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**National Bank of the Republic of Macedonia**

Supervision, Banking Regulation and Financial Stability Sector

Financial Stability and Banking Regulations Department



***FINANCIAL STABILITY REPORT FOR THE REPUBLIC OF  
MACEDONIA IN 2013***

July 2014



## Contents

<b>Summary.....</b>	<b>4</b>
<b>I. Macroeconomic environment.....</b>	<b>8</b>
<b>1. International environment .....</b>	<b>8</b>
<b>2. Domestic environment.....</b>	<b>15</b>
<b>II. Nonfinancial sector .....</b>	<b>21</b>
<b>1. Corporate sector .....</b>	<b>21</b>
1.1. Analysis of the performances of the corporate sector .....	22
1.2. Indebtedness of the corporate sector .....	36
<b>2. Household sector .....</b>	<b>49</b>
2.1. Debt repayment ability of the household sector.....	49
2.2. Household debt .....	51
2.3. Savings rate, disposable income and private consumption of the household sector....	58
2.4. Financial assets of the household sector .....	62
<b>III. Financial sector .....</b>	<b>64</b>
<b>1. Structure and concentration level in the financial sector of the Republic of Macedonia .....</b>	<b>64</b>
<b>2. Cross-sector relation, "contagion" channels and their impact on financial stability.....</b>	<b>68</b>
<b>3. Deposit institutions .....</b>	<b>71</b>
3.1. Banks .....	71
3.2. Savings houses.....	84
<b>4. Insurance sector.....</b>	<b>88</b>
4.1. Movements in the insurance sector .....	88
4.2. Contagion channels and risks to financial stability.....	92
4.3. Risks in the operations of insurance companies and performance indicators .....	93
<b>5. Fully funded pension insurance .....</b>	<b>96</b>
5.1. Mandatory fully funded pension funds .....	96
5.2. Voluntary fully funded pension funds.....	101
5.3. Profitability of pension fund management companies.....	103
<b>6. Leasing .....</b>	<b>103</b>
6.1. Value and structure of the financial leasing contracts.....	104

6.2. Structure of the balance sheets and basic indicators for the performances of leasing companies .....	106
<b>7. Domestic financial markets .....</b>	<b>107</b>
7.1. Money and short-term securities market.....	107
7.2. Capital market.....	114
7.3. Investment funds .....	123
<b>ATTACHMENTS.....</b>	<b>128</b>
Attachment 1 Some more relevant characteristics and trends in the banking systems of Slovenia, Greece, Turkey, France, Bulgaria and Austria .....	129
Attachment 2 Implications for the Macedonian banking system from the establishment of a mechanism of a single supervisory authority in the Euro area, as one of the key pillars of the future European Banking Union.....	133
Attachment 3 Macro stress testing of the banking system of the Republic of Macedonia .....	137
Attachment 4 Survey of banks' perceptions for the risks in their operations ....	143
<b>ANNEXES.....</b>	<b>147</b>



## Summary

Macedonian financial sector remained stable in 2013. The global environment was still affected by the consequences of the global crisis and remained a key source of potential shocks to the Macedonian economy. However, the initial signals for the recovery of the Euro area and the measures for stabilization of the European banking system, increased the optimism and confidence in the markets. Macedonian economy recovered significantly, influenced by net exports, enhanced private consumption and reduced unemployment, supported by the fiscal stimulus for infrastructural projects and accommodative monetary policy. Foreign direct investments in the technological zones have contributed to the improvement in the exports and to the gradual strengthening of the external position of the country. In 2014, there were new risks for possible price shocks in the energy and food markets, due to the conflicts in Ukraine and Iraq, and the weather disasters in the Balkans.

The economic recovery of the Republic of Macedonia, together with the projections for continuing economic growth in 2014, as well as the effects of the monetary and macro-prudential measures taken by the monetary authorities aimed at lending support, contributed to improving the expectations of economic agents. Corporate credit growth accelerated in the last quarter of 2013, and continued in the first months of the following year. However, despite the revival of the credit activity in 2013, banks still placed a significant portion of assets in government securities, as a safe yet profitable option. The government has increased and enriched the offer of securities, which are significant investment alternatives, but also an important liquidity management instrument, for almost all types of financial institutions. However, this emphasizes the risk of concentration of a single creditor exposure in the financial institutions' balance sheets. On the other hand, the yield on these investments paid by the government is an important source of income for the financial system segments.

The performances of the corporate sector and households are key to maintaining the stability of the financial system segments, as their main debtors and creditors. Any materialization of the risks they are exposed to can have negative effects on the liquid and stable operations of both the banks and the entire financial system.

Quantitative indicators of the corporate sector performances have registered some improvement in 2103, but the sector is still facing a moderate level of liquidity and works with low asset turnover. Corporate sector indebtedness has increased, mostly due to the growth of the debt to foreign creditors. Banks still perceive corporate sector as more risky for funding, and most of their credit losses stemmed from lending to the corporate sector. Despite the significant banks' restructuring of companies' debts (through extending the repayment deadlines, reducing the installments, lowering the interest rates and even write-offs), non-performing loans during the year grew at a double-digit rate. Hence, the capacity of the corporate sector for regular servicing of the liabilities to the banking system remains one of the major determinants of financial stability.

Disposable income and households' financial strength in general, are largely determined by the scope of the activities and performances of the corporate sector and its efficiency in dealing with the risks it is exposed to. Risks to financial stability generated by households in 2013 were under control. The accelerated growth of household debt, compared with the slower growth of disposable income and financial assets caused a slight deterioration of the indicators of



households' debt repayment ability, but the indicators still point to a low level of indebtedness of the sector as a whole. Credit risk for the banks arising from this sector is not high and demonstrates very stable, however slightly downward movement.

A significant part of the debt of companies (80.6%) and households (47.5%) is with a currency component (in foreign currency or in Denars with FX clause), emphasizing their exposure to currency risk, which may affect their debt repayment ability, and hence the performance of financial institutions, primarily banks. However, foreign reserves adequacy indicators during the year pointed to a comfortable level of foreign reserves, which contributes to maintaining stable expectations about the exchange rate and confirms the strong commitment of the National Bank for consistent application of the strategy of a de facto fixed exchange rate of the domestic currency against the Euro.

The possible changes in the level of interest rates on domestic and international financial markets and the manner in which they would be translated into the banks' interest rate policies are very important for the performances and debt servicing of these two sectors, due to the small share of the debt with fixed interest rates and the share of adjustable interest rates in their debt structure.

