

**National Bank of the Republic of Macedonia**  
Supervision, Banking Regulation and Financial Stability Sector  
Financial Stability and Banking Regulations Department



***REPORT ON RISKS IN THE BANKING SYSTEM  
OF THE REPUBLIC OF MACEDONIA  
IN THE THIRD QUARTER OF 2013***

December 2013

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## Summary

The real sector revitalization in 2013 had a positive impact on the growth of assets, particularly the growth of banks' deposit base. Unlike previous quarters, when the growth of deposits largely resulted from the growth of household deposits, in the third quarter, this growth was driven by corporate deposits. However, due to the risks emerging from the corporate sector, as well as the strategy to refrain from lending of some banking groups operating on the Macedonian market, the deposit growth potential did not translate into adequate credit growth. The lending growth in this quarter stems entirely from the growth of retail lending, while loans to the corporate sector declined. It should be expected that further economic recovery, primarily in the domestic economy, would contribute to improved banks' risk perceptions that would gradually strengthen the credit activity of banks in the country. Monetary policy measures taken in the previous period headed towards the same target and were aimed to encourage lending, to create conditions for active liquidity management by banks, as well as to develop money and capital markets. Despite these measures, in October 2013, the National Bank took additional measures to encourage long-term credit support to the real sector by easing the prudential liquidity risk regulations.

The gradual recovery of the domestic economy to a certain extent improved the quality of loan portfolio of the banking system in the third quarter of 2013. Quarterly, nonperforming loans decreased, thus visibly slowing their annual growth. Banks' efforts to adjust lending terms for some corporate clients by restructuring the claims in accordance with their current performances also yielded positive results. However, the ultimate effect of these measures on the quality of loan portfolio is uncertain because of the possibility to miss their purpose (easing of the client' credit burden to weather the current financial problems), which could mean a growth of non-performing loans. Non-performing loans are fully covered by the overall impairment, which means that in the simulation of their full non-collectability, the bank solvency would not be damaged.

Banks are still cautious in their lending activity, so they directed almost half of the new funding sources to liquid instruments, which, in turn, contributed to further growth of liquid assets and strengthened liquidity position of the banking system. Domestic banks strengthen their liquidity position, which is also seen through the higher coverage of short-term liabilities and household deposits with liquid assets.

The solvency of the banking system is one of the basic pillars of its stability and resilience. The capital adequacy ratio has been above 17% for a longer period of time that is well above the minimum requirement. The effects of new regulations on the treatment of foreclosed assets began to feel in the third quarter, which led to further growth of banks' own funds. High capitalization of the banking system supports its resilience to shocks, as confirmed by the stress testing.

The growth of net interest income and the decline of operational costs contributed to the improved profitability and efficiency of banks. The profits of the banking system earned in the first nine months of 2013 was almost twice that the same period last year.



Overall, the banking system is stable and resilient to shocks. The expectations for further developments are optimistic and related primarily to the positive economic developments and their impact on the performance of banks' clients in the real sector.



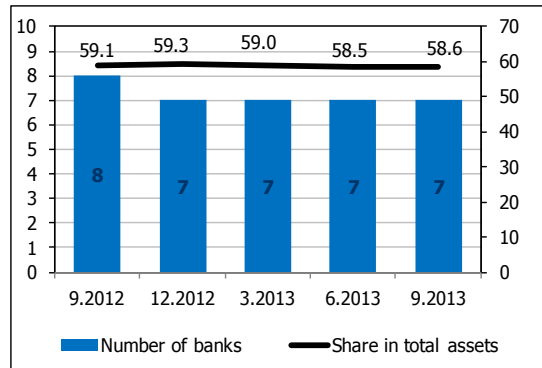
## I. Structure of the banking system

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

As of 30 September 2013, the banking system in the Republic of Macedonia consists of sixteen banks, of which eleven are predominantly foreign owned. The number of banks is unchanged compared to the previous quarter, with the banks which are predominantly foreign owned still playing a leading role in the major balance sheet items.

**Chart 1**  
Foreign bank subsidiaries, number and share in total assets

Number of subsidiaries and in %

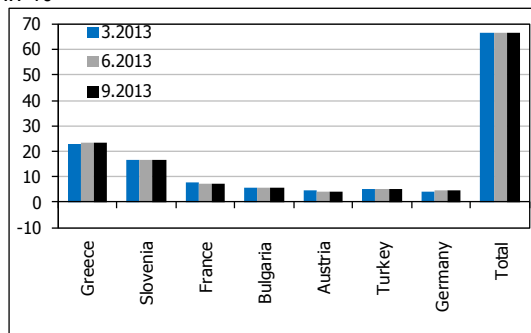


Source: NBRM, based on data submitted by banks

The number of foreign bank branches remained unchanged in this quarter, as well, and their share in assets slightly decreased by 0.1 percentage points.

**Chart 2**  
Market share (assets) of banks by country of origin of the dominant foreign shareholder\*

in %

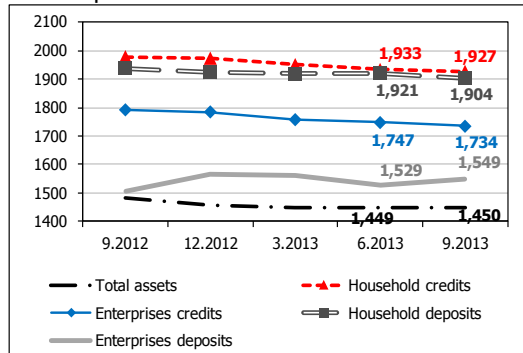


Source: NBRM, based on data submitted by banks

\*Banks in domestic ownership and banks without major owner are not included in the chart.

The individual market share (by asset size) of banks in dominant foreign ownership ranges from 0.5% to 21.4%, while the total market share of these banks accounted for 68.3%. The market share of banks predominantly owned by shareholders of the European Union accounted for 61.4%.

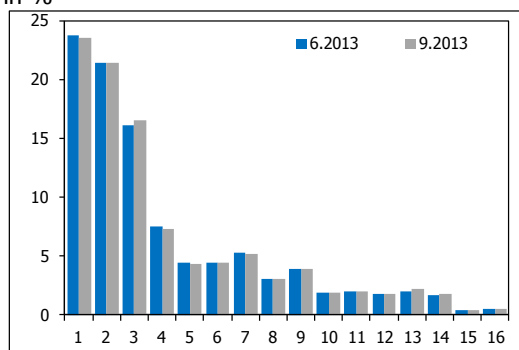
**Chart 3**  
**Herfindahl index**  
in index points



Source: NBRM, based on data submitted by banks

**Concentration in the banking system remains high, but mainly downward.** The level of concentration above the acceptable level according Herfindahl index<sup>1</sup> is typical for loans and deposits, but the value of the indicator is constantly decreasing.

**Chart 4**  
**Share of individual banks in the total assets of the banking system**  
in %



Source: NBRM, based on data submitted by banks

**The market share of individual banks in total bank assets also indicates a high concentration in the banking system.** The three largest banks jointly accounts for two thirds of total assets, while nine banks individually constitute less than 4%.

<sup>1</sup> Herfindahl index is calculated according to the formula  $HI = \sum_{j=1}^n (S_j)^2$ , where S is the share of each bank in the total amount of the analyzed category (e.g., total assets, total deposits, etc.), where n is the total number of banks in the system. When the Herfindahl index ranges from 1,000 to 1,800 units, the concentration ratio in the banking system is considered acceptable.



## II. Bank activities

The revitalization of the real sector in 2013 had a positive impact on the growth of assets, particularly the growth of the banks' deposit base. The assets of the banking system grew at an accelerated pace, primarily due to the rapid growth of deposits, most of which were demand deposits of the corporate sector and Denar deposits. The denarization of deposits affected the currency structure of loans. Lending grew, but at a slower pace. The slowdown results from the corporate sector, and reflects the restraint of banks to lend, since there are still perceptions of risk in this sector. The restrained strategies of large banking groups present in the Macedonian banking system through its subsidiaries also had an effect. While lending at a slower pace, banks increased placements in accounts and deposits with foreign banks and investments in securities. In the next period, the credit growth can be expected to accelerate, starting from the expectations for solid growth of the primary source of funding for banks (deposits) and the improved risk perceptions given the further economic recovery, especially in the country. The measures of the National Bank to stimulate lending by easing monetary policy and prudential regulation should also have an effect.

**Table 1**  
**Aggregated balance sheet of the banking system**

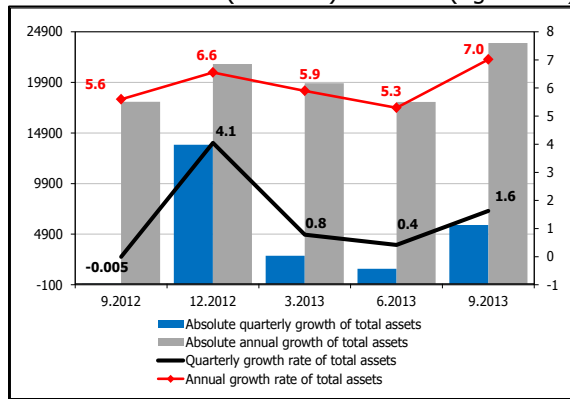
Balance sheet	Amounts in millions of Denars			Structure (in percent)			Change 9.2013/6.2013		Change 9.2013/9.2012	
	9.2012	6.2013	9.2013	30.9.2012	30.6.2013	30.9.2013	Absolute change	In percent	Absolute change	In percent
Cash and balances with NBRM	36,936	40,902	40,437	10.9	11.5	11.1	-465	-1.1	3,501	9.5
Securities portfolio	52,009	58,236	60,799	15.3	16.3	16.8	2,563	4.4	8,790	16.9
Placements with banks and other financial institutions	41,010	43,629	46,264	12.1	12.2	12.7	2,635	6.0	5,254	12.8
Loans of nonfinancial entities (net)	188,896	193,684	194,781	55.7	54.2	53.7	1,097	0.6	5,885	3.1
Gross loans of nonfinancial entities	213,381	221,741	223,288	62.9	62.1	61.5	1,547	0.7	9,907	4.6
<i>Accumulated amortization of loans of nonfinancial entities</i>	911	939	928	-	-	-	-11	-1.2	17	1.9
<i>Impairment (provisions) of loans of nonfinancial entities</i>	23,573	27,117	27,578	-	-	-	461	1.7	4,005	17.0
Accrued interest and other assets	11,067	9,700	9,460	3.3	2.7	2.6	-240	-2.5	-1,607	-14.5
Fixed assets	9,354	10,982	11,207	2.8	3.1	3.1	225	2.0	1,853	19.8
Unallocated loan loss provisions	-124	0	0	0.0	0.0	0.0	0	-	124	-
<b>Total assets</b>	<b>339,148</b>	<b>357,132</b>	<b>362,948</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>5,816</b>	<b>1.6</b>	<b>23,800</b>	<b>7.0</b>
Deposits from banks and other financial institutions	15,128	18,848	18,978	4.5	5.3	5.2	130	0.7	3,850	25.4
Deposits of nonfinancial entities	238,677	245,680	252,963	70.4	68.8	69.7	7,283	3.0	14,286	6.0
Borrowings (short-term and long-term)	31,265	36,411	34,573	9.2	10.2	9.5	-1,838	-5.0	3,308	10.6
Liability component of hybrid and subordinated instruments	7,722	7,862	8,009	2.3	2.2	2.2	147	1.9	287	3.7
Other liabilities	6,504	7,449	6,439	1.9	2.1	1.8	-1,010	-13.6	-65	-1.0
Provisions for off-balance sheet items	851	848	838	0.3	0.2	0.2	-10	-1.1	-13	-1.5
Capital and reserves	39,001	40,036	41,148	11.5	11.2	11.3	1,112	2.8	2,147	5.5
<b>Total liabilities</b>	<b>339,148</b>	<b>357,132</b>	<b>362,948</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>5,816</b>	<b>1.6</b>	<b>23,800</b>	<b>7.0</b>

Source: NBRM, based on data submitted by banks.

Note: The position "placements with the central bank" of annex 1, is included in the position "Cash and balances with the NBRM" in this table.

**Chart 5**  
**Quarterly and annual change of assets of the banking system**

in millions of denars (left scale) and in % (right scale)

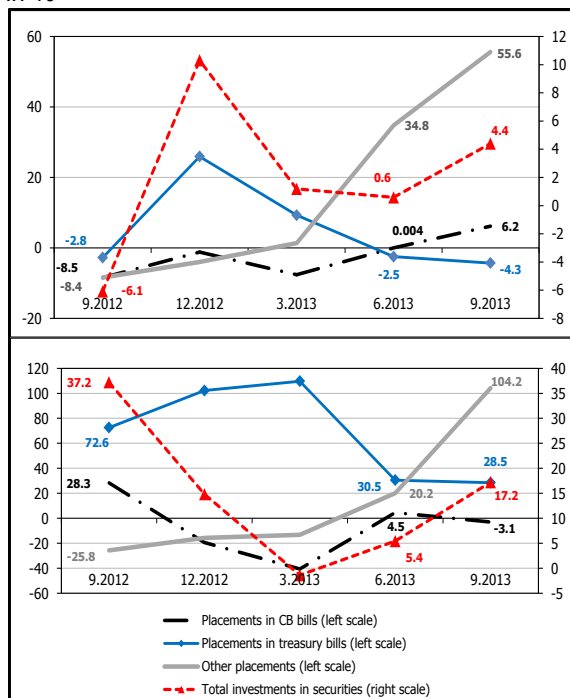


Source: NBRM, based on data submitted by banks.

As of 30 September 2013, the total assets of the banking system amounted to Denar 362,948 million and recorded a rapid quarterly and annual growth. Usually, the deposits<sup>2</sup> of nonfinancial companies are drivers of the trends in total assets. In conditions of slower quarterly growth of lending<sup>3</sup>, **the more significant changes in assets in the third quarter of 2013 are associated with the growth of investments in securities and growth of placements with banks and other financial institutions.**

**Chart 6**  
**Quarterly (up) and annual (down) change of the securities portfolio**

in %



Source: NBRM, based on data submitted by banks.

**Securities portfolio of the banks,** according to the range of instruments, is relatively modest, consisting mainly of low-risk securities issued by the government and the central bank. There is a switch in the banks' investments from short-term treasury bills to long-term government bonds (mainly two-year government bonds in denars and in denars with FX clause), which are generators of the growth of securities portfolio in the third quarter of the year. However, the annual growth of the securities portfolio results from the short-term investments in treasury bills. The quarterly and annual trends of investments in CB bills vary, so that compared to the second quarter of 2013, banks increased their investments in CB bills and compared with September 2012, the investments in these instruments declined<sup>4</sup>.

<sup>2</sup> For more details, see section 1.2. Deposits of nonfinancial companies.

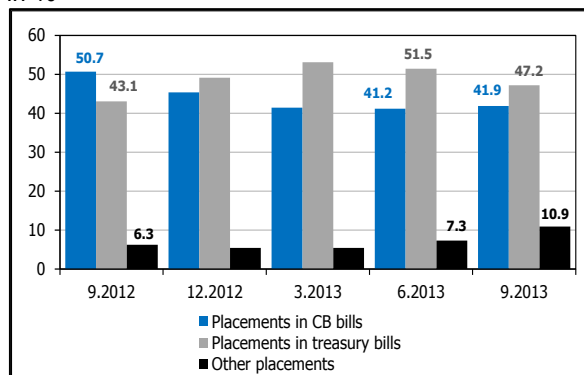
<sup>3</sup> For more details, see section 1.1. Loans to nonfinancial companies.

<sup>4</sup> Since April 2012, the National Bank conducts auctions of CB bills by applying the limited volume tender.



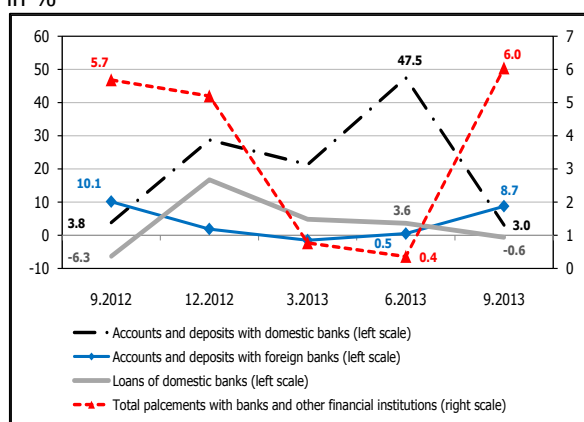


**Chart 7**  
**Structure of securities portfolio**  
in %



Source: NBRM, based on data submitted by banks.

**Chart 8**  
**Placements with banks and other financial institutions (quarterly change)**  
in %



Source: NBRM, based on data submitted by banks.

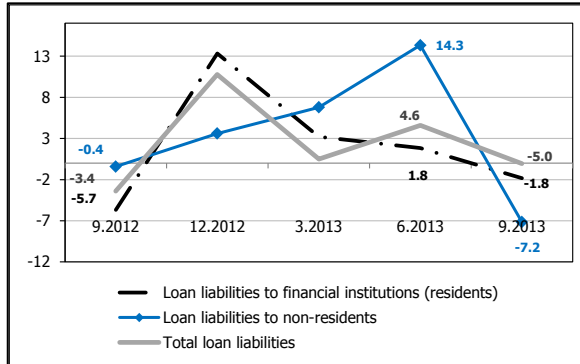
As a result, at the end of the **third quarter, the structural share of investments in government bonds increased**, while the share of investments in treasury bill in the banks' securities portfolio decreased.

**Placements with banks and other financial institutions** usually make up 12% of total assets. Changes in the third quarter of 2013, almost entirely (or 99%) arise from the growth of investments in foreign banks, which prevail in the correspondent banking relationships with other banks<sup>5</sup>, whose changes mainly relate to daily payments and collections of banks and their clients.

The increased borrowing of the MBDP AD Skopje based on the credit line from the European Investment Bank, which is marketed through domestic banks, caused manifold changes in the aggregate balance sheet of the banking system, where the increased long-term foreign currency lending by banks, caused changes on the asset side, while the growth of loan liabilities to nonresidents (of the MBDP) and liabilities based on long-term foreign currency loans to domestic banks (to the MBDP), generated changes on the liabilities side.

<sup>5</sup> Assets on foreign bank accounts and time deposits in foreign banks, increased quarterly by Denar 1,675 million (or 10.9%) and Denar 930 million (or 6.5%), respectively. Assets on domestic bank accounts increased (mainly due to the growth of short-term deposits in domestic banks by Denar 92 million, while loans to domestic banks fell by 76 million mainly due to lower short-term loans in Denars.

**Chart 9**  
**Loan liabilities (quarterly change)**  
in %

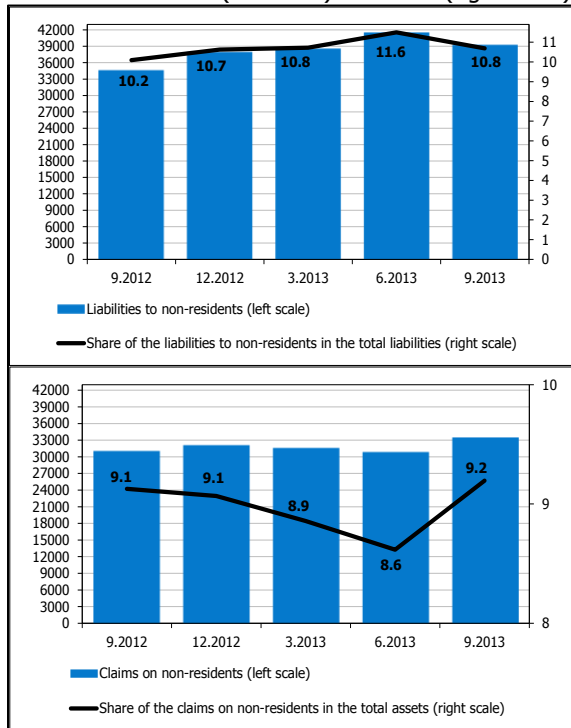


Source: NBRM, based on data submitted by banks.

However, **the total loan liabilities** are lower on a quarterly basis, mainly given the reduced loan liabilities to nonresidents (by Denar 1,540 million), due to the repayment of foreign currency short-term loans by a large bank to the parent entity), and to a lesser extent, due to the repayment of Denar short-term loans to domestic banks.

**Chart 10**  
**Liabilities (up) to and claims on nonresidents**

in millions of denars (left scale) and in % (right scale)



Source: NBRM, based on data submitted by banks.

**The share of banks' liabilities to and claims on nonresidents in total assets is low, and usually swings around 10%.** In this quarter, the banks' liabilities to nonresidents decreased<sup>6</sup>, despite the rising claims on nonresidents<sup>7</sup>.

