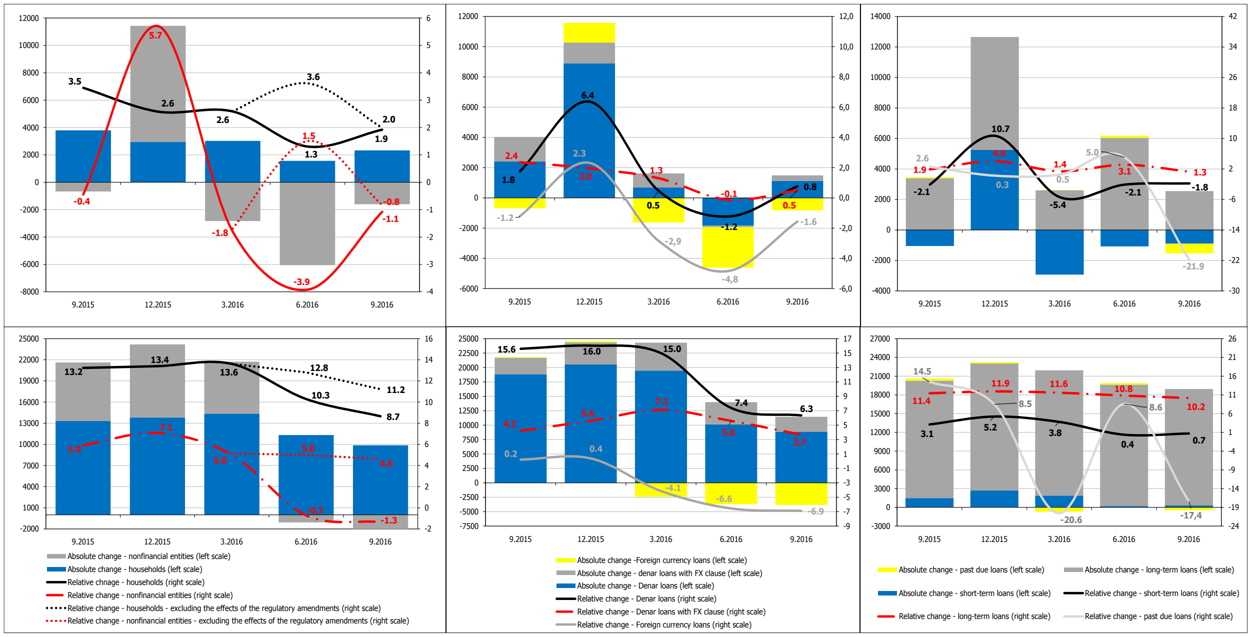
Source: NBRM, based on the data submitted by banks.

regulatory framework, the quarterly growth rate of the lending to the non-financial entities by banks would equal 0.5% (in comparison with 2.4% in the second quarter of 2016, also without the effect of the regulatory amendments). Slower lending growth would be recorded on an annual basis, as well, which would equal 7.4% (compared to the annual rise of 8.2%, registered in the preceding quarter).

The increase in the total loans of the non-financial entities is mostly perceived through the **enhanced credit support by banks to households, given further fall in the lending to corporate clients.** Namely, the quarterly growth rate of household loans [56] (1.9%) was climbing fast, with these loans determining entirely the increase in the total credit activity. The rate of decline in the non-financial companies' loans[57] (-1.1%) registered certain deceleration compared to the previous quarter. If we ignore the effect of the regulatory changes, the lending to households would increase at a slower pace (at a quarterly growth rate of 2%, compared to 3.6% in the second quarter of 2016), while the lending to non-financial companies even in that case, would register negative quarterly growth rate (-0.7%, as opposed to the growth of 1.5% in the second quarter of 2016). The banks are more focused on lending to households, mainly due to the larger diversification of the "retail lending" in comparison with the corporate lending. About 77% of the loans to households are intended for financing the consumption of natural persons (consumer loans, overdrafts and credit cards).

[56] Consumer loans and credit cards are the most widely used credit products by households.
[57] For comparison, in the second quarter of 2016, the quarterly rate of decline in loans to non-financial companies equaled 3.9%.

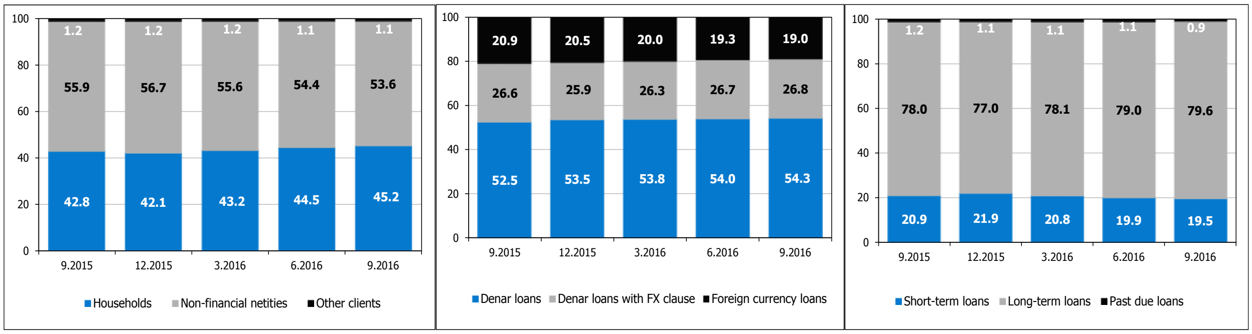
Chart 69
Quarterly (top) and annual (bottom) growth of loans by sector, currency and maturity
in millions of denars and in %



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

In the third quarter of 2016, significant increase in the lending in domestic currency is registered, for the account of the decrease in the foreign currency loans[58]. The denarization was fully determined by the credit support to households, due to which the denar loans reached its highest share (54.3%) in the currency structure of the total loans. On the other hand, the decrease in the foreign currency loans in this quarter arises from the corporate sector.