The stability of the more significant segments of the financial system, as well as its simple structure, weak links among the individual segments and the absence of complex financial instruments and services, are the main factors for the financial system stability, given the limited possibility of disturbing the stability of individual segments as a result of the spillover of risks from one to another institutional segment. Besides being quantitatively dominant in the overall financial system, banks are also the main link with the other financial segments within the financial network and therefore have a major impact on the movement and stability of the entire financial system. In the absence of an adequate range of investment instruments, financial institutions invest a significant portion of the disposable assets in deposits with domestic banks. However, although these deposits are only a small portion of the banks' total assets (less than 3%), they are important for some financial institutions. Hence, the stability and liquidity of banks is a significant factor for the stable operation of non-deposit financial institutions and the financial system as a whole. The capital links between the individual segments is small, except in the cases of fully funded pension insurance, where the pension funds management companies are owned by banks, leading to mutual dependence on the reputation of the individual segments.

The banking system has retained its reliability and stability (which is confirmed by the results of the analyses and stress tests), which reduces the threat of spillover of the potential risks to other segments of the financial system. In the post-crisis period, due to their more conservative approach and somewhat more pronounced risk aversion, banks have managed to maintain high liquidity and solvency, which are the basis of their stability. They still apply prudent policies, especially when lending to the corporate sector entities, which was also influenced by the conservative strategies of some major banking groups present in the Republic of Macedonia. However, the effects of the prolonged crisis affected the quality of banks' loan portfolios. In July 2013, non-performing loans reached their maximum, and since then until the first months of 2014 they were reducing (as a result of the collected non-performing claims and banks' efforts to restructure the claims on those clients for whom it is believed that it is necessary to adjust the credit conditions to their current financial situation). The several-year banks' orientation



toward internal creation of capital through reinvestment of profits, highlights the challenge for the domestic banks to further maintain profitability, in conditions of significantly reduced room for lowering of the interest rates on deposits and still present credit losses.

The importance of the fully funded pension insurance for the financial stability is multiple: as part of the financial assets of households, which are a significant debtor and creditor of the banking system, but also of other segments of the financial sector; as a depositor in domestic banks; and due to the fact that banks are behind the pension funds and their management companies, which points to the reputational risk as extremely important, but difficult to measure. Pension funds are the second largest segment of the financial system, which has the potential for further growth based on constant flows for pension insurance. After several years of their establishment, and still young members of the funds, liquidity risk, i.e. the risk of major outflows from the funds is still low. Most significant is the risk of the investments of pension funds. They apply conservative policies and most of their assets are invested in government securities and with the banks. However, given the generally low interest rates, in order to realize better returns, the funds management companies diverted a portion of the funds' assets from debt (interest-bearing) securities into equities. Within these frameworks, an increase was registered in the investments in the so-called exchange traded funds, which are generally characterized by relatively lower risk than investments in shares of foreign issuers. This is an investment alternative that in a short time has gained importance on the international financial markets both in terms of growth and in terms of complexity. Hence, there is uncertainty regarding the capacity of the domestic pension funds management companies for timely identification of the risks associated with these investments. Annual rates of return with both the mandatory and voluntary pension funds grow.

The insurance sector is the third-largest segment of the financial system, but its share in total assets (3.3%), as well as its link with other segments of the financial system is small. Hence, the threat of cross-sector spillover risks, and risks for the overall stability of the sector, is not significant.

The other segments of the financial system are less significant and less likely to influence its overall stability, but this does not exclude the risks that any of them may cause throughout the operations. This largely reflects the adequacy of the regulation, and of the supervisory approach.

Financial markets in the country are characterized by poorly developed individual segments, a limited number of instruments in the primary market and illiquid and unattractive secondary market, with modest trading volume and low degree of integration in the international financial flows. Therefore, their impact on the creation of financial flows in the country and the conditions under which systemically important sectors for the domestic economy are financed, is small.

\*\*\*

Overall, the financial stability of the Republic of Macedonia was maintained in 2013. The prudent regulation, but also the prudent behavior of most of the financial system segments significantly contributed to this end. Significant progress and respective contribution was made also by the



regulatory authorities, in particular the non-standard and macro-prudential monetary measures taken by the National Bank, which were aimed at supporting financial stability as one of its main objectives.



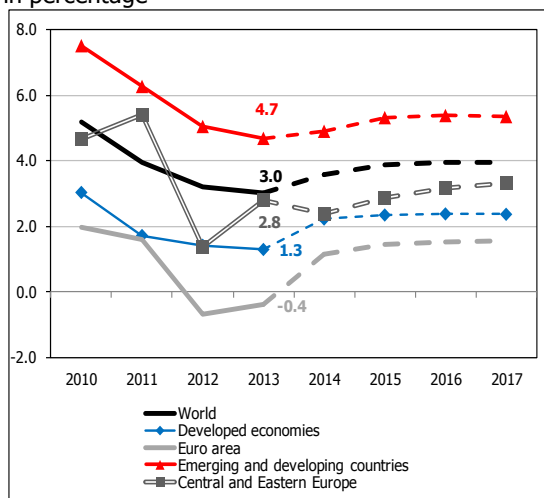


# I. Macroeconomic environment

## 1. International environment

The Euro area remains the main source of potential shocks to the Macedonian economy, having in mind the dependence of the national economy on the growth of the European economic activity and the high level of connection of the domestic financial institutions with the European financial system. The high share of non-performing loans and low profitability of banks in the Euro area pose a risk to their relatively favorable capital position, which may further limit their capacity for lending to the real sector. In addition, the differences in the performances of the banking systems in the Euro area represent an additional risk to their stability, and to the possibility for an adequate transmission of the monetary policy of the ECB. The uncertainty regarding the quality of the loan portfolio of European banks increased the importance of the ongoing structural reforms, in which of special interest is the successful completion of the establishment of the European Banking Union. Although there is skepticism about the complexity of the new process and the real capacity and "political will" for its effective implementation, it is estimated that it will establish a single supervisory approach to all banks in the Euro area, but it may also imply a risk of supervisory arbitrage, having in mind that the new approach will apply only to banks from the Euro area, rather than to all banks in the European Union.

Chart 1  
Economic growth  
in percentage



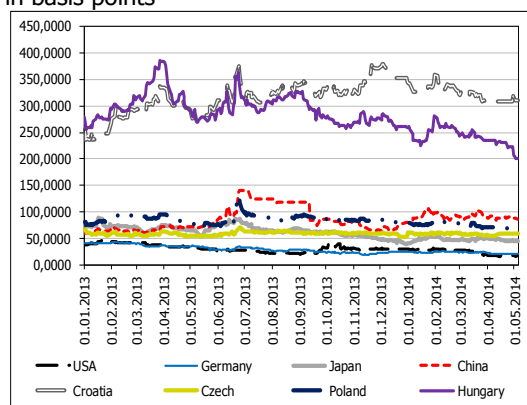
Source: IMF (World Economic Outlook Database, April 2014).

The impact of the international environment on the financial stability in the Republic of Macedonia is twofold: (1) the successful operation of the domestic corporate sector, and thus its capacity to fulfill its obligations to the financial system, largely depends on the trends in the international markets, having in mind the importance of foreign trade for the domestic economy; and (2) the presence of foreign capital in the domestic financial market emphasizes the importance of the successful operation of the parent entities, primarily from the European financial system, for the stability of domestic financial institutions.