<sup>6</sup> Banks liabilities to nonresidents fell by Denar 2,255 million, mainly as a result of the aforementioned repayment of short-term loans in foreign currency by a large bank to the parent entity (by Denar 1,439 million) and to a lesser extent, due to the lower deposits of nonresidents - financial institutions (by Denar 533 million).

<sup>7</sup> Loans to foreign banks, which rose by Denar 2,609 million, fully determined the quarterly growth of claims on nonresidents of Denar 2,606 million or 8.5%.

### 1.1. Loans to nonfinancial companies

**In the third quarter of 2013, lending to nonfinancial sector<sup>8</sup> is growing, but slowly<sup>9</sup>.**

Loans to nonfinancial companies increased quarterly by Denar 1,547 million, at a rate which is by 1.3 percentage points slower compared to the growth rate in the previous quarter and nearly identical to the growth rate for the third quarter last year. The slower quarterly growth affected the annual rate of credit growth, which remained at the same level (4.6%), same as in the second quarter of 2013. However, in October 2013, the credit growth somewhat accelerated.

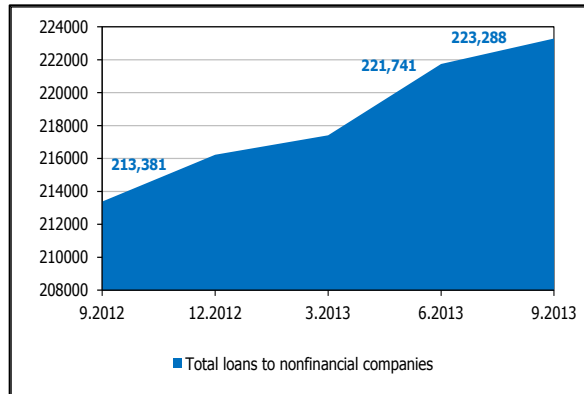
**According to the size of banks,** the credit growth in this quarter comes solely from the group of medium banks.

**Looking at individual sectors, loans to households are again generators of the credit growth.** Lending to this sector increased by Denar 2,341 million (2.7%), with the consumer loans and loans for purchase and renovation of residential property (annexes 5, 7, 15 and 17) remaining the most widely used credit products. Loans to households were increasing in October 2013, as well.

**In the third quarter of 2013, lending to the corporate sector fell by Denar 748 million (0.6%)** with the industry and wholesale and retail trade contributing the most (annexes 5, 7, 15 and 17). Loans to companies quarterly decreased in October 2013, as well. On an annual basis, the rate of corporate credit growth for September and October 2013 equaled 0.9% and 1.4%, respectively.

**Chart 11  
Loans**

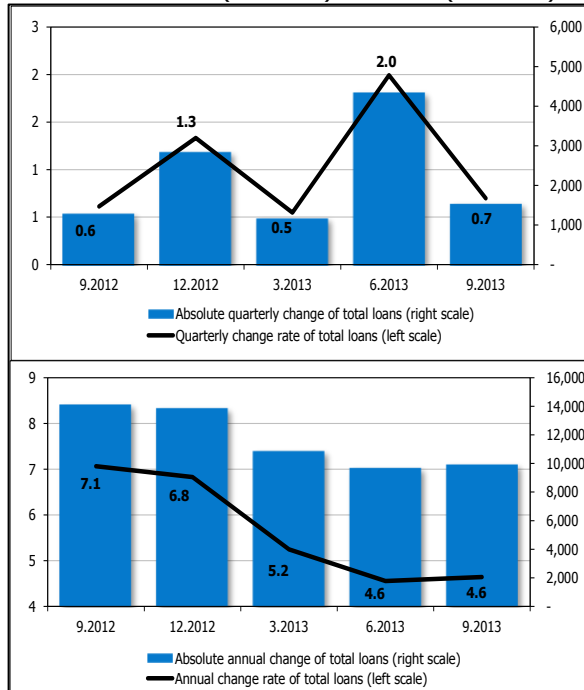
in millions of denars



Source: NBRM, based on data submitted by banks.

**Chart 12  
Quarterly (up) and annual (down) growth of loans of nonfinancial companies**

in millions of denars (left scale) and in % (left scale)

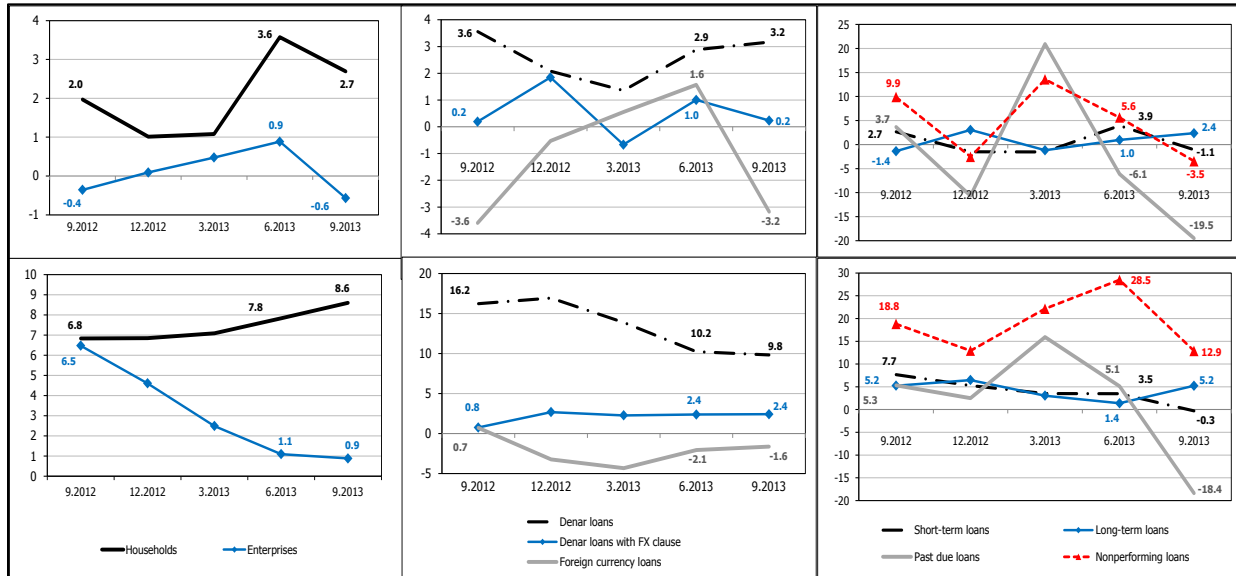


Source: NBRM, based on data submitted by banks.

<sup>8</sup> Loans to nonfinancial companies include loans to resident and nonresident nonfinancial companies, including loans to: private and public nonfinancial companies (corporate loans), central government, local government, non-profit institutions serving households (loans to other clients), sole proprietors and natural persons (loans to households).

<sup>9</sup> Analyzed by individual bank, ten banks reported a quarterly increase of loans (ranging from 0.4% to 13.7% for individual bank), while other banks reported a quarterly reduction of loans (ranging from 0.7% to 6.5% by individual bank).

**Chart 13**  
**Quarterly (up) and annual (down) growth of loans by sector, currency and maturity**  
 in %



Source: NBRM, based on data submitted by banks.

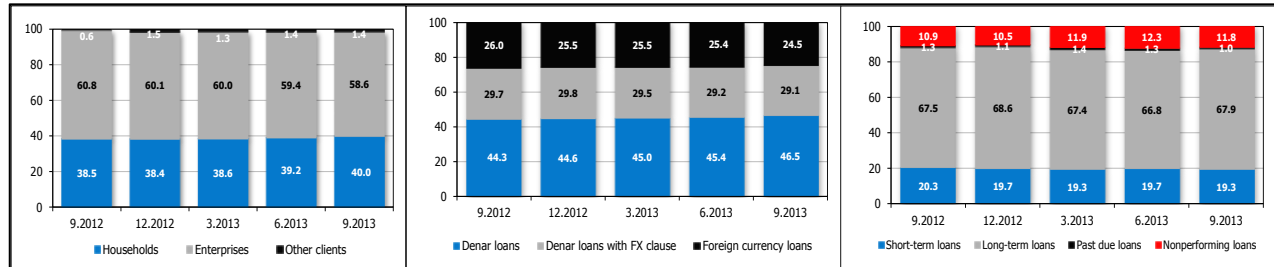
**Analyzing the currency, the growth of credit activity was driven by Denar loans**, which registered the highest quarterly growth (Denar 3,186 million). The denarization of loans fully reflects the same process on the deposits side, which are the main source of funding of the banking activities. Households and companies contributed 54.6% and 44.4%, respectively, to the growth of Denar loans. Foreign currency loans declined by Denar 1,789 million quarterly, primarily (88.7%) determined by the corporate sector (annexes 5 and 7). Additional confirmation of the denarization is the modest growth of Denar loans with FX clause (Denar 151 million).

**In terms of maturity, long-term loans continued to dominate** the structure of loans to nonfinancial companies, and their significance further strengthened. Quarterly growth of long-term loans (of Denar 3,498 million) increased by almost 2.5 times compared to growth in the second quarter of 2013. The contribution of households compared to the contribution of companies to the growth of long-term loans is larger (59.0% versus 42.9%). An additional incentive for the credit support to the real sector in a long run should be provided by the measure



taken by the National Bank to ease the prudential liquidity risk regulation<sup>10</sup>.

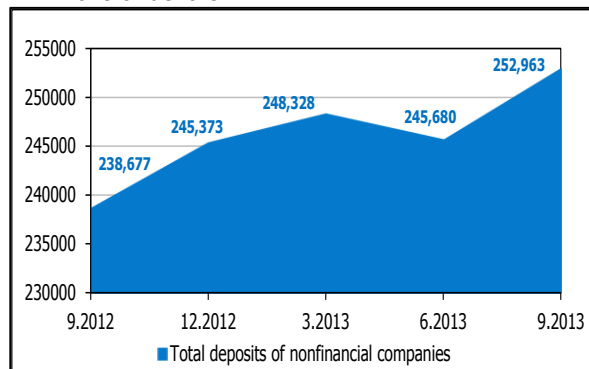
**Chart 14**  
**Structure of loans by sector, currency and maturity**  
in %



Source: NBRM, based on data submitted by banks.

## 1.2. Deposits of nonfinancial companies

**Chart 15**  
**Deposits**  
in millions of denars



Source: NBRM, based on data submitted by banks.

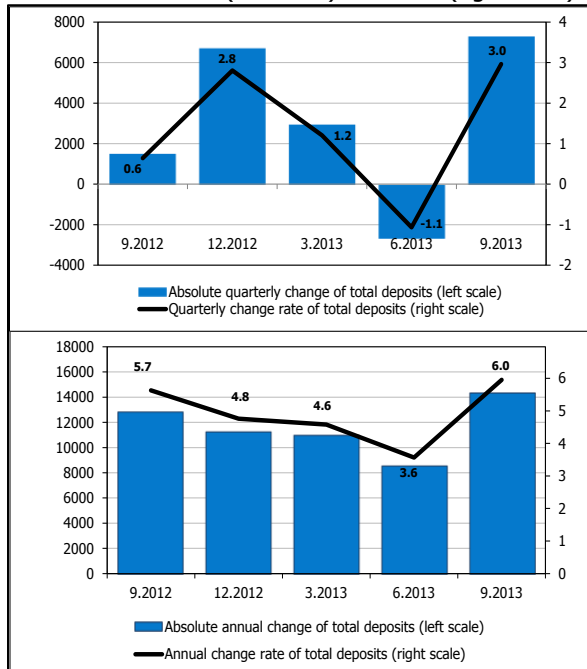
**In the third quarter of 2013, deposits of nonfinancial companies grew at an accelerated pace.** They registered a significant quarterly growth of Denar 7,283 million, with the quarterly growth rate accelerating by 4.0 percentage points.

Unlike the previous few quarters, **corporate deposits were generators of the growth of deposit activity in the third quarter of 2013**, which increased quarterly by Denar 4.821 million. Slightly more than half of this growth (or 56.3%) is due to the Denar corporate deposits, where demand deposits contributed with 70.8% (annexes 10 and 12). The high quarterly growth of corporate deposits is largely due to the low base effect of the previous quarter, when corporate deposits declined after the payment of a dividend by a domestic company with foreign capital.

**Household** deposits increased by Denar 2,153 million, quarterly, contributing 29.6% to the total growth of deposit base, mainly due to

<sup>10</sup> The amendments to the Decision on liquidity risk management, which apply from 1 December 2013, required a reduction of the proportion of time deposits, which are assumed to outflow from banks, in the calculation of the liquidity ratio to 30 days and 180 days (from 80% to 60%).

**Chart 16**  
**Quarterly (up) and annual (down) growth of deposits of nonfinancial companies**  
 in millions of denars (left scale) and in % (right scale)



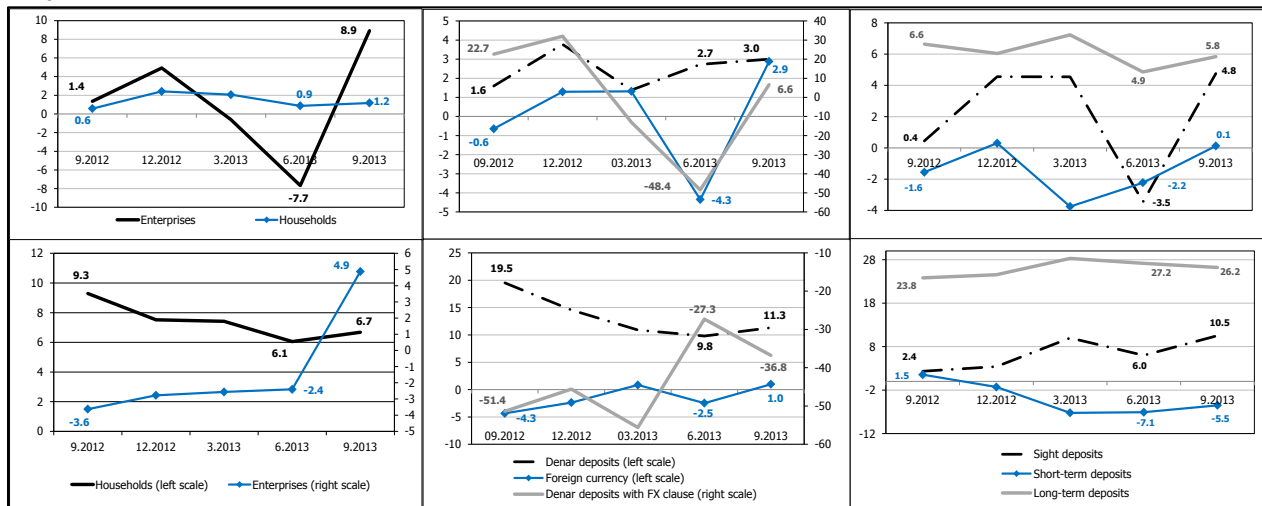
Source: NBRM, based on data submitted by banks.

the long-term Denar deposits of households<sup>11</sup> (annexes 10 and 12).

**The interest of depositors to save in domestic currency increased in the third quarter of 2013, as well.** Denar deposits increased by Denar 3,969 million, quarterly, contributing the most (54.5%) to the growth of total deposit base. The quarterly growth of foreign currency deposits amounted to Denar 3,240 million, while their contribution to the growth of total deposits equaled 44.5%. Denar deposits with FX clause noted a minimum quarterly growth of Denar 74 million (annexes 10 and 12).

**In terms of maturity, demand deposits were the main drivers of growth in the deposit base in the third quarter of 2013.** Demand deposits increased by Denar 3,780 million, which for the most part (86.6%) reflects the growth of corporate demand deposits<sup>12</sup>.

**Chart 17**  
**Quarterly (up) and annual (down) deposit growth by sector, currency and maturity**  
 in %



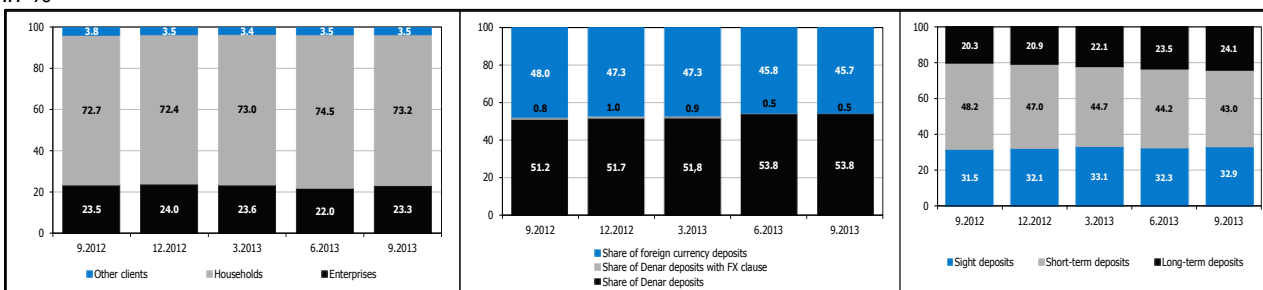
Source: NBRM, based on data submitted by banks.

<sup>11</sup> The contribution of long-term Denar household deposits was 71.7%, while the contribution of long-term foreign currency deposits was 54.0% to the total growth of household deposits. The contribution of Denar household demand deposits and short-term deposits, as well as the foreign currency household short-term deposits is negative.

<sup>12</sup> The contribution of Denar deposits to the total growth of corporate demand deposits equaled 58.8%, while the contribution of foreign currency deposits equaled 41.2%.

In this quarter, the household opted to save in the long run, which is certainly related to the greater interest rates on long-term deposits, which in turn is driven by the zero rate of reserve requirement on natural persons' deposits of over two years that meet certain criteria prescribed in the requirements for early withdrawal of deposits. The growth of long-term household savings determined most (80.1%) of the growth of **long-term deposits**, which amounted to Denar 3,368 million. **Short-term deposits** increased by Denar 134 million.

**Chart 18**  
**Deposit structure by sector, currency and maturity**  
 in %



Source: NBRM, based on data submitted by banks.

### III. Bank risks

#### 1. Credit risk

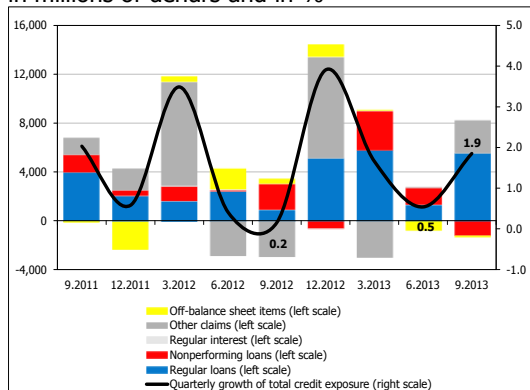
Gradual recovery of the domestic real sector and relatively stable banks' perceptions of risk in the economy moderately improved the quality of loan portfolio of the banking system in the third quarter of 2013. Nonperforming loans to total loans ratio decreased by 0.5 percentage points in a quarter, and hit the record low in 2013 (11.8%). Moreover, some banks have contributed to the downtrend of nonperforming loans by adjusting the lending terms to the financial condition of their clients, in order to ensure easier repayment of loan liabilities. However, this should be interpreted with certain reservation because of the possibility of merely temporary improvement of the quality of loan portfolio, due to the risk that restructured loans could return to nonperforming status. The coverage of nonperforming loans with total impairment exceeds 100%.

#### 1.1. Quality of loan portfolio of the banking system

As of 30 September 2013, the total credit exposure<sup>13</sup> of the banking system reached Denar 380,557 million and increased by Denar 6,917 million quarterly. This is an acceleration of the growth of 1.4 percentage points<sup>14</sup> compared to the previous quarter. The acceleration arises primarily from the growth of credit exposure to financial institutions (of Denar 4,280 million or 5.8%) due to increased short-term funds on foreign bank accounts (correspondent accounts and short-term deposits) and investments in CB bills, and the higher exposure to the government (of Denar 1,141 million, or 3.3%) due to increased investments of banks in government bonds. Credit exposures to nonfinancial entities (without exposure to financial institutions and government) registered a quarterly growth of Denar 1,496 million, or 0.6% (1.2% as of 30 June 2013), solely (141.7%) arising from the growth of credit exposure to households in the form of consumer loans and residential real estate loans. However, the downtrend of the

**Chart 19**  
**Quarterly growth of credit exposure, by items**

in millions of denars and in %



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

Other claims, besides fees, commissions etc., also include banks' investments in CB and treasury bills.

