

**NATIONAL BANK OF THE REPUBLIC OF MACEDONIA**



**Report on Banking System of the Republic of Macedonia  
in the second quarter of 2012**

**October, 2012**

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## Summary

In the second quarter of 2012, the developments in the banking system, particularly the trend of deposits, were largely determined by the developments in larger banks, caused by the transactions of their large clients. Taking into account the size and structure of the Macedonian banking system, each significant change in the structure and size of assets or liabilities of the larger banks or some of the banks' larger clients could determine the trends in the overall banking system, as was the case in the second quarter of 2012, when the dividend payment by one larger company caused a mild quarterly fall of 0.1% of deposits of nonfinancial entities, primarily with currency component. On the other hand, households' preference to save in Denar and in a longer run enhanced. Looking back, at the end of the second quarter of 2012, Denar deposits took a leading role in the currency structure of deposits (share of 50.7%) for the first time since 2007.

The decrease of deposits of nonfinancial entities slowed down the assets growth of the banking system. Lending activity kept on accelerating and its quarterly growth rate increased compared to the previous quarter. The lending to households increased and continued in July 2012. Yet, the annual lending growth rates indicate an increase, at a slower pace though.

The bank credit risk, presented through the rate of nonperforming loans, abated mostly due to the recovery of nonperforming loans in the corporate sector, which significantly decelerated their growth (0.4% in the second quarter of 2012 compared to the growth of 5.0% in the first quarter and 1.9% in the second quarter of 2011). Nevertheless, the recovery of nonperforming loans resulted from the foreclosures, rather than from the improved creditworthiness of these clients, which was also confirmed by the annual growth of nonperforming loans of 0.7 percentage points, and the increase of nonperforming loans in July 2012 that caused an increase of the rate of nonperforming loans by 0.8 percentage points.

Nonperforming loans recovery affected the earnings of the overall banking system in the first half of the year, when the amount of released impairment and the higher net interest income considerably increased the earnings compared to the same period of the preceding year. The enhancement of banks' lucrative operations improved their operational efficiency.

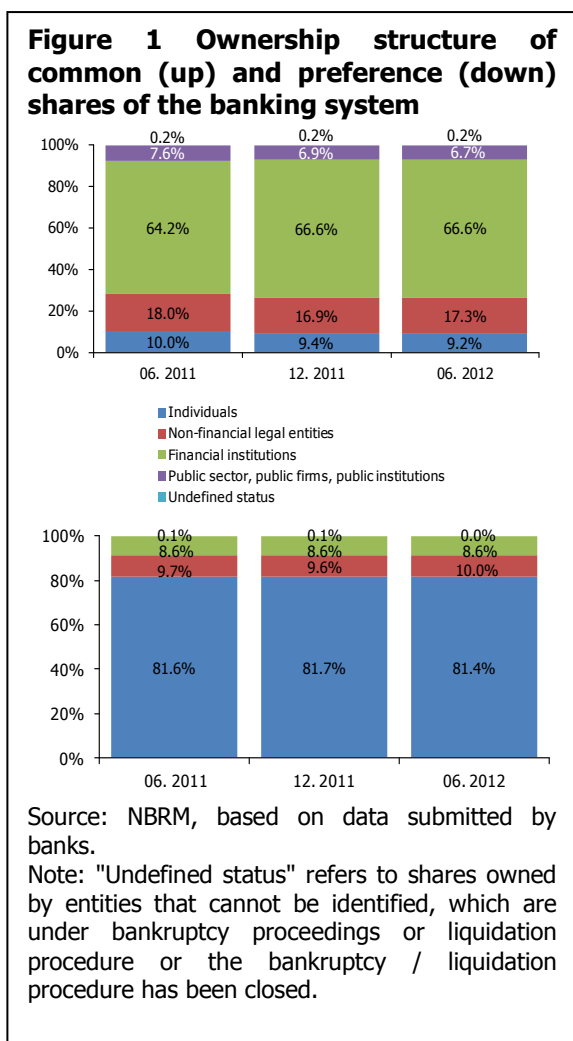
The second quarter of 2012 experienced a certain reduction of liquid assets available to banks and readdress of some of their investments in CB bills to investments in government securities and to corporate loans. Such changes are somewhat attributable to the changes in the monetary policy framework of the National Bank that ensured larger flexibility for the banks when they make decisions on their liquidity management instruments. Notwithstanding the quarterly decrease of liquid assets, it went up by 9.0% on an annual basis, maintaining the bank liquidity and solvency high and contributed to the preservation of the banking system resilience, measured through stress tests. Banking system solvency, measured through the capital adequacy ratio, remained high and equaled 17.4% at the end of the second quarter.

## I. Banking system structure

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

**As of June 30, 2012, seventeen banks have operated on the territory of the Republic of Macedonia, which is the same number as on March 31, 2012.**

The announced acquisition of Ziraat Bank AD Skopje by Halk Bank AD Skopje will reduce the number of banks by one by the end of the year. With this acquisition, banking operations will be carried on through one larger bank, rather than two banks, both of which owned by the Republic of Turkey. Moreover, the number of small-size banks will decrease, while the share of the group of medium-size banks will increase. In addition, the number of banks in dominant foreign ownership and the number of foreign bank branches will also reduce.

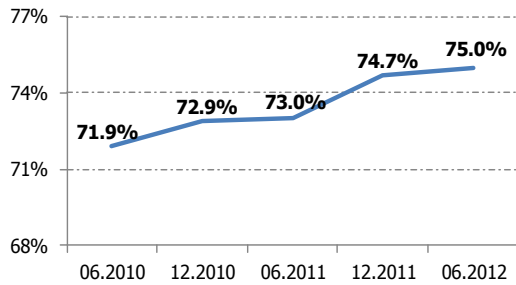


**In the first half<sup>1</sup>, the ownership structure of the banking system remained almost unchanged.** Financial institutions have still played a leading role in the ownership structure of common shares, while dominant holders of preference shares are the natural persons. The bank recapitalization as of the first quarter of 2012<sup>2</sup> increased the share of nonfinancial legal entities by 0.4 percentage points in the ownership structure of common shares.

<sup>1</sup> Banks' ownership structure is analyzed on the basis of semiannual data submitted by banks.

<sup>2</sup> In the first quarter of the year, two banks were recapitalized. The recapitalization of one of the banks was made by the parent entity (nonfinancial entity that holds 87.5% of investments based on recapitalization) and by the European Bank for Reconstruction and Development. The recapitalization of the other bank was fully made by the parent entity (financial institution), causing no significant changes in the share of financial entities in the structure of common shares.

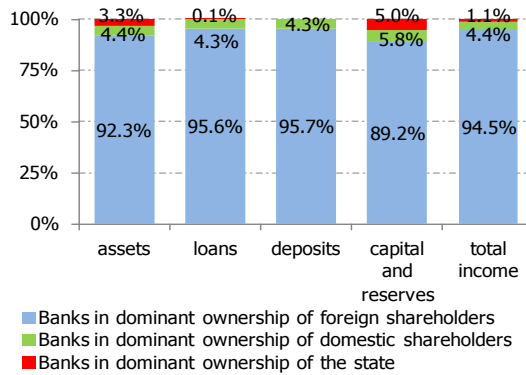
**Figure 2 Share of foreign capital in total equity of banks**



Source: NBRM, based on data submitted by banks.

The recapitalizations increased the share of foreign capital in the total equity by 0.3 percentage points, **further strengthening the leading position of foreign capital in the ownership structure of the banking system** (75% of the total equity).

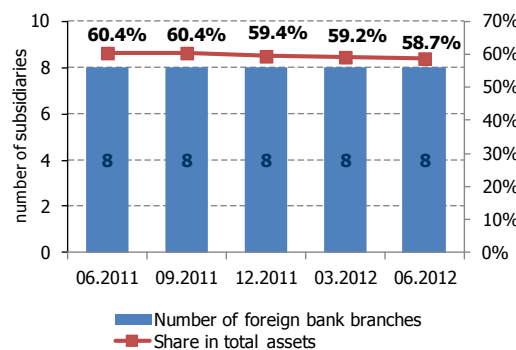
**Figure 3 Structure of relevant items in banks' on-balance sheets, by dominant ownership of banks**



Source: NBRM, based on data submitted by banks.

Banks in dominant ownership of foreign shareholders prevail in all relevant on-balance sheet positions, with a share ranging from 89.2% of capital and reserves to 95.7% of total deposits.

**Figure 4 Foreign bank branches, number and share in total assets**

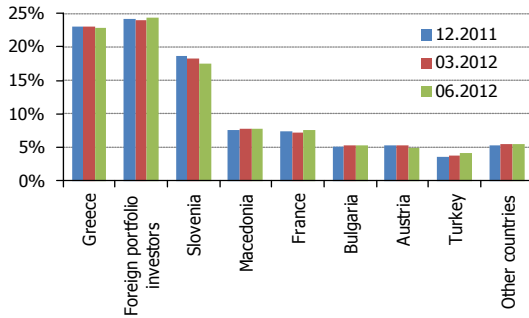


Source: NBRM, based on data submitted by banks.

**Eight** of thirteen banks in dominant foreign ownership **are foreign bank branches**. Although the market share of these banks has been decreasing over the last three quarters, it permanently swings around 60%.



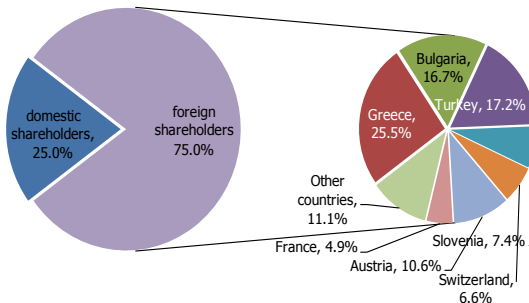
**Figure 5 Market share (assets) of banks by country of origin of the dominant shareholder**



Source: NBRM, based on data submitted by banks.

Analyzing by country, banks in dominant ownership of shareholders from Greece and Slovenia account for 22.9% and 17.5%, respectively, of the overall assets of the banking system, while the share of foreign portfolio investors<sup>3</sup> equals 24.4%. The market share of banks in dominant ownership of domestic shareholders equals 7.7%.

**Figure 6 Capital structure, by country**

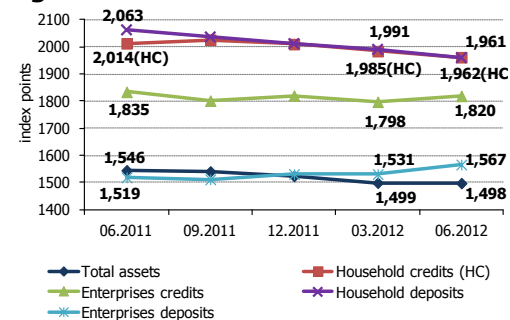


Source: NBRM, based on data submitted by banks.

**Bank capital originating from the European Union member-states makes up 71.8% of the overall foreign capital in the banking sector.** Compared to December 31, 2011, this share increased by 0.8 percentage points as a result of the Austrian capital, that reduced the share of capital from Turkey and Switzerland (by 0.6 and 0.2 percentage points).

## 2. Concentration and market share of banks

**Figure 7 Herfindahl Index**

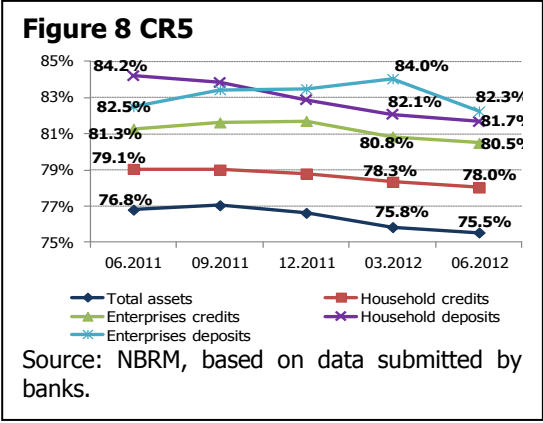


Source: NBRM, based on data submitted by banks.

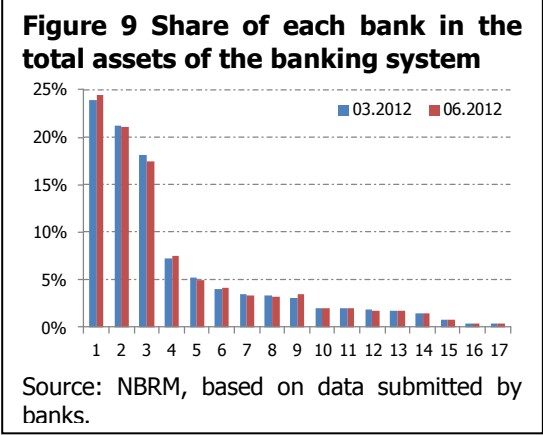
**The concentration of the banking system is high, but generally shows downward trends.** According to the Herfindahl Index<sup>4</sup>, the concentration is generally regarded as acceptable, except for household activities, where it is high, but still registers a downtrend in the last few quarters.

<sup>3</sup> Banks which are predominantly foreign-owned, but which lack a strategic investor.

<sup>4</sup> The Herfindahl index is calculated according to the equation  $HI = \sum_{j=1}^n (S_j)^2$  where S denotes each bank's share in the total amount of analyzed category (for example: total assets, total deposits etc.), while n denotes the total number of banks in the system. When the index ranges between 1,000 and 1,800 units, the level of concentration in the banking system is regarded as acceptable.



The high concentration is also illustrated through CR5<sup>5</sup> that ranges from 75.5% for the total assets to 82.3% for corporate deposits.



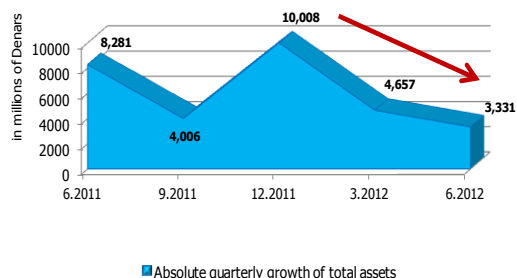
**Most of the total assets of the banking system is concentrated in three large banks (63.1%), illustrating a high concentration in the banking system.** Eight banks have an individual share of up to 2% of the total bank assets, and their total assets constitutes merely 10.4% of the assets of the banking system.

<sup>5</sup> CR5 denotes assets share (i.e. analyzed category, for example, corporate loans, etc.) of the five banks with largest assets (i.e. analyzed category) in the total assets (i.e. analyzed category) of the banking system.

## II. Bank activities

### 1. Assets of the banking system

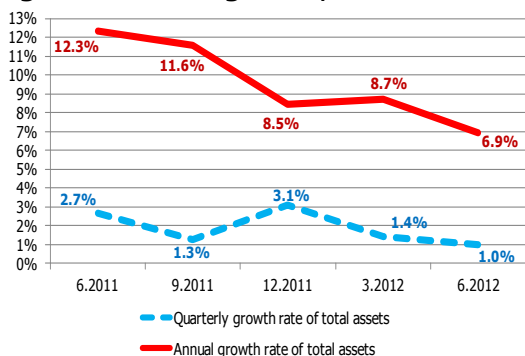
**Figure 10 Quarterly growth of assets, in millions of Denars**



Source: NBRM, based on data submitted by banks.

As of June 30, 2012, **the assets of the banking system totaled Denar 339,165 million** (Annex 1).

**Figure 11 Assets growth, in %**



Source: NBRM, based on data submitted by banks.

Assets growth that started decelerating in the first quarter of 2012, continued in the second quarter. At the end of the second quarter of 2012, assets growth rates (quarterly and annual) were the slowest compared to the growth rates registered in the last ten quarters. Banks' assets growth decelerated primarily due to the slower growth of deposit activity (in the second quarter of 2012, the deposits even fell marginally by 0.1%).

In the second quarter of 2012, the increase of assets was determined by the increase of gross loans of nonfinancial entities (see Lending Activity).


**Table 1 Structure of assets and liabilities of the banking system**

Balance sheet	Amounts in millions of Denars			Structure			Change 30.6.2012/31.3.2012		Change 30.6.2012/30.6.2011	
	30.6.2011	31.3.2012	30.6.2012	30.6.2011	31.3.2012	30.6.2012	Absolute change	In percent	Absolute change	In percent
Cash and balances with NBRM	44,348	33,140	36,971	14.0%	9.9%	10.9%	3,832	11.6%	-7,377	-16.6%
Securities portfolio	36,975	58,716	55,135	11.7%	17.5%	16.3%	-3,581	-6.1%	18,160	49.1%
Placements with banks and other financial institutions	41,836	42,199	38,804	13.2%	12.6%	11.4%	-3,394	-8.0%	-3,032	-7.2%
Loans of nonfinancial entities (net)	176,679	183,597	188,909	55.7%	54.7%	55.7%	5,312	2.9%	12,230	6.9%
Gross loans of nonfinancial entities	196,504	206,566	212,084	62.0%	61.5%	62.5%	5,517	2.7%	15,580	7.9%
<i>Accumulated amortization of loans to nonfinancial entities</i>	(775)	(883)	(905)	-	-	-	-22	2.5%	-130	16.8%
<i>Impairment (provisions) of loans to nonfinancial entities</i>	(19,050)	(22,086)	(22,269)	-	-	-	-183	0.8%	-3,219	16.9%
Accrued interest and other assets	9,247	10,144	11,489	2.9%	3.0%	3.4%	1,344	13.3%	2,242	24.2%
Fixed assets	8,076	8,038	7,901	2.5%	2.4%	2.3%	-137	-1.7%	-175	-2.2%
Unallocated loan loss provisions	-0.01	0	-44	0.0%	0.0%	0.0%	-44	-	-44	-
<b>Total assets</b>	<b>317,162</b>	<b>335,833</b>	<b>339,165</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>3,331</b>	<b>1.0%</b>	<b>22,003</b>	<b>6.9%</b>
Deposits from banks and other financial institutions	17,204	13,654	15,006	5.4%	4.1%	4.4%	1,352	9.9%	-2,198	-12.8%
Deposits of nonfinancial entities	220,114	237,389	237,156	69.4%	70.7%	69.9%	-232	-0.1%	17,042	7.7%
Borrowings (short-term and long-term)	37,706	39,204	40,166	11.9%	11.7%	11.8%	963	2.5%	2,460	6.5%
Other liabilities	6,576	6,480	6,775	2.1%	1.9%	2.0%	295	4.6%	199	3.0%
Provisions for off-balance sheet items	706	800	834	0.2%	0.2%	0.2%	33	4.2%	128	18.1%
Capital and reserves	34,856	38,307	39,228	11.0%	11.4%	11.6%	920	2.4%	4,372	12.5%
<b>Total liabilities</b>	<b>317,162</b>	<b>335,833</b>	<b>339,165</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>3,331</b>	<b>1.0%</b>	<b>22,003</b>	<b>6.9%</b>

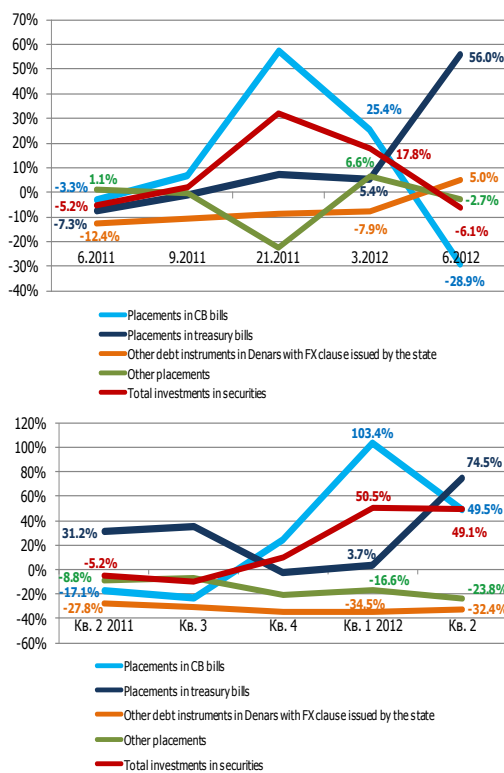
Source: NBRM, based on data submitted by banks.

Note: The category of Placements with central bank of Annex 1, is included in the category of Cash and balances with the NBRM in this table.

Observing the assets, **banks' investments in securities** registered the sharpest quarterly decrease of Denar 3,581 million. Additionally, investments in CB bills reduced by Denar 11,696 million, while investments in treasury bills increased by Denar 8,212 million. Such structural and quantitative changes are somewhat due to the changes in the monetary policy framework<sup>6</sup>, primarily caused by the lower frequency of auctions and limited amount of CB bills offered.

<sup>6</sup> Since April 2012, the National Bank changed its monetary policy framework.

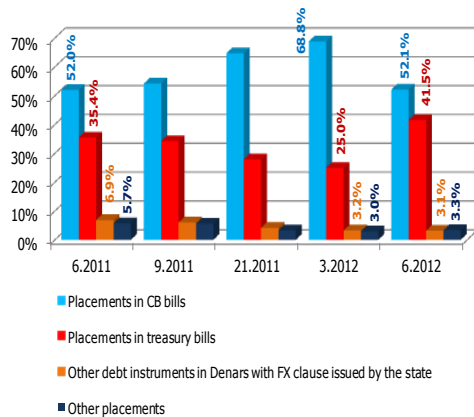
**Figure 12 Quarterly (up) and annual (down) growth of the securities portfolio, in %**



Source: NBRM, based on data submitted by banks.

However, compared to June last year, banks' demand for CB bills increased by Denar 9,503 million and contributed with 52.3% to the annual increase of securities portfolio, while the treasury bills rose by Denar 9,763 million.

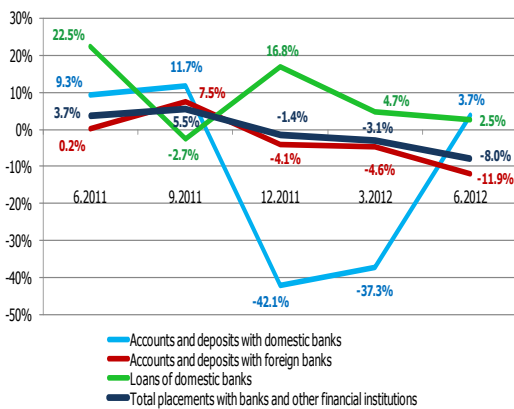
**Figure 13 Structure of the securities portfolio**



Source: NBRM, based on data submitted by banks.