Although with reduced intensity, the global economic activity continued to grow in 2013. Stabilized business environment and improved global financial conditions have contributed to a gradual recovery of the developed economies, especially in the second half of the year, as can be seen from the reduction in risk premiums of these countries. Emerging and developing economies continue to be drivers of the growth of the global economy,

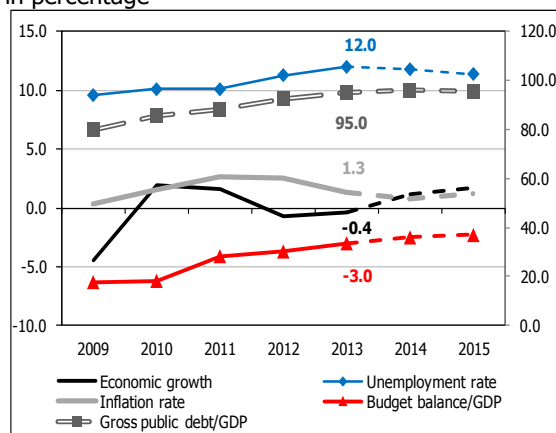


Chart 2  
Credit Default Swaps for certain  
sovereigns  
in basis points



Source: Bloomberg

Chart 3  
Key economic indicators for the euro area  
in percentage



Source: European Commission (Spring 2014 forecast).

with contribution of more than two-thirds in the total global growth in 2013. However, their contribution was lower than expected, due to internal economic and political developments in individual countries, but also due to the trend of capital flight from these countries as a result of the Fed tapering announcements<sup>1</sup>.

The continuous improvement of the real estate market and the labor market in the USA, contributed to the economic growth of this country of 1.9%. The generators of growth are the high private consumption and net exports, followed by the growth of gross investments and reduced public consumption. Against such background the unemployment rate also reduced, and in January 2014 it reached the lowest level in the last five years (6.6%). According to the latest projections of the IMF and the European Commission from April 2014, in 2014 the US economy is expected to achieve the highest growth among the developed countries of 2.8%. As a result of these positive developments, throughout 2013, the Federal Reserve System of the United States examined the possibility of reducing the quantitative easing<sup>2</sup>, but such a decision was taken at the end of the year. In December 2013, the Fed announced gradual tapering, starting from January 2014<sup>3</sup>. Despite this change, the Fed kept the same level of the key interest rate (0.25%). In addition, the Fed explicitly announced that it will maintain this level of the interest rate, and hence the accommodative monetary policy also in the forthcoming period.

Unlike the US economy, the Euro area was characterized by slow economic recovery in 2013. Fiscal consolidation, unemployment reduction programs and financial support

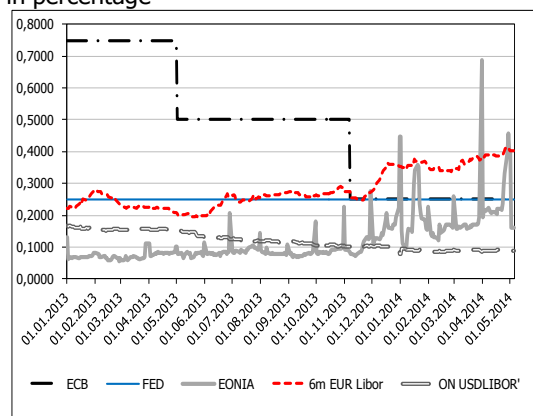
<sup>1</sup> The Fed tapering (which is a kind of tightening of the monetary policy), contributes to increased yields from these bonds in international markets and their greater attractiveness relative to other investment alternatives, primarily relative to the emerging and developing countries.

<sup>2</sup> Under this program, the Fed conducts a monthly purchase of mortgage-backed bonds issued by the national agencies for supporting the mortgage loans market and the market of long-term government bonds. The amount of the monthly purchase is determined by the Federal Open Market Committee, depending on the level of inflation (as the primary anchor of the monetary strategy of the Fed), the movements of the unemployment rate and other economic indicators.

<sup>3</sup> The monthly purchase of mortgage bonds was reduced from US Dollar 40 to 35 billion, while the purchase of long-term government bonds was reduced from US Dollar 45 to 40 billion. The downward trend in the monthly purchase continued in 2014, and in May 2014 it reached US Dollar 20 billion (for mortgage-backed bonds) and US Dollar 25 billion (for long-term government bonds).



Chart 4  
Key interest rates (ECB, FED and European interbank market)  
in percentage



Source: Bloomberg

Table 1  
GDP growth projections for the major trading partners of RM

Country	Institution	Year		
		2013	2014	2015
Germany	IMF	0.5	1.7	1.6
	European Commission		1.8	2.0
Greece	IMF	-3.9	0.6	2.9
	European Commission		0.6	2.9
Italy	IMF	-1.9	0.6	1.1
	European Commission		0.6	1.2
UK	IMF	1.8	2.9	2.5
	European Commission		2.7	2.5
Bulgaria	IMF	0.9	1.6	2.5
	European Commission		1.7	2.0
Serbia	IMF	2.5	1.0	1.5
Euro zone	European Commission	-0.4	1.2	1.7
	IMF		1.2	1.5
	ECB		1.0	1.7

Source: European Commission (Spring 2014 forecast), IMF (World Economic Outlook Database, April 2014), ECB (June 2014 Eurosystem Staff Macroeconomic Projections for the Euro area).

programs in the Euro area<sup>4</sup> contributed to stabilization of the economic activity in the Euro area in the second quarter of 2013 and to the achievement of a positive quarterly growth rate for the first time in six quarters. However, the annual real GDP declined by 0.4%. The unemployment rate further increased in 2013 by 0.7 percentage points<sup>5</sup>, and an increase was registered also in the share of the public debt and budget balance in the gross domestic product. The public debt to GDP ratio is well above the economic criterion of 60%<sup>6</sup>, while the budget deficit is at the ceiling of 3%.

It is expected that in 2014 the European economy will achieve a positive growth rate. However, the growth of real GDP in the Euro area should reach the pre-crisis level (first quarter of 2008), at the end of 2015<sup>7</sup>. The growth in domestic demand driven by the growth of private consumption and fueled by low inflation and stabilization of the labor market, and the growth of investments, are expected to be the main generators of the recovery of the European economy.

In order to support the still slow recovery of the European economy, the ECB proceeded with conducting accommodative monetary policy. During 2013, the ECB cut the key interest rate<sup>8</sup> by 25 base points on two occasions (in May and November), whereby it reached the historically lowest level and equaled the policy rate of the Fed (0.25%). The interest rate on overnight credits was also reduced down to 0.75%, while the interest rate on overnight deposits remained at 0.0%<sup>9</sup>. Also in 2013 and 2014, the ECB confirmed its intention to continue to conduct an accommodative monetary policy, to keep the key interest rates at a low level and to provide

<sup>4</sup> In December 2013, Ireland completed the program for financial support, Spain did the same in January 2014 and Portugal in May 2014.