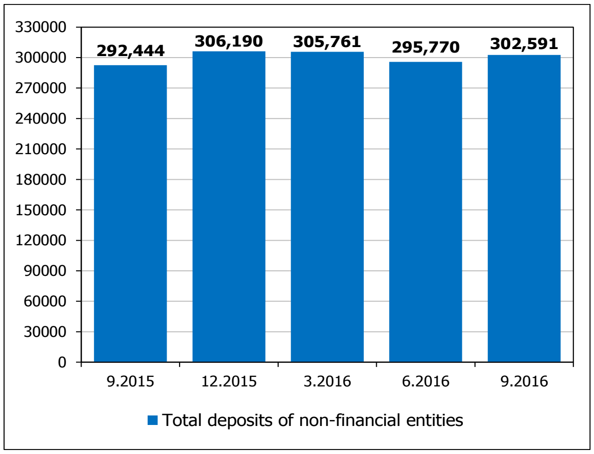
Chart 70
Structure of total loans, by sector (left) and currency (middle), and by regular loans, by maturity (right)
in %



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

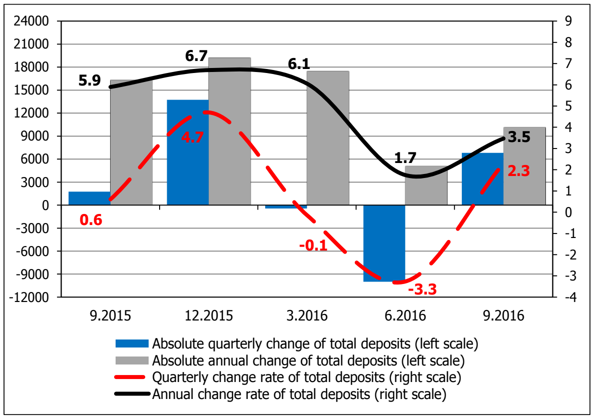
[58] Except in the sector structure, the trend, excluding the write-off effect, can not be monitored in the loan structure by currency and maturity due to lack of data.

Chart 71
Stock of deposits of non-financial entities
in millions of denars



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

Chart 72
Growth of deposits of non-financial entities
in millions of denars and in %



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

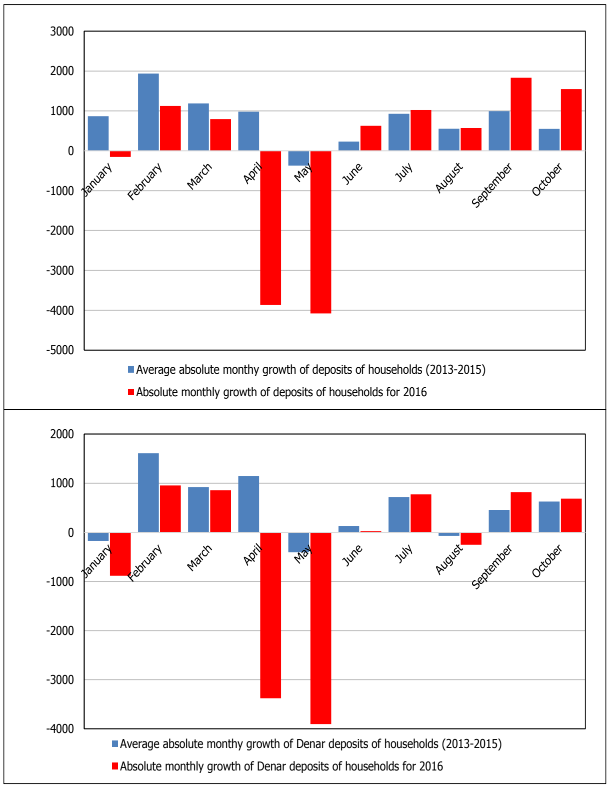
By maturity, in the third quarter of 2016 the credit activity growth generator is the long-term crediting. Almost 70% of the growth of the long-term loans are due to the household denar loans[59].

1.2 Deposits of non-financial entities

In the third quarter of 2016, the deposits of the non-financial entities registered solid growth of 2.3% on a quarterly basis, compared to the drop of 3.3% in the previous quarter. Namely, after the decrease in the second quarter of 2016, as a result of domestic political turmoil and speculation regarding the stability of deposits with banks, in the third quarter a significant stabilization in the perceptions of economic agents and their expectations is registered. The increase in the deposit base of the banking system resulted, slightly more, from the growth in household deposits rather than corporate deposits, although they contributed significantly in new deposits, as well.

[59] Long-term loans to households registered a quarterly increase of Denar 2,274 million, which largely resulted from the growth of long-term Denar loans to households (about Denar 1,785 million) and less from the growth of long-term Denar loans with FX clause to households (about Denar 312 million).

Chart 73
Monthly increase in the households' deposits (top) and households' denar deposits (bottom)
in millions of denars

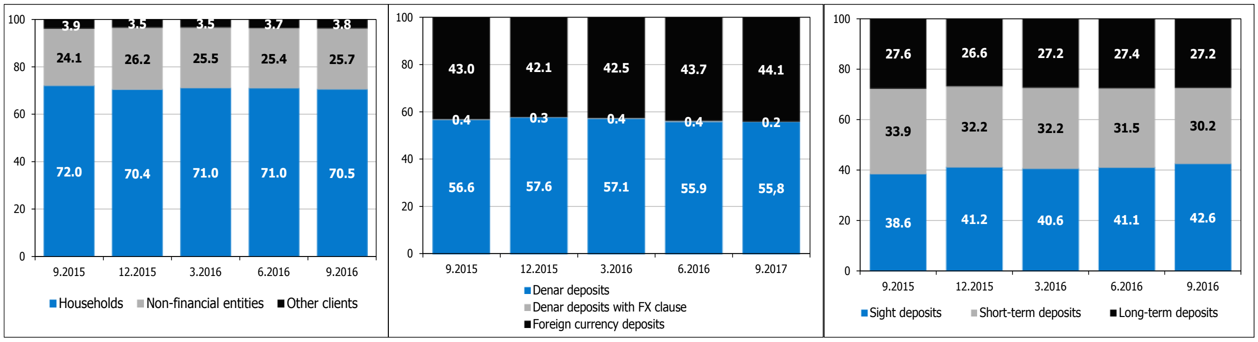


Source: NBRM, based on the data submitted by banks.

The growth of deposits from non-financial entities registered in the third quarter of 2016 (amounting to Denar 6.821 million) is several times higher than the quarterly growth registered in the third quarter of 2015. The quarterly dynamics of the banks' deposit potential is mostly (50.2%) determined by household deposits, which are traditionally the most important depositor in the Macedonian banking system (accounting for 70.5% of total deposits). In the third quarter of 2016, the households' own funds in banks increased by Denar 3,423 million (or 1.6%). With the gradual stabilization of the situation and putting aside pressures on the deposit base of the banking system, in the third quarter of 2016 also the bank movements on the foreign exchange market with natural persons improved, amid stabilization of the demand and further increase the supply of foreign currency .