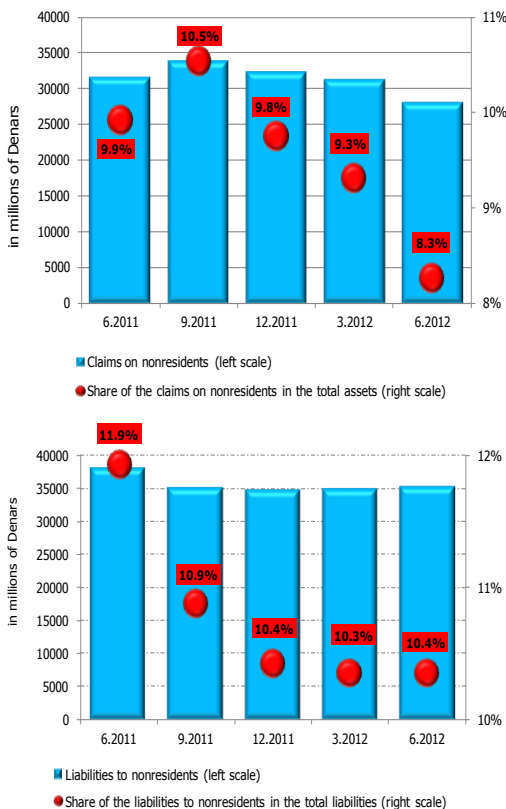
Notwithstanding the decrease of their share caused by the quarterly downtrend, CB bills still dominate the structure of banks' securities portfolio.

**Figure 14 Placements with banks and other financial institutions, quarterly change in %**



Source: NBRM, based on data submitted by banks.

**Figure 15 Liabilities (up) to and claims (down) on nonresidents**



Source: NBRM, based on data submitted by banks податоците доставени од страна на банките.

**Placements with banks and other financial institutions** also registered a quarterly decrease, solely caused by the fall of deposits up to one month with foreign banks (by Denar 4,241 million).

Compared to preceding periods, when the increase of funding sources was driven by the deposits of nonfinancial entities, in the second quarter of 2012, **the increase of funding sources was generated by the increase of banks' deposits<sup>7</sup> (contribution of 40.6%) and the increase of banks' borrowings (contribution of 28.4%)**. In the second quarter of 2012, banks' borrowings increased by Denar 946 million or 3.0%, primarily due to the increase of liabilities based on repo transactions with the National Bank and the increase of liabilities based on loans from MBDP.

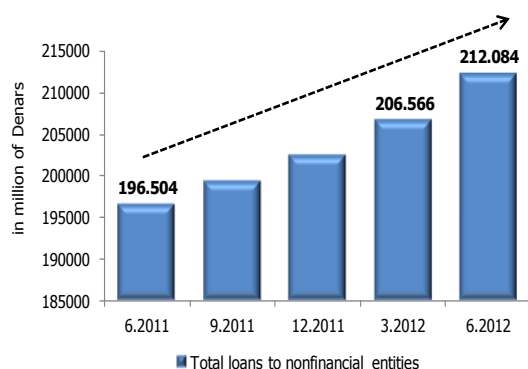
**The share of banks' claims and liabilities on/to nonresidents kept on decreasing in the second quarter of 2012.** Liabilities to nonresidents increased by Denar 353 million or by 1.0% (due to the increase of deposits of nonresidents-financial institutions of Denar 1,396 million or 32.3% and the decrease of credit liabilities to nonresidents of Denar 1,203 million or 6.6%). Yet their share in total assets went down.

The lower placements with foreign banks were the main reason behind the decrease of claims on nonresidents (of Denar 3,256 million or 10.4%).

<sup>7</sup> Solely caused by the increase of short-term (renewable) foreign currency deposits from the parent entity of one bank.

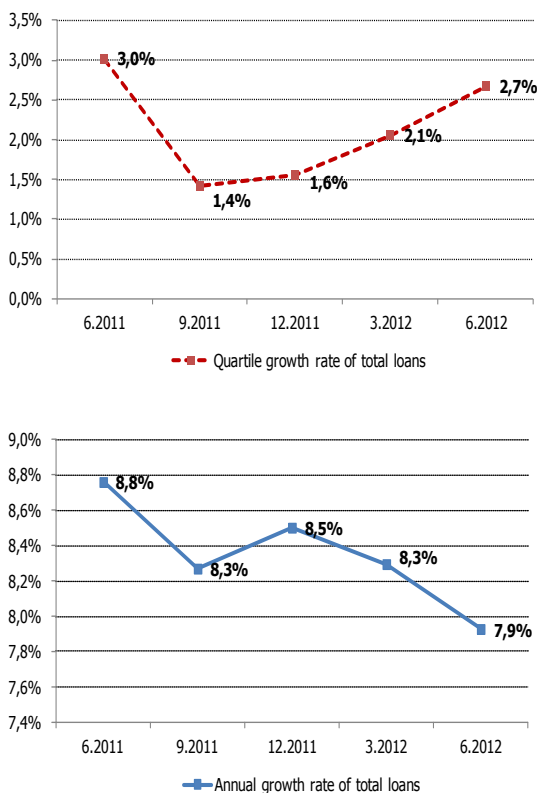
## 2. Loans to nonfinancial entities

**Figure 16 Loans to nonfinancial entities**



Source: NBRM, based on data submitted by banks.

**Figure 17 Growth rates of loans to nonfinancial entities**



Source: NBRM, based on data submitted by banks.

### Banks' lending activity kept on increasing in the second quarter of 2012.

This trend continued in July 2012, compared to August which witnessed a downtrend of loans due to the repayment of a larger loan by one company.

The industry and wholesale and retail trade were the greatest contributors to the growth of loans to corporations and other clients on both annual and quarterly basis, followed by the construction.

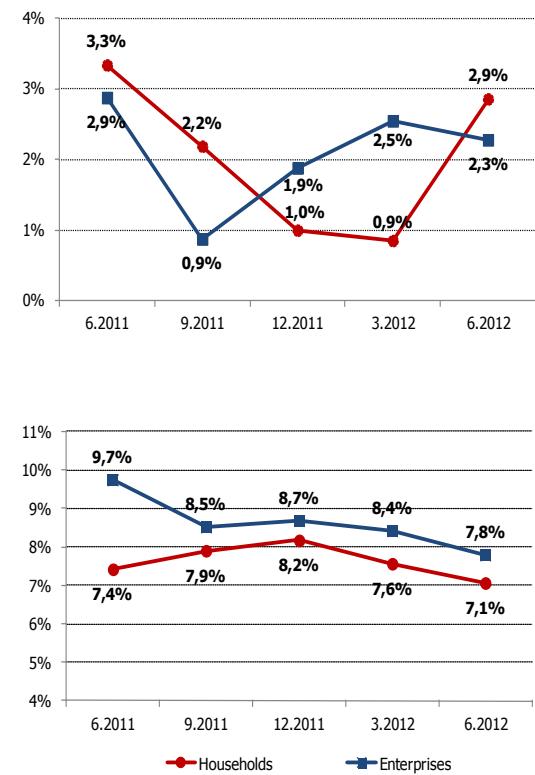
Consumer loans still dominate the household lending and determine both the annual and the quarterly increase of household lending. Residential and commercial real estate credits and car credits registered negative quarterly growth rates (-0.6% and -8.2%, respectively). On annual basis, besides car credits (-25.3%), credit cards (-3.5%) also registered a negative growth rate.

As of June 30, 2012, the quarterly growth rate kept on accelerating, while the annual growth rate decelerated. However, the comparison between the quarterly growth rates for the second quarter of 2011 and 2012 indicate slower growth of lending.

Apart from two banks that reported lower lending on a quarterly basis, the lending growth rate of other banks ranged from 0.2% to 57.5% (median of 4.6% and the third quartile of 9.6%).

... loans, by sector

**Figure 18 Quarterly (up) and annual (down) dynamics of loans, by sector**

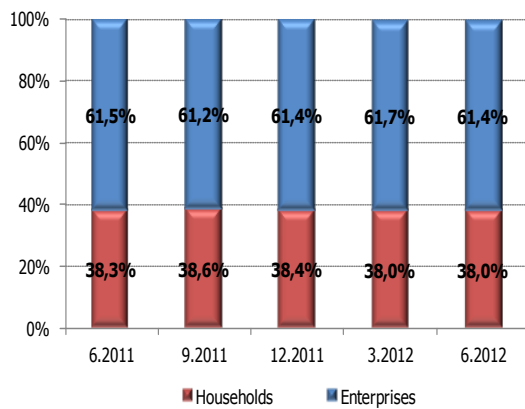


Source: NBRM, based on data submitted by banks.

In spite of the slower growth of corporate lending, it is still the driving force of the banks' lending activity. Corporate loans made up 60.4% of the annual credit growth.

The quarterly developments intensified the deceleration of the increase of corporate lending. In conditions of faster household lending in the second quarter of 2012, the contribution of both household and corporate lending in the total loan growth almost converged (in July 2012, the contribution of household lending exceeded the contribution of the corporate lending).

**Figure 19 Loan structure, by sector**



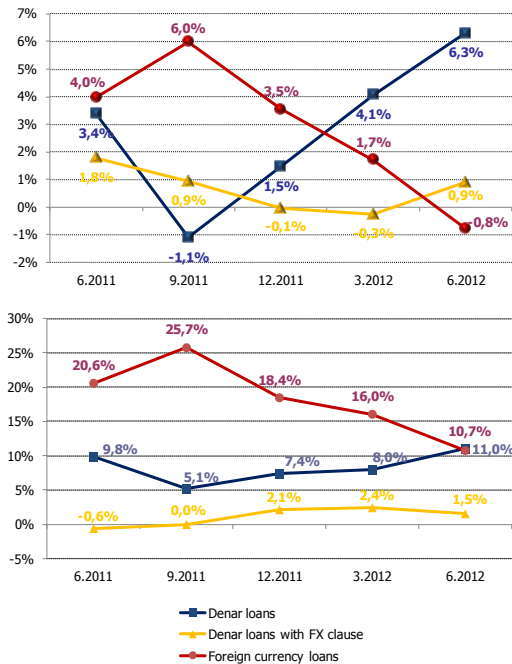
Source: NBRM, based on data submitted by banks.  
Note: The figure does not include loans to other clients due to their minimum share.

The slower increase of corporate loans reduced their share in the loan sector structure by 0.3 percentage points. Yet, their share of 61.4% remained the highest in the total loans (Annex 5).



... loans, by currency

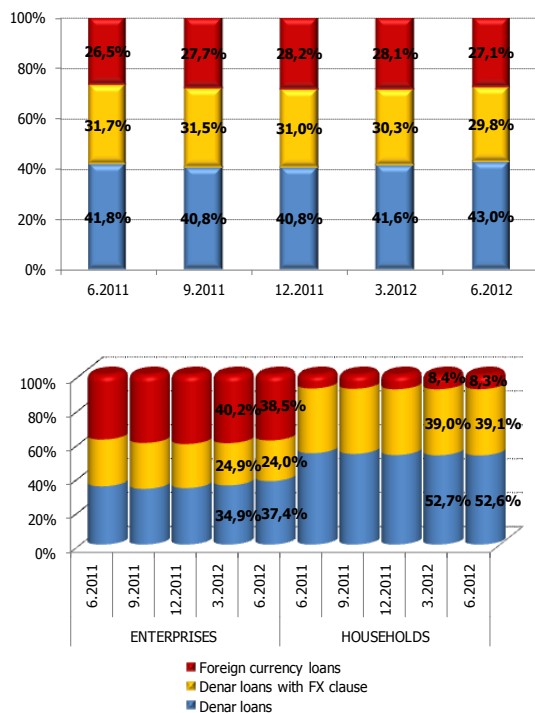
Figure 20 Quarterly (up) and annual (down) dynamics of loans, by currency



Source: NBRM, based on data submitted by banks.

The accelerated increase of Denar loans that started in the last quarter of 2011 intensified in the second quarter of 2012. Furthermore, foreign currency loans growth decelerated, and at the end of June, it registered a negative change compared to March 2012 (the downward trend continued in July 2012), which corresponds with the trend of liabilities. **Accordingly, unlike the previous quarters when the loans with currency component were the greatest contributors to the credit growth, as of June 30, 2012, the contribution of Denar loans to the overall annual growth of loans equaled 58.1%.**

Figure 21 Currency structure of total loans (up) and loans by sector (down)



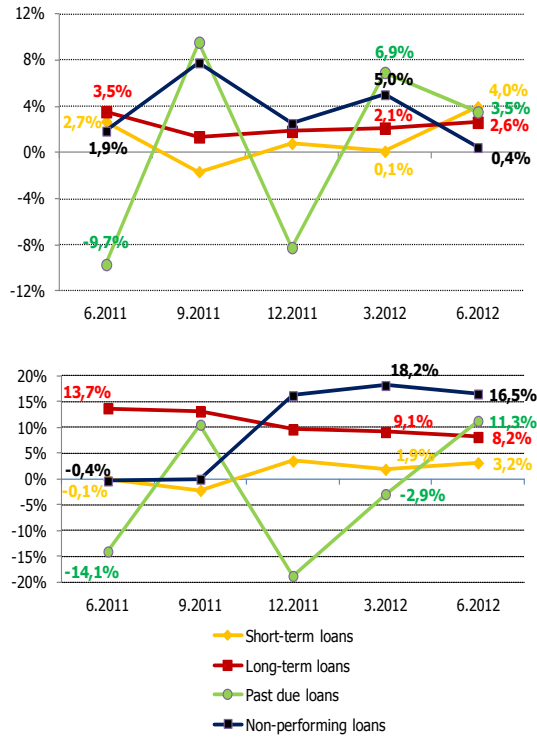
Source: NBRM, based on data submitted by banks.

The faster growth of Denar loans increased their share in the currency structure of loans (Annexes 5 and 5a), which continued in July 2012.

The sector-by-sector analysis indicates that the corporate sector increasingly prefers Denar loans, while the changes in the currency structure of household lending are marginal (Annex 5).

... loans by maturity

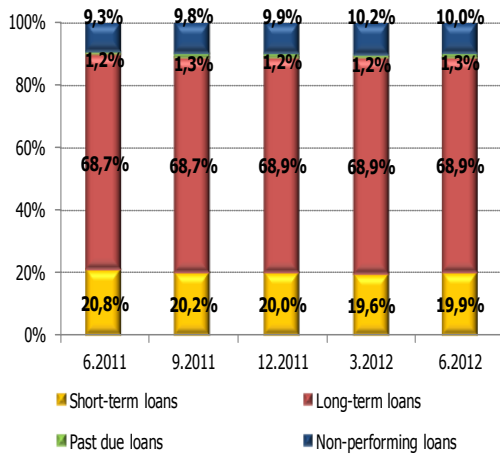
**Figure 22 Quarterly (up) and annual (down) dynamics of loans, by maturity**



Source: NBRM, based on data submitted by banks.

Growth rates (annual and quarterly) of nonperforming loans decelerated, due to the collection of claims on corporate sector by means of foreclosures (in the amount of roughly half a billion of denars). Compared to June 2011, the increase of nonperforming loan is almost a sole contribution of corporations, while in the second quarter of 2012, (June compared to March 2012) household loans contributed the most to the increase of nonperforming loans. Past due loans register high annual and quarterly growth rates, with their growth being solely attributable to the up to 30 days past due loans and should not be a trigger for the further increase of nonperforming loans.

**Figure 23 Loan structure, by maturity**

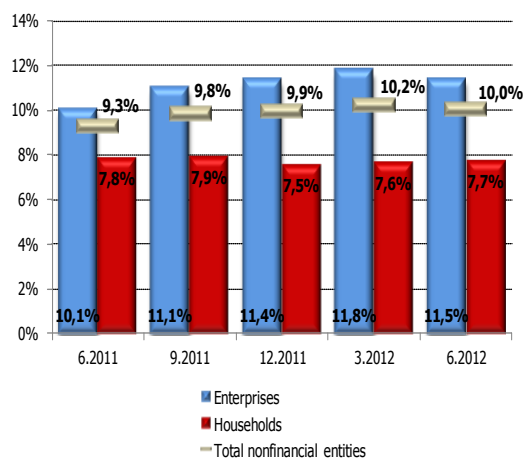


Source: NBRM, based on data submitted by banks.

Observing the maturity, long-term loans dominate (Annexes 5 and 5a) and made the greatest contribution to the growth of loans to nonfinancial entities.

### ... nonperforming loans

**Figure 24 Rate of nonperforming loans, by sector**



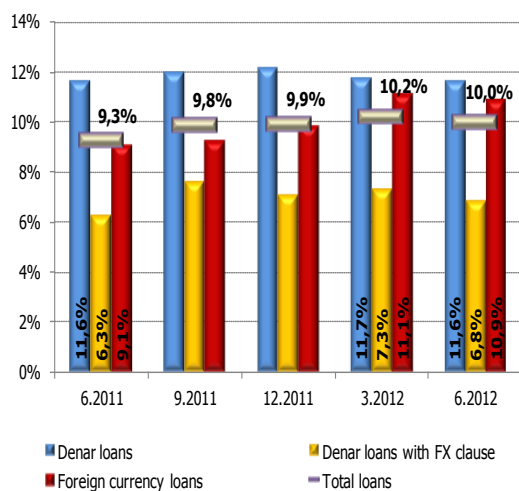
Source: NBRM, based on data submitted by banks.

**Nonperforming loan ratio<sup>8</sup> (for nonfinancial entities)** reduced marginally compared to the preceding quarter and equaled 10% as of June 30, 2012, mainly due to the trend of nonperforming loans in the corporate sector, since nonperforming loans in the household sector register minor changes.

In July 2012, nonperforming loans considerably increased (by Denar 1,782 million or by 8.4%) which is almost fully due to nonperforming loans in the corporate sector (Denar loans with FX clause).

As of June 30, 2012, the rate of nonperforming loan in Denars is still the highest, registering a trend of approximation to the nonperforming foreign currency loan ratio.

**Figure 25 Rate of nonperforming loans, by currency**

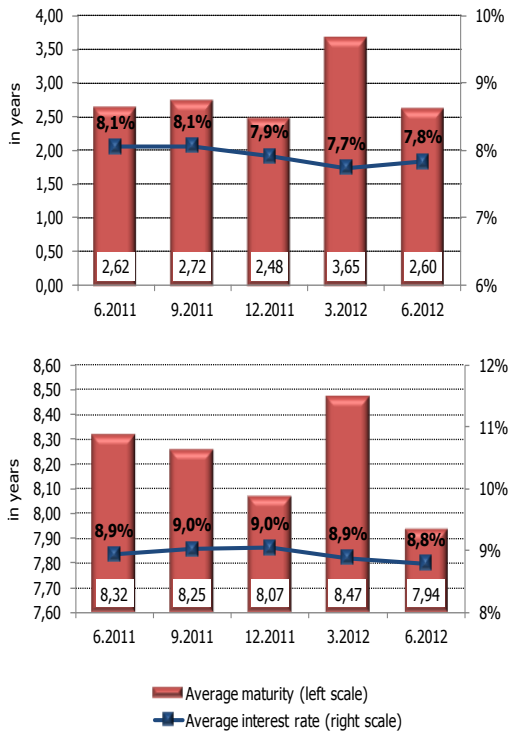


Source: NBRM, based on data submitted by banks.

<sup>8</sup> Nonperforming loan ratio is the share of nonperforming loans in total loans.

**... interest rate and maturity of newly approved loans**

**Figure 26 Average weighted interest rate and maturity of newly approved loans to corporations (up) and households (down)**



Source: NBRM, based on data the banks provide to the Credit Registry.

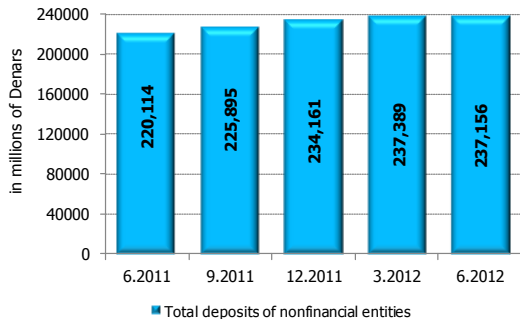
In the second quarter of 2012, the average weighted interest rates on newly approved loans registered an insignificant change compared to the previous quarter (higher regarding new loans to companies, i.e. lower regarding new loans to households, by 0.1 percentage points, each).

However, according to the results of the Banks' Lending Survey in July 2012, corporate lending terms and conditions tightened due to the banks' risk perceptions (expectations for the overall economic activity, expectations for the perspective of the branch of the company and the perspective of the firms, as well as foreclosure risk), rather than the change in interest rate, credit maturity or fees. On the other hand, the interest rate contributed to relaxation of lending terms and conditions for the household sector, along with the slighter relaxation of the terms and conditions related to the collateral, the moderate decline of fees and the competition of other banks. The foreclosure risk has been pointed as a factor that contributes to the partial tightening of lending terms and conditions of the household loans.

The average maturity of newly approved loans mainly registers a downward trend, in both corporate and household sectors.

### 3. Deposits of nonfinancial entities

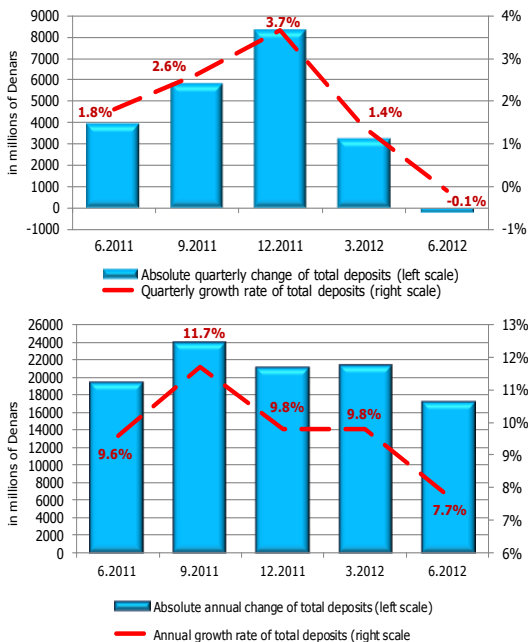
**Figure 27 Deposits of nonfinancial entities**



Source: NBRM, based on data submitted by banks.

As of June 30, 2012, **deposits of nonfinancial entities in the banking system were valued at Denar 237,156 million**. In the second quarter of 2012, the deposits decreased marginally, by Denar 232 million (0.1%) for the first time in twelve quarters.