<sup>5</sup> The unemployment rate by individual countries ranges from 4.9% in Austria to 27.3% in Greece.

<sup>6</sup> In seven countries in the Euro area public debt exceeds their GDP.

<sup>7</sup> Source: June 2014 Eurosystem Staff Macroeconomic Projections for the Euro area. It is expected that the average annual growth rate of real GDP in the Euro area will be 1.0% in 2014, 1.7% in 2015 and 1.8% in 2016.

<sup>8</sup> Interest rate on main refinancing operations.

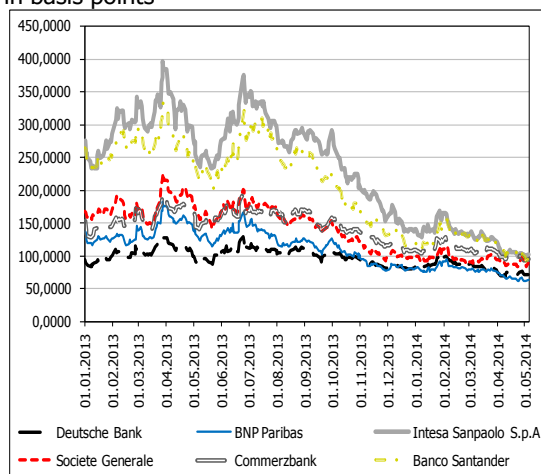
<sup>9</sup> In early June 2014, ECB further cut the interest rates on the most important monetary instruments, including: the key interest rate was reduced to 0.15%, the interest rate on the overnight credits decreased to 0.40%, while on the overnight deposits a negative interest rate of - 0.10% was introduced for the first time. Lower interest rates became effective from 11.06.2014.



liquidity through tenders at fixed interest rates until it is needed, at least by end 2015<sup>10</sup>.

Particularly important for the Macedonian economy are the trends in the economic activity of the major trading partners. All major trading partners of the Republic of Macedonia are EU countries or countries from the region whose performances are largely dependent on the European economy. Germany as a country with the largest share in the exports of the Republic of Macedonia achieved positive growth rates, with faster growth expected in the next two years. Expectations are favorable even for the two countries (Greece and Italy) in which reduced economic activity was registered in 2013, which should be a positive incentive for the Macedonian export sector and the economy as a whole, having in mind the contribution of net exports to the real GDP growth in 2013<sup>11</sup>.

Chart 5  
Credit Default Swaps for certain banks  
from the euro area  
in basis points



Source: Bloomberg

The slow recovery of the European economy had a corresponding impact on the situation in the banking sector of the Euro area. Overall, in 2013 banks in the Euro area were characterized by a gradual reduction of the risk in their operations, which is evident from the movements in risk premiums in some more significant banks. The main driver of this trend are banks' continuing activities for strengthening the capital position. Since the beginning of the financial crisis (first quarter of 2008), the capital and reserves of banks in the Euro area increased by Euro 683 billion, of which almost 40% are new equity. As a result, capital and reserves are the only significant balance sheet category that registered a positive growth rate in 2013.

Growth of capital and reserves accordingly influenced the growth of the own funds of the banks in the Euro area and the strengthening of capital adequacy<sup>12</sup>. In 2014, some reduction in

<sup>10</sup> ECB Press Release, 5 June 2014.

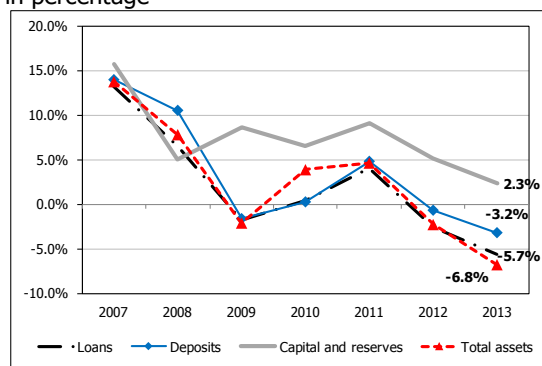
<sup>11</sup> In 2013, net exports were among the expenditure components with the greatest contribution to the GDP growth (3.6 percentage points).

<sup>12</sup> The relationship between core capital position as an item of the own funds with the highest quality, and risk-weighted assets, increased from 11% at the end of 2012, to 12.1% as of 31.12.2013. This growth is a result of both the new banks' issues of shares and of the financial deleveraging process. But the growth of the equity capital was more characteristic for 2012 when it contributed with 0.6 percentage points to the growth of the capital adequacy ratio, while the contribution of the reduction of total assets was



Chart 6

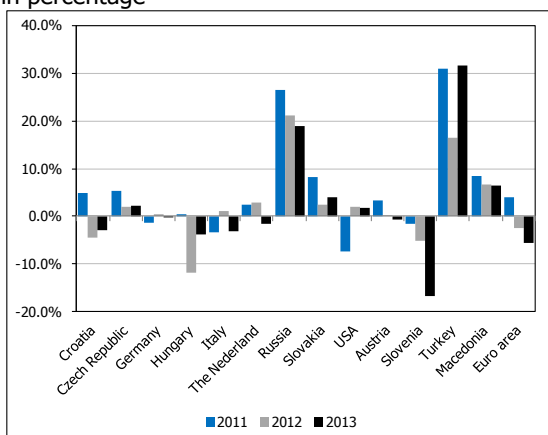
Annual growth rates of the main balance sheet positions of euro area banks in percentage



Source: ECB.

Chart 7

Annual credit growth rates for certain euro area countries and countries from the region in percentage



Source: IMF (Financial Soundness Indicators Website), ECB (for the credit growth in the euro zone).

Note: Credit growth refers to growth of loans to domestic nonfinancial entities (corporate sector, other nonfinancial domestic persons and the government).

Data for 2013 for the Czech Republic, Nederland and USA are for Q3, while for Italy are for Q2.

the rate of capital adequacy should be expected, as a result of both the enforcement of the new rules for determining of this ratio prescribed by the directive and the regulation on capital requirements for credit institutions and investment firms<sup>13</sup>, and of the implementation of the detailed analysis of the balance sheets of banks in the Euro area which is expected to show additional credit losses with some of the banks. The still limited opportunities for providing funds through financial markets may further increase the banks' activities to achieve the required capital adequacy ratio through further financial deleveraging.

Standing pressure on banks for further financial deleveraging, but also the still high indebtedness of households<sup>14</sup> and the generally poor financial condition of the corporate sector had a corresponding impact on the dynamics of credit support in the Euro area. For two consecutive years the credit activity of banks in the Euro area has declined, and in 2013 it amounted to -5.7%, which is mostly due to the reduced exposure to the corporate sector and the state. From among the analyzed countries, only Russia and Turkey are exceptions to the general trends of the credit support for the non-financial sector.