<sup>13</sup> The total credit exposure includes balance sheet (loans, interest, fees, financial leasing, investment securities available for sale or held to maturity, etc.) and off-balance sheet claims (unused lines of credit, unused overdrafts based on current account and credit cards, letters of credit, guarantees and other similar potential liabilities for the bank) that expose the bank to credit risk.

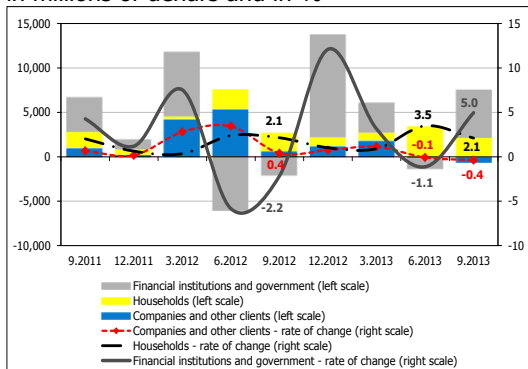
<sup>14</sup> As of 30 June 2013, the quarterly growth totaled Denar 2,003 million, or 0.5%.





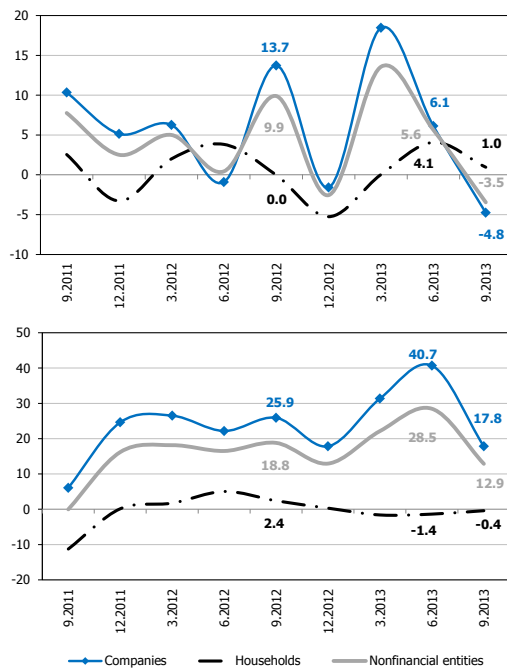
**Chart 20**  
**Quarterly growth of credit exposure, by sector**

in millions of denars and in %



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

**Chart 21**  
**Quarterly (up) and annual (down) growth rate of nonperforming loans in %**



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

exposure to companies and other clients<sup>15</sup> (of Denar 623 million, or 0.4%) due to the reduced credit support to this sector, caused a slowdown in credit exposure to nonfinancial entities.

**The trend of deterioration of the quality of banks' loan portfolio in the first half of 2013 was interrupted in the third quarter**, when the quarterly growth rate of nonperforming loans recorded a negative value of 3.5%. The decrease of nonperforming loans in the most part (76.1%) comes from companies, but it is not only a reflection of improved economic performance of some clients, but also of the activities of some banks to restructure claims on certain clients and to adjust the repayment terms to their current prospects. Namely, in the third quarter, individual banks restructured a portion of nonperforming loans, where the claims remained in the existing risk category (C)<sup>16</sup>. This applies to several clients from the corporate sector, such as metal manufacturing, machinery, tools and equipment, wholesale and retail trade and chemical industry. However, note that, if the purpose of restructuring is missed (i.e. to reduce the credit load for the client to overcome the current financial problems), in the medium run, it could result in reverse movement, i.e. growth of nonperforming loans. Some banks reported more foreclosed assets and sale of some already foreclosed assets<sup>17</sup>. Nonperforming loans of households experienced a slower quarterly growth that is due to the increase of nonperforming residential loans and loans based on credit cards and overdrafts.

The annual growth rate of nonperforming loans also slowed down and reduced to the level of the end of 2012, which is more than twice lower than in the previous quarter. The downward movement of nonperforming loans on

<sup>15</sup> Hereinafter: companies.

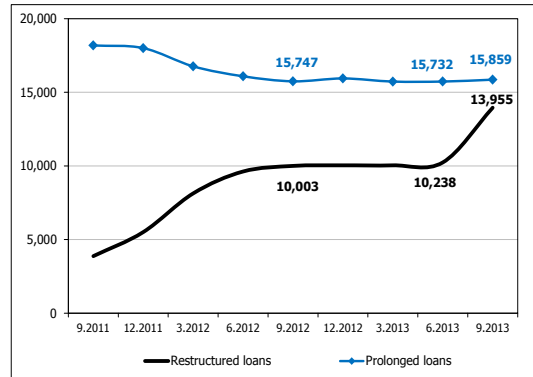
<sup>16</sup> According to the regulation, restructured claim within six months after the restructuring cannot be classified in a better risk category than the category of risk in which it was classified on the date of restructuring.

<sup>17</sup> Amounts of foreclosed assets in the banking system is still insignificant. As of 30 September 2013, its share (on a net basis, less the allocated impairments) is slightly below 2% of total assets and registers a downtrend.

an annual basis continued after the cut-off date of this report<sup>18</sup>.

**Chart 22**  
**Restructured and prolonged loans, by quarter**

in millions of denars

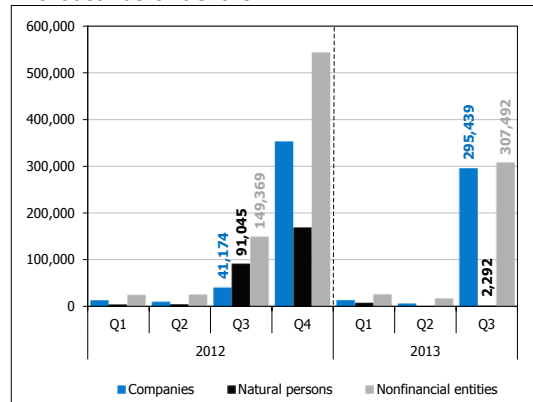


Source: NBRM's Credit Registry, based on data submitted by banks

**Restructured<sup>19</sup> loans increased and partly caused the reduction of nonperforming loans. Companies are drivers of the increase of restructured loans.** As of 30 September 2013, 10.2% (6.0% as of 30 June 2013) of the total corporate loans were restructured. The quarterly increase of restructured corporate loans of 37.9% mainly results from claims classified in C risk category. The average risk level of the total restructured loans decreased to 37.7% (41.7%, as of 30 June 2013). The decrease in the average risk level is due to the slower growth of impairment of restructured loans<sup>20</sup> compared to the rise of restructured loans during the third quarter. Given the regulatory prohibition to increase financial result based on restructuring, the slower growth of impairment should result from the release of the impairment of previously restructured loans, where the restructuring yielded positive effects. Prolonged loans slightly increased (0.8%), and their average risk level decreased to 22.0% (22.6% as of 30 June 2013).

**Chart 23**  
**Written-off claims, by quarter**

in thousands of denars



Source: NBRM, based on data submitted by banks.

**Despite the first half of the year, when the banks were mostly collecting written-off claims on a net basis, in the third quarter, they were primarily writing off claims.** Thus, the write-offs made during this quarter were higher compared to the same quarter last year. Companies are generators of the total written off claims (96.1%), while the total collection of already written-off claims is dominated by collections of natural persons (81.5%). In the third quarter, write-offs restrict the downward trend of nonperforming loans because if we exclude the effect of the write-offs, the quarterly growth rate of nonperforming loans

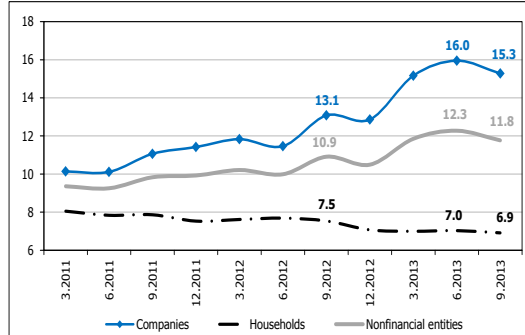
<sup>18</sup> In October 2013, the annual growth rate of non-performing loans amounted to 11.1%.

<sup>19</sup> Restructuring of claims means establishing new credit exposure by the bank, for replacing the existing one, with significantly changing the contractual terms which are due to the deteriorating financial condition of borrowers.

<sup>20</sup> The average risk level for these loans equals 27.3%.

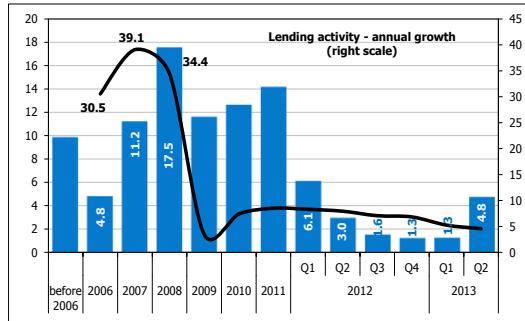


**Chart 24**  
**Nonperforming loans to total loans of nonfinancial entities and sectors**  
 in %



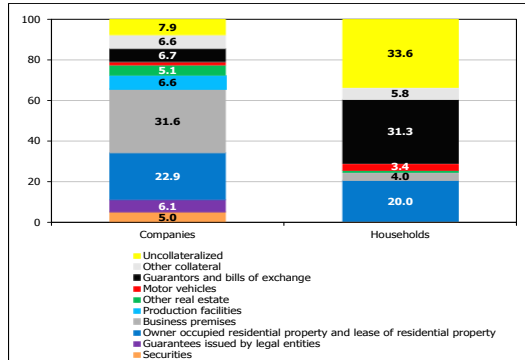
Source: NBRM, based on data submitted by banks.

**Chart 25**  
**Distribution of nonperforming loans as of 30 September 2013, by period of approval and dynamics of banks' lending activity**  
 in %



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

**Chart 26**  
**Nonperforming loans as of 30 September 2013, by type of collateral**  
 in %



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

would be -3.0% for all nonperforming loans and -4.2% for companies<sup>21</sup>.

**Downward trend is also registered in the share of nonperforming loans to total loans, whereas in the third quarter, this rate fell by 0.5 percentage points and reduced to 11.8%.** In contrast, the share of higher risk exposure (classified in C, D and E risk categories) in total credit exposure remained unchanged given the restructuring in the C risk category. In October, the rate of nonperforming loans marginally increased and reversed at the level of March 2013 (11.9%).

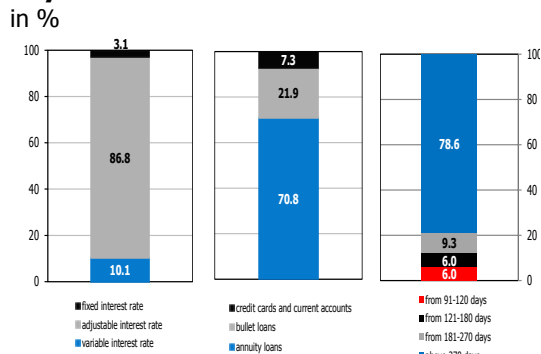
**At the end of the third quarter of this year, the share of nonperforming loans of companies to total loans decreased to 15.3%.** This stems from the noticeable reduction of nonperforming loans amid insignificant decline of credit support to companies. This indicator for the households decreased, due to the higher growth of total loans, which offset the growth of nonperforming loans. In October 2013, the rate of nonperforming loans of companies increased again (15.6%) due to the growth of nonperforming loans, while in households registers continuous downward trend

**Observing by a period of approval,** only 18.0% of total nonperforming loans as of 30 September 2013, was approved in 2012 and the first half of 2013. In addition, 4.8% of nonperforming loans was approved during the second quarter, of which 97.5% to the corporate sector. At the end of the third quarter, more than a third of nonperforming loans stem from the years when the credit growth was highest (2006, 2007 and 2008).

**The analysis of structural features of nonperforming loans** shows that most of these loans have adjustable interest rates and annuity payment. When banks adjust interest rates

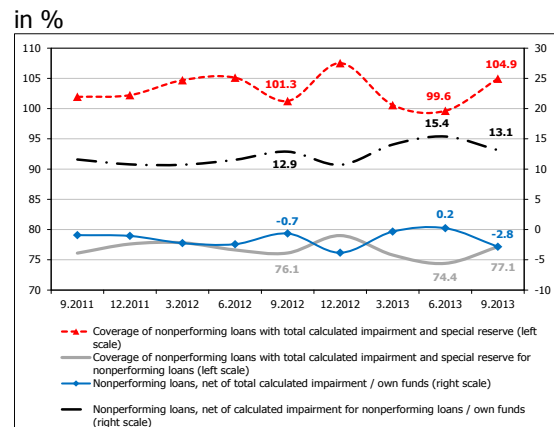
<sup>21</sup> With the exclusion of the effect of the written-off claims, the annual growth rate of total nonperforming loans would equal 14.9% and would still be lower than the annual growth rate as of 30 June 2013.

**Chart 27**  
**Structural features of nonperforming loans as of 30 September 2013, by type of interest rate, type of loan and days in default**



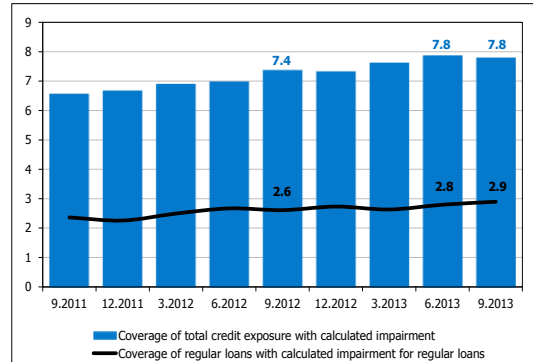
Source: NBRM's Credit Registry, based on data submitted by banks.

**Chart 28**  
**Coverage of nonperforming loans and share of nonperforming loans in banks' own funds**



Source: NBRM, based on data submitted by banks.

**Chart 29**  
**Average risk level for the total credit exposure and for regular loans**



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

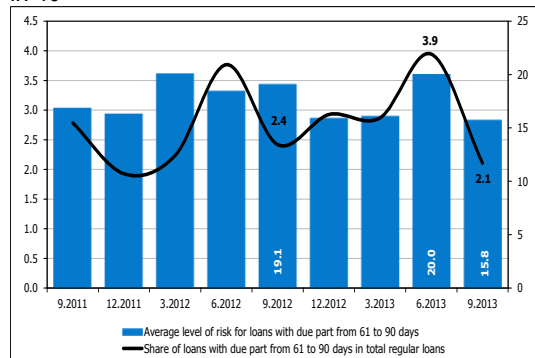
upwardly, they transform the interest rate risk in loans into indirect credit risk, which further complicates the repayment of nonperforming loans and reduces the likelihood to return to regular status. Moreover, 78.6% of nonperforming loans fall into the group over 270 days of delay, which again points to the possibility of difficult recovery of these loans in full, unless banks take actions to "ease" the credit burden of their client by restructuring their debt. Analyzing the type of security, more than half of nonperforming loans of the corporate sector are secured by commercial and residential property, while the collateral for nonperforming loans of households in the form of guarantors and bills and housing property equals 31.3% and 20.0%, respectively. Moreover, 33.6% of nonperforming loans to households are unsecured, but excluding overdrafts and credit cards, this ratio is much lower (13.0%). The share of unsecured loans of companies equals 7.9%. The relatively high coverage of credit portfolio with some form of collateral contributes to mitigate the level of credit risk that banks have taken and also serves as a potential source of recovery of the nonperforming exposure.

**The decrease of nonperforming loans was followed by a decelerating quarterly growth of total impairment of banks of Denar 271 million, or 0.9%. This growth stems entirely from impairment of credit exposure to wholesale and retail trade, and construction, which registered an increase of nonperforming loans. However, the decrease of impairment of credit exposure to financial institutions limited the growth of the overall impairment and special reserve.**

The decrease of nonperforming loans was higher than the growth of impairment, which caused an increase of nonperforming loans to total impairment coverage (of 5.3 percentage points), which again exceeded 100%. As of 30 September 2013, the coverage of nonperforming loans with impairment determined for them increased to 77.1% (74.4% as of 30 June 2013), and further reduced the already low share of



**Chart 30**  
**Average risk level for loans with due part of 61 to 90 days**  
 in %

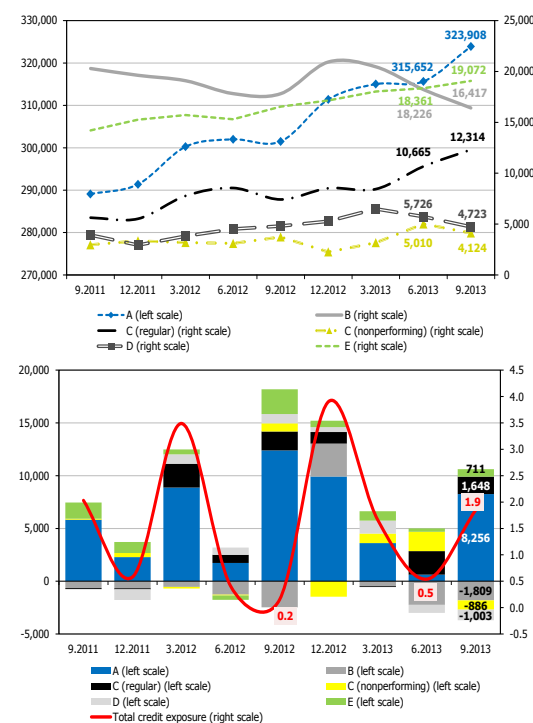


Source: NBRM's Credit Registry, based on data submitted by banks.

nonprovisioned portion of nonperforming loans in total own funds of the banking system. Thus, under assumption of full noncollectability of nonperforming loans, at the end of this quarter, own funds would have decreased by 13.1% (compared to the assumed decrease of 15.4% at the end of the second quarter).

**In the third quarter of 2013, the average risk level of the loan portfolio of the banking system remained unchanged** as a result of the slower growth of impairment compared to the growth of total credit exposure. In contrast, the average risk level of regular loans has increased due to the quarterly growth of impairment provided for them (of Denar 406 million or 6.0%), given the increase of impairment of exposures in C risk category (of 17.4%).

**Chart 31**  
**Credit exposure, stock (up) and absolute quarterly growth (down), by risk category**  
 in millions of denars and in %

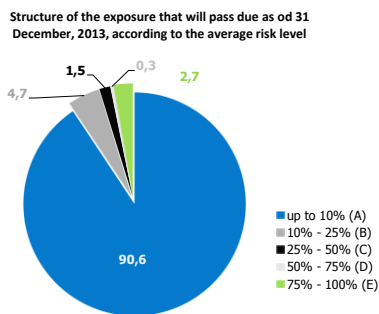
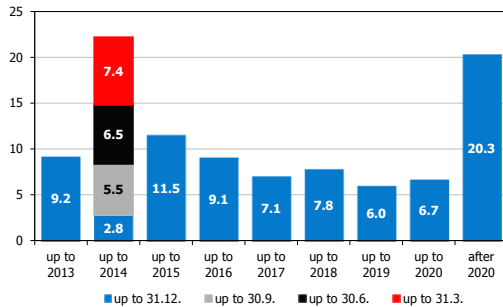


Source: NBRM's Credit Registry, based on data submitted by banks.

Past due loans with a period of delay in repayment of 61 to 90 days are a potential risk for increasing the nonperforming loans in the next quarter. Thus, if no outstanding debt based on any of these loans is recovered over the next month, as of 30 September 2013, 2.1% of the total regular loans would become nonperforming. The average risk level of loans with due part of 61 to 90 days is within B risk category and equals 15.8%. Assuming that all loans with due part of 61 to 90 days remain unrecovered in the next quarter, the coverage of nonperforming loans with total impairment would remain high (98.5%) and the average classification of total credit exposure would remain in A risk category and would equal 7.9%.

Unlike the previous quarter when the credit exposure with nonperforming status grew as a result of the exposure in C-nonperforming risk category, the reduction in this quarter is driven by the decrease of exposure in D and C-nonperforming risk categories (of Denar 1,003 million or 17.5% and Denar 886 million or 17.7%, respectively). The reduction of nonperforming loan exposure in these risk categories derived entirely from the companies.

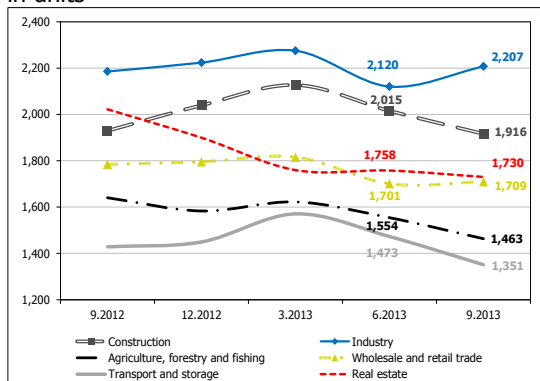
**Chart 32**  
**Structure of credit exposure to nonfinancial entities, by maturity of principal**  
in %



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

Note: The analysis does not include exposures classified on a group basis.