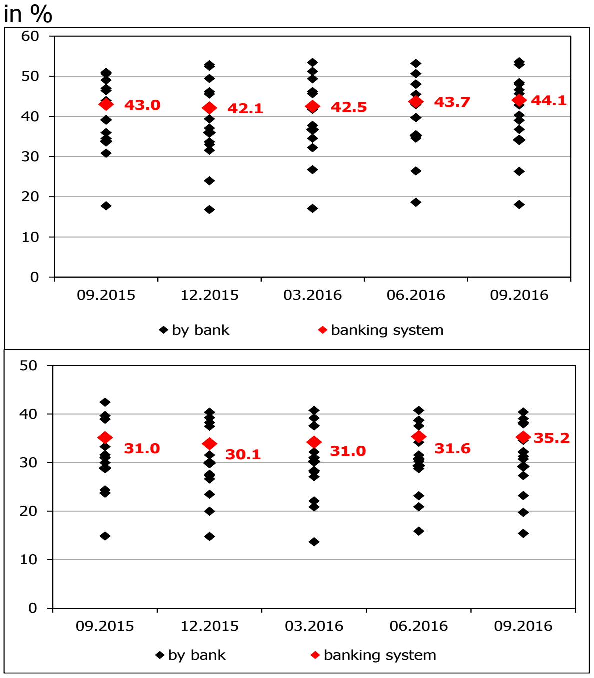
The stabilization of the situation and perceptions of depositors in the banking system is evident through the comparative analysis of the monthly growth of total household deposits and Denar deposits of households realized during 2016 and the average monthly increase for the same period in the previous three years. It is evident that the monthly increase in September and October is higher compared to the average monthly increase in September and October within 2013 - 2015 period, which is especially pronounced in the total household deposits. Such developments indicate gradual return of the household deposits in the banking system, after the substantial outflow in April and May 2016.

Chart 74
Total deposit structure by sector, currency and maturity
in %



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

Chart 75
Share of total foreign currency deposits (up) and foreign currency household deposits (below) in total deposits of the banking system
in %

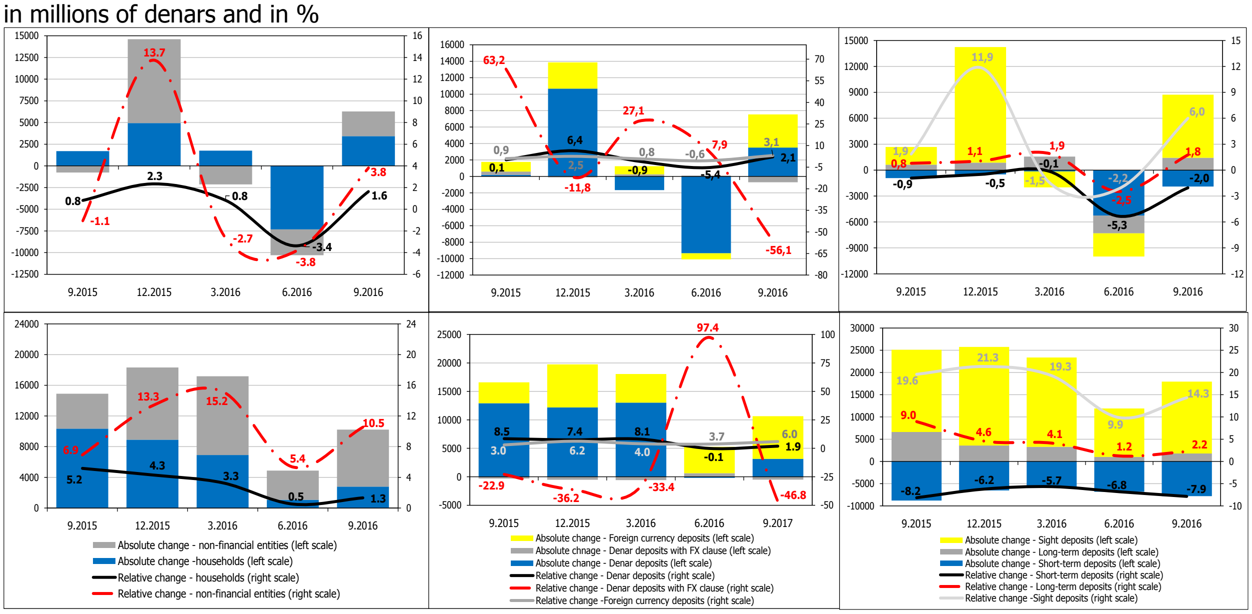


Source: NBRM, based on the data submitted by banks.

Despite depositors' preference to own and save in foreign currency, the gradual stabilization of the situation and perceptions of economic entities impacted positively on the banks' denar deposits. In the third quarter of 2016, the denar deposits increased by Denar 3,508 million (or 2.1%) compared with the more substantial decrease from the previous quarter (5.4%). Most of the total deposit base (55.8%) still accounts for the denar savings, where the largest share (63.2%) belongs to the household deposits. The foreign currency deposits were the largest contributor (59%) to the growth of the deposit base in the third quarter of 2016. Most (51.9%) of the quarterly growth of foreign currency deposits (of Denar 4025 million, or 3.1%) arise from households and to a lesser extent (36.1%) from the corporate sector.

The several year trend of denarization the households' deposit base stopped in the previous quarter, and the **greater propensity of households to save in foreign currency was present in the third quarter of 2016, as well.** However, in the third quarter, the households' denar deposits registered a quarterly growth of Denar 1,333 million (or 1.3%), but it is lower in comparison with the quarterly growth of the households' foreign currency deposits (Denar 2,090 million, or 2.0%). This movement shows that the uncertainty related to domestic political developments, which was most apparent in the second half of April and May 2016, still has influence to some extent on the behavior of households, as the most significant depositors in the banking system, but it gradually calms down. However, the denarization of the deposit activity still stagnates.

Chart 76
Quarterly (top) and annual (bottom) deposit growth by sector, currency and maturity
in millions of denars and in %



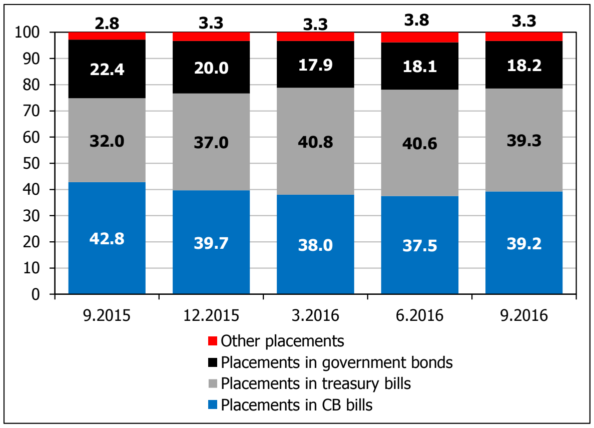
Source: NBRM, based on the data submitted by banks.