**Figure 28 Quarterly and annual growth of deposits**

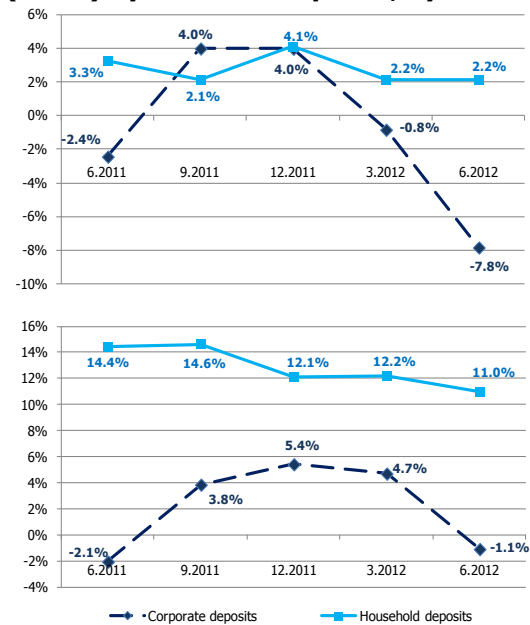


Source: NBRM, based on data submitted by banks.

The annual growth rate of deposits (June 2012 compared to June 2011) also slowed down.

... deposits, by sector

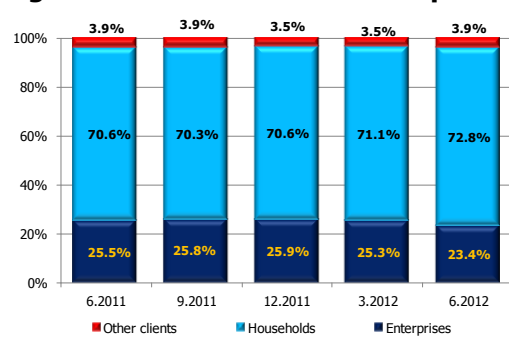
**Figure 29 Quarterly (up) and annual (down) dynamics of deposits, by sector**



Source: NBRM, based on data submitted by banks.

Corporate deposits also registered a **steep decrease** (of Denar 4,698 million or 7.8%) which makes them generators of the decrease of banks' total deposit core in the second quarter of 2012. Their fall primarily attributes to the decrease of corporate short-term Denar deposits with FX clause. Such trends are caused by the changes in one legal entity, rather than by the tendencies or developments typical for the overall corporate or banking sector<sup>9</sup>.

**Figure 30 Sector structure of deposits**



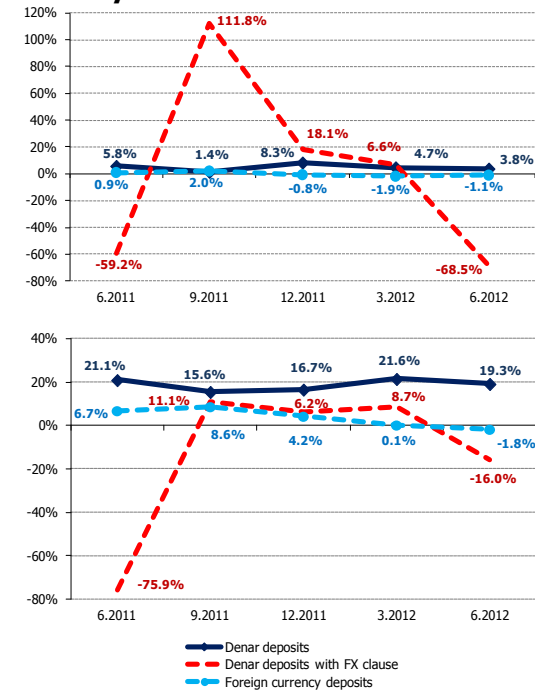
Source: NBRM, based on data submitted by banks.

Compared to June 2011, the household deposit growth also slowed down. However, the quarterly growth rates show that in the second quarter of 2012 the growth pace of these deposits stabilized. This is particularly important, taking into account that household deposits dominate the sector structure of banks' deposit core (in the second quarter, the household deposits rose by Denar 3,658 million).

<sup>9</sup> Payment of dividend.

**... deposits by currency**

**Figure 31 Quarterly (up) and annual (down) dynamics of deposits, by currency**



Source: NBRM, based on data submitted by banks.

The increased preference of deponents to save in Denars continued in the second quarter of 2012, which contributed to the quarterly growth of Denar deposits of Denar 4,367 million, compared to the quarterly decrease of foreign currency deposits (of Denar 3,332 million). Roughly half of the increase of Denar savings is attributable to the long-term household Denar savings, and the other half is due to the rise of short-term corporate Denar deposits.

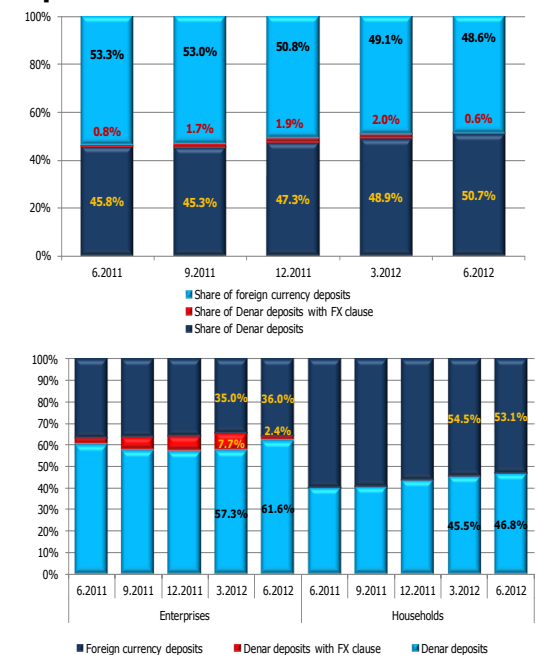
Observing the foreign currency deposits, the corporate foreign currency sight deposits decreased at the fastest pace. Short-term foreign currency deposits also declined, given the abovementioned dividend payment. In addition, the drastic fall of Denar deposits with FX clause (short-term, in particular) was caused by the dividend payment by one large company.

Denar deposits kept on increasing on an annual basis, at a slower pace though. On the other hand, annual growth rates of Denar deposits with FX clause and foreign currency deposits were negative.

**Denar deposits took the leading role in the currency structure of deposits of the nonfinancial entities for the first time since the last quarter of 2007.**

The sector-by-sector analysis of both corporate and household sectors shows that the significance of Denar deposits has increased (Annex 8).

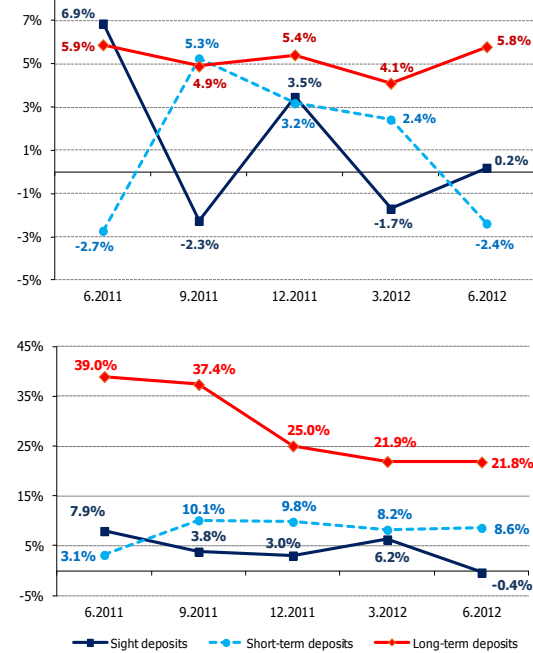
**Figure 32 Currency structure of deposits**



Source: NBRM, based on data submitted by banks.

... deposits by maturity

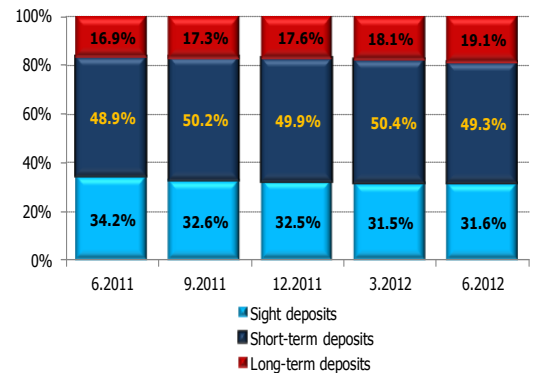
**Figure 33 Quarterly (up) and annual (down) dynamics of deposits, by maturity**



Source: NBRM, based on data submitted by banks.

Compared to short-term deposits, long-term deposits registered the highest growth rates, thus contributing to the gradual increase of their share in the deposit maturity structure. Long-term deposits went up by Denar 2,484 million, on a quarterly basis, while the short-term savings decreased quarterly by Denar 2,858 million. Long-term deposits went up due to the increase of long-term household Denar deposits. On the other hand, the decrease of short-term deposits was solely caused by the decrease of short-term corporate deposits, particularly the Denar deposits with FX clause (by Denar 2,384 million), and the foreign currency deposits attributable to the abovementioned payment of dividend.

**Figure 34 Maturity structure of deposits**



Source: NBRM, based on data submitted by banks.

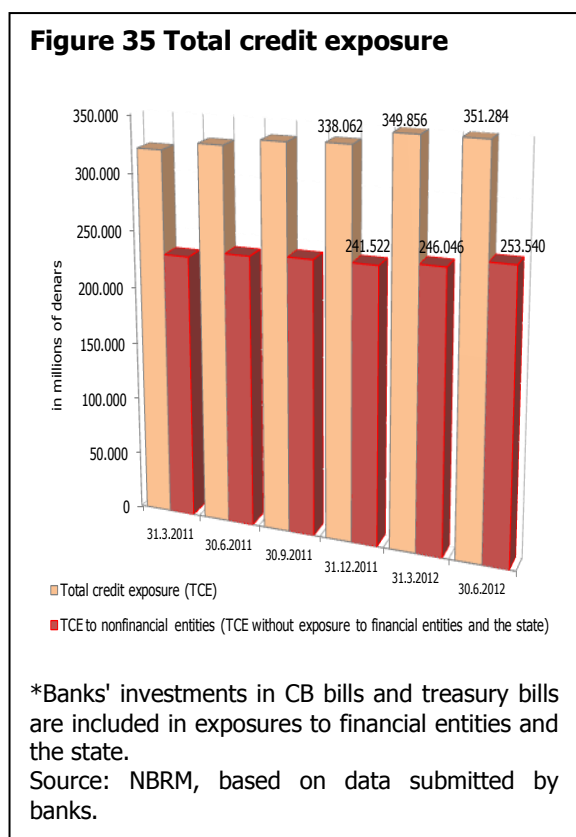
Short-term deposits dominate the maturity structure of total deposits, although their structural share decreased in the second quarter of 2012 (Annexes 8 and 9).



### III. Bank risks

#### 1. Credit risk

The second quarter of 2012 experienced a faster increase of banks' credit exposure, primarily due to the faster growth of lending activity to nonfinancial entities. Furthermore, the quality of banks' credit portfolio improved primarily due to the slower increase and lower share of nonperforming loans in the total loans, along with the higher coverage of nonperforming loans with impairment, the considerable collection of already written off claims and the lower share of uncollateralized exposure in the total credit exposure. The decrease of share of nonperforming loans in total loans results from the collection of corporate claims through foreclosure, rather than from the improved creditworthiness of such clients.

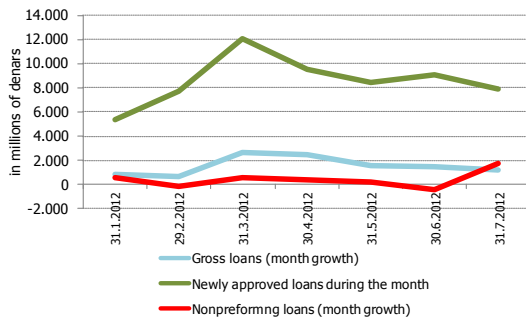


#### 1.1. Credit portfolio quality of the banking system

The increase of total credit exposure slowed down in the second quarter of 2012, primarily due to the exposure to financial activities<sup>10</sup> that reduced by Denar 14,188 million or by 16.4%. On the other hand, **the increase of banks' credit exposure to nonfinancial entities accelerated in the second quarter of the year** (by Denar 7,493 million or 3%), which is its highest quarterly growth in the last five quarters. **The sector of corporations and other clients made the greatest contribution to its growth** (hereinafter: corporations), increasing by Denar 5,311 million or 3.4% in this quarter (Annexes 12 and 13). Analyzing by activity, the credit exposure to the activity of production of metals, machinery and equipment and to the wholesale and retail trade enhanced the most. This growth primarily results from the increase of exposure in A risk category.

<sup>10</sup> The credit exposure to financial entities decreased due to the lower banks' investments in CB bills and lower accounts in foreign banks. The exposure to the state (public administration) went up by Denar 8,123 million or by 46.6% primarily due to the higher investments in treasury bills (for more details see "Liquidity Risk").

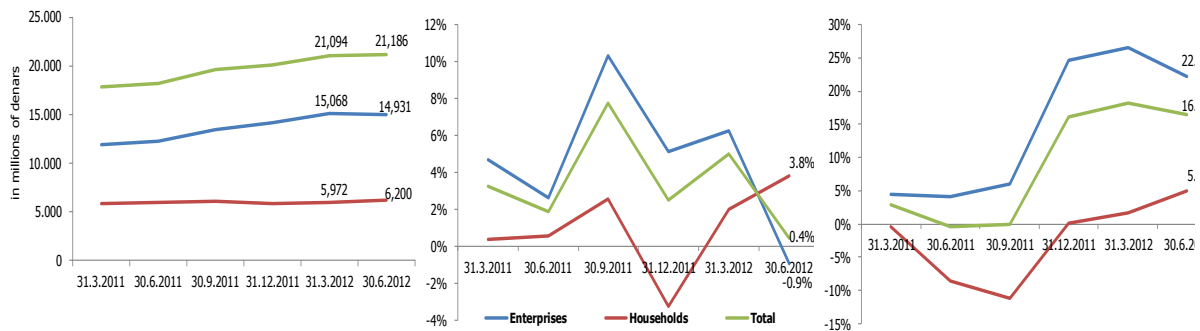
**Figure 36 Monthly change of loans**



Source: NBRM, based on data submitted by banks.

Observing the households, the credit exposure increased due to the increase of consumer credits which showed lower risk at the end of the second quarter.

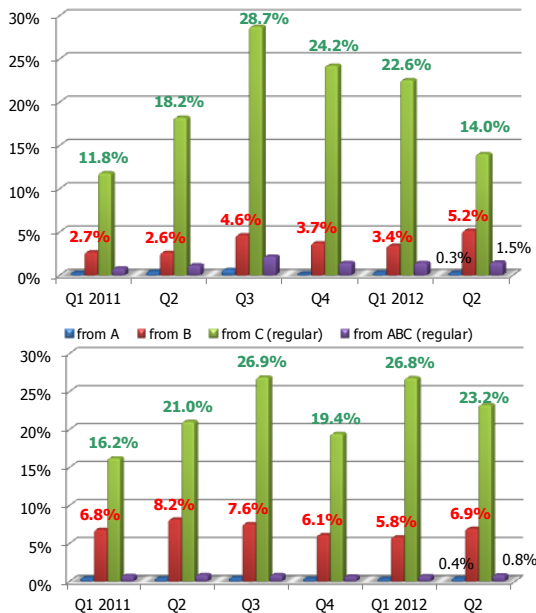
**Figure 37 Balance, quarterly and annual growth rate of nonperforming loans**



Source: NBRM, based on data submitted by banks.

**The growth of nonperforming loans slowed down in the second quarter of 2012.** While the nonperforming loans increased by Denar 1,006 million (5.0%) in the first quarter of 2012, in the second quarter they rose by merely 92 million (0.4%), solely in the household sector. Credit cards registered the fastest quarterly growth of nonperforming loans in this sector (Denar 33 million or 2.4%). **Yet, the slower growth of nonperforming loans in the second quarter is mostly caused by the fall of these credits registered in June 2012 (a monthly fall of 2%), primarily as a result of the collected claims on corporations through foreclosures, rather than of the improved performance or creditworthiness of this sector. Notwithstanding the deceleration of the growth, the nonperforming loans have been registering two-digit annual growth rates for three**

**Figure 38 Transition of credit exposure from regular to nonperforming status during the quarters - legal entities (up) and natural person (down)**

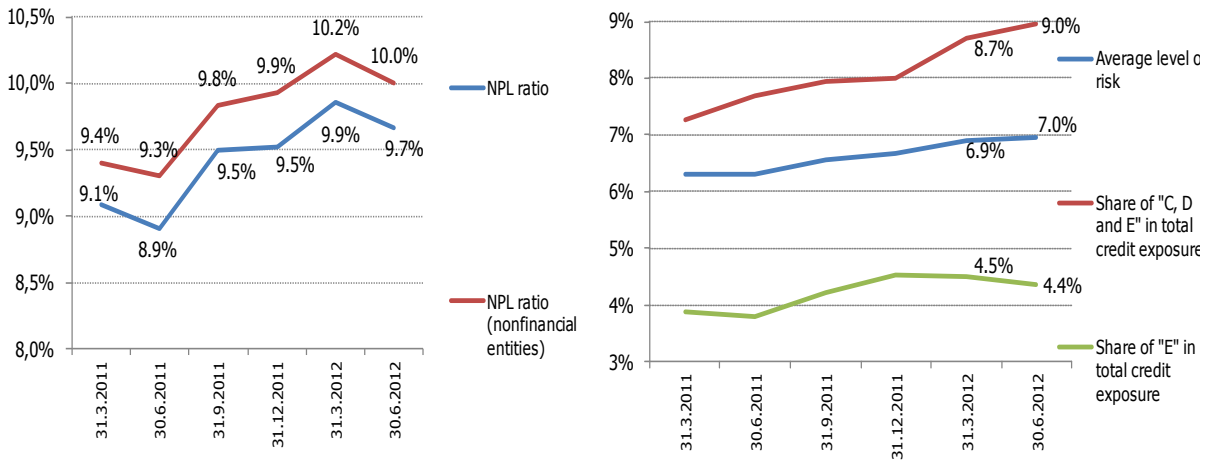


Source: NBRM, based on data submitted by banks.  
 \*The percentage is the ratio between credit exposure that became nonfunctional during the quarter and credit exposure at the beginning of the period under observation. Credit exposure approved during the quarter is not included.

**consecutive quarters.** Additionally, in July 2012, nonperforming loans registered a monthly growth of Denar 1,782 million (8.4%), mainly in the corporate sector.

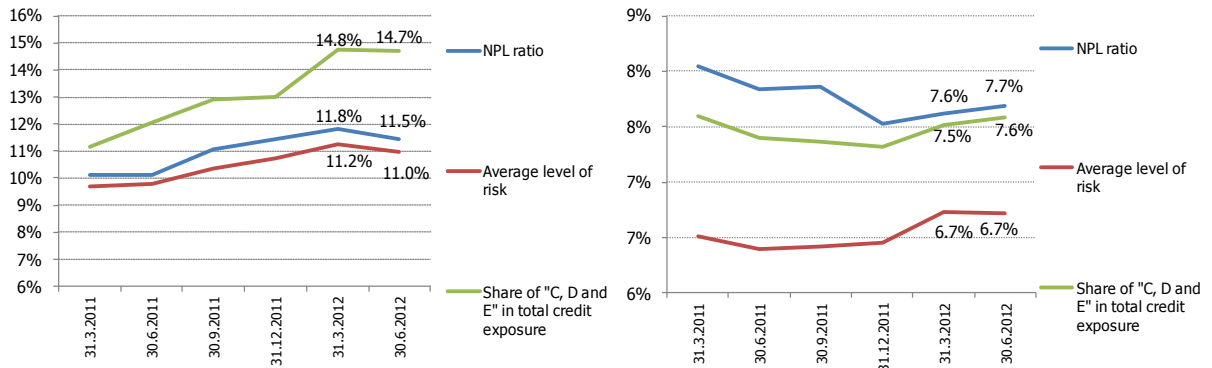
Transitional matrix, i.e. **the matrix for transition of a credit exposure from regular to nonperforming shows lower credit exposure classified in A, B and C risk categories that became nonperforming in the second quarter of 2012** (Annex 15). The percent of exposure to legal entities in C risk category that becomes nonperforming has been decreasing for four consecutive quarters. On the other hand, legal entities and natural persons reported higher exposure in B risk category which became nonperforming in the second quarter (naturally, the B risk category is closer to A risk category than to a nonperforming status). Any continuation of such trend in the following quarter, particularly in the corporate sector, could have adverse effects on the banks' credit portfolio quality. An insignificant part of the A risk category, which is considered to be of a lowest risk and which houses most of the credit exposure, moves towards nonperforming status.

**Figure 39 Nonperforming loans ratio and other credit risk indicators**



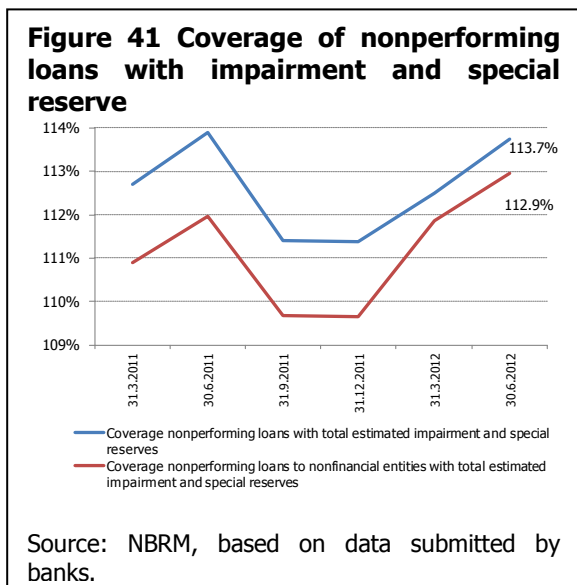
Source: NBRM, based on data submitted by banks.

**Figure 40 Credit risk indicators for enterprises (left) and households (right)**



Source: NBRM, based on data submitted by banks.