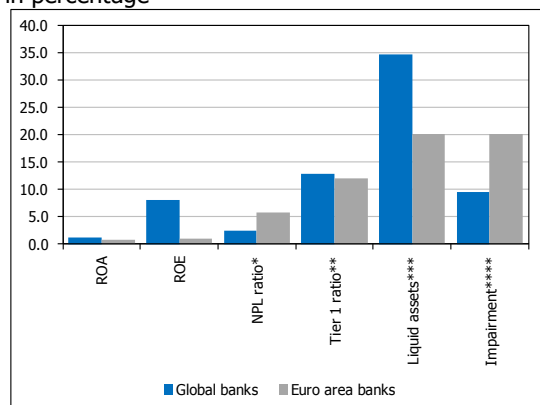
More than half of the major banking groups in the Euro area operated at a loss in 2013, which was mostly due to the growth in impairment. This growth is driven by both the constant trend of deterioration in the credit portfolio quality and the activities of banks toward providing better initial basis for the detailed analysis of the asset quality that is to be made by the ECB during 2014. Part of the "blame" for the low starting base, and then the growth of impairment for credit risk in 2013 is to be put on the manner of identifying and

only 0.1 percentage point. The situation was opposite in 2013, when the financial deleveraging contributed with 1 percentage point, while the contribution of the growth of equity was 0.4 percentage points (Source: ECB, Financial Stability Review, May 2014).

<sup>13</sup> Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms and Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms.

<sup>14</sup> Reduced exposure to households is present in all types of exposures, excluding exposures based on mortgage loans that grew in 2013.

**Chart 8**  
Key indicators for global and euro area banks  
in percentage



Source: ECB (Financial Stability Review, May 2014).

\* NPL ratio (nonperforming loans to total loans).

\*\* Tier 1 ratio (Tier 1 capital to RWA).

\*\*\* Liquid to total assets ratio

\*\*\*\* Net-impairment as % of net-interest income.

calculating loan losses. Namely, in accordance with the international financial reporting standards, credit losses are allocated at the time of their occurrence, without taking into account the expectations for the possible amount of future loan losses. As a result, usually there is time discrepancy between the deterioration of the loan portfolio and recognition of loan losses by allocating an appropriate amount of impairment. This situation is typical of the banking systems with no additional higher prudential requirements regarding the identification of loan losses, as is the case with almost all countries of the Euro area.

There are major differences in the ability to generate revenues among banks from different Euro area Member States. This risk is far greater for banks from the so-called peripheral countries of the Euro area, which have lower than average capital adequacy ratios, but also greater share of non-performing loans, and thus higher risk of making further loan losses<sup>15</sup>. In these countries, which mostly belong to the group of highly indebted countries, the low credit growth and the high share of non-performing loans, increase the risks to the sustainability of their public debt.

Such conditions inevitably impose the need for continuation of the structural reforms, both in terms of the fiscal consolidation, and the reform of the banking systems. Hence, it is critical to complete the process of establishing the European Banking Union, whose operation should be based on two main pillars: the Single Supervisory Mechanism - SSM and the single mechanism for resolving banks with serious problems (Single Resolution Mechanism - SRM). The ECB, as a single supervisory authority responsible for the establishment and operation of significant banks in the Euro area, will play a central role in the structure of the Single Supervisory Mechanism, (more details on this mechanism in Appendix 1). The ECB should take this role no later than early November 2014, by when all organizational arrangements need to be

<sup>15</sup> Non-performing loans in the banks of peripheral countries of the Euro area are by more than 4 times higher than the share of these loans in the total loans in other countries of the Euro area.





completed, primarily all activities related to identifying the conditions of banks which will be subject to the supervision of the ECB. Therefore, during 2014 the ECB will conduct a comprehensive analysis of the balance sheets of 128 banks from the Euro area that have been identified as significant banks for the banking system of the area<sup>16</sup>. This analysis should enable further "cleaning" of the banks' balance sheets, removal of shortcomings in terms of how to identify and cover loan losses and determine the right level of capitalization of banks. It is expected that the analysis will contribute to boost the confidence in the banking sector of the Euro area.

In order to adequately wrap up the process of establishing the European Banking Union, in March 2014, a political agreement was reached between the European Parliament and the European Council to establish a single mechanism for resolving banks with serious problems which should allow separation of the banking sector from the public finance of each country, thus removing a significant portion of the risk on the public debt. It should be borne in mind that the establishing of this single mechanism is still at an early stage, and therefore there is uncertainty regarding the effectiveness of its operation. If this mechanism does not begin to function along with the functioning of the single supervisory mechanism, the ECB's ability to effectively implement its supervisory role, especially in the cases of banks with serious problems in their operation, will be put in question.

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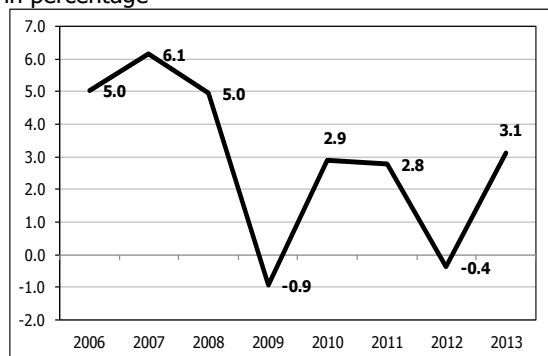
<sup>16</sup> It should be borne in mind that there is a difference between the definition of significant banks which will be subject to supervision by the ECB (Council Regulation No 1024/2013 conferring specific tasks on the ECB concerning policies relation to the prudential supervision of credit institutions) and the definition of banks that are subject to a comprehensive analysis (ECB Decision on identifying the credit institutions that are subject to the comprehensive assessment). The second definition is broader and includes all banks with assets greater than Euro 27 billion, plus the three most important banks in each of the Euro area Member States (if they do not fulfill the first condition). These banks account for almost 60% of the total risk weighted assets of all banks in the Euro area.