In terms of maturity, the tendency of depositors to deposit funds in banks in short terms remains, including households, who normally save in longer run. Thus, the quarterly growth of the deposit base of banks was fully determined by the demand deposits, which had a significant quarterly increase of Denar 7298 million (or 6%). Both, the corporate sector and households contributed almost equally (46.9% and 44.8%, respectively) to the increase in the demand deposits[60]. Increase was registered also in long-term deposits, which was mostly due to the foreign currency and denar deposits of households (42.5% and 32.6%, respectively), but the growth was much slower compared to the same period in 2015.

[60]The quarterly growth of demand deposits of the non-financial companies were mostly (53.4%) determined by denar deposits and to a lesser extent (46.8%) by foreign currency deposits. The quarterly growth of household demand deposits was mostly (57.2%) determined by foreign currency deposits and to a lesser extent (42.8%) by the denar deposits.

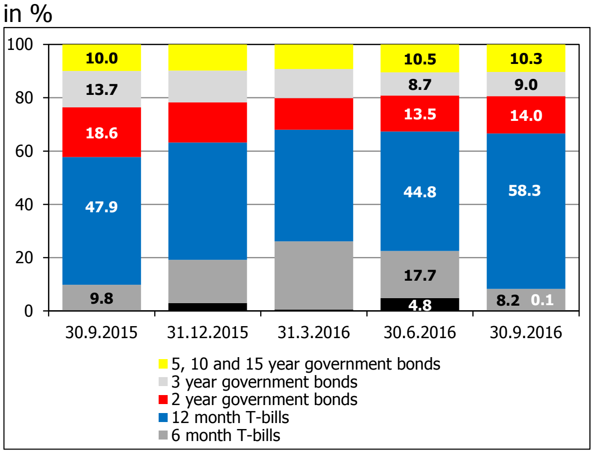
1.3 Other activities

Chart 77
Structure of the securities portfolio
in %



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

Chart 78
Maturity structure of banks' investments in government securities
in %



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

As of 30 September 2016, the banks' securities portfolio was valued at Denar 56,026 million, which is a quarterly drop of Denar 768 million (or 1.4%). Accordingly, the share of securities portfolio in the total assets of the banking system reduced to 13.2% (by 0.4 percentage points compared to the end of June 2016). In the third quarter of 2016, the reduced banks' investments in treasury bills[61] (by 998 million, or 4.3%) made the largest contribution to the reduction of the total securities portfolio. However, this decrease of banks' investments in short-term government securities is quite lower compared to the second quarter of 2016, when due to the increased withdrawal of deposits from the banking system, banks' investments in treasury bills dropped by Denar 3,372 million. Banks' investments in domestic government bonds (mostly five-year government bonds) also decreased by Denar 166 million (or 1.6%). On the other hand, banks' investments in CB bills (given the unchanged interest rate and amount of offered CB bills) increased by Denar 672 million (or by 3.2%).

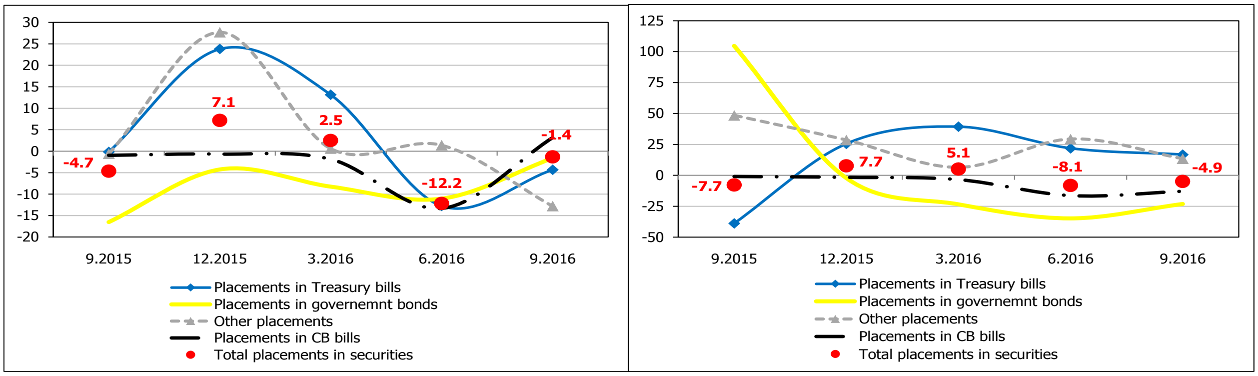
In the third quarter of 2016, placements with banks and other financial institutions decreased (by Denar 1,721 million, or 3.8%), which primarily arises from reduced loans to domestic banks, i.e. Denar loans up to one month and long-term foreign currency loans. Term deposits abroad also reduced. Namely, after the reactivation of the foreign currency deposit with the National Bank as a monetary instrument, while improving the conditions for placing foreign currency deposits of domestic banks in the National Bank[62], in the third quarter of 2016, banks were allowed to keep a higher foreign exchange liquidity in the country by placing the surplus foreign currency with the

[61] The decrease in domestic debt securities was largely due to the six-month treasury bills, and less to the three-month treasury bills.

[62] Pursuant to the Decision on foreign exchange deposits with the National Bank, as of 13 May 2016, banks have been allowed to place foreign currency deposits in the central bank at higher interest rates compared to the current negative interest rates prevailing in the international financial markets. The National Bank ceased holding foreign currency deposit auctions on 28 October 2016, but the Decision remained into effect, that enables reactivation of this instrument as required by the market.

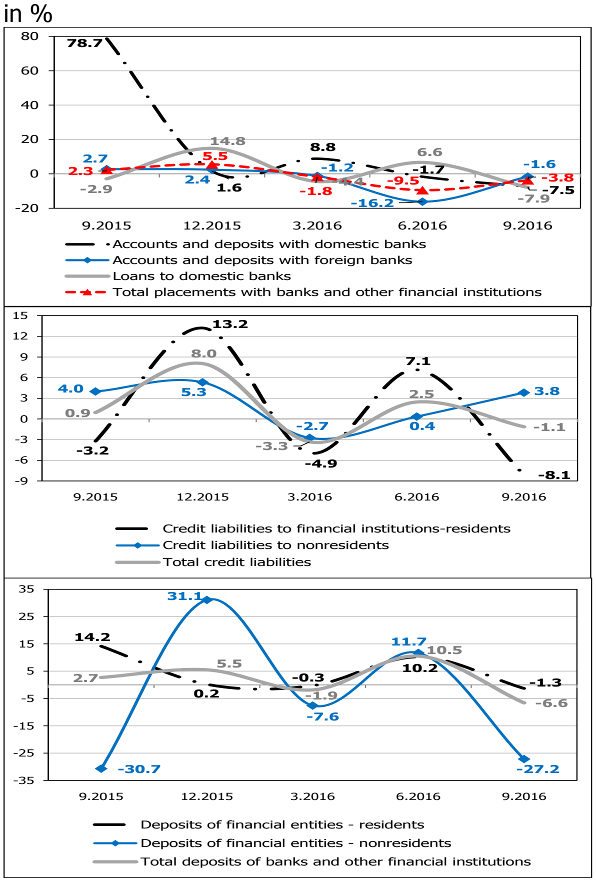
National Bank. Financial assets placed by domestic banks in short-term foreign currency deposits with the National Bank recorded a significant quarterly increase of Denar 5,866 million.