**Chart 33**  
**Herfindahl index for credit exposure, by activity**  
in units



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

According to the credit risk indicators and the importance of individual activities / products in total credit exposure, the credit risk is highest among the sectors of construction and industry (of the corporate sector) and credit cards and consumer loans (of the household sector) (annexes 22 and 23). Observing the currency structure, the average risk level of credit exposure for all currencies is similar and within A risk category (annex 21).

The structure of credit exposure to nonfinancial entities according to the maturity of the principal indicates that 9.2% of the total credit exposure as of 30 September 2013 falls due by the end of 2013, while more than half the exposure falls due after 2015. Exposure with average risk level of up to 25% (A and B categories) accounts for 95.3% of total credit exposure that falls due by the end of 2013 and the majority (67.5%) refers to companies.

The concentration of credit exposure of the banking system by sector, as measured by the Herfindahl index is mainly within acceptable limits<sup>22</sup>. The index value indicates higher than acceptable concentration of credit exposure to industry and construction. However, the concentration of credit exposure registered downward trends in most of the sectors in the third quarter of 2013.

The share of large exposures (including exposures to financial institutions)<sup>23</sup> in the banks' own funds at the end of the third quarter 2013 indicates a slight decrease in the concentration of credit risk. Analyzing by bank, the share of large exposures in their own funds ranges from

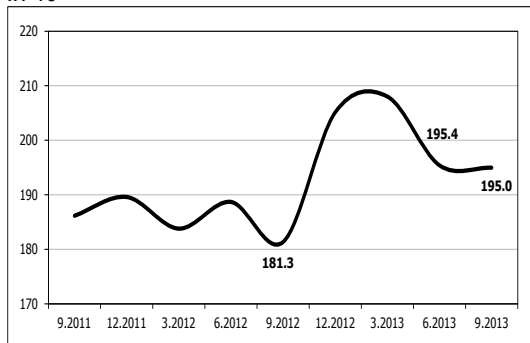
<sup>22</sup> The level of concentration is considered acceptable when the index ranges from 1,000 units to 1,800 units.

<sup>23</sup> According to the regulations, large exposure to a person or persons associated thereto is an exposure equal to or higher than 10% of the bank's own funds. The total amount of large exposures must not exceed eight times the amount of banks' own funds.



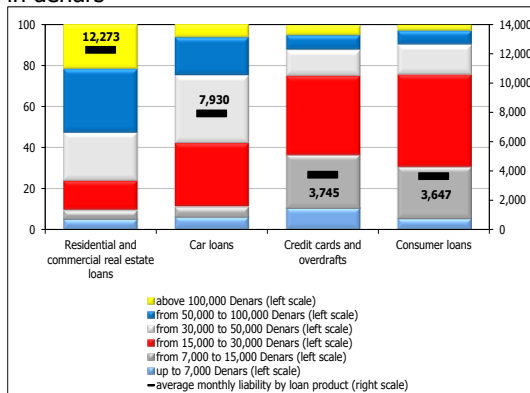


**Chart 34**  
**Share of amount of large exposures in banks' own funds**  
 in %



Source: NBRM, based on data submitted by banks.

**Chart 35**  
**Structure of credit exposure to credit products, by monthly income of borrowers (natural persons)**  
 in denars



Source: NBRM, based on data submitted by banks.

35.9% to 728.5%. Excluding the banks' exposure to financial institutions and investments in CB bills and government securities, the share of large exposures to nonfinancial entities in the banks' own funds is reduced to 65.7%<sup>24</sup>. Analyzing by banks, the share of large exposures to nonfinancial entities in own funds ranges from 10.8% to 178.3%. Moreover, about half of the large exposures of the overall banking system are captured by one bank and this bank's credit exposure accounts for 24.0% of the total credit exposure.

**The quarterly increase of credit support to households increased the average debt per person (only borrowers) to Denar 101 thousand.** As of 30 September 2013, the most indebted persons are those with monthly income of up to Denar 30,000. They account for two-thirds of the banks' total exposure to natural persons and 73.8% of the total exposure intended for consumption (annex 24), which is expected considering that these people make up about 85% of the total population<sup>25</sup>. Looking at individual persons, natural persons with monthly incomes of above Denar 100,000 are the most indebted (average debt of Denar 587 thousand per person), which is a result of the banks' policies to adjust the amount of debt to the amount of monthly income of natural persons. The average monthly liability, depending on the loan product, ranges between Denar 3.6 thousand (for consumer loans) and Denar 12.3 thousand (for residential and commercial real estate loans). According to the type of credit product, persons with monthly income of above Denar 30,000 account for 76.0% of the credit exposure based on housing loans, while persons with monthly income of up to Denar 30,000 constitute most of the credit exposure based on consumer loans, and credit cards and overdrafts (75.4% and 74.9%, respectively).

<sup>24</sup> Five banks have no large exposures to nonfinancial entities.

<sup>25</sup> Source: Labor Survey (2012) of the State Statistical Office. The structure of employees, according to the amount of monthly income, also includes unpaid family workers, persons who did not receive salary in months and those whose pay level is unknown.



## 1.2. Stress test simulation of the resilience of the banking system to increasing credit risk

Regular stress tests are aimed to investigate the sensitivity of the banking system during the deterioration of the quality of certain segments of the loan portfolio. They consist of simulations of hypothetical migration of 10% (first simulation) and 30% (second simulation) of credit exposure to companies and households, separately, and to the two sectors jointly, to the following two higher risk categories.

**Table 2**  
**Capital adequacy ratio, after simulations**

Description	CAR of the banking system		Number of banks with CAR after simulation below the CAR of the banking system after simulation (below 8%)		Share of C, D and E in total credit exposure		Average level of risk for total credit exposure		
	6.2013	9.2013	6.2013	9.2013	6.2013	9.2013	6.2013	9.2013	
<b>Baseline</b>	17.3%	17.3%			10.6%	10.6%	7.8%	7.8%	
<b>Companies and households</b>	<b>I simulation</b>	15.2%	15.3%	8 (1)	7 (0)	13.9%	13.8%	9.4%	9.3%
	<b>II simulation</b>	10.4%	10.5%	7 (4)	7 (5)	20.4%	20.1%	12.4%	12.3%
<b>Companies</b>	<b>I simulation</b>	15.9%	15.9%	7 (1)	7 (0)	12.6%	12.5%	8.8%	8.7%
	<b>II simulation</b>	13.0%	13.1%	7 (2)	7 (3)	16.5%	16.2%	10.8%	10.6%
<b>Households</b>	<b>I simulation</b>	16.6%	16.6%	8 (0)	8 (0)	11.9%	11.9%	8.4%	8.3%
	<b>II simulation</b>	15.1%	15.0%	7 (0)	8 (0)	14.5%	14.5%	9.5%	9.4%

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

The results of the simulations show that the banking system remains resilient to simulated shocks. However, compared with the previous quarter, there is some deterioration in the results of individual banks. For more detailed review of the results of simulations see annex 25.

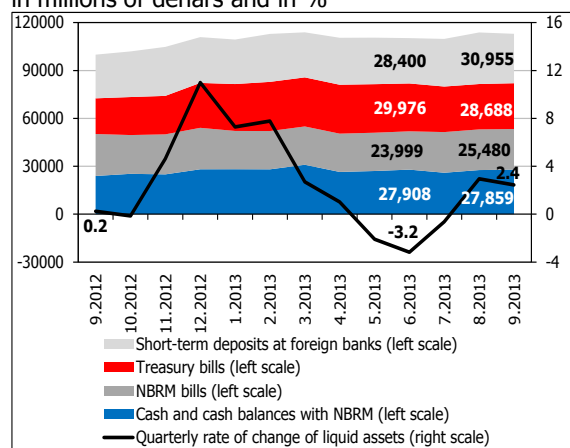




## 2. Liquidity risk

In the third quarter of 2013, banks in the Republic of Macedonia maintained an adequate level of liquidity, which allows easy liquidity management. Liquid assets increased on a quarterly and annual basis, thus allowing maintenance of high liquidity indicators. Foreign exchange liquidity was generator of the growth of liquid assets in this quarter, through asset growth of correspondent accounts and short-term deposits in foreign banks. The third quarter of 2013 witnessed a decrease of the banks' funding sources from their parent entities, so that the quarterly growth of the funding sources entirely reflects the growth of deposits of nonfinancial companies. In addition, the third quarter registered favorable developments in the contractual residual maturity, primarily due to the faster growth of assets with shorter maturities and the continuing upward trend of the average contractual maturity of liabilities. Stress-test shows that the banking system is resilient to liquidity shocks. According to the latest available data, the high liquidity position of the banking system remains as of October 2013.

**Chart 36**  
**Structure of banks' liquid assets, by**  
**constituting financial instruments**  
 in millions of denars and in %

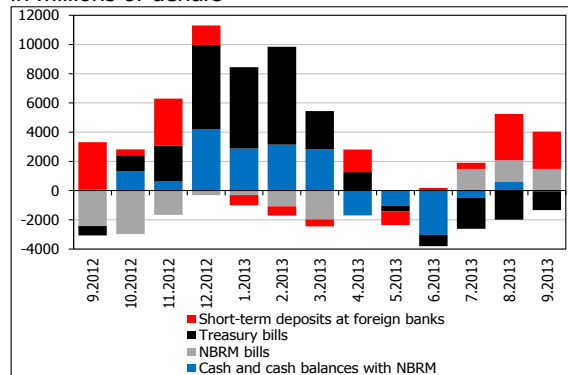


Source: NBRM, based on data submitted by banks

At the end of the third quarter of 2013, the liquid assets<sup>26</sup> of the banking system amounted to Denar 112,983 million which is by Denar 13,058 million, or 13.1% more, annually. In the third quarter of 2013, the growth of liquid assets accelerated, compared with the previous quarter. Thus, despite the quarterly drop in the second quarter of 2013, at the end of September 2013, liquid assets increased by Denar 2,700 million, or 2.4%, quarterly. Observing by bank, liquid assets increased quarterly in nine banks, in a range from 0.1% to 12.4%, while the liquid assets of the remaining seven banks, whose share in the total assets of the banking system equaled 16.3% as of 30 September 2013, declined in a range from 1.4% to 20.1%. According to the latest available data, as of October 2013, liquid assets are still growing (by 10.1%, annually).

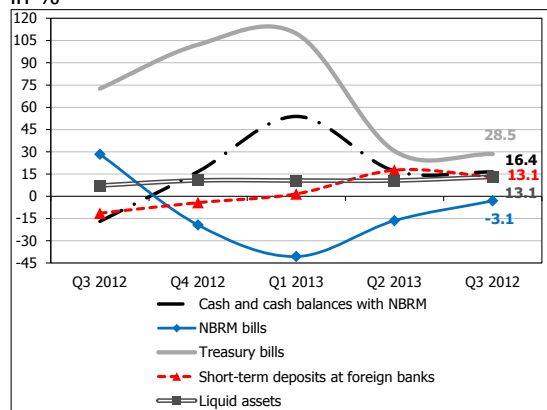
<sup>26</sup> Liquid assets include cash and assets on accounts with the National Bank, CB bills, correspondent accounts and short-term deposits with foreign banks and investments in short-term securities issued by the government. For the purposes of analyzing liquidity, Denar assets and liabilities with FX clause are being regarded as Denar assets and liabilities.

**Chart 37**  
**Quarterly absolute growth of financial instruments that constitute liquid assets**  
 in millions of denars



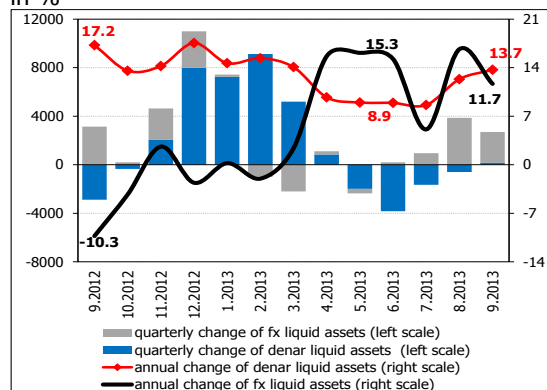
Source: NBRM, based on data submitted by banks.

**Chart 38**  
**Annual relative growth of financial instruments that constitute liquid assets**  
 in %



Source: NBRM, based on data submitted by banks.

**Chart 39**  
**Annual absolute and relative growth of liquid assets, by currency**  
 in %



Source: NBRM, based on data submitted by banks.

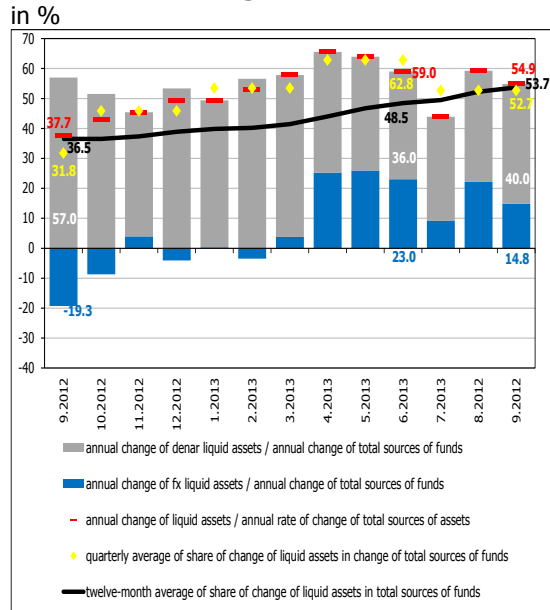
Most of the growth of liquid assets in the third quarter of 2013 was driven by the funds on correspondent accounts and short-term deposits in foreign banks, which increased by Denar 2,555 million, or 9.0%, on a quarterly basis. In addition, in the third quarter of 2013, the structure of liquid assets registered a quarterly decrease of the share of treasury bills, which caused an increase in the share of CB bills.

At the end of the third quarter of 2013, banks' investments in treasury bills still have the highest annual growth rate of 28.5% or Denar 6,356 million. On the other hand, at the end of the third quarter of 2013, the annual growth of CB bills was negative. Short-term deposits placed with foreign banks grew annually by Denar 3,588 million, or 13.1%, in the third quarter, with 71.2% of their annual growth being recorded in the third quarter of 2013. In addition, one should keep in mind that banks also hold government bonds in the amount of Denar 5,392 million (i.e. 1.5% of total assets), which according to the List of securities for conducting monetary operations, are accepted by the National Bank as a security instrument during the conduct of monetary operations. As of 30 September 2013, the growth rate of government bonds equals 166.8% annually (Denar 3,371 million) and 78%, quarterly (Denar 2,363 million).

In the third quarter of 2013, changes in the components of liquid assets accordingly changed their structure. Namely, the share of short-term deposits in foreign banks and CB bills increased quarterly by 1.6 and 0.8 percentage points, respectively. On the other hand, the share of treasury bills and cash and balances with the National Bank reduced compared with the previous quarter by 1.8 and 0.6 percentage points, respectively. Furthermore, in the third quarter of 2013, the change in liquid assets almost entirely resulted from the change in foreign exchange liquidity. In addition, the currency structure of liquid assets recorded by 1.6 percentage points lower Denar liquidity and as of 30 September 2013, their share reduced to 70.1%.



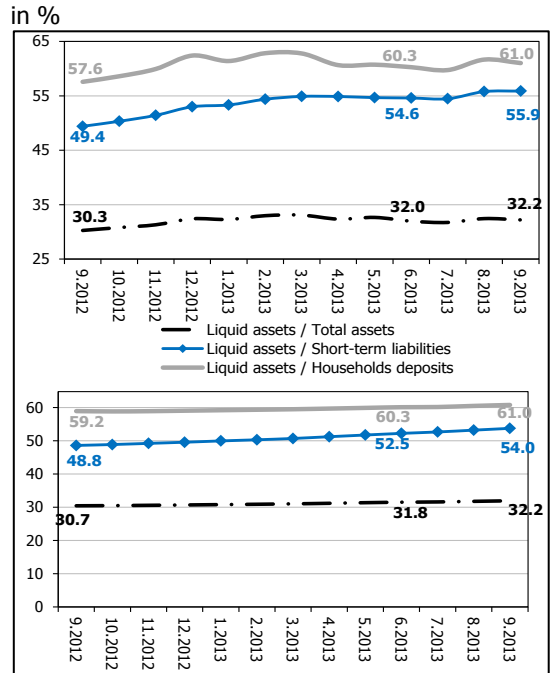
**Chart 40**  
**Growth of liquid assets/growth of total sources of funding**  
in %



Source: NBRM, based on data submitted by banks.

In the third quarter of 2013, banks have invested almost half of their new funding sources in liquid financial instruments. The average share of annual growth of liquid assets in the growth of total funding sources amounted to 52.7% and compared with the previous quarter, it declined by 10.1 percentage points. In addition, the twelve-month moving average of this indicator has still been increasing, indicating that banks shy away from higher lending. This is also confirmed by the higher annual growth rate of the liquid assets than the annual rate of credit growth (as of 30 September 2013, they equaled 13.1% and 4.6%, respectively). Although in the third quarter of 2013 banks became increasingly inclined towards investing the new funding sources in foreign banks, yet, given the higher yields of Denar instruments, the share of investments in Denar liquid instruments in the annual growth of total funding sources is more than doubled, compared with foreign liquid instruments.

**Chart 41**  
**Liquidity indicators of the banking system - stock (up) and twelve-month moving average (down)**  
in %

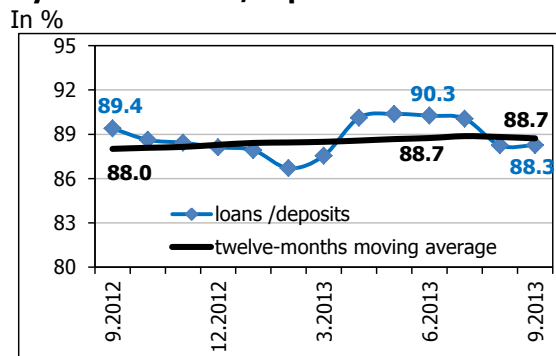


Source: NBRM, based on data submitted by banks.

The liquidity indicators for the banking system<sup>27</sup> are high and stable in the third quarter of 2013. Stable liquidity position of domestic banks is also confirmed by the dynamics of the twelve-month moving average of the liquidity indicators, especially the liquid assets to total assets ratio, which continuously dwells above 30%. The faster quarterly growth of liquid assets, compared with the growth of short-term liabilities, increased their coverage with liquid assets during the third quarter of 2013. Furthermore, the upward trend of twelve-month average of this indicator suggests transformation of the banks' maturity profile i.e. increasing importance of long-term component of liabilities in the structure of funding sources. Analyzing individual banks, seven banks reported a quarterly increase of the coverage of short-term liabilities with liquid assets, which account for 60.2% of the total assets of the banking system as of 30 September 2013, and the share of liquid

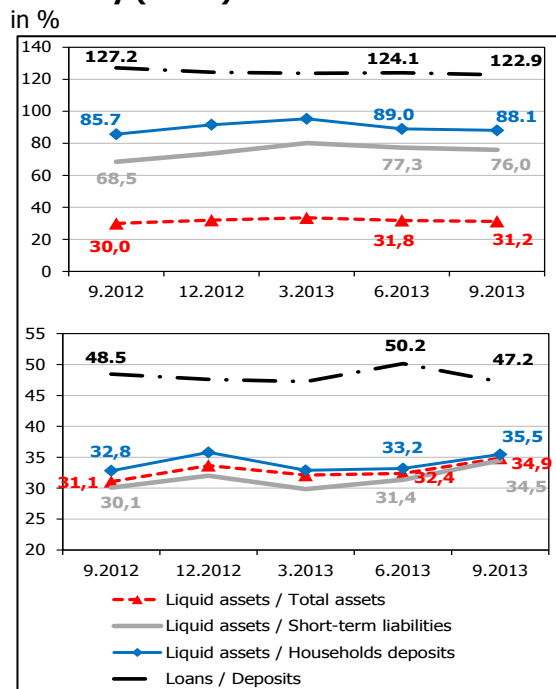
<sup>27</sup> The calculation of the liquidity of the banking system does not take into account the resident interbank assets and liabilities.

**Chart 42**  
**Dynamics of loan/deposit ratio**



Source: NBRM, based on data submitted by banks.