## 2. Domestic environment<sup>17</sup>

Despite the still high risks that come from the international environment, economic developments in the Republic of Macedonia in 2013, were positive and suggested recovery of the economic activity especially considering the fall registered in 2012. These developments, along with the projections for continuing economic growth in 2014, as well as the subsequent effects from the monetary and macro-prudential measures taken by the monetary authorities aimed at supporting lending, act toward improving the expectations of economic agents. This consequently provides a basis for expected improvement of the financial flows, reducing banks' risks aversion and intensifying their lending to the corporate sector. As a result, these developments would lead to a reduction of risks in the financial sector. This was partially evident from the significant slowdown in the growth of the non-performing claims of banks in the second half of 2013 and the intensified corporate lending in the last quarter of the year. However, in 2013, banks still invested part of the available funds in risk-free government securities as a liquid, more secure and more profitable option. Government debt based on issued continuous securities has increased. Main investors are segments of the financial sector, which emphasizes the risk of concentration with a single creditor. Downward risks to inflation since the beginning of 2014, mainly related to the world prices of primary products, are further accompanied by upward risks caused by the current conflicts in Ukraine and Iraq and the weather conditions in the central Balkan region in the second quarter of 2014. Foreign direct investments in the technological areas contribute to the improvement of the export performance and hence the gradual strengthening of the external position of the country in spite of reduced inflows of private transfers.

Chart 9  
Annual GDP growth rate  
in percentage



Source: SSO and NBRM calculations.

Note: Data for 2012 are preliminary, while data for 2013 are estimated (SSO Press release from March 2014).

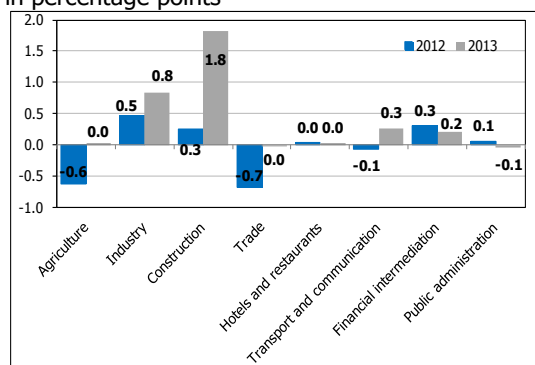
Despite the expectations expressed in the last year's Financial Stability Report regarding the continuing slower growth of the domestic economy affected by the prolonged debt crisis in Europe, in 2013 the Macedonian economy registered the highest growth in the last five years of 3.1%, although the risks of the international environment are still present.

<sup>17</sup> More information on the domestic macroeconomic environment is given in the "Annual Report for 2013" of April 2014.



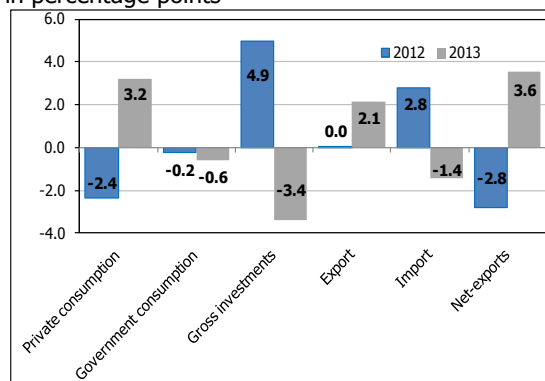


**Chart 10**  
Contributions of the income components to the annual real growth of GDP in 2013 in percentage points



Source: SSO and NBRM calculations.

**Chart 11**  
Contributions of the expenditure components to the annual real growth of GDP in 2013 in percentage points



Source: SSO and NBRM calculations.

Almost all activities had a positive or neutral contribution to the overall real GDP growth<sup>18</sup>, but the largest contribution was that of public and private investments in construction, followed by the growth of value added of industry. Data on the first quarter of 2014 indicate continuation of the growth of the domestic economy, which is more dispersed, with construction still recording double-digit growth rates.

In terms of demand, GDP growth in 2013 was based on net exports<sup>19</sup>, resulting from the greater utilization of the new production facilities in the technological and industrial development zones and the private consumption, which is the only component of domestic demand registering an increase in comparison with the previous year. This is due to the enhanced lending activity of banks with households<sup>20</sup>, and the positive developments on the labor market<sup>21</sup>. During 2013, a series of monetary and macroprudential measures<sup>22</sup> were taken, mainly aimed at supporting the lending, primarily to the corporate sector, which, in turn, had a positive effect on the economic developments, expecting similar effects also in 2014.

<sup>18</sup> Source: Press release of the SSO from 14.03.2014. Data on GDP for 2012 are preliminary, while data for 2013 are estimated.

<sup>19</sup> The greater use of the new production facilities in the technological and industrial zones was not only positive for the growth of the industrial production, but it also contributed to the growth of exports of goods and services by 4.5% compared with 2012. At the same time, the total import demand reduced, especially due to the lower imports of energy products and their prices. Such movements caused the positive contribution of net exports to GDP growth.

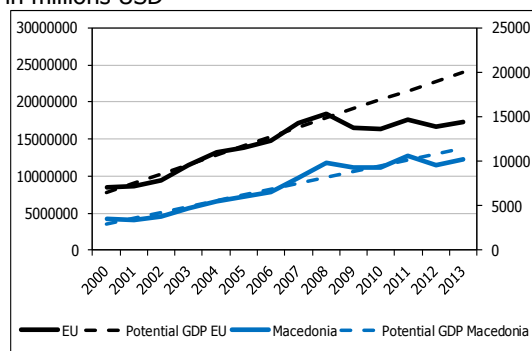
<sup>20</sup> In 2013, loans to households increased by 10.7% and contributed with 63.7% to the total credit growth.

<sup>21</sup> In 2013, the unemployment rate reached its lowest level (29%), amid slower real decline in average wages. The growth in the number of employees was due to internal factors, such as: new production facilities in the free economic zones, foreign and public investments in the construction sector, agricultural subsidies and multi-annual employment measures.

<sup>22</sup> More details on the undertaken monetary and other measures are given in the Annual Report for 2013, of April 2014.



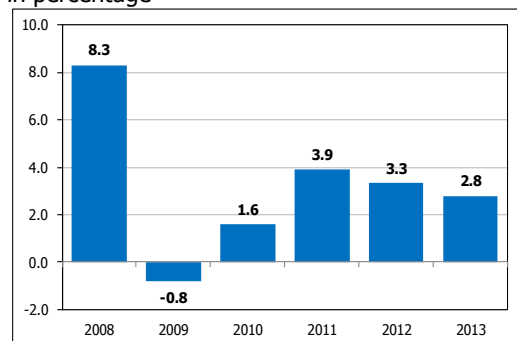
**Chart 12**  
Real and potential GDP in EU (left scale)  
and in RM (right scale)  
in millions USD



Source: IMF (World Economic Outlook Database, April 2014).

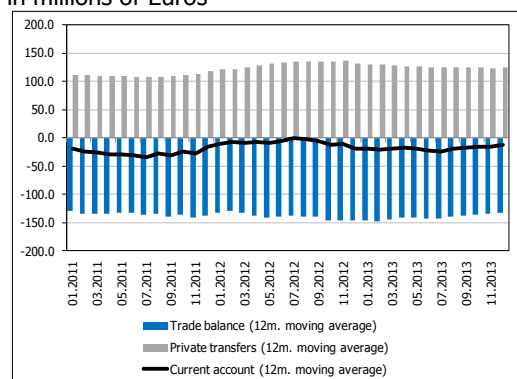
Note: Potential GDP is calculated as a linear trend of GDP based on data from 2000 to 2007

**Chart 13**  
Average annual inflation rate  
in percentage



Source: SSO.