Chart 79
Quarterly (left) and annual (right) growth rate of securities portfolio
in %



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

Chart 80
Quarterly growth rate of placements with financial institutions (top), loan liabilities (middle) and deposits of financial companies (bottom)
in %



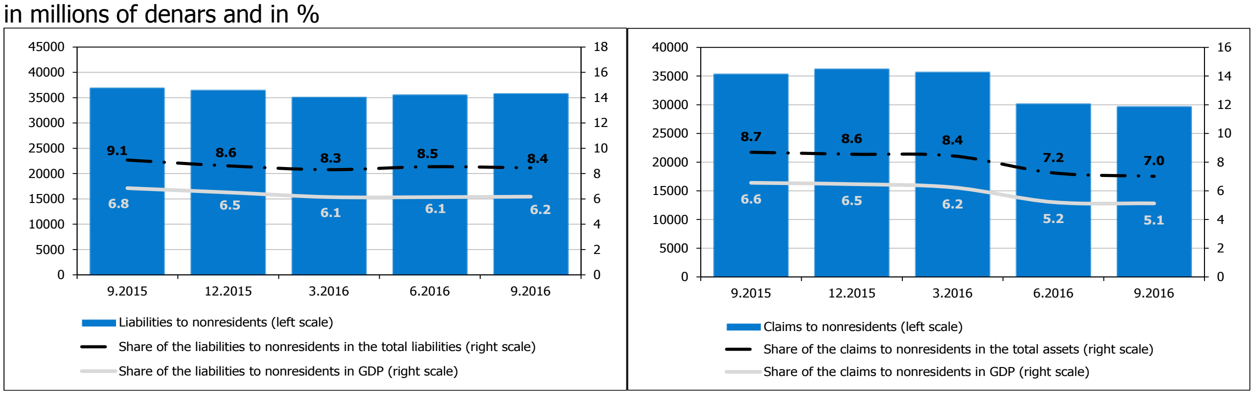
Source: NBRM, based on the data submitted by banks.

Analyzing liabilities, reduced **loan liabilities** (by Denar 420 million or 1.2%) result from reduced interbank lending liabilities (short-term Denar loans to banks) and reduced long-term foreign currency loan liabilities. On the other hand, the third quarter of 2016 registered higher loan liabilities to non-residents, mostly due to the increased short-term foreign currency loans to nonresident financial companies.

In the third quarter of 2016, **deposits of banks and other financial institutions** decreased compared to the previous quarter (mostly pronounced in the short-term deposits of nonresident financial companies and foreign currency current accounts of insurance companies). Deposits of banks and other financial institutions are still very small funding source of banks, and in the third quarter of 2016, their share in total liabilities reduced to 4%.

In the third quarter of 2016, the banking system had more liabilities to than claims on nonresidents. Yet, the volume of banks' activities with nonresidents in the Republic of Macedonia is minor. Placements with nonresidents generally include liquid assets (correspondent accounts or in the form of short-term deposits) with foreign banks, while the bulk of liabilities to nonresidents are based on long-term loans (mostly credit lines of international financial institutions and development banks, placed by the MBDP AD Skopje with domestic banks). In the third quarter, the banks' claims on nonresidents decreased (by Denar 491 million or 1.6%), which solely results from the lower short-term foreign currency deposits. In contrast, banks' liabilities to nonresidents went up quarterly (by Denar 220 million, or 0.6%).

Chart 81
Liabilities to (left) and claims on (right) non-residents
in millions of denars and in %

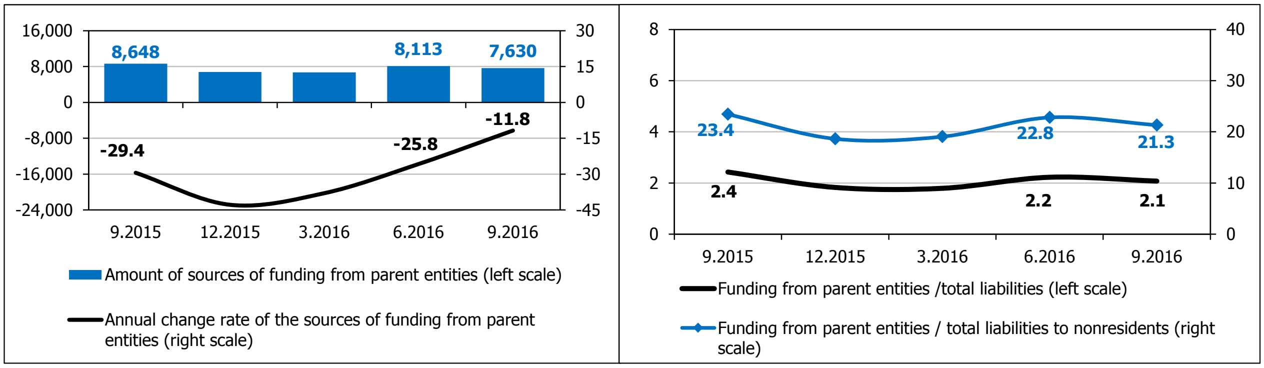


Source: NBRM, based on the data submitted by banks.

The funding sources by parent entities have little significance for the Macedonian banks. Thus, the share of banks' liabilities to parent entities (including subordinated liabilities and hybrid equities) in the total liabilities of the domestic banking system, and in the liabilities to nonresidents decreased to 2.1%[63] and 21.3%, respectively as of 30 September 2016.

[63] Analyzing by bank, the share of banks' liabilities to parent entities in the total liabilities ranged from 0.2% to 11.5%.