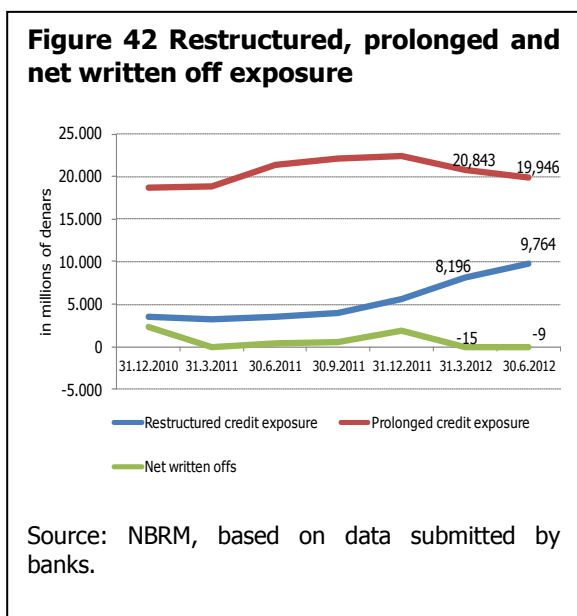
Compared to the previous quarter, the average risk level and the share of credit exposure in C, D and E in the total credit exposure increased by merely 0.1 and 0.3 percentage points, respectively (Annex 16), (0.2 and 0.7 percentage points, respectively, as of March 31, 2012). The impairment increased along with the increase of total credit exposure, where half of its quarterly growth in the overall banking system is attributable to the corporate sector. The higher share of C, D and E exposure is due to the quarterly growth of credit exposure in D risk category (Denar 691 million or 18.1%), particularly in the wholesale and retail trade



(accounting for 67.7% of the total increase of credit exposure in D risk category) (Annex 14).

Accommodation facilities and catering services<sup>11</sup> are activities with the highest credit risk in the corporate sector. Observing the household sector, car credits bear the highest risk (Annexes 18 and 19). Analyzing the currency structure, credit exposure in Denars with FX clause is the riskiest (Annex 17).

The slower growth of nonperforming loans and higher impairment in the second quarter of 2012 improved some of the credit risk indicators, i.e. reduced the share of nonperforming loans in total loans (nonperforming loan ratio) and increased the coverage of nonperforming loans with impairment. A month later, in July 2012, the faster growth of nonperforming loans deteriorated their rate, and reached 10.8% as of July 31, 2012 (and remained in August).



**The corporate sector is a generator of the upward trends of both restructured<sup>12</sup> and net written off claims.** The restructured credit exposure registered an increase of 19.1% on a quarterly basis, caused solely by the corporate sector. Moreover, the share of corporate sector in written off claims was the highest (41%), with the natural persons having the highest share in the total collection of already written off claims (89.2%).

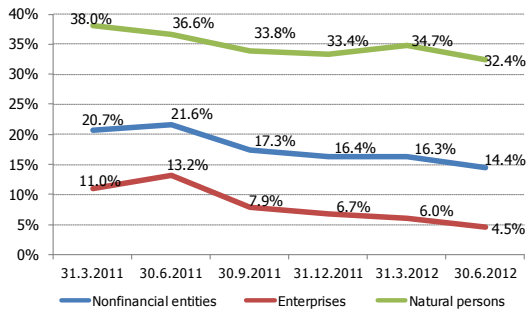
The average risk level of restructured exposure further decreased (from 35.3% as of March 31, 2012, to 34.3%), compared to the prolonged exposure, which increased (from 12.2% as of March 31, 2012, to 13.1%).

The downtrend of the share of uncollateralized credit exposure in the total credit exposure provides certain positive indications for the credit portfolio quality. This could be an

<sup>11</sup> As of June 30, 2012, it constitutes 0.9% of total credit exposure.

<sup>12</sup> Claim restructuring means establishment of a new credit exposure by the bank as a replacement of the already existing one, thus making significant changes in the contractual terms and conditions as a result of the deteriorated financial condition of the borrower.

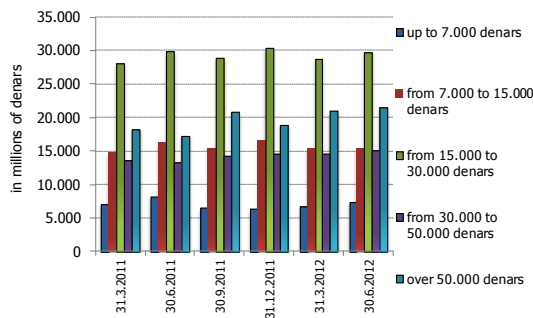
**Figure 43 Share of uncollateralized exposure in total credit exposure to nonfinancial entities**



Source: NBRM, based on data submitted by banks.

indicator for higher banks' prudence when lending, which corresponds with the stricter lending terms and conditions to the corporate sector<sup>13</sup> in the second quarter of the year.

**Figure 44 Credit exposure, by monthly income of borrowers (natural persons)**



Source: NBRM, based on data submitted by banks.

**Natural persons with monthly income of up to Denar 30,000 are the most indebted**, making up almost two thirds of total exposure to natural persons or approximately 75% of total exposure intended for consumption (Annex 20). Analyzing by individual, natural persons with monthly income of above 100,000 are the most indebted (Denar 383 thousands per person).

## 1.2. Stress test simulation for the banking system resilience to higher credit risk

Regular stress tests are conducted to examine the banking system sensitivity in case of deterioration of the quality of some credit portfolio segments. They include simulations of hypothetical migration of 10% (first simulation) and 30% (second simulation) of credit exposure to corporate and household sectors (individually and jointly to both sectors) to the two next higher risk categories.

<sup>13</sup> Banks' Lending Survey, July 2012.


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

Description		CAR at the level of banking system		Bank with lowest CAR, after simulation		Number of banks with CAR after simulation below the CAR of the overall banking system after simulation (number of banks with CAR after simulation below 8%)	
		31.3.2012	30.6.2012	31.3.2012	30.6.2012	31.3.2012	30.6.2012
<b>Base line</b>		<b>17.5%</b>	<b>17.4%</b>				
<b>Enterprises and households</b>	<b>I simulation</b>	<b>15.6%</b>	<b>15.3%</b>	<b>11.5%</b>	<b>11.1%</b>	<b>8(0)</b>	<b>7(0)</b>
	<b>II simulation</b>	<b>11.7%</b>	<b>10.6%</b>	<b>6.6%</b>	<b>5.1%</b>	<b>6(4)</b>	<b>7(4)</b>
<b>Enterprises</b>	<b>I simulation</b>	<b>16.2%</b>	<b>16.0%</b>	<b>12.1%</b>	<b>11.3%</b>	<b>8(0)</b>	<b>8(0)</b>
	<b>II simulation</b>	<b>13.5%</b>	<b>13.1%</b>	<b>8.7%</b>	<b>7.9%</b>	<b>7(0)</b>	<b>7(1)</b>
<b>Households</b>	<b>I simulation</b>	<b>16.8%</b>	<b>16.7%</b>	<b>12.7%</b>	<b>12.7%</b>	<b>8(0)</b>	<b>8(0)</b>
	<b>II simulation</b>	<b>15.4%</b>	<b>15.3%</b>	<b>11.5%</b>	<b>11.5%</b>	<b>8(0)</b>	<b>9(0)</b>

Source: NBRM, based on data submitted by banks.

The results from simulations show that the banking system is resilient to the simulated shocks. However, compared to the previous quarter, the results show worsening of some banks.

For more details of the results from the simulations see Annex 21.

**Table 3 Other results from the simulations**

Description		Share of "C, D and E" in total credit exposure		Average level of risk	
		31.3.2012	30.6.2012	31.3.2012	30.6.2012
<b>Base line</b>		8.7%	9.0%	6.9%	7.0%
<b>Enterprises and households</b>	<b>I simulation</b>	12.1%	12.4%	8.3%	8.5%
	<b>II simulation</b>	18.8%	19.2%	11.2%	11.4%
<b>Enterprises</b>	<b>I simulation</b>	10.8%	11.1%	7.8%	7.9%
	<b>II simulation</b>	15.0%	15.4%	9.6%	9.9%
<b>Households</b>	<b>I simulation</b>	10.0%	10.2%	7.4%	7.5%
	<b>II simulation</b>	12.5%	12.8%	8.4%	8.5%

Source: NBRM, based on data submitted by banks.

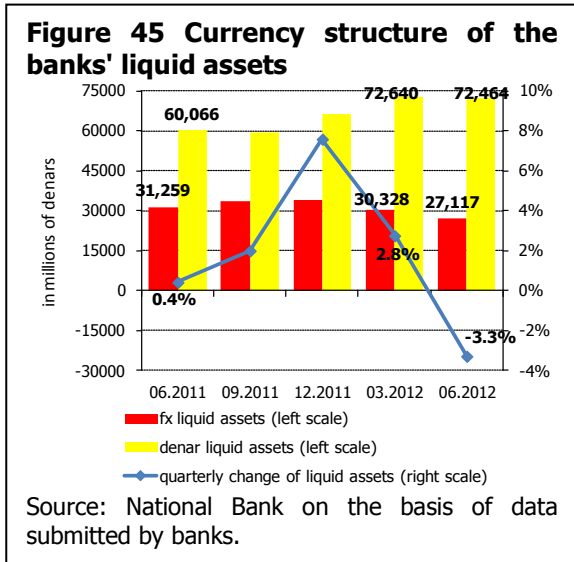
## 2. Liquidity risk

In the second quarter of 2012, the banks in the Republic of Macedonia have been maintaining the liquidity position on satisfactory level, although the amount of the liquid assets registered quarterly drop. The changes that the National Bank made in the operational framework for monetary policy conduct envisaging reduced frequency of auctions and restriction of the CB bills amount, as well as introduction of possibility for new investment alternatives<sup>14</sup>, contributed for more flexible and more efficient liquidity risk management by banks. One part of the „free“ liquid assets of the banks was directed towards the Treasury bills market, and to the increase of credit placements to the private sector. The difference in the yields of both the Denar and the foreign exchange liquid financial instruments contributed towards more evident decrease in the foreign currency liquid assets, while the banks preference for investments in Denar liquid instruments are still relatively strong. Although the liquidity indicators at the level of the banking system showed quarterly decrease, they are still at satisfactory level. However, from the viewpoint of the liquid assets currency, decrease in the indicators for foreign currency liquidity has been evidenced. In the structure of the sources of funding, increased use of sources of financing from foreign parent entities, as well as increased share in the long-term source of funding was registered. Also, the largest generator of the increase in the banks' sources of financing in the second quarter of 2012 was the increase in the banks' liabilities based on credits and loans. The decrease in the liquid assets caused changes in the banks' assets structure according to their residual contractual maturity, towards decrease in the assets with shorter residual maturity, as a result of which the maturity mismatch between the assets and liabilities deepened. The stress-test simulations mainly show resilience of the banking system to liquidity shocks. According to the last available data at the end of August 2012, the liquid assets register an increase of 4.7% annually. The liquidity indicators are at the level similar to that registered in June 2012.

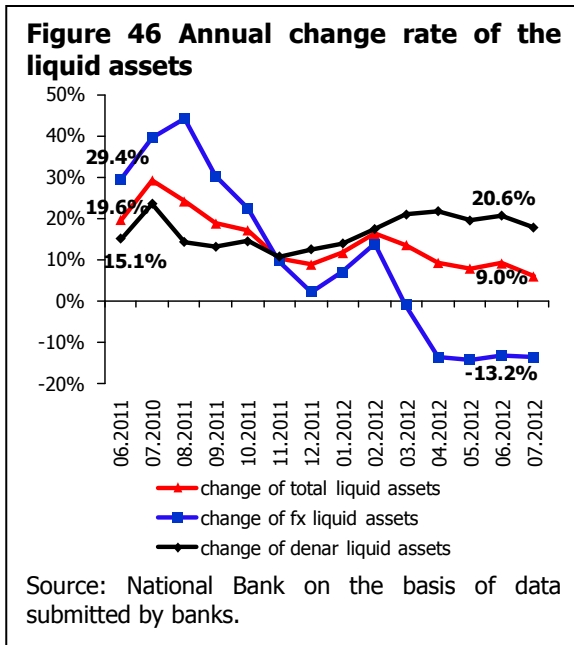
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<sup>14</sup> The changes enabled widening of the monetary framework, introducing two new types of instruments: a seven-day deposit and overnight deposit.





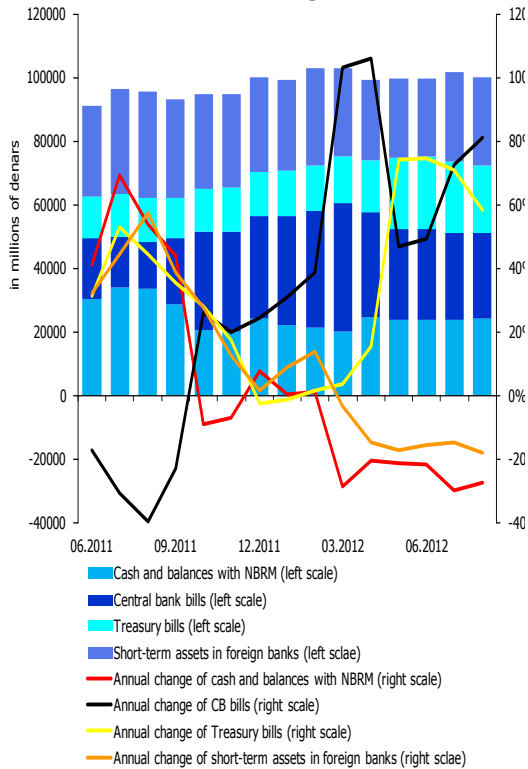
At the end of the second quarter of 2012, the liquid assets<sup>15</sup> at the level of the banking system equal Denar 99,581 million, registering a quarterly drop of 3.3%, i.e. Denar 3,388 million. However, observed on annual basis, the liquid assets increased by Denar 8,256 million, i.e. 9.0%. In the liquid assets currency structure, the Denar assets remained on almost identical level as that registered at the end of the first quarter of 2012, while the quarterly decrease was concentrated with the foreign currency liquid assets. On annual basis, the foreign currency liquid assets registered a decrease, which is primarily due to the decrease in the correspondent accounts and the short-term placements with foreign banks by 15.4%. On the other hand, the Denar liquid assets registered annual increase (of 20.6%), but in the second quarter of 2012, it registered a decrease of 0.2%, pointing to the gradual change in the banks' preference to place assets in liquid instruments. This change can be considered a consequence of the smaller yield of the liquid interments.



In the structure of the liquid assets by the financial instruments, the annual increase mainly arises from the increase in the assets placed in Treasury bills (of 74.5%) and in CB bills (of 49.5%). However, in the second quarter of 2012,

<sup>15</sup> The liquid assets encompass cash and balances with the NBRM, the CB bills, the correspondent accounts and the short-term deposits with foreign banks and placements in short-term securities issued by the Government. For liquidity needs, the assets and liabilities with FX clause are considered as Denar ones. For analysis needs, the assets and the liabilities in Denars with FX clause are considered Denar.

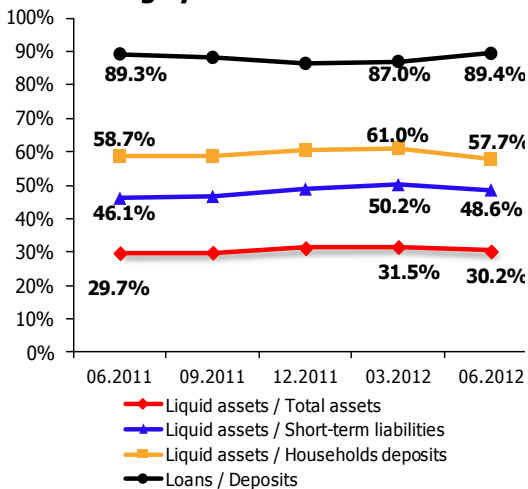
**Figure 47 Liquid assets of the banks by the financial assets they consist of**



Source: National Bank on the basis of data submitted by banks.

assets reallocation towards smaller CB bills investments of Denar 11,696 million (28.9%) was registered, compared to the increase in the investments in Treasury bills of Denar 8,212 million (of 56.0%). The main driving force of this change was the limited frequency of the CB bills auctions to once within the reserve requirement calculation period with simultaneous limitation of the bid CB bills amount, in conditions of intensified frequency of the auctions and the bid Treasury bills amount. At the end of the second quarter of 2012, the share of the CB bills in the liquid assets structure equals 28.8% and in comparison with the end of the first quarter of 2012, it fell by 10.4 percentage points. On the other hand, the share of the Treasury bills registered an increase of 8.7 percentage points and on June 30,2012, it equals 23.0%. In the second quarter of 2012, the short-term assets placed in foreign banks dropped by 13.1%, participating in the liquid assets structure with 24.3%, which is less by 2.7 percentage points compared to the end of the first quarter of 2012.

**Figure 48 Indicators for the liquidity of the banking system**



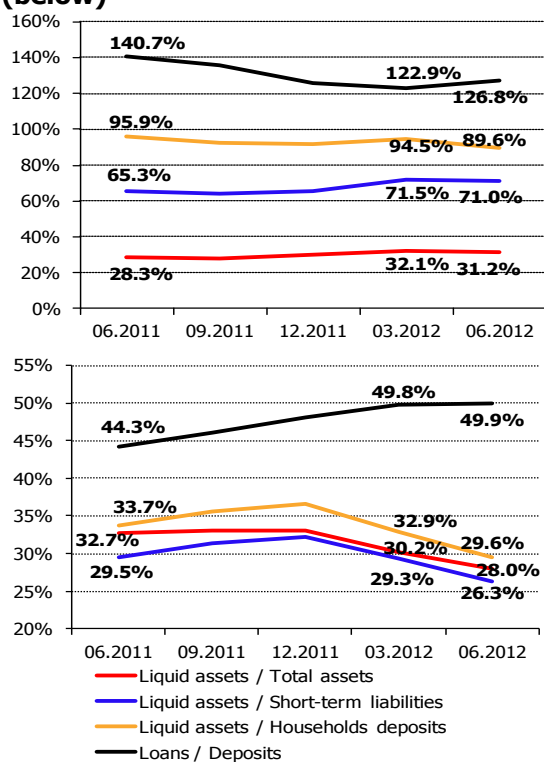
Source: National Bank on the basis of data submitted by banks.

**In the second quarter of 2012, the indicators for the bank liquidity<sup>16</sup> registered certain decrease (Annex 22).** This decrease in the indicators is due to the fall in the banks' liquid assets on a quarterly basis, given the simultaneous growth of the total assets and the individual sources of financing. On the other hand, at the end of the second quarter of 2012, the credit/deposit indicator is higher by 2.4 percentage points compared to the end of the first quarter of 2012, thus indicating gradual intensification of the banks activity on the credit market.

<sup>16</sup> The calculation of the liquidity indicators at the level of the banking system does include the resident interbank assets and liabilities.



**Figure 49 Indicators for the liquidity of the banking system by currency - Denars (above) and foreign exchange (below)**



Source: National Bank on the basis of data submitted by banks.

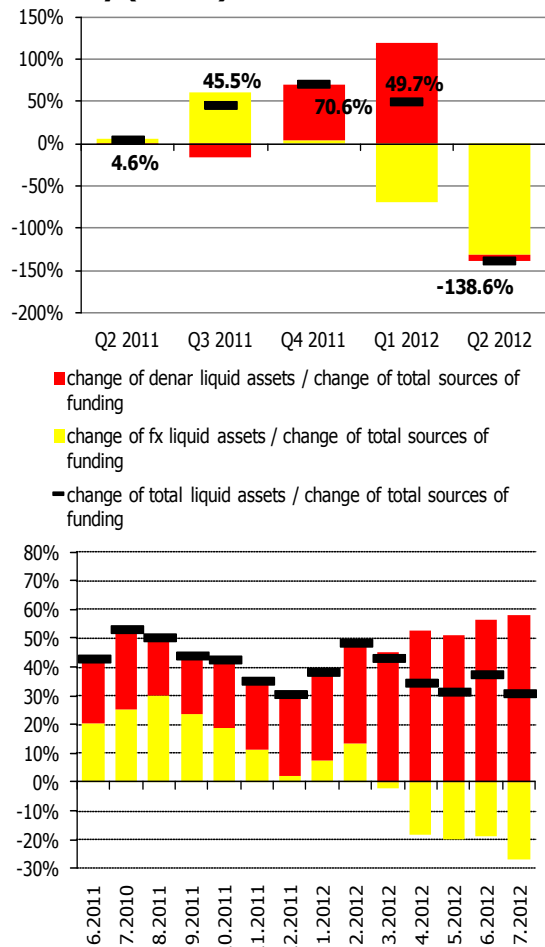
Observed from the viewpoint of the currency structure, in the second quarter of 2012, the decrease in the foreign exchange liquidity indicators continued, contrary to the relatively more stabilized dynamics of the Denar liquidity indicators. This occurrence is a result of the constant decrease in the foreign currency liquid assets whereas the increase in the Denar liquid assets. On the other hand, in the second quarter of 2012, the Denar credit/deposit indicator was registered, which primarily arises from the increase in the Denar crediting in the second quarter of 2012. Also, larger preference of the nonfinancial entities for Denar saving and decrease in the foreign currency deposits has also been registered, which conditioned, beside smaller foreign currency lending, slight deterioration of the foreign currency credit/deposit indicator.

**Table 4 Sources of financing of the banks**

Type of sources of funding	31.03.2012		30.06.2012		Quarterly change	
	Amount (in millions of denars)	Share in structure	Amount (in millions of denars)	Share in structure	Absolute	Relative
<b>Deposits of nonfinancial enteties</b>	<b>238,022</b>	<b>71.0%</b>	<b>238,663</b>	<b>70.7%</b>	<b>641</b>	<b>0.3%</b>
-o.w. by parent enteties	108	0.0%	51	0.0%	-57	-52.7%
<b>Deposits of financial institutions</b>	<b>13,421</b>	<b>4.0%</b>	<b>14,183</b>	<b>4.2%</b>	<b>761</b>	<b>5.7%</b>
-o.w. by parent enteties	4,467	1.3%	5,117	1.5%	649	14.5%
<b>Borrowings, issued securities, subordinated debt and hybrid capital instruments</b>	<b>39,281</b>	<b>11.7%</b>	<b>40,294</b>	<b>11.9%</b>	<b>1,013</b>	<b>2.6%</b>
-o.w. by parent enteties	9,164	2.7%	9,614	2.8%	450	4.9%
<b>Equity and reserves</b>	<b>39,870</b>	<b>11.9%</b>	<b>40,545</b>	<b>12.0%</b>	<b>676</b>	<b>1.7%</b>
<b>Other sources of funding</b>	<b>4,438</b>	<b>1.3%</b>	<b>3,975</b>	<b>1.2%</b>	<b>-462</b>	<b>-10.4%</b>
-o.w. by parent enteties	48	0.0%	112	0.0%	64	133.9%
<b>Total sources of funding</b>	<b>335,031</b>	<b>100.0%</b>	<b>337,660</b>	<b>100.0%</b>	<b>2,629</b>	<b>0.8%</b>
<b>Long-term sources of funding</b>	<b>113,663</b>	<b>33.9%</b>	<b>115,523</b>	<b>34.2%</b>	<b>1,860</b>	<b>1.6%</b>
-o.w. by parent enteties	8,186	2.4%	9,244	2.7%	1,058	12.9%
<b>Short-term sources of funding</b>	<b>177,061</b>	<b>52.8%</b>	<b>177,616</b>	<b>52.6%</b>	<b>555</b>	<b>0.3%</b>
-o.w. by parent enteties	5,553	1.7%	5,538	1.6%	-15	-0.3%
<b>Equity and reserves</b>	<b>39,870</b>	<b>11.9%</b>	<b>40,545</b>	<b>12.0%</b>	<b>676</b>	<b>1.7%</b>
<b>Other sources of funding</b>	<b>4,438</b>	<b>1.3%</b>	<b>3,975</b>	<b>1.2%</b>	<b>-462</b>	<b>-10.4%</b>
-o.w. by parent enteties	48	0.0%	112	0.0%	64	133.9%
<b>Total sources of funding</b>	<b>335,031</b>	<b>100.0%</b>	<b>337,660</b>	<b>100.0%</b>	<b>2,629</b>	<b>0.8%</b>

Source: The data are submitted by the banks on the basis of a special National Bank request, because of which differences compared to the on-balance sheet data the bank submits regularly pursuant to the Decision on submitting data on the balances and the turnover on the accounts of the banks' chart of accounts and the financial statements can occur.