**Chart 14**  
Trade balance, private transfers and  
balance on the current account  
in millions of Euros



Source: NBRM.

If the GDP growth rates in the period after the financial crisis are analyzed, negative growth rates were realized only in 2009 and 2012. But this fall in GDP is far lower than the annual decline in the economic activity realized in the European Union and the countries of the region. The analysis shows that GDP in the European Union Member States accomplished after the crisis of 2008 is well below the potential, which is not the case with the Republic of Macedonia.

In 2013, the trend of slowdown in inflation growth continued, mainly due to the price of energy (specifically electricity and thermal energy and oil derivatives), but also due to the slower growth in food prices. This trend continued in the first months of 2014<sup>23</sup>, but the Russian-Ukrainian conflict and the floods in the central Balkan region, pose a serious risk to the wider market for primary food products and energy and consequently increased risks associated with the future movement of the inflation.

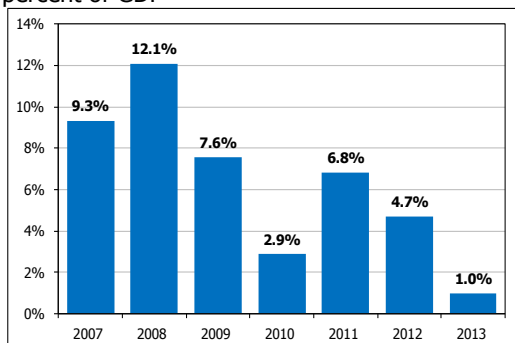
Foreign direct investments had a positive influence through the increased activity of the new production facilities in the technological-industrial development zones and consequently the increased commodity exports and foreign exchange inflows into the economy, given the still present risks of the international environment and reduced amount of private transfers. Further activities of these facilities will act toward improving the external position of the Republic of Macedonia in the long run, particularly amid expected further normalization of the level of private transfers as one of the traditional forms of foreign currency inflows into the country. The negative current account balance fell by 1.1 percentage point of GDP on an annual level, and

<sup>23</sup> The annual inflation rate was 0.9% in January and 0.6% in February, 2014.



Chart 15

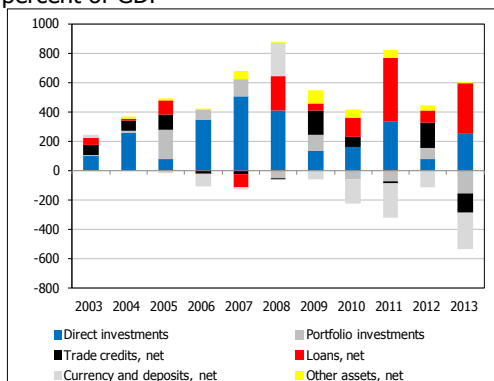
Balance on the capital and financial account, without official reserves  
percent of GDP



Source: Ministry of finance and NBRM.

Chart 16

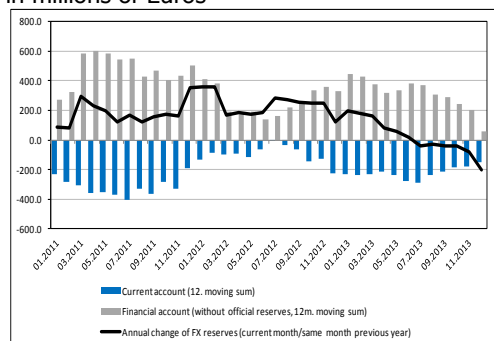
Components of the financial account  
percent of GDP



Source: NBRM.

Chart 17

Current and financial account (without official reserves) and foreign reserves  
in millions of Euros



Source: NBRM.

at the end of 2013 amounted to 1.9% of GDP. Exports of goods continued to rise in the first two months of 2014 (10.9% annually)<sup>24</sup>.

Unlike previous years, in 2013, capital inflows were insufficient to cover the current account deficit, despite the significant increase in the inflows from foreign direct investments and government external borrowing (used two loans from foreign creditors)<sup>25</sup>.

These inflows were insufficient to provide increased coverage of outflows based on: foreign currency deposits (due to the permanent denarization of the deposit base in recent years), foreign assets of banks abroad, trade credits (due to closure of trade credits from the previous year) and portfolio investments (due to higher base effect, as a result of the high inflows in 2012 from early selling of the Eurobond from the domestic financial institutions).

In 2013, foreign reserves declined by 9.1%, which was mostly a reflection of price and currency changes of gold. This reduction caused a minimal annual decline of their share in GDP of 0.9 percentage points. However, foreign reserves remain at a level which ensures coverage of possible shocks in the balance of payments.

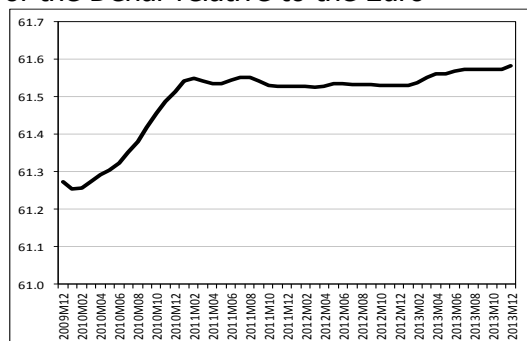
<sup>24</sup> More details on the movements in the current account in the first months of 2014 are given in the publication of the National Bank "Recent macroeconomic indicators, Review of the current situation", April 2014.

<sup>25</sup> In January 2013, a loan from Deutsche Bank was used amounting to Euro 250 million, and covered by a guarantee from the World Bank. At the same time, the Government borrowed directly from the World Bank an amount of Euro 38.7 million.



Chart 18

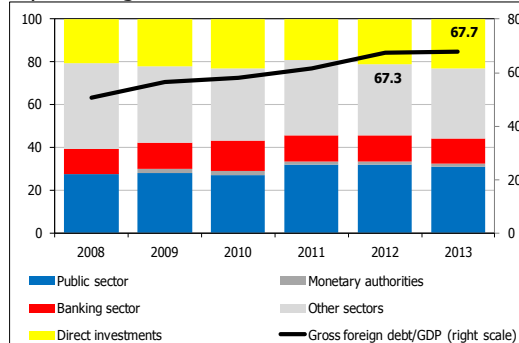
Average monthly nominal exchange rate of the Denar relative to the Euro



Source: NBRM.