Chart 82
Liabilities to parent entities
in millions of denars and in %

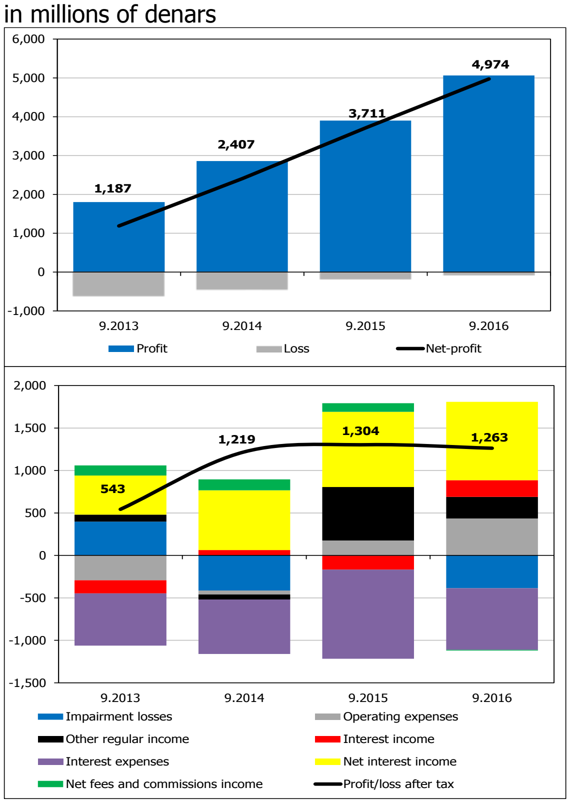


Source: NBRM, based on the data submitted by banks.

2. Profitability[64]

In the first nine months of 2016, profitability and efficiency of the banking system improved compared to the same period last year. Banks' profit is higher by more than a third compared with the first nine months of 2015, which is mostly a result of higher net interest income, primarily from loan and deposit activity with the household sector as well as reduced impairment cost of foreclosed non-financial assets. Banks' lending and deposit interest rates continued to decline, except for the denar deposit interest rates that remained unchanged.

Chart 83
Net profit after taxation (up) and annual change in main income and expenses (down)
in millions of denars



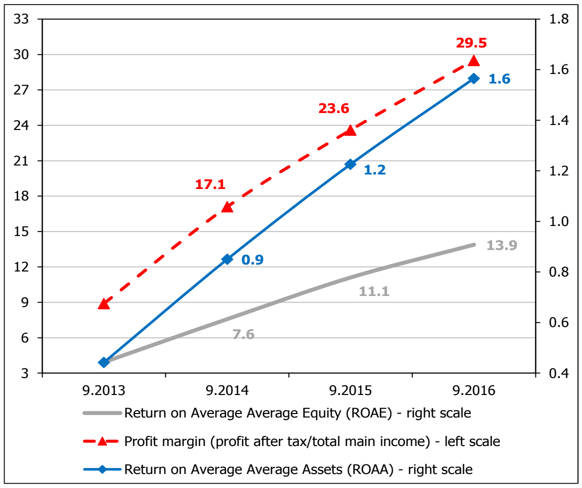
Source: NBRM, based on data submitted by banks.

2.1 Profitability and efficiency indicators of the banking system

Net profit after tax for the first nine months of 2016 was nearly Denar 5 billion and increased by 34% (or by Denar 1,263 million), compared to the same period last year. Analyzed by bank, only three banks operate at a loss, and it is worth mentioning that the three smallest banks in the system reported profit in the first nine months of the year, for the first time since 2007. In the absence of significant recapitalizations, banks are mostly oriented towards reinvestment of gains in equity funds, i.e. towards internal capital creation, emphasizing the importance of profitability for the banks' solvency, as well as for the support of their activities.

[64] All data in this section, derived from the banks' income statement (income, expenses, profit, loss, etc.) relate to the first nine months of 2016, and their value is compared with the same period last year or another year. Data derived from the balance sheet (assets, loans, deposits, capital, etc.) or those related to the lending and deposit interest rates in this section are presented as an average for the first nine months of 2016 and such calculated average is compared with the average calculated for the first nine months of 2015 or any other year. If data are presented on a basis other than the abovementioned, it will be specified in the text.

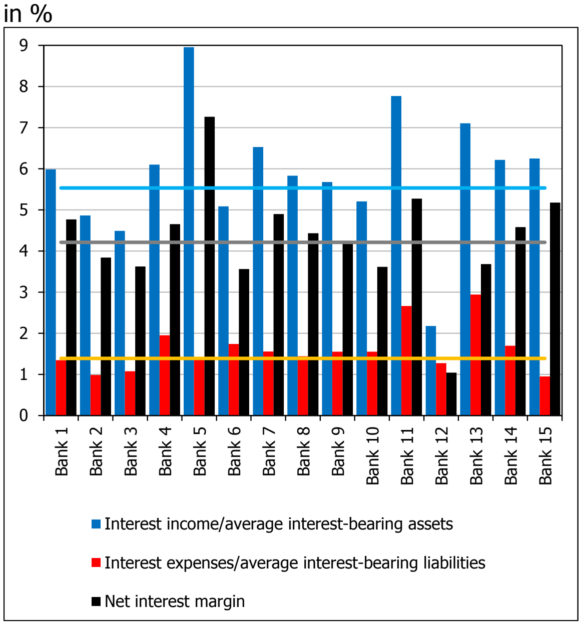
Chart 84
Rates of return on average assets and on average equity and reserves and profit margin
in %



Source: NBRM, based on data submitted by banks.

The increased profit in the first nine months of 2016 had a positive effect on the profitability and efficiency indicators of the banking system. Rates of return on average assets and average equity[65], and reserves, as well as the profit margin of the banking system have been increasing for several years. Profitability and efficiency indicators of the banking system and by group of banks are presented in Annex 40.

Chart 85
Net interest margin by bank, as of 30 September 2016
in %

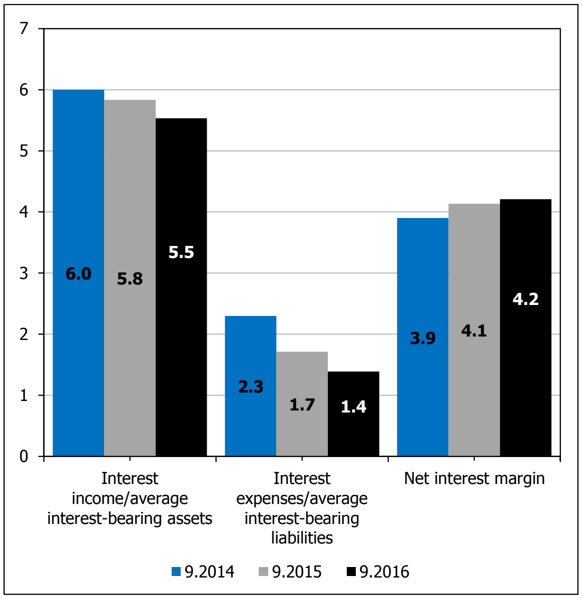


Source: NBRM, based on data submitted by banks. Indicators of the banking system are shown in lines.