**Figure 50 Change in the liquid assets/change in the total sources of funds on a quarterly basis (above) and annually (below)**



Source: National Bank on the basis of data submitted by the banks.

**In the second quarter of 2012, the volume of used sources of financing from foreign parent entities increased.** Thus, on a quarterly basis, the sources of funding originating from the banks' parent entities grew by Denar 1,107 million, i.e. by 8.0%. The generator of this growth was the long-term sources of funds, primarily in form of deposits.

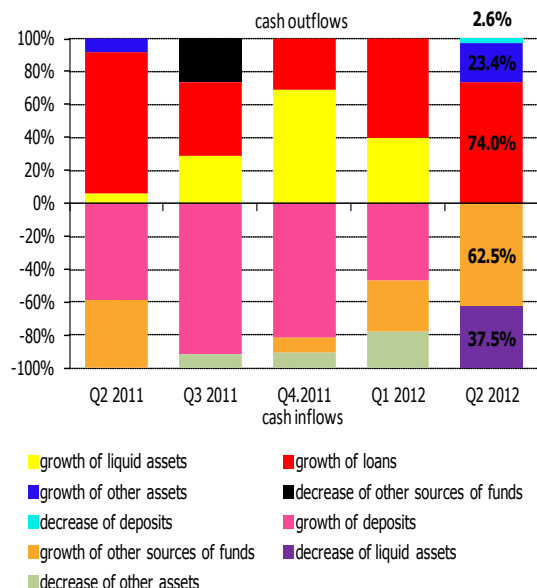
However, in comparison with June 30, 2012, the used sources of funds of the domestic banks from their parent entities registered a decrease of 21.2%, which mainly arises from the decrease in the short-term borrowings from the parent entities (annual drop of Denar 3,080 million). On annual basis, seven banks registered smaller use of sources of funding from the parent entities (five banks on a quarterly basis), as opposed to three banks, which resorted to larger use of the parent entities' sources of funds.

**The increase in the banks sources of funding in the second quarter of 2012, primarily arose from the long-term sources of financing (share of 70.8% in the total quarterly growth), which were mainly in form of credit and loan based liabilities, followed by the deposits of both the financial institutions and non-financial entities.** These movements caused moderate rise in the share of the long-term sources of financing (of 0.4 percentage points) and the liabilities based on credits and loans (of 0.2 percentage points) in the structure of the sources of funding.

**In the second quarter of 2012, the change in the monetary policy operational framework caused significant changes in the banks preference for placement of the new sources of funds.** Namely, contrary to the first quarter, in the second quarter of 2012, because of the liquid assets reduction, the ratio between the quarterly change of the liquid assets and the total sources of funds was negative, which is another proof for the banks changed preferences towards larger funding of the private



**Figure 51 Cash inflow and outflow structure of the banking system**



Source: National Bank on the basis of data submitted by the banks.

\* With the category „other assets“ includes assets other than credits to nonfinancial entities and not included in the category of liquid assets (long-term placements in foreign and domestic banks, foreign currency reserve requirement, foreclosed assets, fixed assets, etc.).

\*\* The category of other sources of funding includes funding sources other than nonfinancial entities' deposits (equity and reserves, financial institutions' deposits, borrowings, subordinated instruments, etc.).

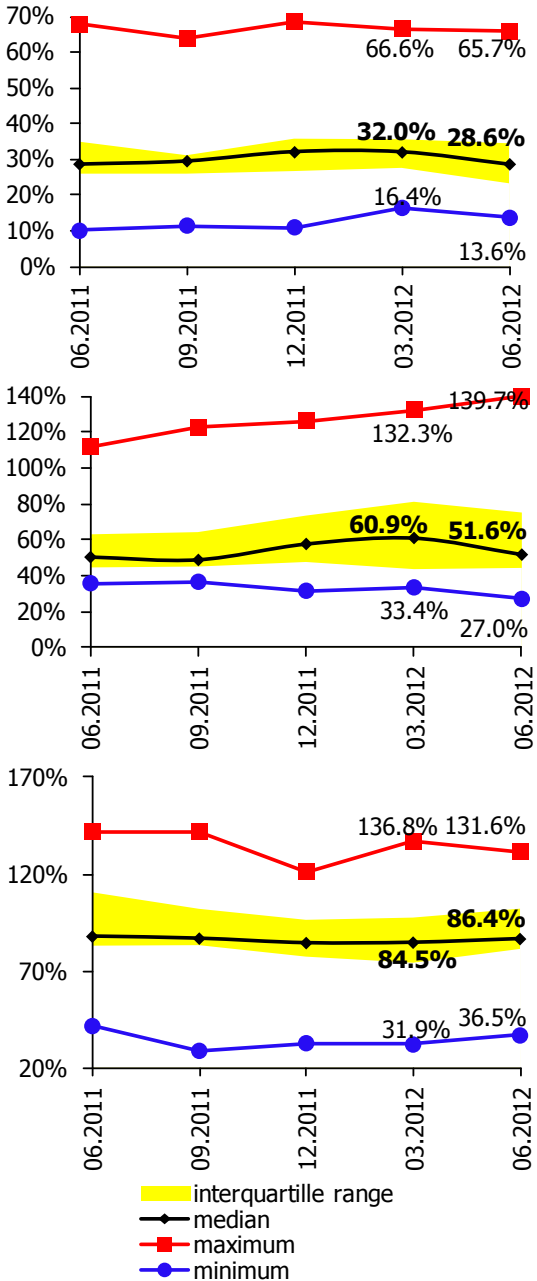
sector. Also, on annual basis, the ratio between the change in the liquid assets and the total sources of funds registers gradual decrease. The investments in Denar liquid instruments fully determined the value of this indicator, which shows the banks inclination for conversion of the foreign currency liquid assets into Denar financial instruments, primarily because of the high expected yield from the Denar instruments.

**The enlarged appetite of the banks for private sector crediting is also perceived through the structure of the banks cash outflows<sup>17</sup> in the second quarter of 2012.**

Thus the largest share of the banks cash outflow in this quarter accounts for the outflows based on extended credits, creating more than three quarters of the total cash outflows. In the cash inflows structure, the increase in the non-deposit sources of funds was the most important source of funds, creating 62.5% of the total cash inflows of the bank in the second quarter of 2012. The liquid assets reduction emerging as banks source of funding with a share of 37.5%, should also be emphasized. By bank, the deposit growth takes the largest share in the cash inflow structure with five banks, while with four banks, the largest portion of the cash inflows originate from the increase in the other non-deposit sources of funds. However, in the second quarter, the largest portion of the sources of financing with seven banks was created by the decrease in the liquid assets, while with one bank, by the decrease in other assets categories. The largest share in the cash outflows structure accounted to the credit growth with eight banks, to the liquid assets placements with two banks, while with one bank to the increase in other assets. With the other six banks, the largest portion of the cash outflows in the second quarter of 2012 arises from the decrease in certain categories of sources

<sup>17</sup> The cash inflows and outflows of the banks in the second quarter of 2012 are obtained indirectly, i.e. through quarterly change in the balances on individual accounts of the banks' balance sheets. The effect on the banks' cash flows, which are due to the expenditures and income which are not cash outflow, or inflow (for example: credit write-offs, revaluation of the securities available for sale, or kept for trading, depreciation of fixed assets, net exchange rate differentials etc.) is an integral part of the change of the adequate on-balance sheet items the respective income, or expenditure refers to.

**Figure 52 Certain indicators for the liquidity of individual banks**  
**above: liquid assets / total assets**  
**at the middle: liquid assets / short-term liabilities**  
**below: credits/deposits**



Source: National Bank on the basis of data submitted by banks.

of funds, with four of the banks facing a decrease in the deposits of the non-financial entities.

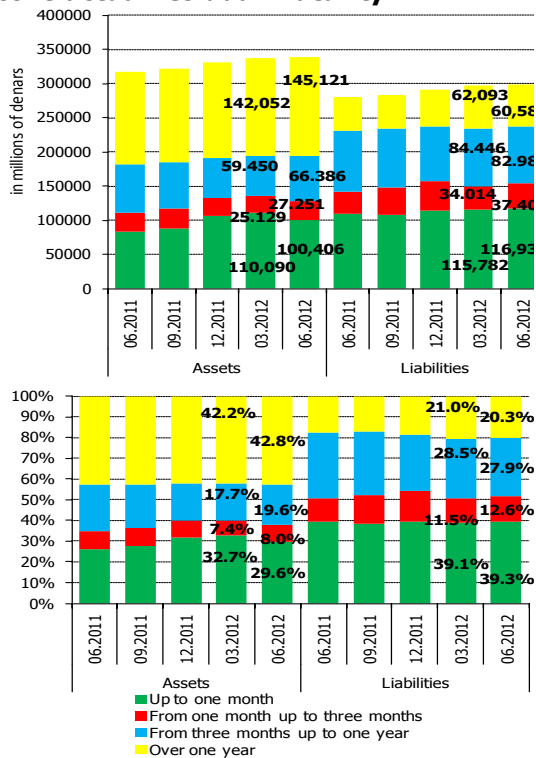
On a quarterly basis, the liquid assets registered a decrease with nine banks within 5.2% - 50.7% interval, the share of which in the total assets of the banking system equaled 57.6% on June 30, 2012. On the other hand, the liquid assets registered a quarterly increase with eight banks, which ranged within 1.0% - 51.3% interval.

The decrease in the liquid assets with most of the banks resulted in downward movements of the liquidity indicators in both, the median value and the minimal values of the indicators that have been registered with individual banks, which resulted in widening of the interquartile difference. Thus the share of the liquid assets in the total assets at the end of the second quarter of 2012 fell with 12 banks compared to the end of the first quarter of 2012. Identical number of banks registered a decrease in the coverage of the short-term liabilities with liquid assets on a short-term basis. At the end of the second quarter of 2012, the value of the credit/deposit indicator was higher than 100% with four banks, while the median of this indicator registered an increase, which primarily reflects the banks larger preference to place their assets in credits.

At the end of the second quarter of 2012, the banks' liabilities maintained the larger contractual residual maturity up to one year compared to the assets of the banking system (Annex 23). No larger movements in the banks' liabilities structure according to the residual contractual maturity were registered.

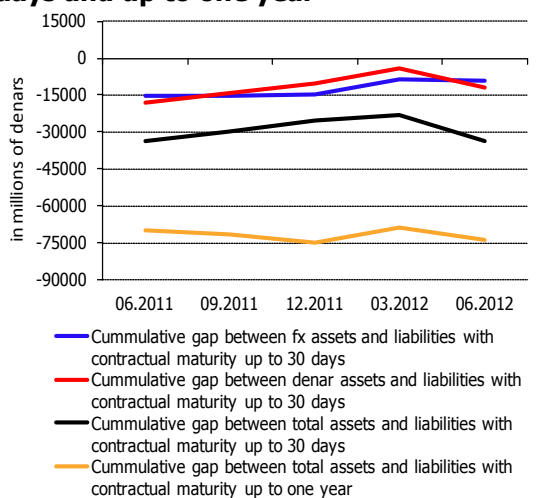


**Figure 53 Absolute amount (above) and structure (below) of the assets and liabilities of the banks by the contractual residual maturity**



Source: National Bank on the basis of data submitted by banks.

**Figure 54 Cumulative difference between the assets and liabilities with contractual residual maturity to 30 days and up to one year**



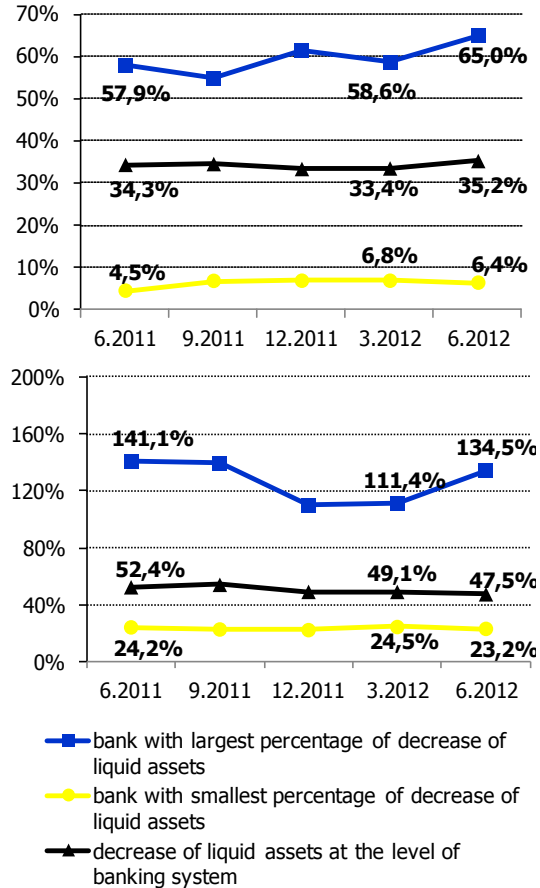
Source: National Bank on the basis of data submitted by banks.

On the other hand, in the second quarter of 2012, certain movements in the structure of the banks' assets by the residual maturity were registered. Namely, the decrease in the banks' liquid assets caused a quarterly decrease in the assets with residual one-month maturity of 8.8%. On the other hand, in the second quarter of 2012 the banks' assets with residual three month-to-one year maturity augmented by 11.7%. In the banks' assets structure by the contractual residual maturity, these quarterly movements contributed for smaller share of the assets with residual maturity to one month (by 3.1 percentage point), while larger share of the assets with residual maturity from three months to one year (of 1.9 percentage point). These movements in the second quarter of 2012 resulted in deepening of the maturity mismatch between the assets and liabilities with contractual maturity in the segments with smaller maturity.

**In the second quarter of 2012, the cumulative negative gap between the assets and liabilities widened, not only in all maturity segments by the residual contractual maturity, but according to their currency features, as well.** This occurrence was triggered by the decrease in the assets with smaller residual maturity, primarily to one month, which is, from one part, a result of the quarterly decrease in the banks' liquid assets.

On the other hand, according to the banks expectations, the assets and liabilities gap in all maturity segments is positive. This arises from the banks expectations for maintaining the deposits stability as main source of financing of their activity (Annex 24). Namely, the banks expect that 83.2% of the deposits with residual maturity to three months will be stable, remaining in the banks also in the following three months (82.2% with the time deposits and 89.2% with the sight deposits).

**Figure 55 Results of the simulation for withdrawal of 20% of the household deposits (above) and withdrawal of the deposits for the twenty largest depositors (below)**



Source: National Bank on the basis of data submitted by banks.

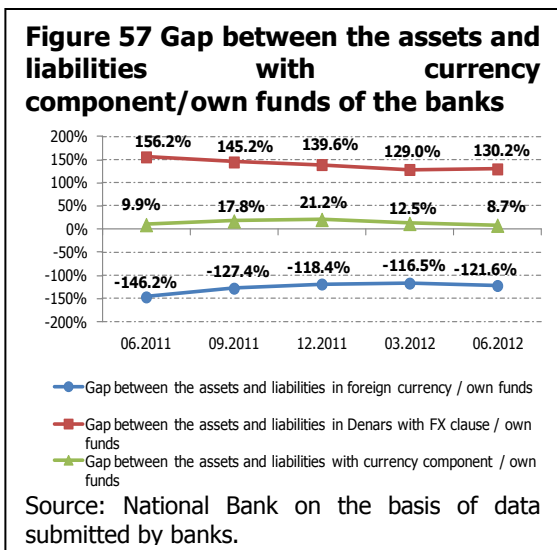
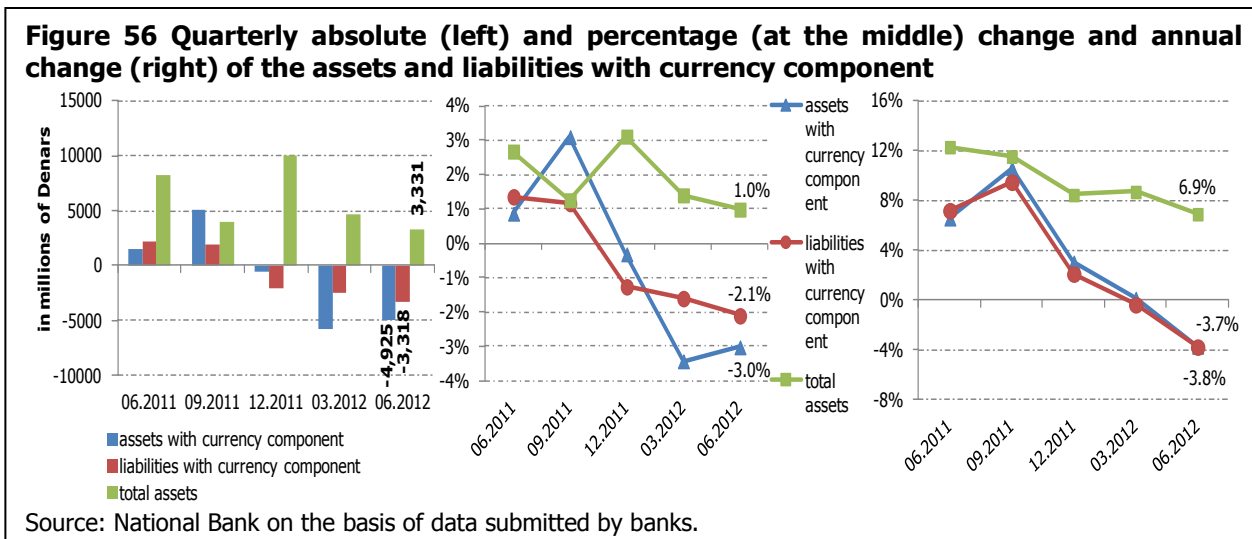
**The Macedonian banking system continued to show high resilience to liquidity shocks also in the second quarter of 2012.**

The simulations for the resilience of the banking system constantly show that the banks have enough liquid assets to face with the shocks related to the possible outflow of deposits as the most important source of funding. Slightly higher vulnerability has been evidenced in case of possible withdrawal of the deposits of the 20 largest depositors outside the banking system, which mainly arises from the relatively higher concentration of the deposits with some of the banks. Thus at the end of the second quarter of 2012, the withdrawal of the deposits of the 20 largest depositors would result in liquid assets reduction at the level of the banking system from 30.1% to 18.3%. In case of possible withdrawal of 20% of the household deposits, the liquid assets would reduce by 35.2%, while their share in the total assets would equal 21.7%. The simulation envisaging outflow of the sources of funds the bank use from their parent entities (except subordinated and hybrid capital instruments), the payment of which is regulated with a special bylaw of the National Bank), by bank, the liquid assets would reduce within 0.2% - 54.6% interval, or 8.1% at the level of the banking system. The share of the banks' liquid assets in case of this simulation would reduce by 1.5 percentage points. If, in case of possible outflow, subordinated instruments are also taken into consideration, then the decrease in the liquid assets at the level of the banking system would equal 14.4%, while its share in the total assets would equal 27.3%.



### 3. Currency risk

The exposure to currency risk continued to decrease also in the second quarter of 2012. The gap between assets and liabilities with currency component got smaller also in this quarter, arising from the narrowing of the Euro assets/liabilities gap. The decrease in the currency risk can also be perceived through the reduced capital requirement for covering this risk (only 2.6% of the own funds are used for currency risk coverage). The aggregate foreign currency position with all banks is within the prescribed limit (30% of the own funds), which was preserved also in July and August 2012.



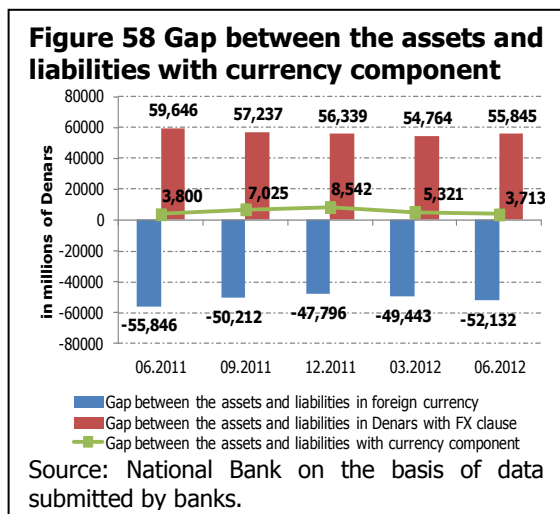
The gap between the assets and liabilities with currency component at the level of the banking system registered quarterly drop of 30.2% or Denar 1,608 million, as an effect of more apparent decrease in the assets with currency component relative to the liabilities with currency component. The decrease in the assets with foreign currency component was almost equally due to the foreign currency assets<sup>18</sup> and the Denar assets with FX clause<sup>19</sup>. On the other hand, the decrease in the liabilities with currency component mainly arises from the Denar liabilities with FX clause<sup>20</sup>.

<sup>18</sup> The foreign currency assets fell by Denar 2,808 million, or 2.8%, within which the time deposits with one-month maturity in foreign banks registered quarterly decrease of Denar 4,241 million.