**Chart 43**  
**Liquidity ratios of the banking system by currency - Denar (up) and foreign currency (down)**



Source: NBRM, based on data submitted by banks.

assets of eight banks to total assets increased (share of 62.2% in the total assets).

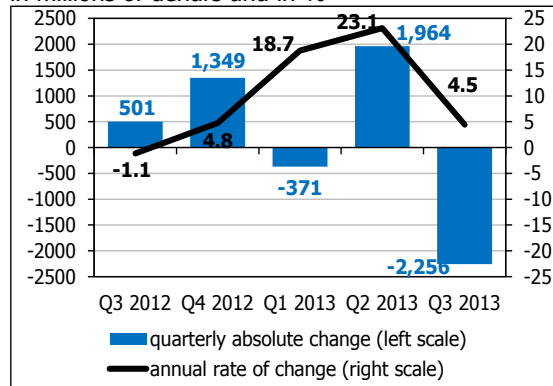
In the third quarter of 2013, loan to deposit ratio decreased (88.3%) due to the stronger growth of deposits (3.0%) compared to the credit growth (0.7%) in the quarter. Only three banks reported an increase of this indicator on a quarterly basis, whose share in total assets equals 4.7%, while the decrease reported by other banks ranged between 0.4 and 6.7 percentage points. As of 30 September 2013, only in four banks this indicator exceeded 100%, which account for 14.3% in the total assets of the banking system.

In the third quarter of 2013, the currency transformation of liquid assets aims towards increasing foreign exchange liquidity, and underlies the increase of foreign exchange liquidity indicators. In contrast, due to the quarterly stagnation of Denar liquid instruments, the Denar liquidity indicators declined, which was most evident in the coverage of short-term Denar liabilities with Denar liquid assets. Loans/deposits ratio in both Denars and foreign currency declined on a quarterly basis, which in the foreign currency ratio is due to the reduction of foreign currency loans, while in the Denar ratio it is due to the stronger quarterly growth of Denar deposits compared to Denar loans.



**Chart 44**  
**Growth of used sources of funding from parent entities**

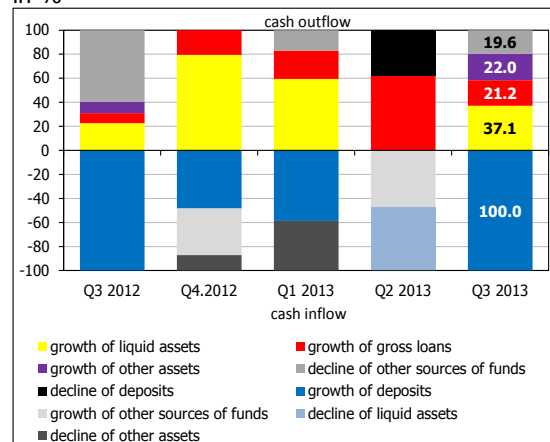
in millions of denars and in %



Source: NBRM, based on data submitted by banks.

**Chart 45**  
**Structure of cash inflows and outflows of the banking system**

in %



Source: NBRM, based on data submitted by banks.

\* The category of other assets includes assets that are not loans to nonfinancial companies and are not included in the category of liquid assets (long-term loans in foreign and domestic banks, foreign exchange reserve requirement, foreclosures, fixed assets, etc.) and decrease of impairment of financial and nonfinancial assets.

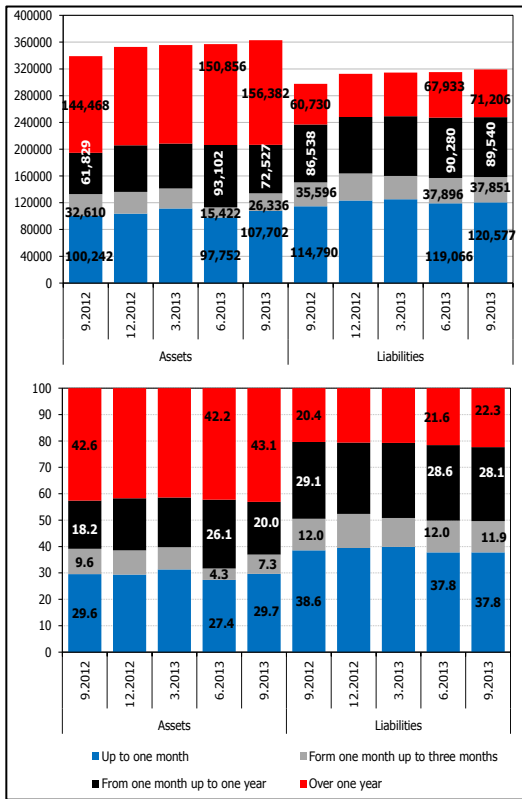
\*\* The category of other funding sources includes all sources of funding which are not deposits of nonfinancial companies (equity and reserves, deposits of financial institutions, loans, subordinated instruments etc.) and the increase of impairment of financial and nonfinancial assets.

In the third quarter of 2013, the sources of funding from banks' foreign parent entities significantly decreased by Denar 2,256 million or 12.3%. This decline stems entirely from the reduction of short-term funding sources that some domestic banks used during the first half of 2013, due to either deleverage and return of assets by domestic banks or because of their transformation into long-term sources of funding. The total banks' sources of funding increased quarterly, primarily due to the growth of deposits of nonfinancial companies, which was sufficient to offset the cut of the funding sources based on borrowings, interbank transactions and deposits of financial institutions. In the third quarter of 2013, more than 90% of the total growth of the banks' sources of funding resulted from the increase of long-term sources of funding (quarterly growth of 4.1%), and about two-thirds of this growth is due to deposits of nonfinancial companies, and about one-third is due to the sources of funding from parent entities. In the third quarter of 2013, short-term funding sources marginally increased by 0.1%, due to the decline of short-term loans and deposits of financial institutions, which was offset by the growth of deposits of nonfinancial companies.

In the third quarter of 2013, the inflow of new sources of funding for the overall banking system resulted solely from the deposit growth, as opposed to the previous quarter, when deposits experienced a quarterly decline in the cash flow structure of the banking system. On the other hand, in the third quarter, the structure of cash outflows<sup>28</sup> was quite diverse. However, investments of banks in financial instruments that constitute liquid assets had the largest share of 37.1%, while the credit growth and the growth of other assets had almost equal share of approximately 22%, each. This structure of cash

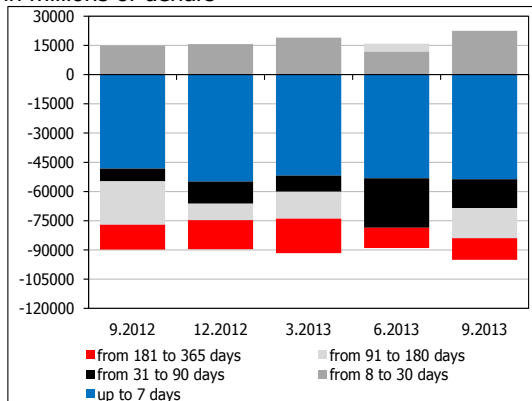
<sup>28</sup> Cash inflows and cash outflows of banks are obtained in an indirect way, i.e. by changing the balances of individual accounts of the banks' balance sheet. The effect on the cash flows of the banks, which is due to the costs and income that do not represent cash outflow or inflow (e.g. write-offs of loans, revaluation of securities available for sale or held for trading, depreciation of fixed assets, net exchange differences, etc..) is an integral part of the change in the corresponding balance sheet items, the corresponding inflow or outflow refers to.

**Chart 46**  
**Banks' assets and liabilities by contractual residual maturity - absolute terms (up) and structure (down)**  
in millions of denars and in %



Source: NBRM, based on data submitted by banks.

**Chart 47**  
**Contractual residual maturity (mis)match between assets and liabilities, by maturity segments**  
in millions of denars



Source: NBRM, based on data submitted by banks.

flows shows gradual reduction of the banks' aversion to credit risk, which is still present.

**The positive quarterly changes in the structure of banks' assets and liabilities under the contractual residual maturity continued in the third quarter of 2013.** Only assets in maturity bucket of three months to one year decreased, which is primarily caused by the restructuring of the maturity profile of securities available for sale. On the other hand, there was a stronger growth in the assets with shorter maturity buckets (up to one month and from one to three months). The growth of banks' liabilities with residual maturity of over one year was stronger, primarily due to a strong preference of the households to save in the long run. Moreover, liabilities with residual contractual maturity of up to one month went up due to the quarterly acceleration of the growth of demand deposits, especially of companies. Thus, the share of liabilities with residual maturity of over one year increased, while the share of liabilities with residual maturity of up to one month remained unchanged (annex 27).

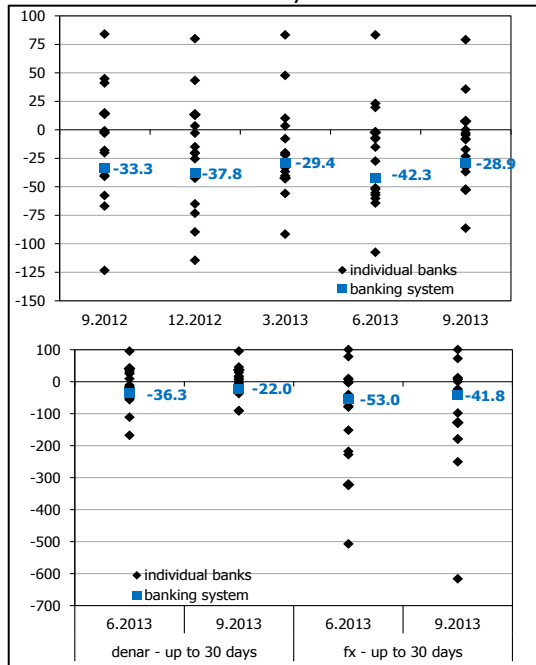
In the third quarter of 2013, most maturity buckets recorded negative difference between the contractual residual maturity of banks' assets and liabilities, with the exception of the maturity bucket from 8 to 30 days.

**The relative importance of the cumulative negative gap between assets and liabilities of banks according to their contractual residual maturity of up to 30 days somewhat reduced in the third quarter of 2013.** This phenomenon was caused primarily by the positive changes in assets with contractual residual maturity of up to 30 days, which registered a quarterly growth of Denar 9,950 million, compared to the liabilities with same residual contractual maturity that rose in the third quarter by Denar 1,511 million. Hence, on a quarterly basis, the difference, as a percentage of aggregate assets of the same contractual maturity (30 days), decreased by 13.4 percentage points. As of 30 September



**Chart 48**  
**Cumulative difference between banks' assets and liabilities according to the contractual residual maturity of up to 30 days, total (up) and by currency (up) as of 30 September 2013 (down)**

as a percentage of cumulative assets with same contractual residual maturity



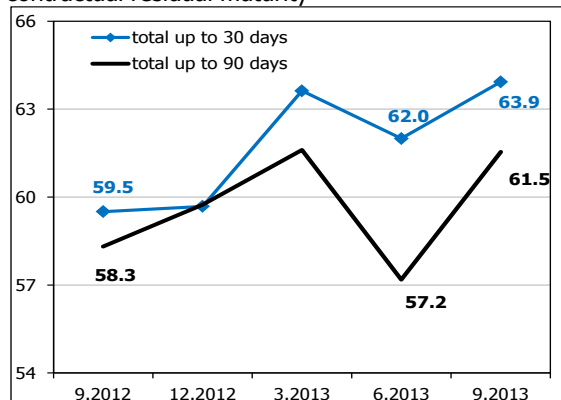
Source: NBRM, based on data submitted by banks.

2013, three banks reported a positive cumulative difference between assets and liabilities with contractual residual maturity of up to 30 days. Furthermore, a reduction of the aggregate difference between assets and liabilities by contractual residual maturity of up to 30 days is almost equally observed in the cumulative gap in denars and in foreign currency. The relative importance of the aggregate difference between foreign currency assets and liabilities is more dispersed with individual banks than the relative importance of aggregate difference between Denar assets and liabilities.

According to the expected maturity, there is a positive cumulative difference between assets and liabilities of banks in all maturity buckets, due to the banks' expectations for stability of deposits as the main source of funding for their activities. Namely, according to the banks' expectations (annex 28), as of 30 September 2013, 80.2% of deposits with residual maturity of up to three months (80.3% as of 30 June 2013) is stable and should remain in banks in the next three months. The expected stability is higher in demand deposits (87.4%), versus the slightly lower expected percentage of stability in time deposits (78.9%).

**Chart 49**  
**Cumulative difference between banks' assets and liabilities with expected residual maturity of up to 30 days**

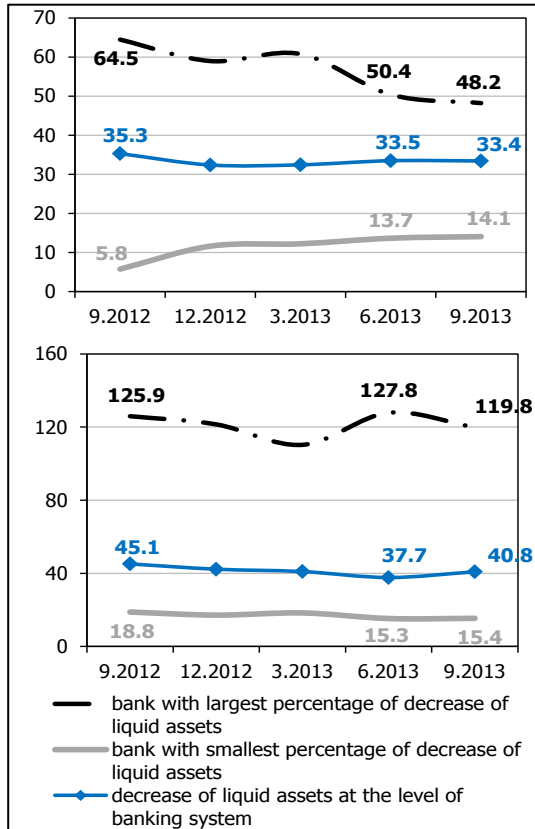
as a percentage of cumulative assets with same contractual residual maturity



Source: NBRM, based on data submitted by banks.

**In the third quarter of 2013, the resilience of the Macedonian banking system to simulated liquidity shocks is satisfactory.** This primarily stems from the volume of liquid assets held by banks, which have created considerable capacity for dealing with any outflow of funding sources. Typically, the banking system is a bit more sensitive to the simulated withdrawal of deposits of twenty largest depositors, compared with the simulation of withdrawal of 20% of the household deposits. The stress testing showed that the share of liquid assets in total assets at a simulated withdrawal of deposits of twenty largest depositors would decrease from 32.2% to 21.6%, while at the simulation of withdrawal of 20% of the household deposits, the share of liquid assets in total assets would equal 23.6%. The coverage of short-term

**Chart 50**  
**Results of simulations for withdrawal of:**  
**- 20% of household deposits (up) and**  
**- deposits of twenty largest depositors (down)**  
 in %



Source: NBRM, based on data submitted by banks.

liabilities<sup>29</sup> in these simulations would reduce by 10.1 and 13.0 percentage points, respectively, while the coverage of total deposits with liquid assets would decrease by 9.6 and 12.3 percentage points, respectively. The liquid assets are sufficient to cover more extreme simulation of withdrawal of 50% of the household deposits, and in this case, it would reduce to 82.7%, and its share in total assets would equal 7.5%, where only three banks would report shortage of liquidity to cover this one-time shock. Simulation which includes outflow of sources of funding from foreign parent entities of the domestic banks<sup>30</sup> confirms the stable liquidity position of the banks in Macedonia. Thus, at any withdrawal of these sources of funding from parent entities, the liquid assets of the banking system would reduce by 8.6%, while the share of liquid assets in total assets would be lower by 2.6 percentage points, while the liquid assets of individual banks would decrease in a range from 0.3% to 48.4%.

<sup>29</sup> The simulations assume that deposits that are leaking out of the banks are of short-term maturity and are included in the short-term liabilities.

<sup>30</sup> Except for subordinated and hybrid capital instruments whose payment is specifically regulated by the National Bank.

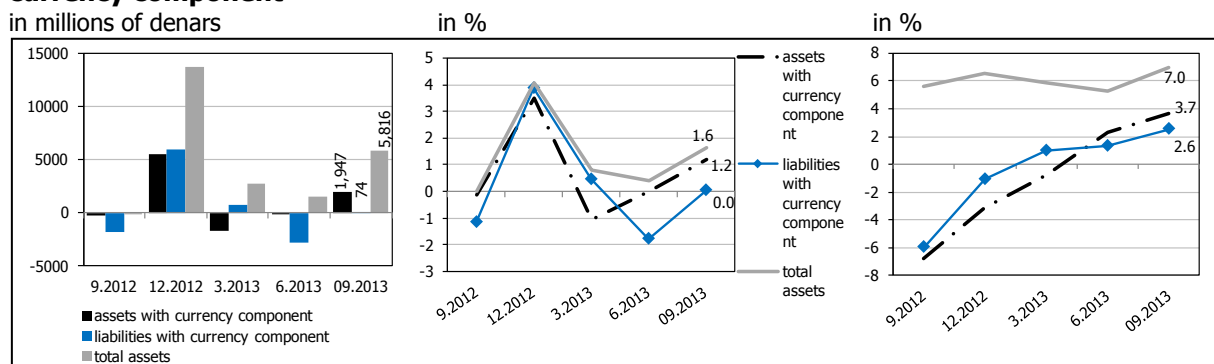




### 3. Currency risk

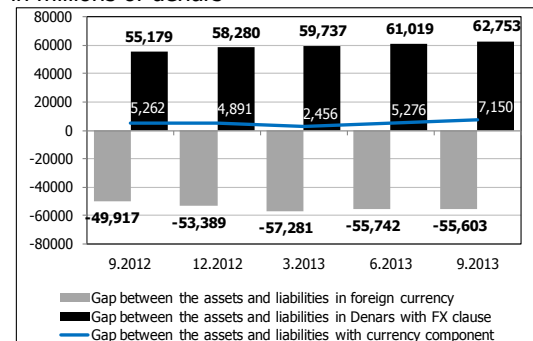
In the third quarter of 2013, the positive gap between assets and liabilities with a currency component increased, but the banks' currency risk remains low. Despite the low share of the gap in own assets, the reason behind the low exposure to currency risk lies in the strategy of fixed exchange rate of the Denar against the Euro, given the prevailing role of the euro among other foreign currencies. In this quarter, the share of currency component in the assets and liabilities of the banking system kept on reducing.

**Chart 51**  
Quarterly (left and middle) and annual (right) growth of assets and liabilities with currency component



Source: NBRM, based on data submitted by banks

**Chart 52**  
Structure of gap between assets and liabilities with currency component



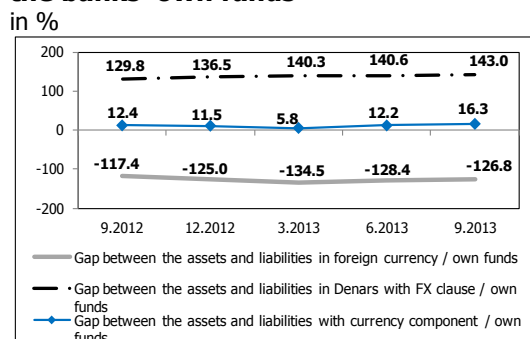
Source: NBRM, based on data submitted by banks

In the third quarter of 2013, the gap between assets and liabilities with a currency component<sup>31</sup> amounted to Denar 7,150 million. Compared with the previous quarter, this gap widened by Denar 1,873 million, primarily due to the growth of Denar assets with FX clause<sup>32</sup>.

<sup>31</sup>The gap between assets and liabilities with a currency component is the difference between assets and liabilities with a currency component as determined in the methodology for managing currency risk, where the assets with currency component are presented on a net basis, i.e. less the impairment of assets with currency component classified in C, D and E risk categories.

<sup>32</sup> In the third quarter, banks' investments in government bonds in Denars with FX clause increased by Denar 1,489 million. Long-term Denar loans with FX clause of natural persons also increased by Denar 715 million. On the other hand, the growth of assets with a currency component was primarily driven by current accounts of banks with foreign banks that increased by Denar 1,675 million. However, due to the reduction of foreign currency loans to companies of Denar 1,789 million, the growth of foreign currency assets had less impact on the growth of total assets with currency component.