Net interest income that banks earn in the process of financial intermediation i.e. net interest margin went up marginally to 4.2% as of 30 September 2016, which was sufficient to significantly improve the overall profitability of the banking system. Loan and deposit activity of banks with households made the highest contribution to the increase in net interest margin[66]. Given the low interest rates, banks managed to reduce interest expenses by significant 16.8% (or by Denar 727 million) and to increase interest income by modest 1.3% (or by Denar 196 million), to rise net interest income by solid 8.8% (or by Denar 923 million), contributing 73% to total growth in net profit after tax. The average amount of interest-bearing assets in the first nine months of 2016 increased by 6.8% (or by Denar 23,136 million) compared with the average amount in the same period last year. Amid lower deposit interest rates and modest deposit growth, along with maturity and currency transformation of deposits, banks' interest expenses decreased in all sectors, with the household interest expenses making the largest

[65] Assets and equity are presented as average of assets or liabilities as of the analyzed date and as of 31 December of the previous year.
[66] Banks' loan and deposit activity with financial companies is modest. Lending to this sector made a marginal contribution of 1.5% to the growth of total loans, while this contribution on the deposits side was 7.6%. In the first nine months of 2016, financial companies had a negligible share of 1.7% in the growth of net interest income. The data suggest a marginal role of financial companies in this part of the analysis.

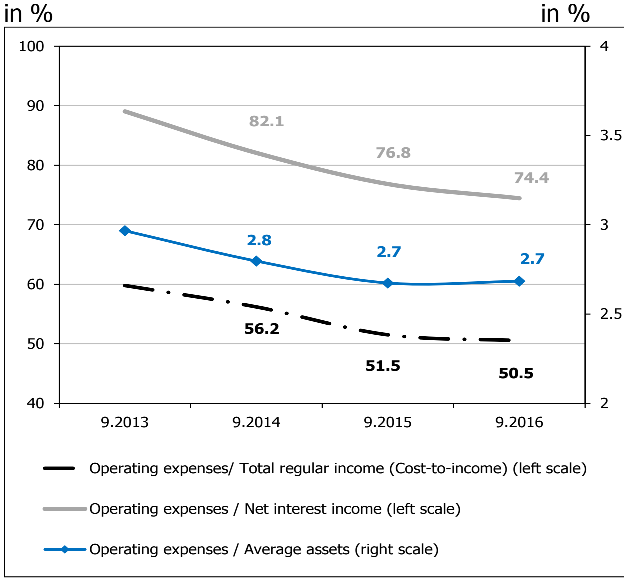
Chart 86
Net interest margin of the banking system
in %

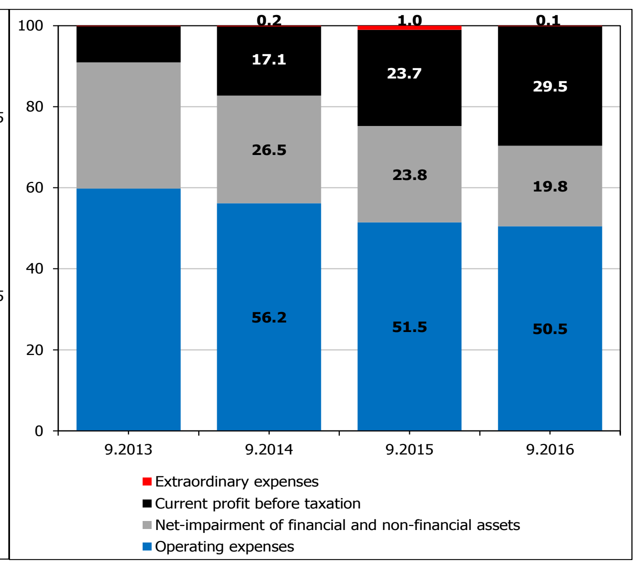


Source: NBRM, based on data submitted by banks.

contribution to the fall (74.8%), which reduced by almost 21%. Simultaneously, analyzing the structure of banks' interest income, only income from household lending increased, which in turn reflects the increased lending to this sector, despite the downward trend in interest rates on loans to households. Finally, the households lending in the first nine months of 2016 contributed with nearly 58% to the total growth of average interest-bearing assets of the banking system.

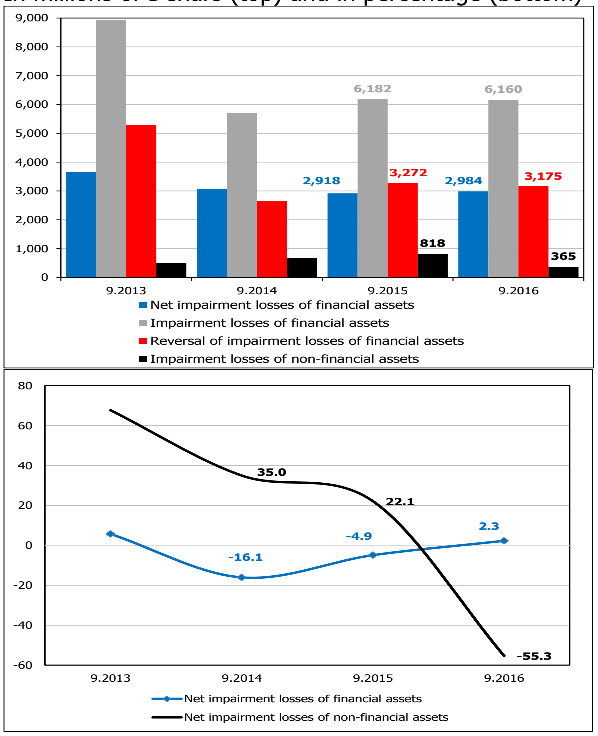
Chart 87
Operating efficiency indicators (left) and use of total income (right)
in % in %





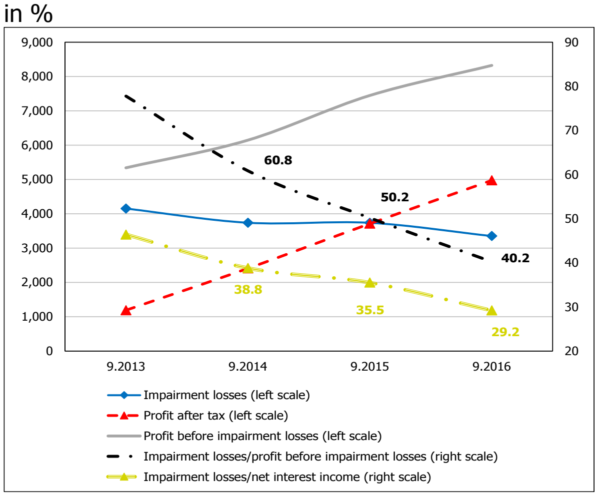
Source: NBRM, based on data submitted by banks.