<sup>19</sup> The Denar assets with FX clause went down by Denar 2,118 million, or 3.4%, which was mainly contributed by the placements in Treasury bills with FX clause, which decreased by Denar 1,597 million, or 50.0%.

<sup>20</sup> The liabilities in Denars with FX clause decreased by Denar 3,199 million, or 41.7% (in the preceding quarter, they went up by Denar 277 thousand), mostly because of the decrease in the Denar deposits with FX clause of the legal entities to one month (withdrawn deposits in the amount of Denar 2,077 million with two banks by one company for payment of dividend).

The narrowing of the gap between the assets and liabilities with currency component, in conditions of minor rise in the own funds<sup>21</sup>, contributed towards a decrease in their ratio of 3.9 percentage points, which also means further **downward movement of the bank exposure to the currency risk**, which began in the previous quarter.



The high negative value of the foreign currency assets and liabilities gap is "compensated" with the positive value of the gap between the positions in Denars with FX clause. In the second quarter of 2012 the negative gap between the assets and liabilities in foreign currency and the positive gap between the assets and liabilities in Denars with FX clause additionally widened by Denar 2,689 and 1,081 million, respectively. In both cases, the reason for the gap widening is the different intensity of the changes. The widening of the negative foreign currency gap arises from the substantially larger decrease in the foreign currency assets (Denar 2,808 million, or by 2.8%) compared to the minimal decrease in the foreign currency liabilities (Denar 119 thousand, or 0.1%). The reason for the widening of the positive gap in Denars with FX clause is the aforementioned fall in the Denar deposits with FX clause because of the dividend payment, as well as the decrease in the assets in Denars with FX clause of Denar 2,118 million, or 3.4%.

**Table 5 Share of the assets and liabilities with currency component in the total assets**

Item	30.06.2011	31.03.2012	30.06.2012
Assets in Denars with FX clause	20.7%	18.6%	17.8%
Assets in foreign currency	31.2%	30.0%	28.9%
<b>Assets with currency component</b>	<b>51.9%</b>	<b>48.6%</b>	<b>46.7%</b>
Liabilities in Denars with FX clause	1.8%	2.3%	1.3%
Liabilities in foreign currency	48.8%	44.8%	44.3%
<b>Liabilities with currency component</b>	<b>50.7%</b>	<b>47.0%</b>	<b>45.6%</b>

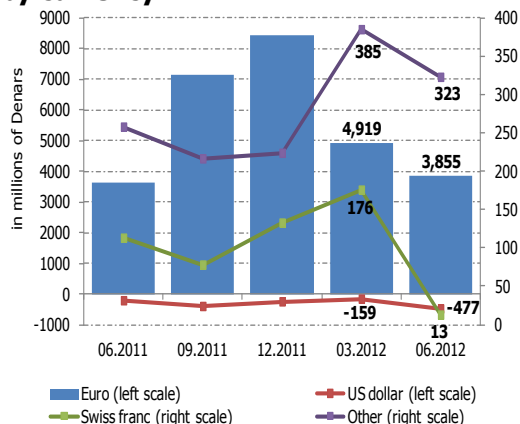
Source: National Bank on the basis of data submitted by banks.

The downward trend of the assets and liabilities with currency component, which began in December 2011, in conditions of an increase in the total assets of the banking system resulted in **gradual decrease in the share of the positions with currency component in the total assets**. In comparison with December 31,2011, these shares went down by 4.4 and 2.9 percentage points, respectively. The termination of the long-lasting and mounting Euroization of the banking system can be linked with the larger uncertainty about the Euro currency and Euro

<sup>21</sup> More detailed analysis of the banks' own funds has been provided in Section III.5. Insolvency risk.



**Figure 59 Gap between the assets and liabilities with currency component, by currency**



Source: National Bank on the basis of data submitted by banks.

area crisis and the measures of the National Bank for 2009<sup>22</sup> and 2011<sup>23</sup>.

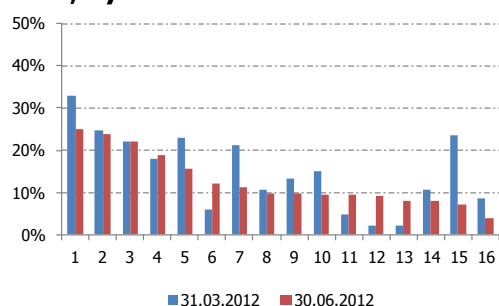
Having in mind the dominance of the Euro in the structure of assets and liabilities with currency component, the movements with the Euro positions are generator of the previously mentioned changes in the assets and liabilities with currency component. The Euro assets and liabilities gap reduced by Denar 1,064 million, or 21.6% compared to the previous quarter. The gap in Swiss Franks shrank, while the negative gap in US Dollar deepened<sup>24</sup>.

**Table 6 Structure of the assets and liabilities with currency component, by currency**

Currency	31.03.2011		30.06.2012	
	Assets	Liabilities	Assets	Liabilities
Euro	88.9%	88.4%	88.3%	87.9%
US dollar	7.2%	7.8%	7.3%	7.8%
Swiss franc	1.9%	1.9%	2.0%	2.0%
Other	2.0%	1.9%	2.4%	2.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: National Bank on the basis of data submitted by banks.

**Figure 60 Ratio of the aggregate foreign currency position and own funds, by bank**



Source: National Bank on the basis of data submitted by banks.

On June 30,2012, the aggregate foreign currency position was within the prescribed limit for the aggregate foreign currency position with all banks (30% of the own funds). This trend continued and this limit was observed also in the first two months of the third quarter of 2012.

<sup>22</sup> The introduction of different reserve requirement rates on reserve requirement by the currency of the source of funds.

<sup>23</sup> The introduction of single minimal liquidity ratio, regardless of the currency (previously the minimal liquidity ratios has been monitored separately for the Denar and foreign currency positions).

<sup>24</sup> The changes in the gap between assets and liabilities in Swiss Franks and in US Dollars were result of the reduced deposits with foreign banks (by Denar 528 and 663 million, respectively).

**Table 7 Open currency position by currency in relation to the banks' 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
under 5%		1	9	5	11	3	12	2
from 5% to 10%	4	4	1				1	
from 10% to 20%	4	1						
from 20% to 30%	2							
over 30%								

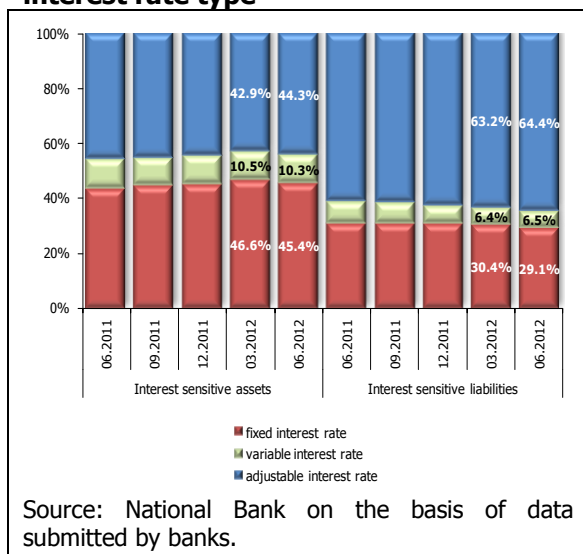
Source: National Bank on the basis of data submitted by banks.

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

The significance of the interest rate risk in the banking book remained low compared to the exposure to other risks. This is due to the large presence of the adjustable interest rates<sup>25</sup>, which enables the banks to avoid the effects of the possible unfavorable changes to the interest rates. But with such practice banks transfer the interest rate risk to the bank product users (credits), simultaneously transforming it into indirect credit risk, thus increasing the already large significance of the credit risk in the total risk profile of the banks.

##### 4.1. Structure of the interest sensitive assets and liabilities

**Figure 61 Structure of the interest sensitive assets and liabilities by the interest rate type**

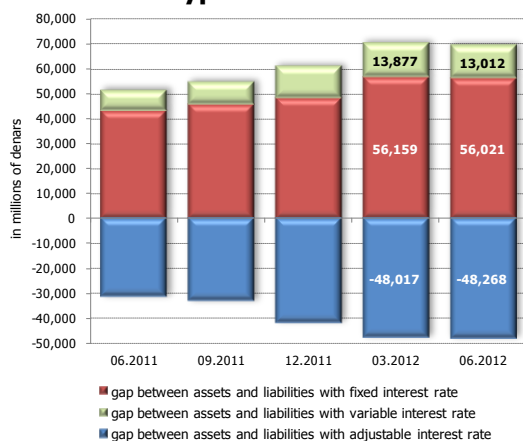


On June 30,2012, the presence of the positions with adjustable interest rates (44.3%) in the structure of the interest sensitive assets almost equalized to the presence of the positions with fixed interest rates (45.4%), primarily because of the increased share of the positions with adjustable interest rates with the credits and the reduced share of the positions with fixed interest rates with sight assets and investments in time deposits.

The role of the positions with adjustable interest rates continued to strengthen with the interest sensitive liabilities.

<sup>25</sup> The adjustment of the level of the interest rates is usually performed unilaterally on the basis of the changes in the banks' interest rate policy, not on the basis of certain reference rate. The use of the adjustable interest rates enable better management, avoidance or transfer of the taken risks, and they can serve also as a tool for liquidity and profitability management.

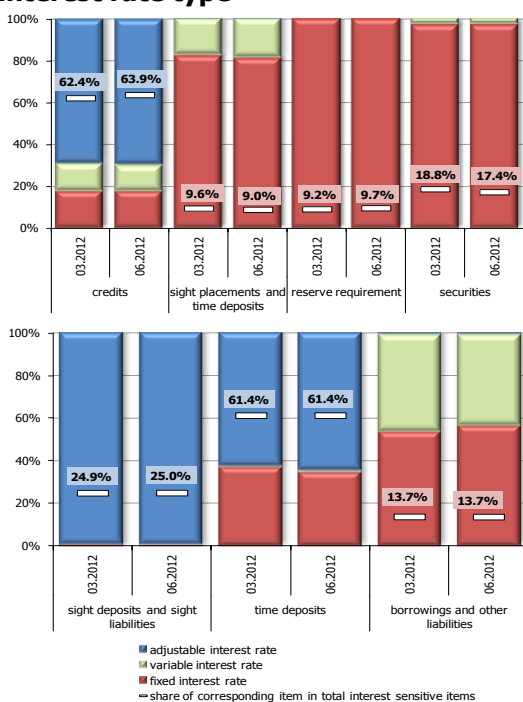
**Figure 62 Gap between the interest sensitive assets and liabilities, by the interest rate type**



Source: National Bank on the basis of data submitted by banks.

The gaps between the assets and liabilities with fixed interest rate and variable interest rate are positive<sup>26</sup> and they registered narrowing compared to the first quarter. The gap narrowing with the positions with fixed interest rates was caused by the decrease in the short-term time deposits (liabilities) and the deposits with foreign banks and CB bills (assets), while the gap narrowing with the positions with variable interest rates is a result of the decrease in the deposits with foreign banks and credits. On the other hand, **the gap between the positions with adjustable interest rates is negative<sup>27</sup>** and it is getting deeper, but it does not signify larger exposure of the banking system to the interest rate risk, because the banks may change the adjustable interest rates according to their needs.

**Figure 63 Interest sensitive assets (above) and liabilities (below), by the interest rate type**



Source: National Bank on the basis of data submitted by banks.

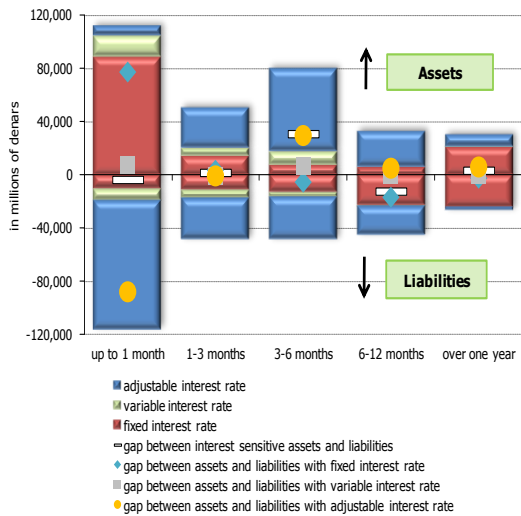
The adjustable interest rates take the largest share in the most common financial instruments in the interest sensitive assets and liabilities structure, credits (69.3%) and time deposits (64.4%), respectively.

**By maturity,** there is almost full balance between the interest sensitive assets and liabilities on shorter-term (to three months). The exposure of banks to interest rate risk is largest in the three-to-six month maturity segment and it arises from the positions with adjustable interest rates. Although the adjustable interest rates are present in all assets and liabilities maturity segments, the interest sensitive assets within the one-month maturity segment are exception, where the key positions are those with fixed

<sup>26</sup> The positive gap with the positions with fixed interest rates is due to the prevalence of this interest rate type in most of the items of the interest sensitive assets, especially with the allocated reserve requirement (100%), securities (97.3%) and bank investments in deposits (94.0%). The positive gap with the positions with variable interest rates is a result of the fact that substantial part of the sight deposits (59.9%) is with variable interest rates.

<sup>27</sup> The negative gap with the positions with adjustable interest rates arises from the fact that substantial part of the time deposits and almost all sight liabilities are with adjustable interest rates.

**Figure 64 Absolute amount of interest sensitive assets and liabilities and the gap by the maturity structure and the interest rate type**



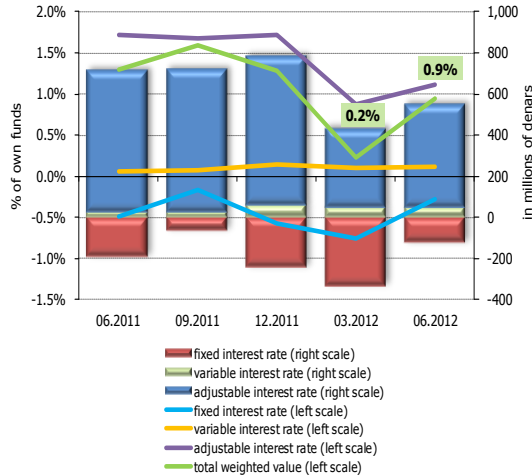
Source: National Bank on the basis of data submitted by banks.

interest rates<sup>28</sup>. On the interest sensitive liabilities side, the positions with adjustable interest rates have the dominant place in the maturity segments with smaller maturity because of the sight deposits, while in the segments with longer maturities, the positions with fixed interest rates prevail, primarily because of the time deposits with residual maturity over six months. This maturity segment registers the largest gap between the interest sensitive assets and liabilities with fixed interest rate (beside the maturity segment to one month). With the positions with variable interest rate, there is almost full balance between the assets and liabilities. The analysis of the maturity structure of the positions with adjustable interest rates indirectly denotes the banks expectations for the period until the following "adjustment" of the interest rates level (from three to six months for the assets with adjustable interest rates, and for one month, for the liabilities with adjustable interest rates).

#### 4.2. Weighted value of the banking book

The adjustable interest rates in the credit and deposit bank products create conditions for **low exposure of the banks to the interest rate risk in the banking book**, and beside the fact that on June 30, 2012, the total weighted value of the banking book is by four times higher (increase of Denar 320 million), compared to the end of the first quarter of 2012. The positive total weighted value of the banking book indicates **exposure to risk of downward change in the interest rates of this portfolio**. The substantial rise in the total weighted value of the banking book is due to the decrease in the net negative weighted position with fixed interest rate (caused by the smaller amount of CB bills and investments in deposits on the assets side and the time deposits on liabilities side) and increase in the net positive weighted position with adjustable interest rate (caused by the

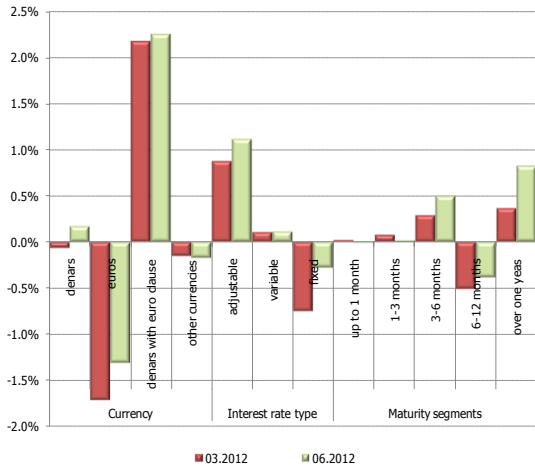
**Figure 65 Net weighted value and ratio between the total weighted value of the banking book and own funds by the interest rate type**



Source: National Bank on the basis of data submitted by banks.

<sup>28</sup> The dominance of the positions with fixed interest rates in the maturity segment to one month is due to the maturity characteristics of the basic monetary policy instruments (reserve requirement and CB bills have contractual maturity to one month) and the instruments on the domestic money market, as well as the banks preference to invest the foreign exchange liquid assets on short-term as deposits in foreign banks.

**Figure 66 Ratio between the total weighted value of the banking book and own funds, by the interest rate type, the currency and the maturity segments**



Source: National Bank on the basis of data submitted by banks.

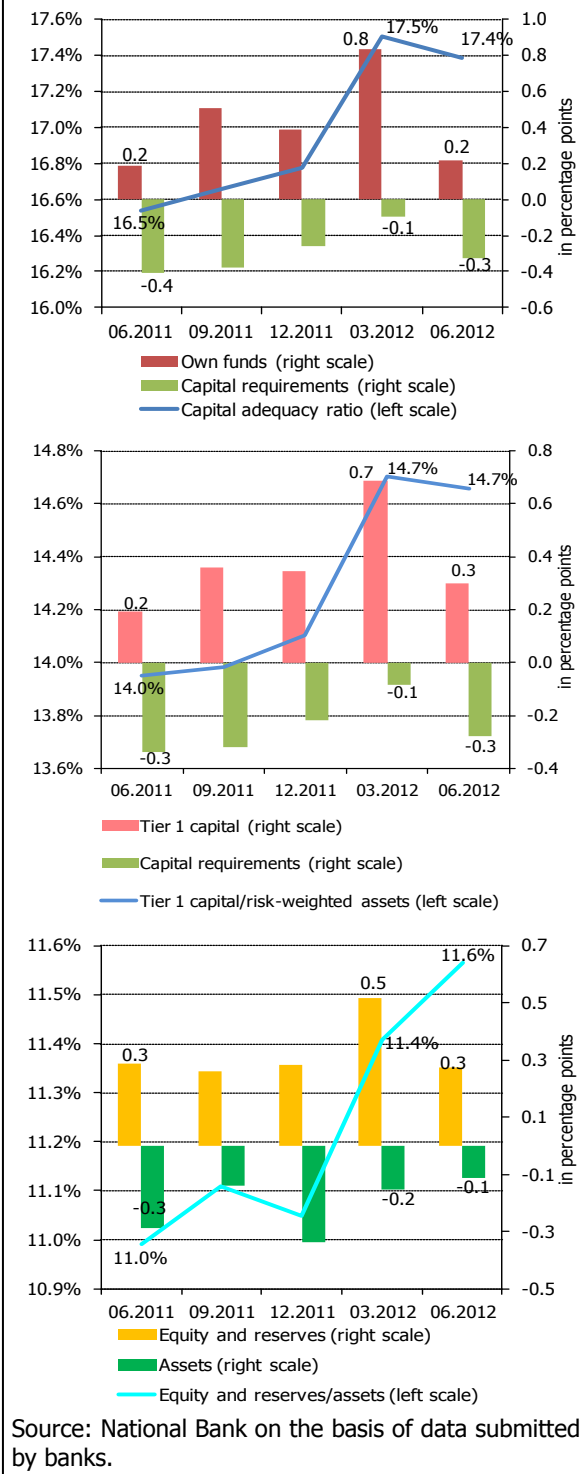
higher credit amount on the assets side and the time deposits on the liabilities side).

However, the total weighted value of the banking book takes only 0.9% of the own funds of the banking system. By bank, the total weighted value to own funds ratio ranges from 0.1% to 5.2%, with median of 1.4%. Most of the exposure to interest rate risk arises from the higher positive weighted value for the positions with adjustable interest rates and positions in Denars with Euro clause, with the maturity segments over one year.



## 5. Insolvency risk

**Figure 67 Indicators for the solvency and contribution of the individual components in the quarterly change in the indicators**



The solvency of the banking system registers no substantial changes in the second quarter of 2012. The increased own funds in the second quarter of the year originate from the keeping of part of the 2011 gain in the banks' capital funds. The capital requirement for risk coverage (hereinafter referred to as: capital requirement) registered intensified quarterly growth, which is almost fully due to the increase in the capital requirement for credit risk coverage that stem from "nonfinancial companies" and "household". The capital requirements for currency risk coverage registered a decrease for two consecutive quarters already, because of the narrowing of the net foreign currency position in Euro.

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

The indicators for the solvency and the capitalization of the banking system register no substantial changes in the second quarter of 2012.

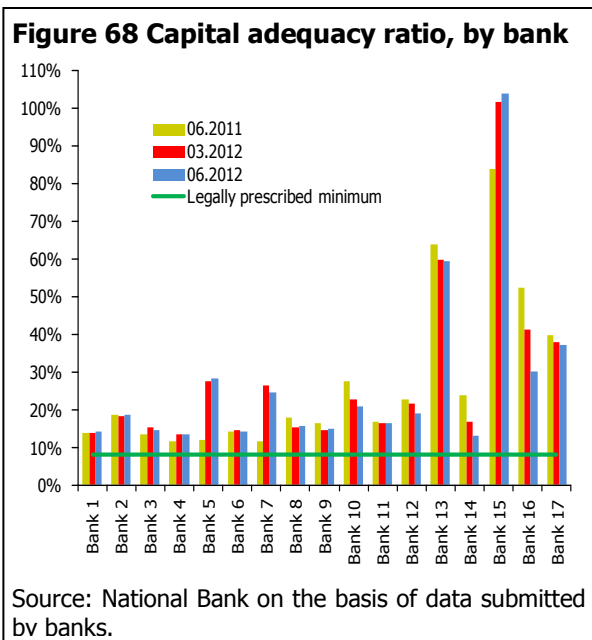
The capital adequacy ratio reduced by minimal 0.1 percentage point and on June 30,2012 it equals 17.4%, which is still high percentage. The main factor for such a quarterly change is the faster growth in the capital requirements, mostly as a result of the slightly stronger credit activity of the banking system, compared to the increase in the own funds.

The indicator for the ratio between core capital<sup>29</sup> and the risk weighted assets retained the level registered on March 31,2012 (14.7%), mainly because of the similar growth dynamics of the core capital and the capital requirements.