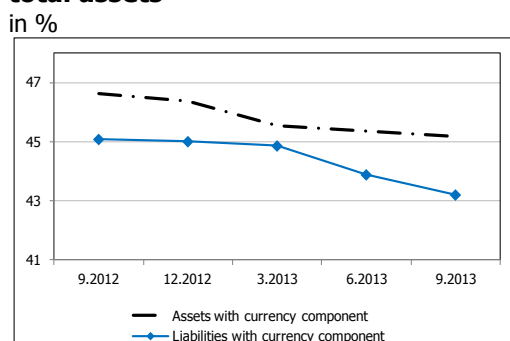
**Chart 53**  
Share of gap between assets and liabilities with a currency component in the banks' own funds



Source: NBRM, based on data submitted by banks

The increasing gap between assets and liabilities with a currency component enhanced its share in banks' own funds by **4.1 percentage point**. However, this ratio still indicates a low level of exposure of the banking system to currency risk.

**Chart 54**  
Share of assets and liabilities with currency component\* in the banks' total assets



Source: NBRM, based on data submitted by banks

\* Positions classified in C, D and E risk categories are presented on a net basis (reduced by the amount of the impairment). Positions classified in A and B risk categories are presented in full amount (on a gross basis).

The share of assets and liabilities with currency component in the total assets of the banking system went down in the third quarter. As in the previous quarter, the currency component of liabilities decreased at a faster pace.

The euro dominates the structure of assets and liabilities with a currency component, accounting for nearly 90%.

**Table 3**  
Currency structure of assets and liabilities with currency component

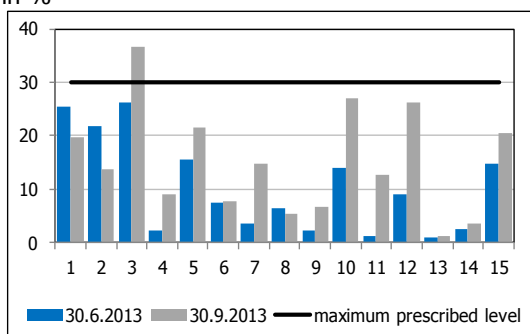
in %

Currency	30.9.2012		30.6.2013		30.9.2013	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
<b>Euro</b>	88.9	88.4	89.1	88.4	89.2	88.5
<b>US dollar</b>	6.6	7.2	6.6	7.3	6.6	7.2
<b>Swiss franc</b>	2.0	2.0	1.9	2.0	1.9	2.0
<b>Other</b>	2.5	2.3	2.3	2.3	2.3	2.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: NBRM, based on data submitted by banks



**Chart 55**  
**Aggregate currency position to own funds ratio, by individual bank**  
 in %



Source: NBRM, based on data submitted by banks

**As of 30 September 2013, all banks fulfilled the prescribed limit on aggregate currency position (30% of own funds), but one bank, whose noncompliance lasted for only one day.**

**Table 4**  
**Distribution of banks by share of open foreign currency position, by currency in own funds**

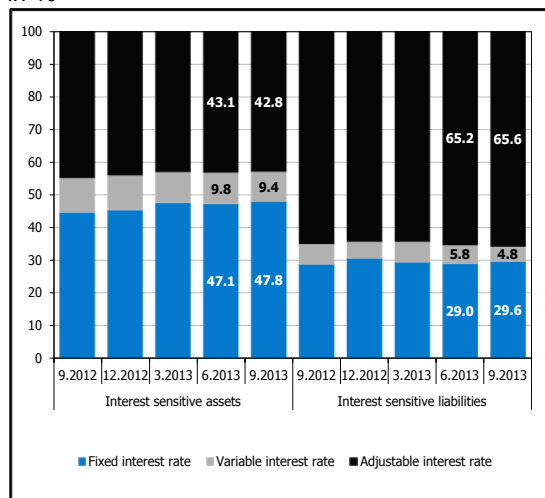
Open currency position by currency / own funds	Number of banks							
	Euro		US Dollar		Swiss franc		Other	
	Long	Short	Long	Short	Long	Short	Long	Short
<b>under 5%</b>	1	2	11	3	9	4	12	2
<b>from 5% to 10%</b>	3							
<b>from 10% to 20%</b>	6							
<b>from 20% to 30%</b>	2							
<b>over 30%</b>	1							

Source: NBRM, based on data submitted by banks

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

In the third quarter of 2013, banks' exposure to interest rate risk in the banking book is still low. Banks are still allowed to adjust the interest rates in accordance with their business policies, by using adjustable interest rates<sup>33</sup>. Avoiding any adverse interest rate effect, the banks continue to transfer the interest rate risk to the borrowers, thus turning it into credit risk.

**Chart 56**  
**Structure of interest sensitive assets and liabilities, by type of interest rates**  
 in %



Source: NBRM, based on data submitted by banks.

The structure of **interest sensitive assets** by type of interest rate is almost identical to the previous quarter. The positions with fixed interest rate (47.8%) still slightly exceed the positions with adjustable interest rate (42.8%), due to the presence of fixed interest rates for most items of interest sensitive assets: allocated reserve requirement (100%), investments in securities (98.7%) and investments in deposits (95.1%). However, adjustable interest rates are the most evident in loans which are the most common financial instruments in the structure of interest sensitive assets (61.8%). Loans with adjustable interest rate account for 69.2% of total loans, which actually represents the total assets with adjustable interest rates<sup>34</sup>.

Adjustable interest rates have boosted its share in the **interest sensitive liabilities**. Almost all demand deposits (99.7%) and a significant proportion (65.8%) of time deposits<sup>35</sup> are with adjustable interest rates.

**The gap between interest sensitive assets and liabilities is positive in positions with fixed and variable interest rate<sup>36</sup>, and negative in positions with adjustable interest rate<sup>37</sup>.** In the third quarter of 2013, the

<sup>33</sup>Interest rates are adjusted unilaterally because of the changes in interest rate policy of the bank, rather than due to a particular interest rate. The use of adjustable interest rates ensures effective management, avoidance or risk transfer and could serve as an instrument for managing liquidity and profitability.

<sup>34</sup> Loans with adjustable interest rate account for 99.9% in total interest sensitive assets with adjustable interest rates.

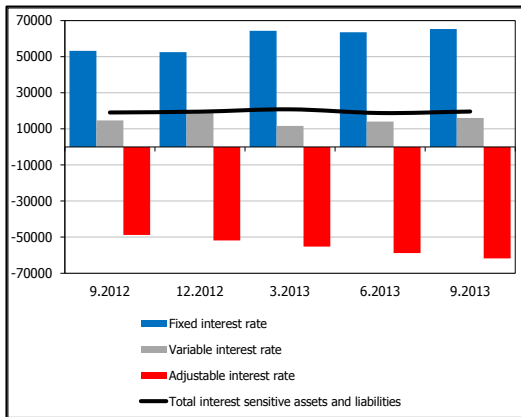
<sup>35</sup> Demand deposits and time deposits with adjustable interest rate account for 5.5% and 59.8%, respectively, in total interest sensitive liabilities with adjustable interest rates.

<sup>36</sup> The positive gap of fixed interest rate positions arises from the fact that this type of interest rate prevails in most items of interest-sensitive assets, namely in allocated reserve requirement, securities and banks' investments in deposits, while in the positions with variable rates, it results from the fact that a large portion of sight assets have adjustable interest rates.

<sup>37</sup> The negative gap in positions with adjustable interest rates stems from the fact that significant portion of time deposits and almost all sight liabilities have adjustable interest rates.

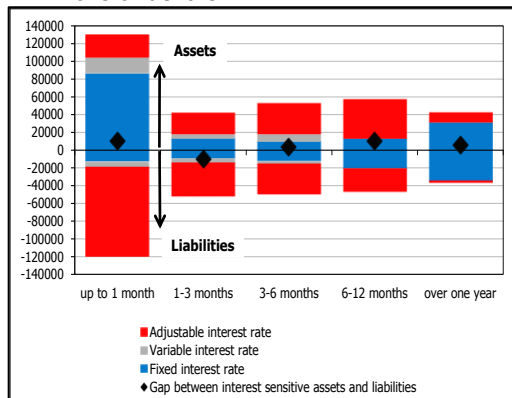


**Chart 57**  
**Gap between interest sensitive assets and liabilities, by type of interest rate**  
 in millions of denars



Source: NBRM, based on data submitted by banks.

**Chart 58**  
**Interest sensitive assets and liabilities, by maturity and type of interest rate**  
 in millions of denars



Source: NBRM, based on data submitted by banks.

gap expanded in all types of interest rates, primarily in variable interest rates (generally due to the more intense decrease of loan liabilities arising from the lower claims based on loans with variable interest rates).

**The third quarter of 2013 witnessed a greater equilibrium between interest sensitive assets and liabilities in almost all maturity buckets.** Slightly greater exposure of banks to the interest rate risk is present in the maturity bucket from six to twelve months, and the maturity bucket of up to one month (in these two buckets, the interest sensitive gap between assets and liabilities is the largest). The adjustable interest rates play the leading role in most maturity buckets of interest sensitive assets and liabilities, with the most pronounced share being that of the interest sensitive liabilities with lower maturities, given the demand deposits. The maturity structure of positions with adjustable interest rates represents the banks' expectations for the period until the next "adjustment" of the interest rates (from six to twelve months for assets with adjustable interest rates and up to a month for liabilities with adjustable interest rates).

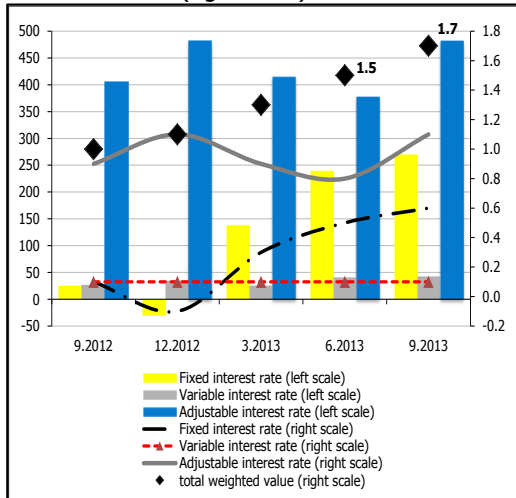
**In the third quarter of 2013, the ratio between the total weighted value of the banking book<sup>38</sup> and own funds, despite the increase of 0.2 percentage points, is still low (1.7%).** This ratio indicates an extremely small interest rate risk in the banking book of the banks in the Republic of Macedonia. Analyzing by banks, the ratio between the total weighted value of the banking book and own assets ranges from 0.1% to 10.1% with a median of 2.2% and a third quartile of 3.4%, with the highest ratio being registered in the bank that does not apply adjustable interest rates. When the current legislation in this domain is inconsistent regarding the use of clauses for unilateral adjustability of interest rates (there are neither provisions for determining and changing the interest rates, nor

<sup>38</sup> The total weighted value of the banking book of the banking system is obtained by aggregating the weighted values of the banking book of individual banks. For an individual bank, the ratio between the weighted value of the banking book and the bank's own funds may equal up to 20%.

**Chart 59**  
**Weighted value (left scale) and total weighted value of banking book to own assets ratio (right scale, by type of interest rate**

in millions of denars (left scale)

% of own funds (right scale)



Source: NBRM, based on data submitted by banks.

a definition of adjustable interest rates), there are still no expectations of major changes that would increase the level of this risk for the banks. There is still a potential credit risk that may be caused by the risk to the customer arising from the application of adjustable interest rates, if banks unilaterally increase such interest rates. However, in conditions of interest rate cap (in accordance with the Law on Obligations) and the historically lowest rate of the National Bank, one should not expect a significant increase of interest rates, which would affect the creditworthiness of borrowers.

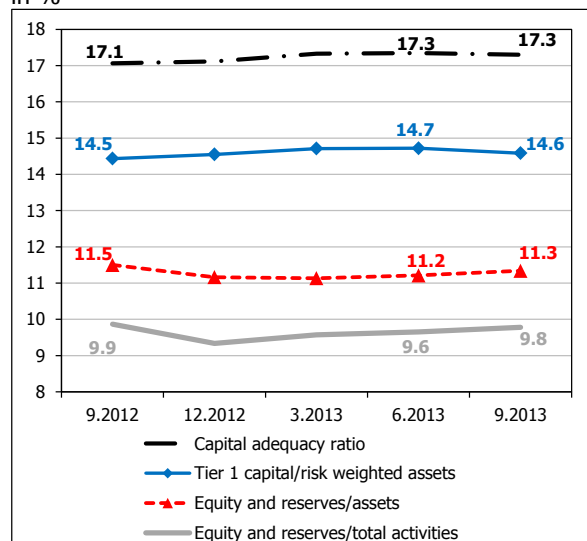


## 5. Insolvency risk

The solvency of the banking system recorded no significant changes in the third quarter of 2013, with the capital adequacy ratio remaining at 17.3%. The banks' own funds increased because of the growth of revaluation reserves, the issuance of two new subordinated instruments and the reduction of the current loss as deductible from the core capital. On the other hand, a quarterly increase was registered in the capital requirements for currency risk due to the expansion of the net long position in euro, and for credit risk, mainly due to the increase of the claims based on a retail loan portfolio and claims on banks. The results of stress tests conducted as of 30 September 2013, showed that the banking system remains resilient to hypothetical shocks.

**Chart 60**  
**Solvency ratios**

in %



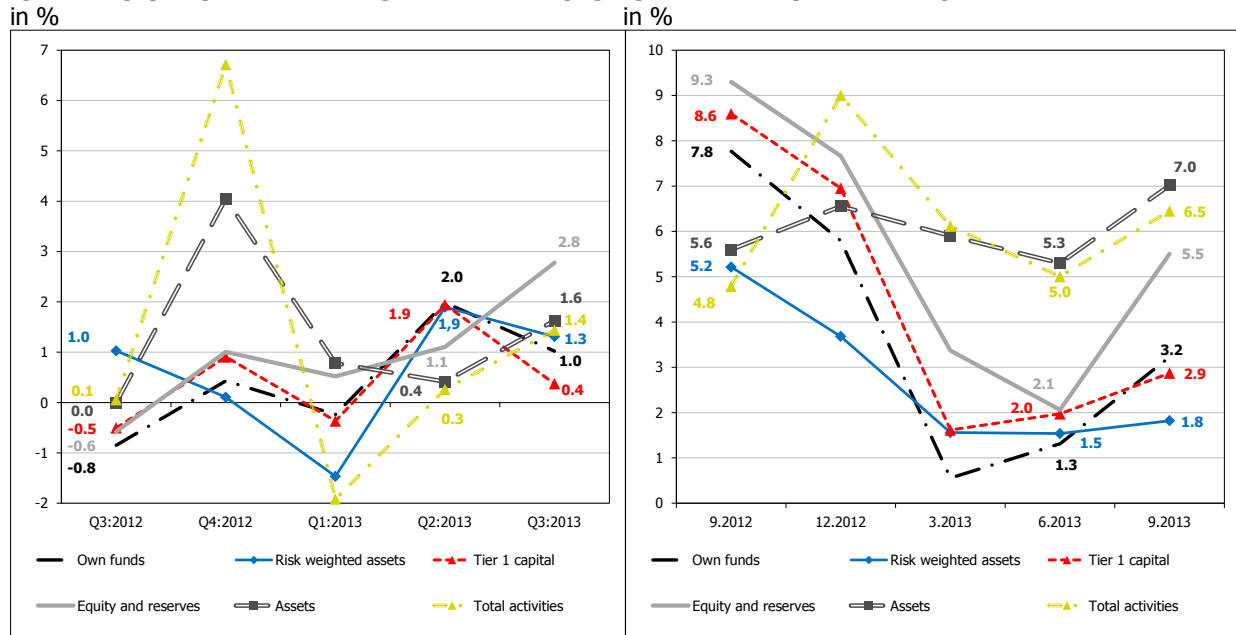
Source: NBRM, based on data submitted by banks.

### 5.1. Indicators for the solvency and capitalization of the banking system

The solvency indicators of the banking system recorded no significant changes in the third quarter of 2013, resulting from the similar dynamics of the quarterly change of their components. The capital adequacy ratio registered no changes in the last three quarters, but its level is more than twice the legally prescribed minimum. Indicators for the core capital to risk-weighted assets ratio and the equity and reserves to total assets ratio recorded minimal change of 0.1 percentage points, but in the opposite direction<sup>39</sup>. The largest quarterly improvement of 0.2 percentage points was registered by the coverage ratio of total bank activities with equity and reserves. The annual growth rates of assets and overall bank activities are several times higher than the annual growth of risk-weighted assets, which suggests further caution of banks in taking risks.

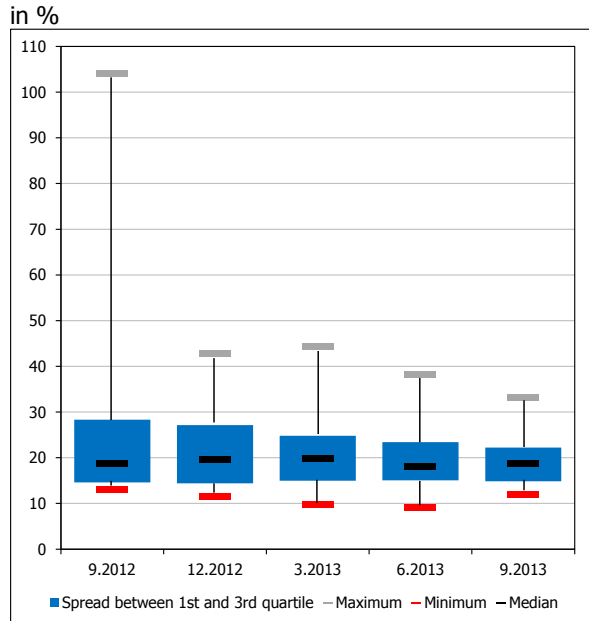
<sup>39</sup> The divergent movement in these two indicators was determined by the change in a bank from the group of large banks that decided to keep the profits from 2012 as capital and reserves, but as available for distribution to shareholders, which prevented its inclusion in the bank's core capital and own funds.

**Chart 61**  
**Quarterly (left) and annual growth rates (right) of solvency ratio components**



Source: NBRM, based on data submitted by banks.

**Chart 62**  
**Statistical measures for the capital adequacy ratio**



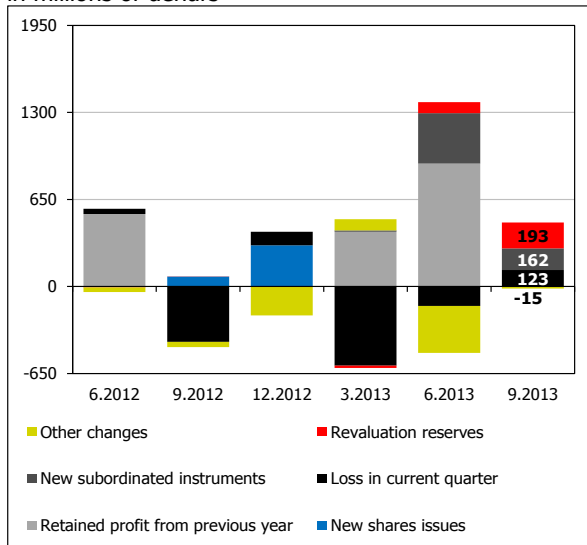
Source: NBRM, based on data submitted by banks.

The past one-year period (30 September 2012 - 30 September 2013) registered a little more pronounced convergence of domestic banks, according to the capital adequacy ratio. Thus, in the analyzed period, the difference between the capital adequacy ratios of individual banks in the first and the third quartile halved, while the difference between the bank with the highest and the bank with the lowest capital adequacy ratio fell by almost 70 percentage points. On the other hand, as of 30 September 2013, the lowest capital adequacy ratio observed in individual bank rose to 12%. However, the differences in the banks' capital adequacy ratio diminish primarily because of the reduction of this ratio in banks with higher capital adequacy.



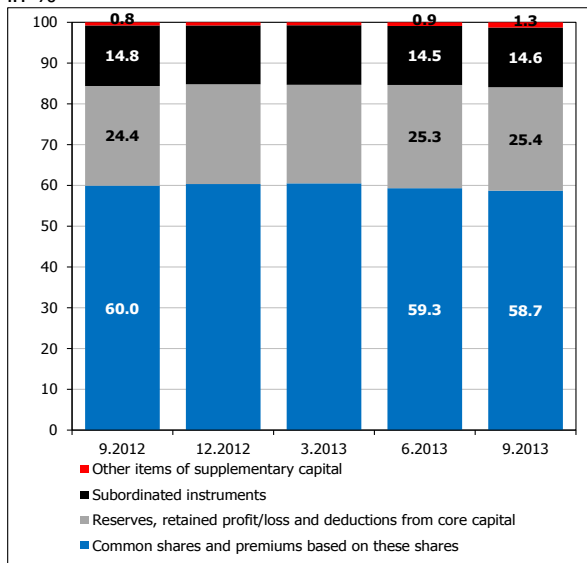


**Chart 63**  
**Structure of quarterly growth of own funds**  
in millions of denars



Source: NBRM, based on data submitted by banks.