Chart 88
Amount (left) and annual growth rates (right) of impairment costs of financial and nonfinancial assets
In millions of Denars (top) and in percentage (bottom)



Source: NBRM, based on data submitted by banks.

Chart 89
Impairment costs to gain and net interest income ratio
in %



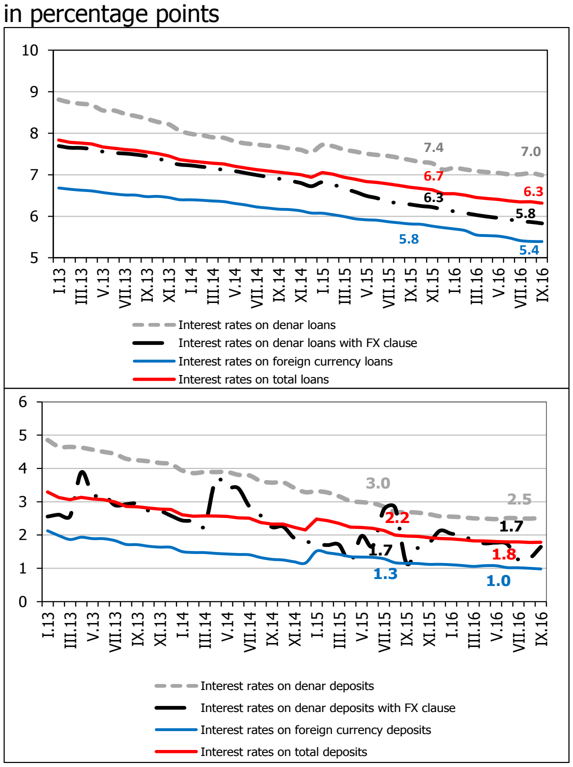
Source: NBRM, based on data submitted by banks.

The operational efficiency of banks has recovered as shown by the lower operating cost to average assets ratios or by each banks' income category that reduced (close) to the historically lowest levels. Banks' operating costs in the first nine months of 2016 increased by 5.4% (or by Denar 435 million) compared with the same period last year. Almost 75% of the growth of operating costs is concentrated in two banks arising from more or less extraordinary events[67]. Also, staff costs went up by 3.5% (or Denar 115 million). In contrast, banks' total income from ordinary activities increased by 7.4% (or Denar 1,170 million), with the greatest contribution of nearly 80% made by net interest income. Banks' non-interest income went up by Denar 247 million (or 4.8%), but their growth does not result from the expansion of some non-traditional banking activities but from single extraordinary events.

The effect of the impairment of the credit channel on the banks' profitability has been decreasing. Namely, in the past five years, impairment costs of financial and non-financial assets the banks recognized in the profit and loss account was relatively stable in the first three quarters of the year, ranging between Denar 3 billion and Denar 4 billion. Given the continuous improvement of operations of the banks, on both the income and the expenditure sides, the impairment cost decreasingly absorbs the income and the profits of the banking system. In the first nine months of 2016, the total impairment cost decreased by a solid 10.3% (Denar 386 million) compared with the same period last year. The decrease arises solely from the sale of foreclosed assets and the subsequent reduction of the impairment cost of foreclosed assets[68]. In contrast, the impairment cost for financial assets recorded modest growth of 2.3% (Denar 67 million).

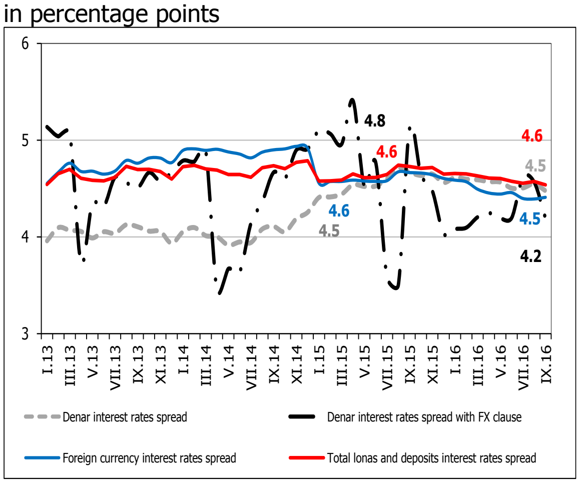
[67] One large bank reported an increase of additional provisions for contingencies based on litigation, while one medium bank reported growth of other expenses due to the sale of foreclosed assets on credit in the second quarter of 2016.
[68] The average amount of gross foreclosures in the first nine months of 2016 decreased by 18.8% (Denar 1,215 million), compared to the same period last year. This decline is mainly concentrated in the group of large banks.

Chart 90
Lending (top) and deposit interest rates (bottom)
in percentage points



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

Chart 91
Interest spread, by currency
in percentage points



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

2.2 Movements in interest rates and interest rate spread

In the period December 2015 - September 2016, lending and deposit interest rates of banks slightly decreased, by 0.2 and 0.1 percentage points respectively, but on average, they are lower by 0.5 and 0.4 percentage points respectively , compared to the same period in 2015. The average weighted interest rate in the first nine months of 2016 was 6.4% (6.9% in the first nine months of 2015), while the average deposit interest rate for the same period was 1.8% (2.2% in the first nine months of 2015). Analyzed by currency, the average weighted interest rate on Denar loans with FX clause recorded the most significant decline of 0.5 percentage points. On the deposit side, the strongest drop, again by 0.5 percentage points, was registered by the average weighted interest rate on Denar deposits. The comparison of interest rates at the end of the third quarter 2016 with those in the second quarter of 2016, shows stagnation in the interest rates on Denar deposits, which can be interpreted as an effect of the measures taken in May, when the National Bank increased the policy rate (of CB bills) by 0.75 percentage points.

In September 2016, the spread between lending and deposit interest rates was 4.5 percentage points, which is a decrease of minor 0.1 percentage points compared to December 2015. On the other hand, the average spread between lending and deposit interest rates for the first nine months of 2016 remained unchanged compared to the same period in 2015 (4.6%). Larger occasional oscillations were observed in the interest rate spread between Denar interest rates with FX clause, stemming from the greater volatility of interest rates on Denar deposits with FX clause that banks rarely offer to its customers as a deposit product.

ANNEXES