<sup>29</sup> It is the core capital after the deductible items from the sum of the core and the additional capital.



In the second quarter of 2012, the capitalization of the banking system (measured through the capital and reserves/assets ratio) improved by 0.2 percentage points. The change of this indicator arises from the quarterly decrease in the liquid assets of the banking system (for which, mainly, the banks are not required to allocate capital) and the consecutive slower quarterly assets growth (1%), compared to the increase in the risk weighted assets (1.9%).



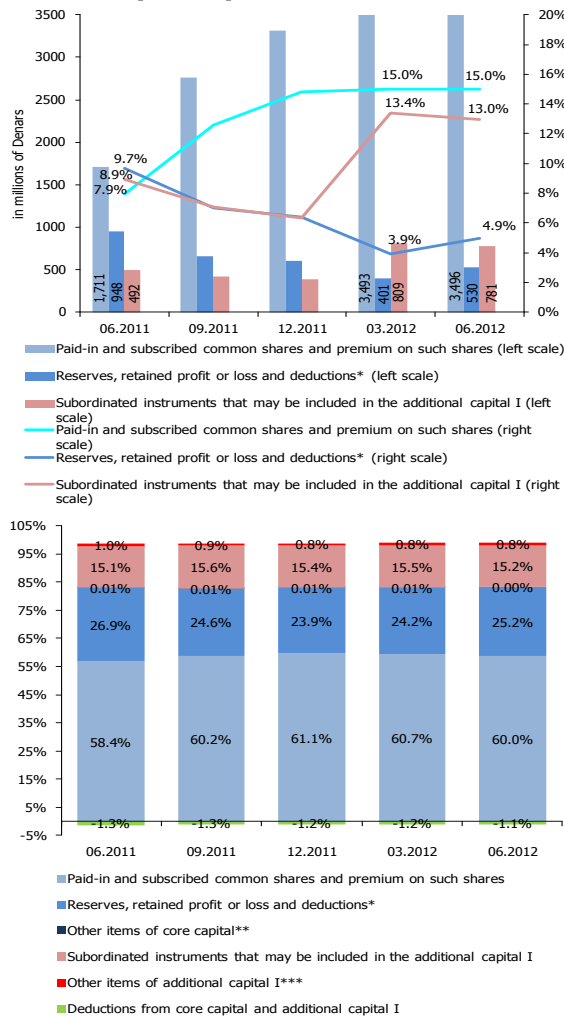
The banks in the Republic of Macedonia register at least 63% higher capital adequacy ratio compared to the legally prescribed level of 8%. In the second quarter of 2012, among the five banks with the highest market share by the assets size (total market share of 75.5% on June 30, 2012), three banks increased their capital adequacy<sup>30</sup>, one bank registered a decrease (because of the larger capital requirements as a result of the slightly intensified credit activity, including the off-balance sheet activity), while one bank maintained the capital adequacy on the same level. Four banks, among the remaining ones, registered an increase in the capital adequacy ratio, while other eight banks registered a certain decrease.

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

In the second quarter of 2012, the own funds of the banking system increased by Denar 539 million (or by 1.2%), which is a deceleration compared to the growth registered in the first quarter (when the own funds augmented by Denar 2,085 million, or 5%). In the following two months (July and August 2012), the own funds of the banking system registered certain decrease (of about Denar 13 million), mostly as a result of the increased current loss with one medium-size bank.

<sup>30</sup> The upward movement of the capital adequacy ratio with these three banks is due to different factors: keeping part of the gain registered in 2011 in capital funds, showing better financial result compared to the first quarter of 2012 and lower capital requirements in the second quarter of 2012.

**Figure 69 Annual changes in individual own funds' items (above) and own funds structure (below)**



Source: National Bank on the basis of data submitted by banks.

Note:

\* Deductible items are: loss at the end of the year/current loss, own shares, non-tangible assets, net negative revaluation reserves, difference between the necessary and performed impairment/special reserve;

\*\* Encompasses: positions as a result of consolidation (positive items) and other positions that can be included in the core capital;

\*\*\* Encompasses: paid and written cumulative preference shares and premium of this shares, revaluation reserves and hybrid capital instruments.

In conditions of no new capitalization with the banks in the second quarter of 2012 (compared to the two in the first quarter of the year, in the total amount of Denar 1,105.5 million), **the keeping of the profit realized in 2011 in the banks capital was the only more significant source of increase in the core capital and the total own funds** (eight banks kept Denar 541 million worth assets from the gain registered in 2011)<sup>31</sup>. The deductible item "current loss" registered other significant change in the core capital of the banking system, i.e. it is smaller by Denar 39.6 million compared to March 31,2012.

The core capital of the banking system (after the deductible items from the core and the additional capital) participates with 84.3% in the total own funds (increase of 0.3 percentage points compared to March 31,2012), thus indicating a relatively **high quality of the own funds of the banking system** (by bank, this share ranges from 66.5% to 100%).

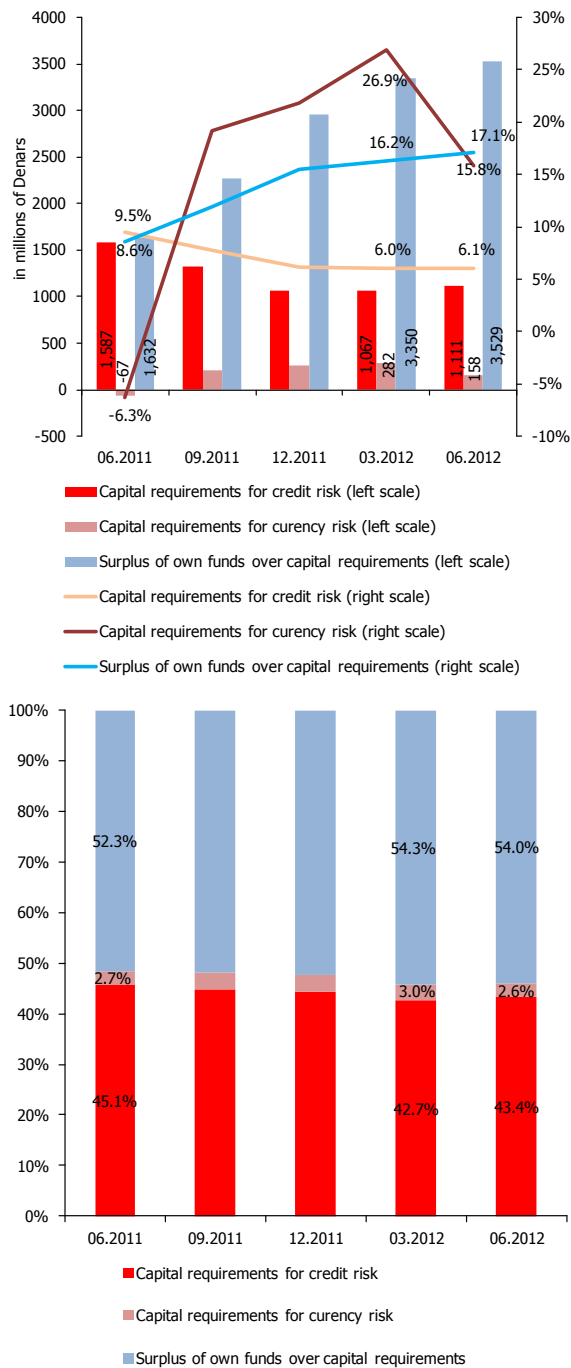
The additional capital of the banking system registered certain decrease in the second quarter of 2012, stemming from the decrease in the amount of the subordinated instruments which can be part of the additional capital, of Denar 54 million. The decrease in the amount of the subordinated instruments in the calculation of the own funds is because of the regulatory requirement for discounting (by 20%) of their value, when the maturity will enter the last five years of the maturity date. On June 30, 2012, six subordinated instruments (out of total 22 included in the calculation of own funds), with four banks, in the total amount of Denar 1,805 million have residual maturity less than five years (which is 26.6% of the total amount of subordinated instruments that are included in the calculation of own funds).

**The improvement of the banks capacity to generate capital internally**

<sup>31</sup> In the first half of 2012, two large banks paid dividend for the holders of common and preference shares, in the total amount of Denar 502 million (including also the tax on the paid dividend). This represents 42.4% of the total gain in the banking system for 2011, or 18.8% of the profitable banks in 2011.



**Figure 70 Annual, absolute and percentage change (above) and structure (below) of the own funds, by the use for covering individual risks**



Source: National Bank on the basis of data submitted by banks.

(through improvement of the profitable operating) is one of the main challenges the future own funds growth, to great extent, depends on. The use of the other significant source for increasing the own funds - capitalization of the parent entities is more uncertain (primarily on a short-term basis), especially for the banks owned by entities facing with problems in their operating and have deteriorated performances. These challenges are also possible for the banks without dominant shareholder, thus indicating possible lower degree of stability of the ownership structure and certain passiveness of the shareholders of such banks, when they require capital infusion.

The fact that the substantial part of the subordinated instruments in the following one-year and two-year period<sup>32</sup> enters the last five years of their maturity and that they will be included in the calculation of the own funds at discounted value can also be considered as an additional factor for limiting the future increase in the own funds (in the following two year-period, 9 subordinated instruments, with 7 banks in the total amount of Denar 3,026 million enter the last five years to maturity date, which is 44.5% of the total amount of the subordinated instruments which are included in the calculation of the own funds). The latter imposes a need for possible refunding of the liabilities based on subordinated instruments, which could represent a relatively expensive option for the banks.

More details about the movements of the own funds of individual bank groups are provided in Annex 28.

### 5.3. Movements and structure of the capital requirements and the "free" capital of the banking system

**In the second quarter of 2012, the capital requirements went up Denar 387**

<sup>32</sup> More details are provided in the Report on the Banking System of the Republic of Macedonia in the first quarter of 2012, p. 51.

million (or 1.9%), which is certain acceleration compared to the realized growth in the first quarter of the year (when the capital requirements increased by Denar 118 million, or 0.6%).

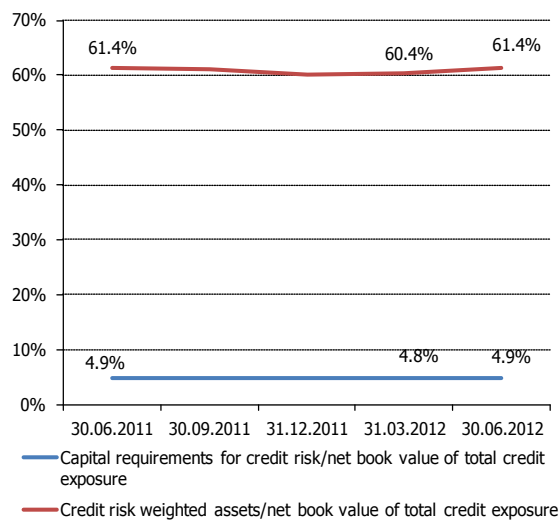
**Table 8 Capital requirements for credit risk, by the client type and risk weight**

in millions of Denars

Capital requirements for credit risk, arising from the following activities:	30.06.2011	31.12.2011	31.03.2012	30.06.2012	Absolute changes			Changes in %		
					Annual (30.06.2011-30.06.2012)	Q1:2012	Q2:2012	Annual (30.06.2011-30.06.2012)	Q1:2012	Q2:2012
<b>Activities with government, government funds and state agencies</b>	<b>0.07</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>-0.07</b>	<b>0.00</b>	<b>-0.01</b>	<b>-99.6%</b>	<b>-25.6%</b>	<b>-97.0%</b>
- risk weight 50%	0.07	0.01	0.01	0.00	-0.07	0.00	-0.01	-99.6%	-25.6%	-97.0%
<b>Activities with financial institutions</b>	<b>1,169</b>	<b>1,261</b>	<b>1,283</b>	<b>1,247</b>	<b>78</b>	<b>22</b>	<b>-36</b>	<b>6.6%</b>	<b>1.7%</b>	<b>-2.8%</b>
- risk weight 20%	526	545	513	457	-69	-32	-56	-13.1%	-5.9%	-11.0%
- risk weight 100%	644	716	770	790	147	54	20	22.8%	7.5%	2.6%
<b>Activities with enterprises</b>	<b>9,975</b>	<b>9,955</b>	<b>10,179</b>	<b>10,577</b>	<b>602</b>	<b>224</b>	<b>398</b>	<b>6.0%</b>	<b>2.2%</b>	<b>3.9%</b>
- risk weight 20%	2	1	1	1	0	0	0	-25.7%	36.7%	37.4%
- risk weight 100%	9,973	9,954	10,178	10,576	602	224	398	6.0%	2.2%	3.9%
<b>Activities with households</b>	<b>5,571</b>	<b>5,681</b>	<b>5,695</b>	<b>5,835</b>	<b>264</b>	<b>13</b>	<b>140</b>	<b>4.7%</b>	<b>0.2%</b>	<b>2.5%</b>
- risk weight 50%	592	639	653	700	108	14	47	18.3%	2.2%	7.1%
- risk weight 100%	2,722	2,837	2,841	2,923	201	4	82	7.4%	0.1%	2.9%
- risk weight 125%	2,258	2,204	2,200	2,212	-46	-4	12	-2.0%	-0.2%	0.5%
<b>Other activities</b>	<b>1,581</b>	<b>1,698</b>	<b>1,693</b>	<b>1,749</b>	<b>168</b>	<b>-5</b>	<b>57</b>	<b>10.6%</b>	<b>-0.3%</b>	<b>3.3%</b>
- risk weight 20%	1	1	1	1	0	0	0	-6.3%	0.0%	0.1%
- risk weight 100%	1,580	1,697	1,692	1,748	168	-5	57	10.6%	-0.3%	3.3%
<b>Total amount of capital requirements for credit risk</b>	<b>18,297</b>	<b>18,595</b>	<b>18,849</b>	<b>19,408</b>	<b>1,111</b>	<b>254</b>	<b>559</b>	<b>6.1%</b>	<b>1.4%</b>	<b>3.0%</b>

Source: National Bank on the basis of data submitted by banks.

**Figure 71 Share of the credit risk weighted assets and capital requirements for credit risk in the net credit exposure**



Source: National Bank on the basis of data submitted by banks.

The capital requirements for credit risk coverage fully determined the quarterly rise in the total capital requirements. Thus the capital requirement for credit risk coverage went up by Denar 559 million (or 3%), which is twice more compared to the increase in the first quarter of the year. The increase in the capital requirements for credit risk coverage mostly arises from the credit activity of four banks, mainly the enterprises, and less from the lending to households.

The share of the credit risk weighted assets and the capital requirements for credit risk coverage in the net accounting value of the total credit exposure at the level of the banking system maintained stable in the previous one-year period. Thus approximately 60-61% of the total credit exposure (net impairment) serves as a basis for calculation of the amount of the capital requirements for credit risk coverage. The maintenance of these ratios in the last one-year



period can be deemed as an indicator for the banks' consistence for taking additional activities (and risks).

**The capital requirement for currency risk coverage registers a decrease for two consecutive quarters.** Thus in the second quarter of 2012, the capital requirements for currency risk coverage went down by Denar 173 million, or 13%. As a contrast, on annual basis (30.6.2011-30.6.2012), this own funds component registered solid two-digit growth rate (15.8%), although significantly smaller compared to the annual increase registered in 31.3.2011-31.3.2012 period (26,9%). The quarterly decrease in the capital requirements for currency risk coverage arises from the narrowing of the net foreign currency position in Euro, which is mostly due to the severer drop in the Euro assets (of Denar 5,119 million), compared to the decrease in the Euro liabilities (of Denar 3,772 million)<sup>33</sup>. The decrease is not determined by the movements in the entire banking system, but mostly arises from the movements with one bank.

**Table 9 Movements of the capital requirement for currency risk coverage, by the net foreign positions by currency**

Capital requirements for currency risk arising from the following net-positions:	30.06.2011	31.12.2011	31.03.2012	30.06.2012	Absolute changes			Changes in %		
					Annual (30.06.2011-30.06.2012)	Q1:2012	Q2:2012	Annual (30.06.2011-30.06.2012)	Q1:2012	Q2:2012
<b>Net positions in foreign currency</b>	<b>999</b>	<b>1,465</b>	<b>1,330</b>	<b>1,157</b>	<b>158</b>	<b>-135</b>	<b>-173</b>	<b>15.8%</b>	<b>-9.2%</b>	<b>-13.0%</b>
- EUR	908	1,398	1,256	1,082	174	-142	-174	19.1%	-10.2%	-13.9%
- USD	53	40	31	41	-12	-9	10	-22.9%	-21.6%	30.7%
- CHF	15	4	12	7	-8	8	-4	-50.6%	193.2%	-36.5%
- Other	22	23	31	27	4	8	-4	19.3%	32.9%	-13.3%
<b>Net positions in gold</b>	<b>0.003</b>	<b>0.003</b>	<b>0.003</b>	<b>0.000</b>	<b>-0.003</b>	<b>0.000</b>	<b>-0.003</b>	<b>-100.0%</b>	<b>0.0%</b>	<b>-100.0%</b>
<b>Total amount of capital requirements for currency risk</b>	<b>999</b>	<b>1,465</b>	<b>1,330</b>	<b>1,157</b>	<b>158</b>	<b>-135</b>	<b>-173</b>	<b>15.8%</b>	<b>-9.2%</b>	<b>-13.0%</b>

Source: National Bank on the basis of data submitted by banks.

**The free capital over the minimal level for risk coverage registered quarterly growth of Denar 152 million (or of 0.6%), which is less by almost 14 times compared to the increase realized in the first quarter. However, on annual basis, the free capital registered growth acceleration and it is the fastest growing component of the own funds, analyzed from the aspect of their use for covering certain risks. Its share in the total own funds equals 54%.** The constantly higher absolute annual growth in the last one-year period, the "excess" own funds over the minimal level required,

<sup>33</sup> Determined pursuant to the effective Decision and Instructions on the methodology for determining capital adequacy.

compared to the absolute increase in the capital requirements indicates certain caution of the banks for additional risk taking in their operations. The accumulation of "free" capital over the minimum level increases the capacity of the banking system for absorption of possible unexpected losses from operations and improves its resilience to different shocks.

**Pursuant to the new Decision on the methodology for determining capital adequacy, the application of which started on July 1,2012, the risk spectrum the banks are required to determine the capital requirements widened.** Thus from this date the banks should additionally determine also the capital requirements for operational risk coverage in the operations, thus engaging part of the free capital for covering this risk. Additional challenge for the banks is the change in the methodology for credit risk coverage, towards application of the so-called standardized approach of the international capital agreement, the so-called Basel II. Parallel to the newly introduced capital requirements for operational risk, according to the estimations and analyses of the National Bank, the implementation of the new approach in the determining of the capital requirements for credit risk coverage is expected to free part of the capital requirement for covering this risk at the level of the banking system.<sup>34</sup>

More details about the capital requirement for risk coverage and the capital adequacy ratio, by bank groups, are provided in Annex 29.

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

**In the second quarter of 2012, the National Bank introduced additional stress test simulations, whose basic intention is to elevate the level of extremity of the assumed shocks.**

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<sup>34</sup> More details are provided in the Report on the Banking System of the Republic of Macedonia in the first quarter of 2012, p. 77-79.




**Table 10 Results of the stress-test simulations for the resilience of the banking system and individual banks to hypothetical shocks, as of June 30, 2012**

No. of simulation	CAR at the level of banking system, before simulation	Number of banks with CAR before simulation below the CAR of the overall banking system before simulation	CAR at the level of banking system, after simulation	Bank with lowest CAR, after simulation	Number of banks with CAR after simulation below the CAR of the overall banking system after simulation (number of banks with CAR after simulation below 8%)
1	17.4%	8	15.0%	8.7%	9 (0)
2	17.4%	8	13.2%	1.9%	9 (2)
3	17.4%	8	10.4%	-5.5%	7 (5)
4	17.4%	8	9.1%	3.4%	7 (5)
5	17.4%	8	0.2%	-5.8%	7 (13)
6	17.4%	8	-7.2%	-13.8%	7 (15)
7	17.4%	8	13.1%	1.5%	8 (2)
8	17.4%	8	10.3%	-5.7%	7 (5)
9	17.4%	8	8.9%	3.0%	7 (5)
10	17.4%	8	10.5%	-5.1%	7 (5)
11	17.4%	8	13.1%	2.2%	8 (1)
12	17.4%	8	10.3%	-5.3%	7 (4)
13	17.4%	8	14.5%	10.2%	6 (0)
14	17.4%	8	10.0%	3.7%	6 (5)

Source: National Bank on the basis of data submitted by banks.

This stress test analysis is based on the implementation of 14 hypothetical simulations, of which:

- six simulations for isolated credit shock (three simulations of larger increase in the credit risk exposure classified in the risk categories C, D and E by 30%, 50% and 80% and three simulations of transfer by 10%, 20% and 30% of the credit exposure classified in the risk categories A and B to the risk categories C, D and E, where the transferred credit exposure is distributed equally),
- seventh simulation as a combination of the credit and foreign exchange shock (increase in the credit risk exposure in the risk categories C, D and E of 50% and depreciation of the foreign exchange rate of the Denar relative to the Euro and US Dollar of 20%),
- eighth simulation as a combination of shocks on the side of credit risk and foreign exchange risk (larger credit exposure in the risk categories C, D and E by 80% and depreciation of the Denar exchange rate compared to the Euro and the US Dollar of 30%),
- ninth simulation as a combination of credit risk and foreign exchange risk (transfer of 10% of the credit exposure classified in the risk categories A and B to the risk categories C, D and E, where the transferred credit exposure is distributed equally and depreciation of the Denar exchange rate relative to the Euro and US Dollar of 30%),
- tenth simulation, as a combination of the shocks on the credit risk and interest rate risk side (larger credit exposure in the risk categories C, D and E by 80% and increase in the interest rates of individual asset and liabilities, on-balance sheet and off-balance sheet positions of 1 - 5 percentage points),
- eleventh simulation as a combination of the shocks on the credit risk, foreign exchange risk and interest rate risk side (larger credit exposure in the risk categories C, D and E by 50%, Denar exchange rate depreciation relative to the Euro and the US Dollar by 20% and increase in the interest rates on individual asset and liabilities, on-balance sheet and off-balance sheet positions of 1 - 5 percentage points),
- twelfth simulation as a combination of shocks on the credit risk, foreign exchange risk and interest rate risk side (larger credit exposure in the risk categories C, D and E of 80%, Denar exchange rate depreciation relative to the Euro and the US Dollar by 30% and increase in the interest rates on individual asset and liabilities, on-balance sheet and off-balance sheet positions of 1 - 5 percentage points),
- thirteenth simulation, simultaneous reclassification in the risk category C of the five largest credit exposures to nonfinancial entities (including the connected persons),
- fourteenth simulation, simultaneous reclassification in the risk category C of the ten largest credit exposures to nonfinancial entities (including the connected persons).