**Chart 64**  
**Structure of own funds\***  
in %



Source: NBRM, based on data submitted by banks.

\*Before deductibles from the core and supplementary capital.

## 5.2. Developments and quality of the own funds of the banking system

In the third quarter of 2013, the banks' own funds increased by Denar 463 million (or 1%). The largest contribution to the increase of own funds was made by revaluation reserves, which are part of the banks' supplementary capital. In the third quarter of 2013, revaluation reserves of the banking system increased by Denar 193 million (or 219.1%), mostly in one large bank. Revaluation reserves of this bank were formed by the closed impairment of a claim that was settled by foreclosing<sup>40</sup> its collateral. The issuance of two new subordinated instruments, in total of Denar 162 million, is yet another reason for the growth of supplementary capital of the banking system<sup>41</sup>. In the structure of core capital of the banking system, only the current loss of banks recorded a significant downward shift of Denar 123 million, which contributed to the overall quarterly growth of own funds.

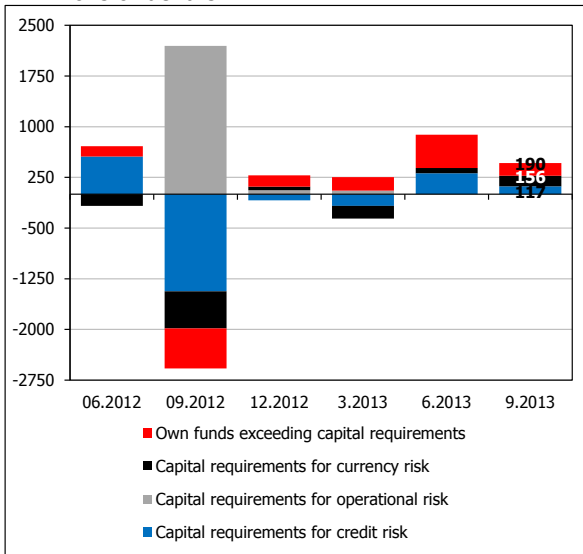
For more details about the level of own funds by individual group of banks, see annex 32.

<sup>40</sup> In accordance with the Decision on the accounting and regulatory treatment of the foreclosed assets (Official Gazette of the Republic of Macedonia No. 50/13), banks are obliged to recognize as revaluation reserve, the positive difference between the closed impairment / special reserve of the claim which was settled by foreclosing its collateral and the impairment of the foreclosed asset. According to the decision, this type of reserves can be reduced (excluded from the calculation of own funds) only in case of sale of the foreclosed asset for which revaluation reserve has been allocated.

<sup>41</sup> Subordinated instruments were issued by two banks of the group of small-size banks, with the parent entities of banks being investors.

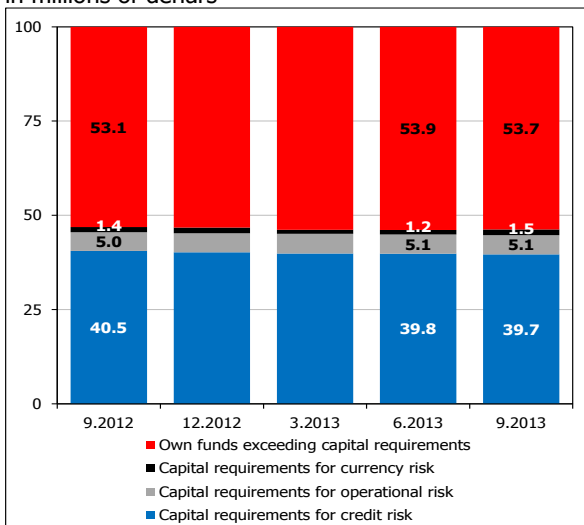
### 5.3. Developments and structure of the capital requirements and the available capital of the banking system

**Chart 65**  
Structure of quarterly growth of own funds, by the purpose for covering risks in millions of denars



Source: NBRM, based on data submitted by banks.

**Chart 66**  
Structure of own funds, by the purpose for covering risks in millions of denars



Source: NBRM, based on data submitted by banks.

In the third quarter of 2013, the regulatory capital requirement for covering risks of the banking system (or capital requirements)<sup>42</sup> increased by Denar 273 million (or 1.3%). Most of the increase of the capital requirements resulted from the increased exposure of the banking system to currency risk. Capital requirements for currency risk increased by Denar 156 million (or 28.4%) due to the enhancement of the net long position in euros, which is due to the faster growth of assets in euros (Denar 16,030 million) compared with the increase of liabilities in euros (Denar 13,988 million)<sup>43</sup>, defined for the purposes of calculating the capital requirement for currency risk<sup>44</sup>. Capital requirements for credit risk rose to Denar 117 million (or 0.7%), which mostly stems from the growth of claims based on a retail loan portfolio, and partly from higher claims on foreign banks. Own funds above the minimum level necessary to cover risks increased by Denar 190 million (or 0.8%), continuing the upward trend of "free" capital in the banking system.

For more details of the capital requirements for covering risks and the capital adequacy ratio, by individual group of banks, see annex 33.

<sup>42</sup> Capital requirements are determined at the level of 8% of the risk-weighted assets.

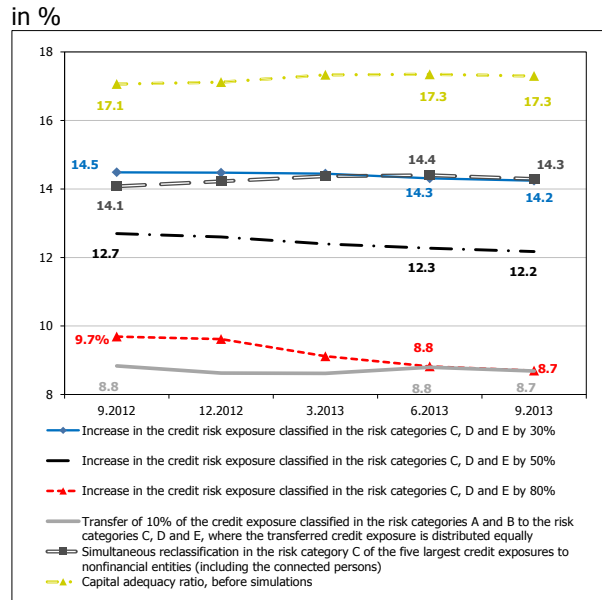
<sup>43</sup> Determined in accordance with the Decision on the methodology for determining capital adequacy.

<sup>44</sup> As of 30 September 2013, one bank of the group of medium-size banks met the requirement to be released from calculating and holding capital requirement for currency risk (it is the only bank, which as of 30 September 2013 is not required to determine and hold capital requirement for currency risk).



### 5.4. Stress test of the resilience of the banking system to hypothetical shocks

**Chart 67**  
**Capital adequacy ratio of the banking system, prior and after simulations of credit shocks**

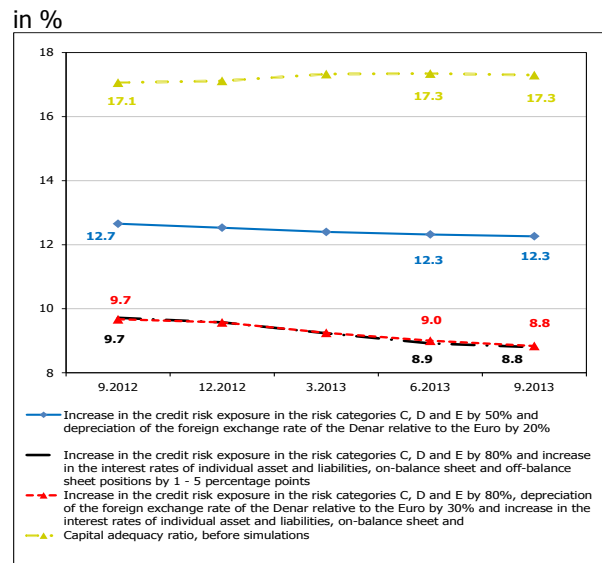


Source: NBRM, based on data submitted by banks.

Stress testing of the resilience of the banking system and individual banks in the Republic of Macedonia to simulated shocks indicates slightly poorer results compared to the 30 June 2013. Capital adequacy of the banking system remains above 8% in both simulations, although some banks show hypothetical need to recapitalize in the event of materialization of the simulated shocks.

**The hypothetical shocks on the side of the credit risk have the greatest impact on the stability of the banking system.** In the most extreme simulations presented in this report (growth of higher credit risk exposure of 80% and migration of 10% of the credit exposure classified in A and B risk categories to higher risk categories), the capital adequacy ratio of the banking system reduced to 8.7%, which is still above the statutory minimum of 8%. The simulations show that the capital adequacy ratio of the banking system would fall below 8% if the higher credit risk exposure increases by 86.2% or if 10.7% of credit exposure classified in A and B risk categories migrate to higher risk categories (according to these simulations, the share of nonperforming loans in total loans would increase from the current 11.2% to 20.8%).

**Chart 68**  
**Capital adequacy ratio of the banking system, prior and after simulations of combined shocks**

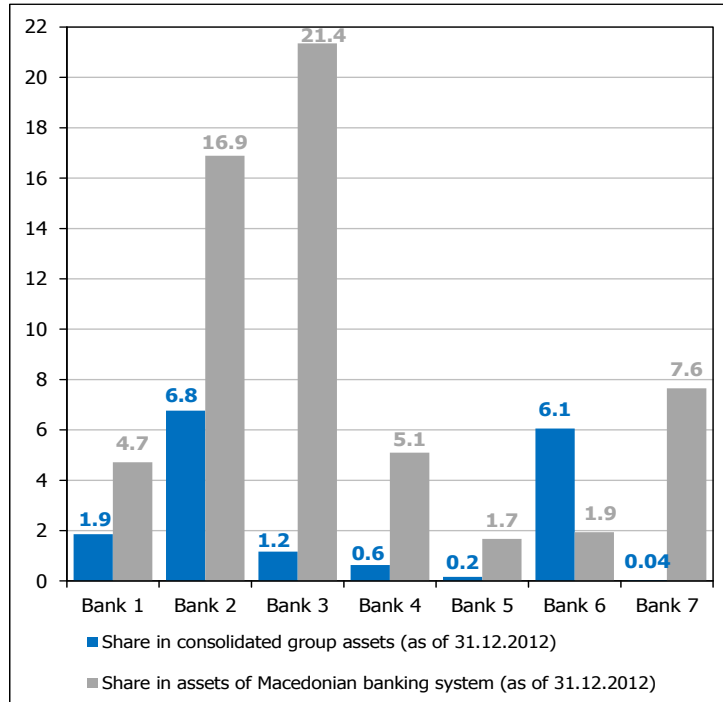


Source: NBRM, based on data submitted by banks.

**Isolated shocks on the side of currency risk and interest rate risk have no significant impact on the level of capital adequacy.** However, their achievement would cause shocks on the side of the credit risk, whose impact on the capital adequacy of the banking system was already presented above.

**Assessment of the impact of activities of the domestic banks that are subsidiaries of foreign banks on their capital adequacy and capital adequacy ratio, set for the banking groups<sup>45</sup>**

**Chart 69**  
**Size of domestic banks that are subsidiaries of foreign banks**  
 in %



Source: NBRM, based on data submitted by banks and websites of banking groups

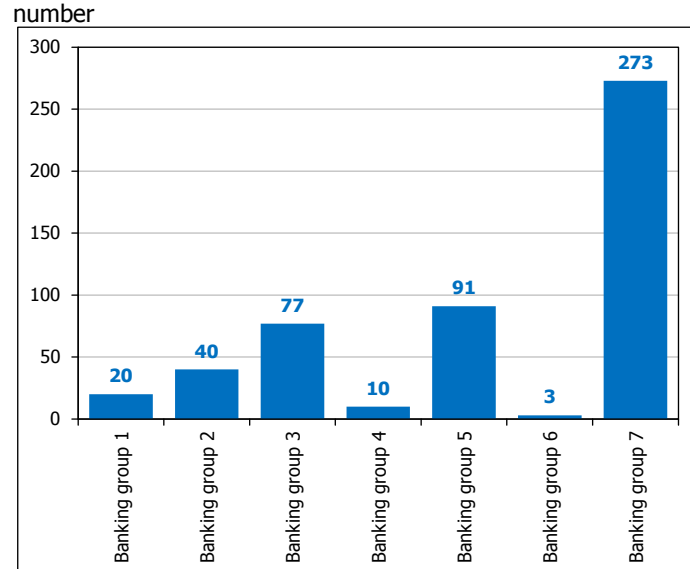
Seven banks that are subsidiaries of foreign banks operate in the Republic of Macedonia. Six of the banking groups, which have their subsidiaries in Macedonia, are based in EU member states, five of whom are based in countries of the euro area, which in recent years was first hit by the financial crisis and then by the crisis of unsustainable government debt. The crisis caught unawares many of the banks originating from the EU, after which they started to recover gradually followed by increased regulatory and supervisory requirements, imposed by the bank regulators. The latter is particularly evident in relation to solvent positions of the banking groups based in the EU, which were strengthened by the financial support from the governments, and even more, by reducing the total volume of operations or financial leverage, in particular subsidiaries that operate outside the EU. The implementation of strategy of financial leverage and

setting lower (than the real potential) targets of growth of the loan portfolios of the banking group members affected the credit support of the real sector, especially in emerging economies outside the EU, whose banking systems host subsidiaries of foreign banks based in the EU, which, in turn, made it difficult to overcome the crisis and re-promote rapid and sustainable development. The latter, more or less, is the case in Macedonia, where banks that are subsidiaries of foreign banks account for about 60% of the assets in the banking system and some of them are systemically important banks for the financial stability of the country. Thus, the total volume of activities of the domestic banking system is largely determined by the level of involvement of banks that are subsidiaries of foreign banks and indirectly by policies that are implemented by their banking groups. In contrast, the shares of these banks in the assets (and in some important categories of activities) of the banking groups are relatively small, and in some cases even insignificant, **so that their impact on the banking groups' operations or on the level of some more important indications that are calculated and monitored on a consolidated basis, is limited.**

<sup>45</sup> The sequence of the domestic banks in all charts of this box is identical and corresponds to the sequence of banking groups to which they belong.

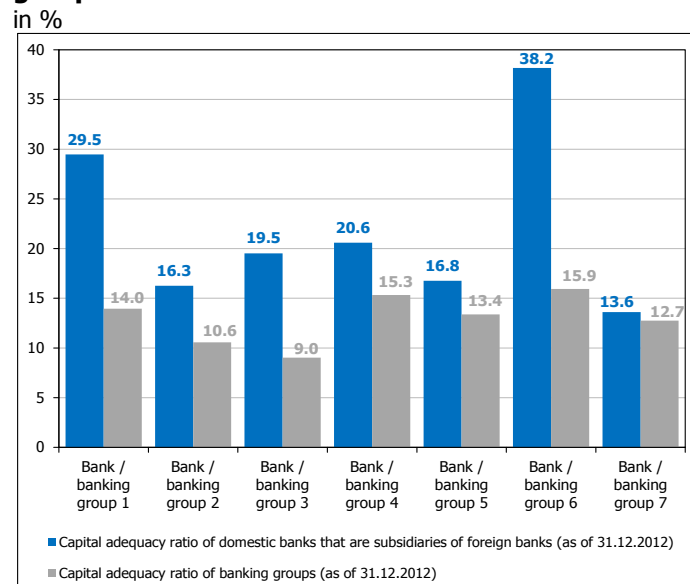
Below are given data used to measure the potential impact of activities of the Macedonian banks that are subsidiaries of foreign banks on the capital adequacy ratio calculated

**Chart 70**  
**Number of consolidating entities (fully and partially), by banking group**



Source: Websites of banking groups

**Chart 71**  
**Capital adequacy ratio of domestic banks that are subsidiaries of foreign banks and their banking groups**



Source: NBRM, based on data submitted by banks and websites of banking groups

(on a consolidated basis) by banking group. It also presents data on the capital needed by a banking group, for support of the growth of the loan portfolio of the Macedonian banks-members of these groups of 5% and 10%.

Note that only the isolated impact on the activities of domestic banks on the capital adequacy of the banking groups is being assessed, neglecting the business interests to increase the scope of activities with other members of the banking group, which, at least, are the same as those of Macedonian banks. An additional assumption is that the capital adequacy ratio of the banking groups, as of 31 December 2012, is considered as a reference ratio, not taking into account any supervisory and regulatory requirements from the authorities of the domicile countries of the parent entities of the banking groups nor, plans and objectives of the management for the next period, which may affect the capital adequacy ratio of the banking groups. In the calculation of risk-weighted assets of the banking groups, the total activities of domestic banks are included with a risk weight of 100%.

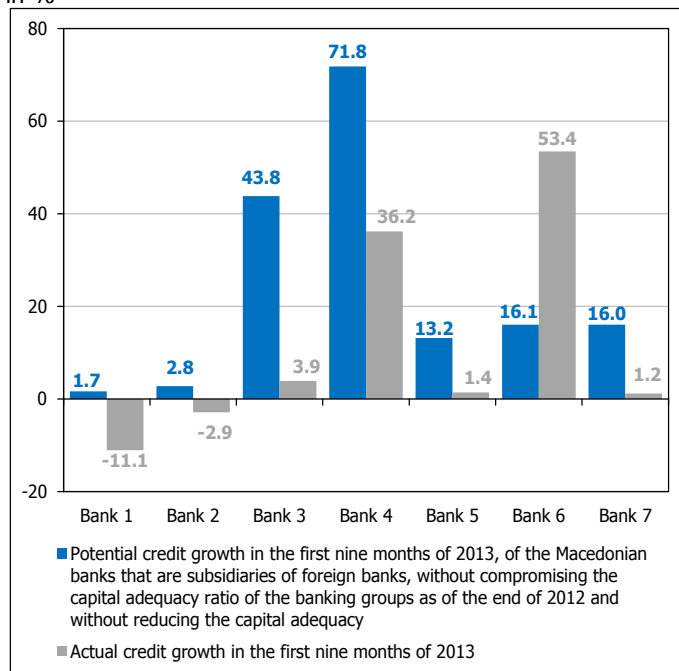
In the first nine months of 2013, the scope of activities of almost all domestic banks that are subsidiaries of foreign banks had no effect on the capital adequacy ratio of the banking groups. The exception is a domestic bank, which had a slightly higher growth of total activities and hence, its banking group would need additional Euro 3.05 million of own funds (or 1.6% of total

own funds of the group as of 31 December 2012) to maintain the already high capital adequacy ratio of the group, recorded at the end of 2012.

Macedonian banks that are subsidiaries of foreign banks could increase loans to nonfinancial companies in the first three quarters of 2013, in the amount which by individual bank ranges from Euro 2.8 million to Euro 359.69 million (from 1.7% to 71.8%), without having to compromise the level of capital adequacy of the banking groups, as of the end of 2012 (or to reduce the capital adequacy ratio of the Macedonian banks below 12% and 15%). Thus, except in the case of the bank mentioned above, the other six domestic banks under observation registered a credit growth that is far below the potential, and some reported a decline in the lending activity in the first nine months of 2013.

**Chart 72**  
**Potential and actual credit growth in the first nine months of 2013, of the Macedonian banks that are subsidiaries of foreign banks, without compromising the capital adequacy ratio of the banking groups as of the end of 2012 and without reducing the capital adequacy of the domestic banks below 12% and 15%**

in %



Source: NBRM, based on data submitted by banks and websites of banking groups

Considering the potential credit growth rates of domestic banks, without causing the capital adequacy ratio of their banking groups to fall below the level at the end of 2012, only two of the analyzed banks would need additional own funds at the level of the banking group to support credit growth of 5% and 10%. These domestic banks required Euro 0.92 million and Euro 1.7 million, respectively, additional own funds at the level of their banking groups (which is 0.1% of the own funds of these banking groups), to support credit growth of 5%, without compromising the initial level of capital adequacy of these groups (as of 31 December 2012). Credit growth support of 10%, on the other hand, would require supplementary capital of Euro 2.28 million and Euro 5.5 million, respectively, representing 0.2% and 0.5% of own funds of these groups at the end of 2012. Considering the relatively strong solvent positions of domestic banks that are subsidiaries of foreign banks, the supposed credit growth of 10% would have no significant impact on the capital

adequacy of domestic banks, which would not stoop below 12.5% in any individual bank.