**Additional simulations of shocks on the banks credit risk side were performed, in order to examine some of the possible channels of transferring negative effects of the**



Greek crisis and generally the Euro area, on the domestic banking system. The results of these simulations are as follows:

**Table 11 Results of the stress test simulations for the resilience of the banking system to hypothetical shocks, as of June 30, 2012**

No. of simulation	CAR at the level of banking system, before simulation	Number of banks with CAR before simulation below the CAR of the overall banking system before simulation	CAR at the level of banking system, after simulation	Bank with lowest CAR, after simulation	Number of banks with CAR after simulation below the CAR of the overall banking system after simulation (number of banks with CAR after simulation below 8%)
1	17.4%	8	16.3%	12.4%	8 (0)
2	17.4%	8	15.6%	11.4%	6 (0)
3	17.4%	8	13.7%	8.8%	8 (0)
4	17.4%	8	12.7%	6.7%	5 (1)
5	17.4%	8	9.2%	1.8%	5 (2)

Source: National Bank on the basis of data submitted by banks.

This stress test analysis is based on the implementation of five hypothetical simulations, of which:

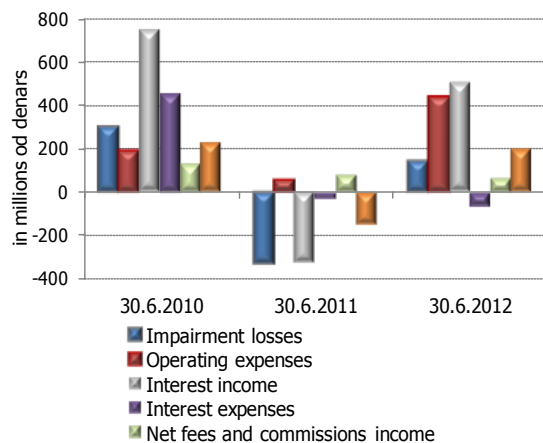
- three simulations for assumed uncollectability (of 30%, 50% and 100%) of the credit exposure of the domestic banks to: 1) Greek nonresidents; 2) 100 largest net exporters to Greece (the determining of the largest net exporters was made on the basis of the realized net export for 30.6.2011-30.6.2012 period). These 100 net exporters cover about 80% of the total export to Greece; 3) domestic entities having liabilities based on credits to Greece, for 30.6.2012-30.6.2013 period; and 4) domestic persons having claims based on credit operations to Greece for 30.6.2012-30.6.2013 period;
- two simulations for assumed uncollectability (of 30% and 50%) of the credit exposure of the domestic banks to: 1) nonresidents from the Euro area; 2) 150 largest net exporters to the Euro area (the determining of the 150 largest net exporters was made on the basis of the realized net export in the 30.6.2011-30.6.2012 period), while these 150 net exporters cover about 85% of the total export to the Euro area; 3) domestic entities having liabilities based on credits to Euro area, for 30.6.2012-30.6.2013 period; and 4) domestic persons having claims based on credit operations to Euro area for 30.6.2012-30.6.2013 period.

## 6. Profitability

In the first half of 2012, the banking system of the Republic of Macedonia has realized profit of Denar 609.1 million, which is higher by Denar 252.5 million, or 70.8% of the profit registered in the first six months of 2011. The larger profit in the banking system is due to the increase in the net interest income of the banks, as well as to the impairment release because of the collection of claims by foreclosure. This released impairment was almost fully used for covering the additionally made impairment because of the further deterioration of the banks' credit portfolio. These factors conditioned improvement in the banks' profitability indicators, accompanied with the improved operating efficiency of the banks. In comparison with the first half of 2011, the number of banks registering positive financial result augmented to 11, and accordingly, their share in the total assets reached 92.4%, compared to 65.7% in the first three months of 2012 and 86.4% in the first half of 2011. In July and August 2012, the banking system registered smaller profit because of the higher impairment, i.e. deterioration of the banks' credit portfolio. However, the realized gain in these seven and eight months is higher compared to the same period of the preceding year.



**Figure 72 Absolute increase in the main income and expenditures, compared to the same period of the preceding year**



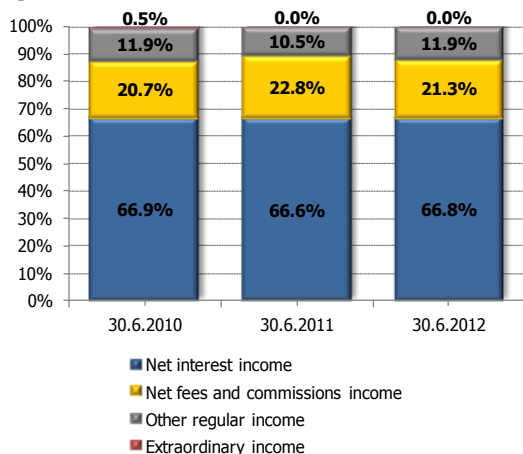
Source: National Bank, based on data submitted by banks.

## 6.1. Movement and structure of income and expenditures of the banking system

The increase in the net interest income<sup>35</sup> of Denar 562.8 million, together with the increase in the non-interest income which equaled Denar 262.2 million, are the main regular income items contributing towards better profitability of the banking system in the first half of 2012. The trend of increase in the net interest income continued also in July and August 2012.

The total bank income (total regular income<sup>36</sup> and extraordinary income) realized in the first half of 2012 are higher by Denar 825 million, or 10.9%, compared to the same period of the preceding year, which is due to the increase in almost all income components. The increase in the net interest income, as the main item in the total income, is mostly due to the increase in the interest income<sup>37</sup>, which is a result of the credit growth to the non-financial sector<sup>38</sup>, as well as the interest income of the banks based on investments in CB bills<sup>39</sup>.

**Figure 73 Structure of the total income**



Source: National Bank, based on data submitted by banks.

<sup>35</sup> Annual increase in the net interest income was registered with 11 out of total 17 banks in the country.

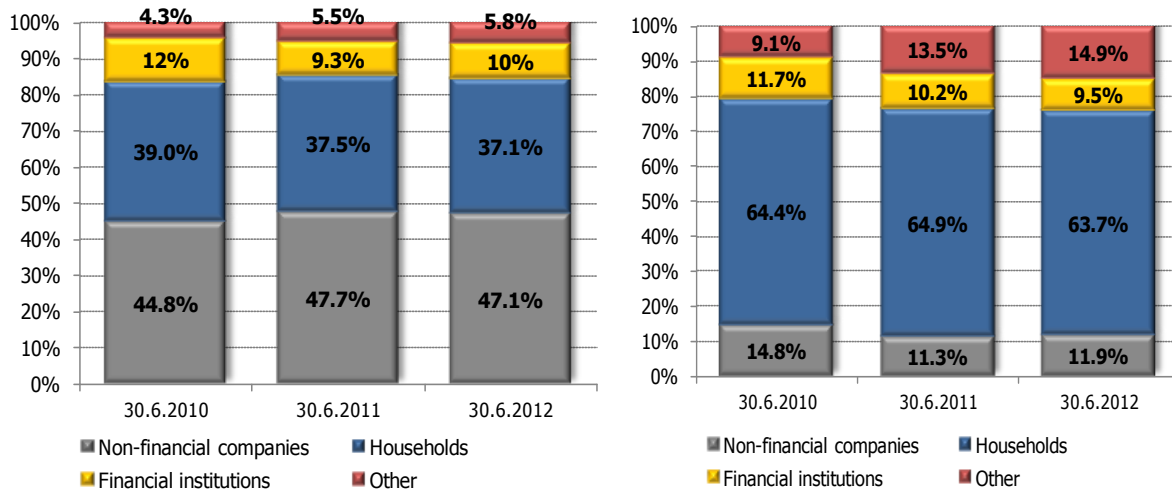
<sup>36</sup> The total regular income included: the net interest income, net income from commissions and fees and other regular income (net income from trading, net income from financial instruments recorded at fair value, net income from exchange rate differentials, income based on dividends and capital investments, profit based on sale of financial assets available for sale, capital gains realized on the basis of sale of assets, releasing provisions for off-balance sheet assets, releasing other provisions, income on other basis, income based on unpaid previously written-off claims and losses due to sale of financial assets available for sale).

<sup>37</sup> The interest income augmented by Denar 504.2 million, i.e. 5.3%.

<sup>38</sup> The interest income from nonfinancial companies increased by Denar 176.7 million, i.e. 4%, while the interest income from the "household" sector grew by Denar 141.6 million, or 4,1%.

<sup>39</sup> The interest income from financial institutions increased by Denar 112.6 million, i.e. by 13%, which is due to the intensified investment of the banks in CB bills on annual basis, despite the decrease in their maximal interest rate registered in May 2012. The interest income from investment in Treasury bills is included in the "interest income from other entities" category and at the end of June increased by 10.5% on annual basis.

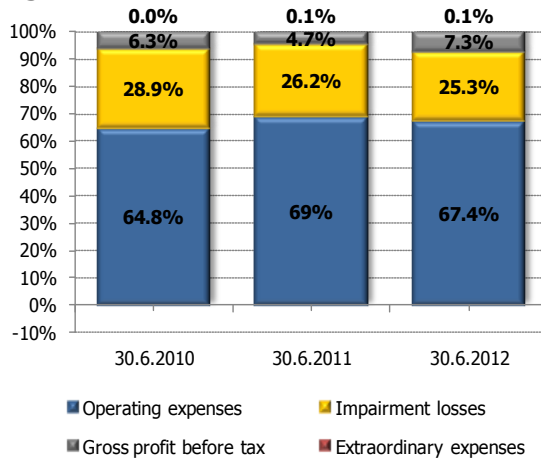
**Figure 74 Sector structure of the income (above) and expenditures (right) from interest**



Source: National Bank, based on data submitted by banks.

The moderate decrease in the interest expenditures of Denar 58.6 million (or 1.3%) also contributed moderately to the increase in the net interest income, which is a result of the decrease in the deposit interest rates of the banks, despite the increase in the deposits of the non-financial sector. The decrease in the interest expenditures mostly stems from the reduced interest expenditures for the "households" sector, which arises from the lowered deposit interest rates of the banks on the time Denar and foreign currency household deposits. Additional contribution to the lower banks' interest expenditures had also the decrease in the interest expenditures to the financial companies, primarily to the pension funds<sup>40</sup>. Regarding the other types of interest expenditures of the banks, (the interest expenditures to the nonfinancial companies and the "government" sector and the nonresidents), certain increase was registered.

**Figure 75 Use of total income**



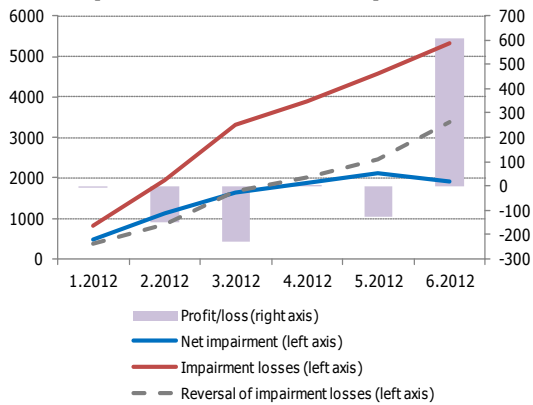
Source: National Bank, based on data submitted by banks.

The largest portion of the banks' total income is spent for covering the operating costs<sup>41</sup> and impairment. The share of these two expenditures categories in the total income fell by

<sup>40</sup> The decrease in the interest expenditures based on time deposits of pension funds corresponds to the decrease in the short-term time deposits of the pension funds.

<sup>41</sup> The operating costs include: the employee expenses, depreciation, general and administrative costs, deposit insurance costs, deposits and other expenditures, except extraordinary expenditures.

**Figure 76 Impairment of the financial assets (in millions of denars)**

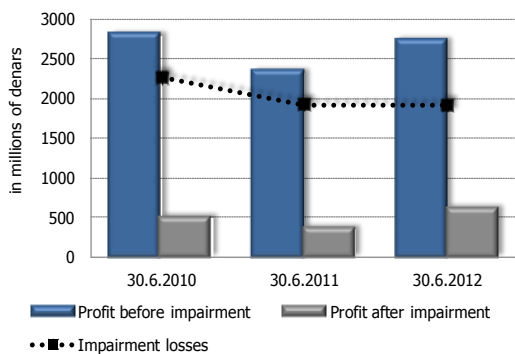


Source: National Bank, based on data submitted by banks.

1.6 percentage points and by 0.9 percentage points, respectively, which is a positive indicator for improvement of the bank operating in the first half of 2012.

**The net impairment of the financial assets** decreased by Denar 9.6 million (0.5%), as a result of the impairment release performed in June 2012 with one bank, because of collection of claims from legal entities through foreclosure. The released impairment registered high rise of 50.2%, compared to June 2011, which substantially contributed for the banks profitability. Thus if we isolate this effect, the annual increase in the impairment would be significantly higher, neutralizing totally the banks profit. The impairment of the financial assets significantly increased in July and August, as a result of the deterioration of the credit portfolio that induced reduction of the realized gain.

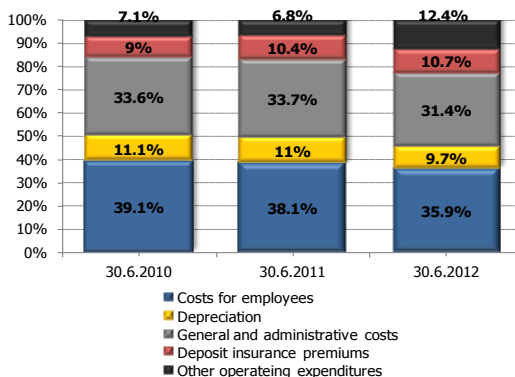
**Figure 77 Influence of the impairment and the special reserve on the profit amount**



Source: National Bank, based on data submitted by banks.

Within the banks' operating costs, the largest annual increase of Denar 341.4 million, or 96% accounts for the other operating costs<sup>42</sup>, which mainly arises from one bank. Also, more apparent annual rise of Denar 63.3 million, or 11.7% was also registered with the deposit insurance premiums, which corresponds to the annual increase in the bank deposits. Despite such movements, the most significant share in the operating costs structure accounts for the employee costs and general and administrative costs (67.3%).

**Figure 78 Structure of the operational costs**

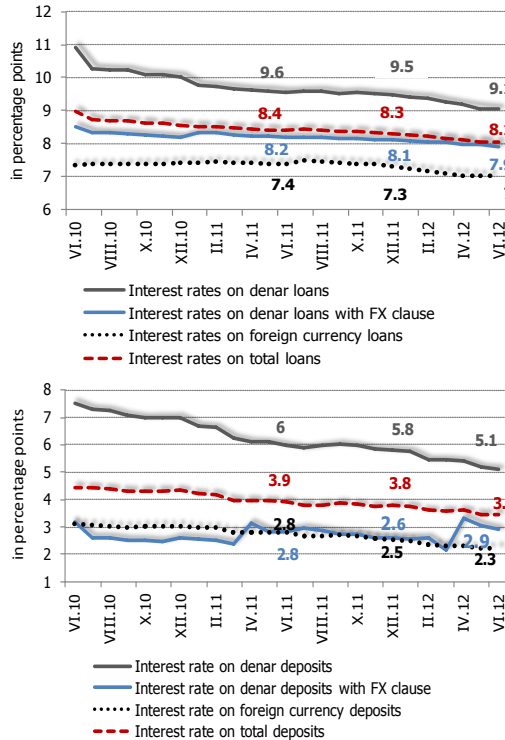


Source: National Bank, based on data submitted by banks.

<sup>42</sup> Other operating costs include special reserve for the off-balance sheet exposure, other provisioning and expenditures on other basis (costs from previous years, taxes and contributions for fines, taxes and court decisions and other expenses).

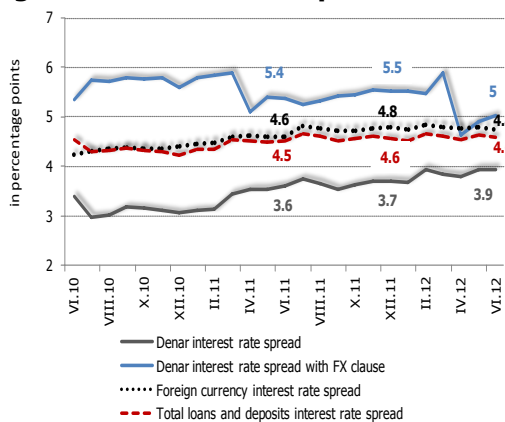
## 6.2. Movement of the interest rates and the interest rate spread of the banking system

**Figure 79 Movement of the lending (above) and deposit (below) interest rates**



Source: National Bank, based on data submitted by banks.

**Figure 80 Interest rate spread**



Source: National Bank, based on data submitted by banks.

The downward trend of the lending and deposit interest rates continued also in the first half of 2012, partially conditioned by the reduction in the maximum amount of the reference interest rate of the National Bank of the Republic of Macedonia by 0.25 percentage points in May 2012 and the decrease in Euribor during the entire year half. The largest decrease in the lending interest rates relative to June 2011 was registered with the interest rates on Denar and FX loans. More severe decrease has been registered with the deposit interest rates, mostly with the foreign currency deposits. The interest rate on Denar deposits with FX clause was an exemption, where the interest rate registered an increase.

The intensified decrease in the deposit relative to the lending interest rates resulted in widening of the interest rate spreads between the interests on Denar credits and deposits. The increase in the interest rate on Denar deposits with FX clause caused narrowing of the interest rate spread between the lending and deposit interest rates on both the Denar and the FX indexed loans. In line with such changes, narrowing of the difference in the interest rate spreads was registered, mostly of those in foreign currency and in Denars with FX clause.

## 6.3. Indicators for the profitability and efficiency of the banks

The increase in the profit of the banking system in the first half of the year contributed for improvement of the **main indicators for the banks profitability. The operational efficiency of the banks registers certain improvements, as well.**

In comparison with the first half of 2011, in the first six months of 2012, **the rates of return on assets (ROAA) and return on**



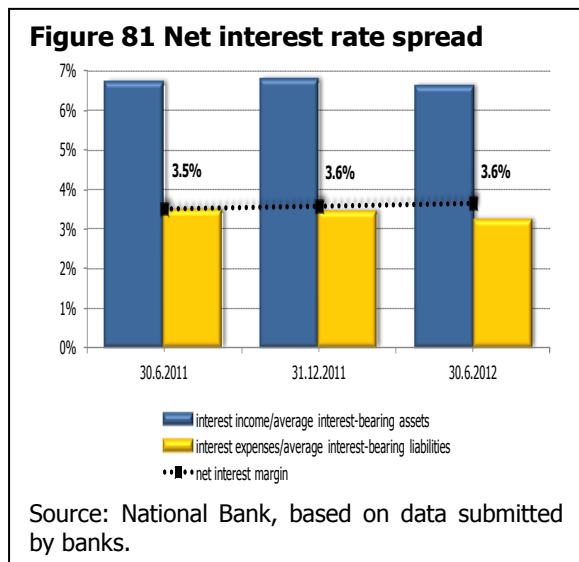
**equity (ROAE)<sup>43</sup> increased.** The improvement of these three indicators at the level of the banking system fully arises from the improved profitability of the group of medium-sized banks, as opposed to other groups where these indicators have worsened (Annex 30).

**Table 12 Indicators for the profitability and the efficiency in the operations of the banking system**

Indicators	Banking system	
	30.06.2011	30.06.2012
Rate of return of average assets (ROAA)	0.2%	0.4%
Rate of return of average equity (ROAE)	2.1%	3.2%
Cost-to-income ratio	69.0%	67.4%
Non-interest expenses/Total regular income	75.4%	73.6%
Labour costs /Total regular income	26.3%	24.2%
Labour costs /Operating expenses	38.1%	35.9%
Impairment losses of financial and non-financial assets /Net interest income	39.3%	37.9%
Net interest income /Average assets	3.2%	3.3%
Net interest income /Total regular income	66.6%	66.8%
Net interest income /Non-interest expenses	88.4%	90.7%
Non-interest income/Total regular income	39.6%	33.2%
Financial result/Total regular income	4.7%	7.3%

Source: National Bank, based on data submitted by banks.

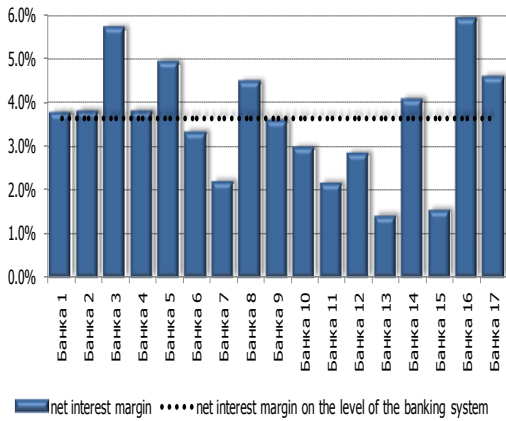
The improved operating of the banks in the first six months of the year can be perceived also through the increased net interest income, a smaller part of which is used for covering the banks impairment despite the worsening of their credit portfolio quality during the analyzed period. The improvement of this indicator is due to the proportionally higher rise in the net interest income relative to the banks impairment.



The operational efficiency of the banks also improved during the first half of the year in comparison with the same period of 2011, which can be perceived from the reduced amount of the total regular income that is spent for covering the operating costs. The banks improved operational efficiency is proved also by the other indicators for the correlation between the individual types of costs and the total regular income. The group of small banks is an exception, registering worsened

<sup>43</sup> The profit margin is a ratio of the gain (loss) of the operations and the total regular income.

**Figure 82 Net interest rate spread, by bank**



Source: National Bank, based on data submitted by banks.

operational efficiency, mostly as a result of the increase in the operating costs.

**The net interest margin<sup>44</sup>** registers minimal changes. In comparison with June 2011, it widened by 0.1 percentage point, which stems from the proportionally higher rise in the net interest income compared to the increase in the average interest bearing assets.

Eight out of 17 banks registered lower net interest margin than the one registered at the level of the banking system.

<sup>44</sup> The net interest margin is calculated as a ratio between the net interest income and the average interest bearing assets. For comparison purposes, the interest expenditures between the net interest income and expenditures for the first quarter are reduced on annual basis.



## **ANNEX**