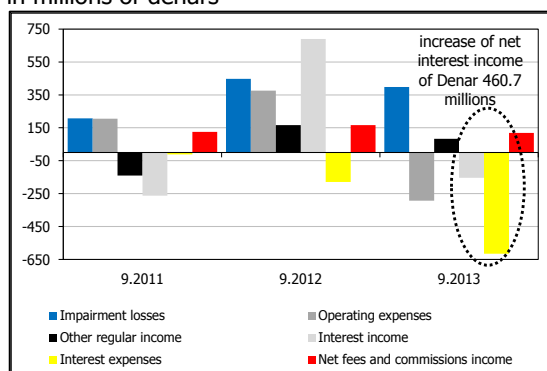




## 6. Profitability

In the first nine months of the year, the banking system of the Republic of Macedonia generated profit (of Denar 1,187.4 million), which is almost twice the profit earned in the same period last year. The reasons include higher total regular income (primarily net interest income), but also the slower growth of impairment and the reduced operating costs<sup>46</sup>. The basic indicators for bank profitability, return on assets and equity improved. The operational ability of banks to generate income that covers operational costs evidently increased, while the amount of profit before impairment is greater. The number of banks that earned profit remained unchanged (ten banks) compared with September 2012, but due to the change in the composition of banks that reported profits, the share of assets of these banks in the total assets of the banking system declined by 21.7 percentage points and equaled 69.9% at the end of September 2013. The profits of the Macedonian banking system reached Denar 1,635 million at the end of October 2013, amid unchanged number and composition of banks that reported profits.

**Chart 73**  
**Absolute growth of main income and expenses, compared to the same period of the previous year**  
 in millions of denars



Source: NBRM, based on data submitted by banks.

### 6.1. Movement and structure of income and expenses of the banking system and profitability and efficiency indicators

In the first nine months of 2013, **total banks' income** (total regular income<sup>47</sup> and extraordinary income) totaled Denar 13,320 million, which is by Denar 659 million, or 5.2%, more compared with the same period last year. Most (or 69.9%) of the increase of total banks' income is due to the higher net interest income. The increase in net interest income of Denar 460.7 million or 5.4%, is due to the strong annual reduction of interest expenses (Denar 615.1 million or 9.3%) compared to the reduction of interest income (Denar 154.3 million or 1.0%).

<sup>46</sup> As of 30 September 2012, the operating costs of one of the banks increased by 21.3% and as of 30 September 2013, the costs of the same bank decreased by 28.2% to approximately the same level as of 30 September 2011. If we exclude the effect of incidentally increased operating costs of that bank in 2012, the operating costs of the banking system would marginally increase as of 30 September 2013, and therefore, the increase of profits as of 30 September 2013 (relative to 30 September 2012) would be significantly lower.

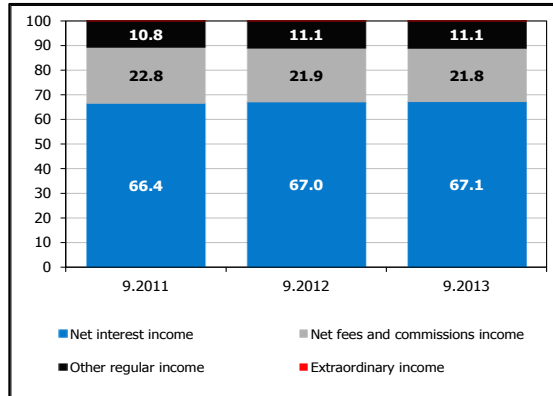
<sup>47</sup> Total regular income includes: net interest income, net fee and commission income and other regular income (net trading income, net income from financial instruments carried at fair value, net income from exchange rate differentials, income based on dividends and equity investments, net gains from sale of financial assets available for sale, capital gains from asset sales, reversal of provisions for off-balance sheet items, release of the remaining provisions, income from other sources and income based on collected claims which were previously written-off).



Except for the extraordinary income that went down, all other income components are increasing<sup>48</sup>.

During the first nine months of 2013, **the structure of total revenues** is almost unchanged compared to the same period last year. Net interest income still has the largest share in the structure of total income (67.1%).

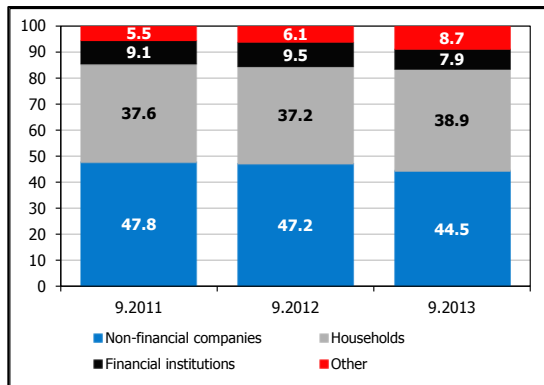
**Chart 74**  
**Structure of total income**  
in %



Source: NBRM, based on data submitted by banks.

The decrease of **interest income** in the first nine months of the year is due to the reduction of interest income on non-financial companies and financial institutions. Interest income from **non-financial companies** fell by Denar 492 million (or 7.1%) given the slower annual credit growth of banks to the corporate sector, the annual growth of nonperforming loans for which no interest income is being recognized and the cut of lending rates. The fall of interest income from **financial institutions** of Denar 244.6 million (or 17.6%) fully reflects the lower interest income from the central bank, which is primarily due to the lower investment in CB bills that banks shifted to government securities, which carry a higher yield<sup>49</sup>.

**Chart 75**  
**Sector structure of interest income**  
in %



Source: NBRM, based on data submitted by banks.

Contrary to these movements, interest income from households increased by Denar 166.9 million, or 3.1%, which corresponds to the accelerated annual credit growth to this sector, despite the lower interest rates on household loans. However, the increase of **interest income from other entities** was the most significant, which rose annually by Denar 354.9 million, or 39.8%, due to the increased interest of banks to invest in government securities (primarily treasury bills and government bonds<sup>50</sup>). These

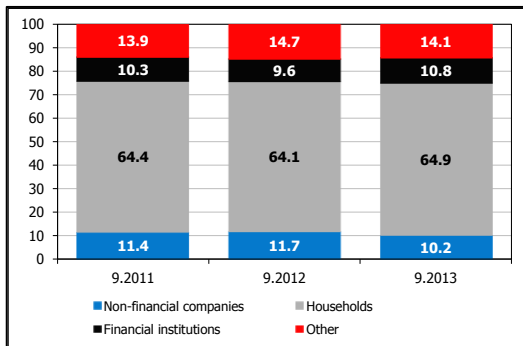
<sup>48</sup> Net fee and commission income and other regular income rose by Denar 118.8 million (4.3%) and Denar 82.8 million (5.9%), respectively, and contributed to the growth of total income by 18.0% and 12.6%, respectively. The increase of other regular income primarily resulted from the increase of income based on the reversal of special reserve for off-balance sheet exposure.

<sup>49</sup> In the first nine months of 2013, the average amount of banks' investment in CB bills fell by Denar 6,838 million or 21.8% compared to the amount invested in the first nine months of 2012. In addition, the weighted interest rate on CB bills kept on reducing from 3.49% (January 2013) to the historically lowest level of 3.21% (June 2013), i.e. 3.25% (July, August, September, October 2013).

<sup>50</sup> In the first nine months of 2013, the interest income from investments in government securities, which is included in the category of interest income from other entities, increased by Denar 295.5 million, or 46.6%. In the first nine



**Chart 76**  
**Sector structure of interest expenses**  
in %

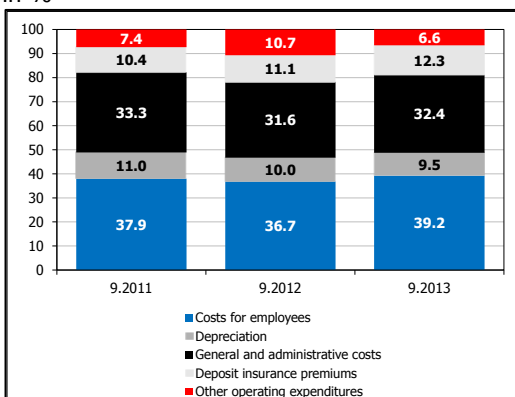


Source: NBRM, based on data submitted by banks.

developments increased the share of interest income from other entities and households in the sector structure of interest income.

The more substantial reduction of **interest expenses** is due to a reduction of interest expenses on all sectors, except for interest expenses on financial institutions. The largest decline in deposit interest rates was registered in the short-term Denar and foreign currency deposits of the household sector. Hence, the reduction of these interest expenses (of Denar 343.1 million, or 8.1%) had the highest input (55.8%) to the reduction of total interest expense. A significant 26.6% of the lowered interest expense is due to the lower interest expense on non-financial companies (by Denar 163.7 million or 21.2%), which is consistent with the lower average amount of corporate deposits in the first nine months of year compared with the same period last year and the most significant cut of interest rates on long-term Denar and foreign currency deposits of non-financial companies. Additional contribution (of 19.9%) to the decrease of interest expenses was made by the interest expenses on other entities, which decreased annually by Denar 122.6 million, or 12.6%<sup>51</sup>.

**Chart 77**  
**Structure of operating costs**  
in %



Source: NBRM, based on data submitted by banks.

In contrast, interest expenses on financial companies increased by Denar 14.3 million, or 2.2%, primarily due to increased interest expenses for banks based on other instruments and loan liabilities.

In the first nine months of 2013, the **banks' operating costs**<sup>52</sup> **decreased**. These costs went down (by Denar 293.3 million, or 3.6%) entirely due to the drop of the category of other operating costs<sup>53</sup> (of Denar 361 million, or

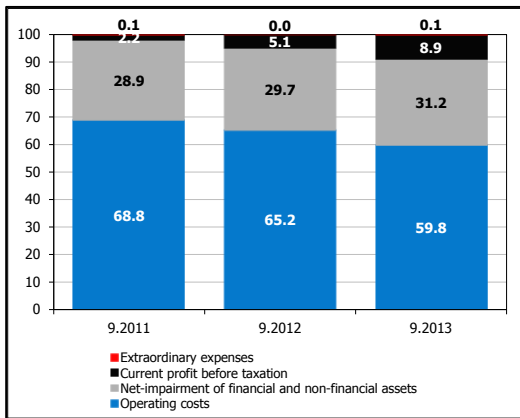
months of the year, the average amount of banks' investments in treasury bills increased by 55.3% compared to the amount invested in the same period last year, while investments in government bonds enhanced in 2013.

<sup>51</sup> Mostly due to the reduction in interest expense of nonresidents, in particular nonresident financial companies.

<sup>52</sup> Banks' operating costs include staff costs, depreciation, general and administrative expenses, deposit insurance premiums and other operating expenses, excluding extraordinary expenses.

<sup>53</sup> Other operating costs include special reserve for off-balance sheet exposure, other provisioning and other expenses (costs from previous years, income taxes and contributions, costs of fines, fees and court decisions and other costs).

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



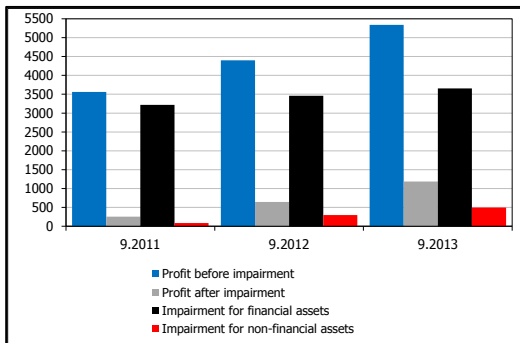
Source: NBRM, based on data submitted by banks.

40.8%) primarily due to the high base effect<sup>54</sup>. Operating costs also reduced due to the depreciation, which decreased by Denar 62 million (or 7.6%) and general and administrative expenses, which went down by Denar 23 million (or 0.9%). Conversely, an increase was registered in staff costs (by Denar 88 million or 2.9%) and deposit insurance premiums (by Denar 65 million, or 7.1%, which corresponds to the growth of deposits with banks).

Despite these movements, staff costs and general and administrative expenses again dominate the structure of operating costs (71.6%).

**The share of total banks' income used to cover operating costs is again the highest**, despite its decrease of 5.4 percentage points, which is due to the lower operating costs and higher total revenues. Therefore, the share of impairment and profit in total income increased by 1.5 and 3.8 percentage points, respectively. The lower amount of total regular income used to cover operating costs indicates an **improvement of the operational efficiency of the banking system**, which also reflects the lower share of certain types of costs in total regular income, primarily due to the higher total regular income.

**Chart 79**  
**Effect of impairment on profit**  
in millions of denars



Source: NBRM, based on data submitted by banks.

At the end of September 2013, **net impairment (for financial and non-financial assets)** reached Denar 4,152 million, which is by Denar 398 million or 10.6% more on an annual basis (compared to the same period last year, net impairment increased by Denar 448 million, or 13.6%). However, the growth of net impairment increased the share of net interest income used for impairment. The increase of total **net impairment**, on the one hand, is due to the deterioration of the credit portfolio of banks, which caused an increase in the impairment of

<sup>54</sup> As of 30 September 2012, other expenses of one bank increased by Denar 341.4 million and as of 30 September 2013, these expenses of the same bank decreased by Denar 345.9 million (or 94.4%) or has reduced approximately to the level of 30 September 2011. If one excludes the effect of the increase of operating costs of this bank as of 30 September 2012, the operating costs of the banking system would register a minimal increase, as of 30 September 2013.



financial assets of Denar 197 million, or 5.7%. On the other hand, the increase of impairment of non-financial assets (of Denar 200 million, or 67.7% on an annual basis)<sup>55</sup> also contributed to the increase of total net impairment. Thus, the contribution of impairment of non-financial assets (50.4%) to the annual growth of net impairment exceeded the contribution of the impairment of financial assets (49.6%) to this growth.

Yet, in October 2013, the upward trend of net impairment of financial assets was terminated and the minimum annual growth of total net impairment (1.1%) was entirely conditioned by the increase of net impairment of non-financial assets.

However, despite the increase of net impairment of financial and non-financial assets, the profitability of the banking system of the Republic of Macedonia is growing, as confirmed by the **increase of the profit before impairment** of financial and non-financial assets (of Denar 941 million, or 21.4%, compared with the same period last year).

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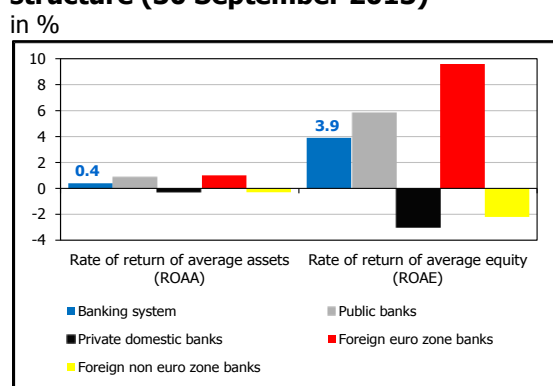
<sup>55</sup> The uptrend of this kind of impairment began in the second half of 2012 with the Decision on amending the Decision on the accounting and regulatory treatment of the foreclosed assets (Official Gazette of the Republic of Macedonia No. 74/12), which introduced the requirement for mandatory annual reduction of the value of property of the foreclosed asset by at least 20% of its book value and reduction of its carrying value to zero if the asset is not sold by the end of the fifth year following the foreclosure. Moreover, since these amendments do not cover assets foreclosed by banks after the entry into force of the amendments, in March 2013 a Decision was made on the accounting and regulatory treatment of the foreclosed assets (Official Gazette of the Republic of Macedonia No. 50/13), which introduced a requirement for impairment of at least 20% annually, of assets foreclosed after the entry into force of the amendments to the said Decision of June 2012.

**Table 5**  
**Profitability and efficiency ratios of the banking system**  
in %

	9.2012	9.2013
Rate of return of average assets (ROAA)	0.3	0.4
Rate of return of average equity (ROAE)	2.3	3.9
Cost-to-income ratio	65.2	59.8
Non-interest expenses/Total regular income	71.5	65.8
Labour costs /Total regular income	24.0	23.4
Labour costs /Operating expenses	36.7	39.2
Impairment for financial and non-financial assets /Net interest income	44.3	46.4
Net interest income /Average assets	3.4	3.3
Net interest income /Total regular income	67.0	67.1
Net interest income /Non-interest expenses	93.7	102.1
Non-interest income/Total regular income	33.0	38.8
Financial result/Total regular income	5.1	8.9

Source: NBRM, based on data submitted by banks.

**Chart 80**  
**Profitability ratios, by banks' ownership structure (30 September 2013)**  
in %



Source: NBRM, based on data submitted by banks.

Higher profits of the banking system (by Denar 543 million, or 84.3%) increased the profit margin<sup>56</sup> of banks and improved the underlying profitability indicators of banking system. The profit margin of banks increased by 3.8 percentage points, while the rates of return on assets and equity increased by 0.1 and 1.6 percentage points, respectively. Analyzed by ownership structure of the banks, in the first nine months of the year, the rates of return on assets and equity hit the highest values among banks owned by foreign shareholders who come from member states of the euro zone. Net interest margin<sup>57</sup> slightly decreased (by 0.1 percentage points) due to the proportionally lower increase of net interest income compared with the increase of the average interest-bearing assets<sup>58</sup>.

## 6.2. Movement of interest rates and interest rate spread

In the third quarter of the year, banks interest rates kept on decreasing, following the cut of the National Bank's policy rate<sup>59</sup>. Compared to September last year, all lending and deposit interest rates declined, but the interest rate on

<sup>56</sup> Profit margin is the ratio of operating profit (loss) to total regular income.

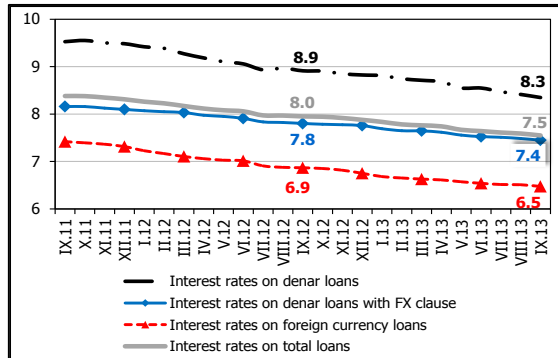
<sup>57</sup> Net interest margin is calculated as the ratio between net interest income and average interest-bearing assets. Average interest-bearing assets are calculated as the arithmetic average of the amounts of interest-bearing assets at the end of the corresponding quarter of the current year and the end of the previous year.

<sup>58</sup> As of 30 September 2013, ten of sixteen banks reported higher net interest margin than the net interest margin earned by the banking system.

<sup>59</sup> In the third quarter, the National Bank's policy rate was cut to 3.25%.



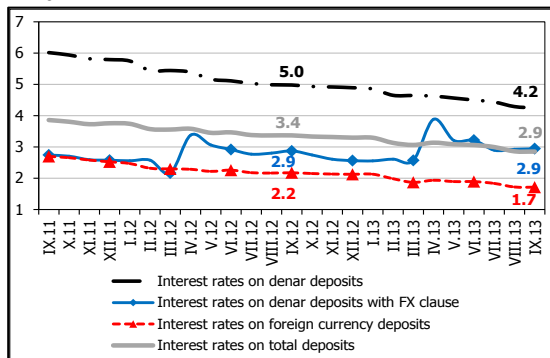
**Chart 81**  
**Lending interest rates**  
in %



Source: NBRM, based on data submitted by banks.

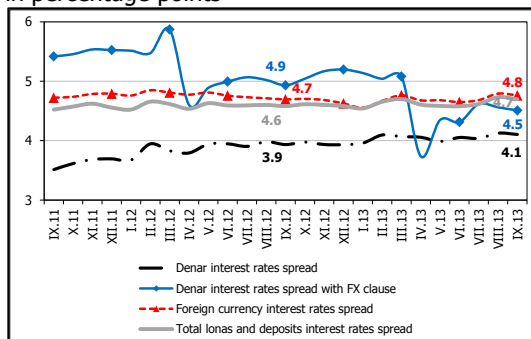
Denar deposits with FX clause, which remained unchanged. Interest rates on Denar deposits were cut the most (by 0.8 percentage points), followed by Denar loans (by 0.6 percentage points), foreign currency deposits (by 0.5 percentage points) and foreign currency and Denar loans with FX clause (by 0.4 percentage points).

**Chart 82**  
**Deposit interest rates**  
in %



Source: NBRM, based on data submitted by banks.

**Chart 83**  
**Interest rates spread, by currency**  
in percentage points



Calculations do not include loans on overdrafts and credit cards.

Source: NBRM, based on data submitted by banks.

In such relatively smooth downward movements of interest rates on Denar and foreign currency loans and deposits, interest rate spreads in denars and foreign currency are nearly the same as in September last year. Only the interest rate spread in Denars with FX clause registered a significant decrease (0.4 percentage points).



## **ANNEX**