Chart 19

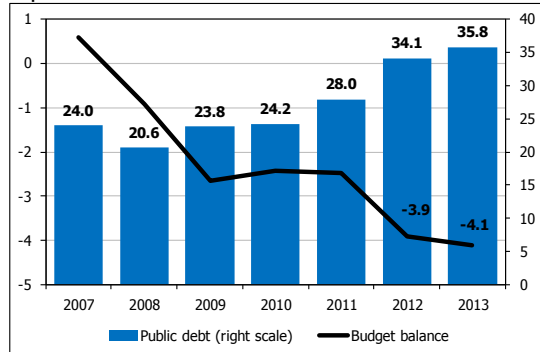
Structure of the gross foreign debt in percentage



Source: NBRM.

Chart 20

Public debt and budget balance of the Central government and funds in percent of GDP



Source: Ministry of finance and NBRM.

Note: From 2013, the Agency for state roads is excluded from the debt of the central government, due to its change in the legal status (public enterprise)

Additionally, the National Bank's successful management of the movements on the foreign exchange market contributed to maintain the stability of the exchange rate against the Euro also in 2013. The stability of the exchange rate of the domestic currency is critical for the stability of the real sector and consequently for the financial stability, given that a significant portion of the debt of households and companies to banks is in foreign currency or is denominated in foreign currency (with a currency clause, mainly Euro).

The total external debt of the Macedonian economy<sup>26</sup> increased by Euro 196 million, or 3.9% in 2013, causing an increase in its share in GDP of 0.4 percentage points<sup>27</sup>. The annual growth in the gross external debt is far lower than its average growth achieved in the preceding five years (12.1%). Government external borrowing is the generator of the growth of the public sector external debt in 2013, while the private sector has not registered any significant changes compared to the previous year. The level of external debt and its slower growth reduce the sensitivity of the Macedonian economy to external shocks and the risk to the financial stability, which is especially important in circumstances of still present distrust on the international financial markets.

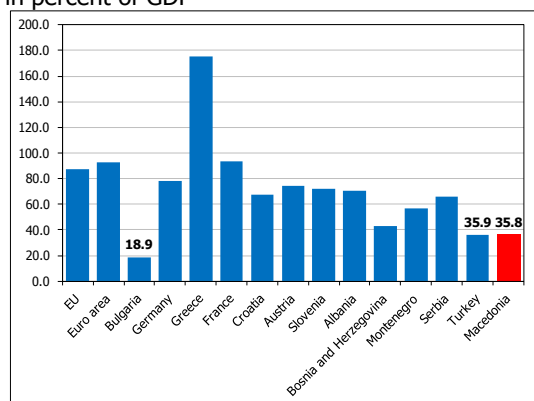
The risk associated with public finance additionally increased in 2013, due to the further increase in the public debt and the growth of the budget deficit to GDP ratio by 0.2 percentage points (whereby it reached 4.1% of GDP). Most of the deficit was realized in the first quarter of the year due to payment of arrears from the previous year, and it was financed with funds from foreign and domestic sources. During the rest of the year, the need for financing the budget deficit was largely covered by domestic borrowing of the central government by issuing continuous government securities which increased by 31.9% annually. As a result, there is

<sup>26</sup> The calculations exclude repo transactions concluded by the National Bank for the purpose of managing foreign reserves due to their neutral effect on net external debt.

<sup>27</sup> The increase in 2012 was 5.5 percentage points.



Chart 21  
Public debt  
in percent of GDP

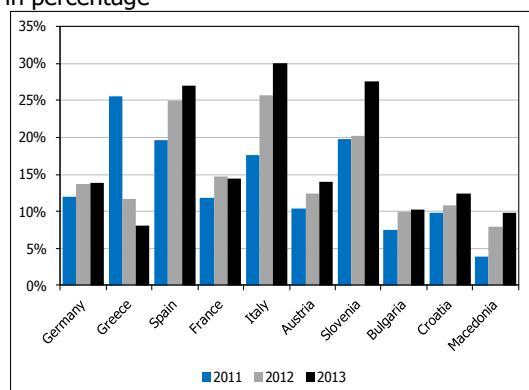


Source: IMF (World Economic Outlook Database, April 2014) and Eurostat, May 2014.

an increasingly growing share of the domestic debt of the central government (the share of the domestic debt of the central government in 2011 was 24.3%, while at the end of 2013 its share in total debt reached 42.3%), and this trend continued in the first three months of 2014.

These developments contributed to the annual growth of the total debt of the central government and funds of 8.4% whereby the central government debt reached Euro 2,757 million. Despite the growth, in the group of fifteen countries analyzed (including the aggregate data on the EU and Euro area Member States), the Republic of Macedonia is among the countries with the lowest share of central government debt to GDP.

Chart 22  
Share of investments of banks in  
domestic government securities to GDP  
in percentage



Source: ECB (Statistical Data Warehouse) and Ministry of finance and NBRM (for Macedonia).

Banks are one of the major investors in government securities, in circumstances of still present lack of confidence in terms of the economic performance of the real sector, poorly developed domestic financial market and almost complete absence of other investment opportunities. Thus, as of December 31, 2013 banks have invested Denar 36,682 million in government securities<sup>28</sup>, representing 56.2% of the total amount of government securities. Next largest investors in government securities according to the volume of securities are pension funds (24.6%) and DIF (with a share of around 15%). According to international standards, which are respectively applied in the Macedonian financial regulation, the claims on the government are treated as non-risk claims. However, the risk of concentration of the exposure to a single creditor whose debt is growing must be closely monitored. This is especially important due to the fact that the funds that are placed are ultimately associated with the household savings (deposits, insured deposits, assets in pension funds).

<sup>28</sup> Source: website of the Ministry of Finance.

## **II. Nonfinancial sector**

### **1. Corporate sector**

The value added of the domestic corporate sector in 2013 registered positive annual growth, contrary to the decline in the previous year. The growth of value added resulted primarily from the positive trends in construction, largely triggered by the investment activity of the government. The increased production capacity in the technological - industrial zones also contributed positively, which led to an increase in exports. The continuing recovery of the economic activity in the countries of the Euro area and the countries that are traditional trading markets for the domestic companies can be expected to increase the foreign effective demand and continue the trend of positive movements in the value added of the corporate sector, particularly the export oriented companies.

Performance indicators in 2013 illustrate that the domestic corporate sector faces a relatively modest level of liquidity and works with low turnover of assets, which implies relatively long periods of "tying" of the assets in the operating process of the companies. Debt indicators reduced minimally, while profitability registered some improvement in 2013. However, indicators of performance of the corporate sector, still suggest that the risks to financial stability arising from this sector as a whole were high, and therefore the ability of the corporate sector in general to absorb a more intensive credit growth, is also modest. There are noticeable differences in the ratios depending on the prevailing activity of the companies included in the corporate sector analysis, and on their size, where the largest group - micro entities registered the worst performance.

The total indebtedness of the corporate sector accounted for about two thirds of the gross domestic product and in 2013 its share in GDP registered growth, which was slower compared with 2012. The largest contribution to the debt growth was that of the debt to foreign creditors. The fact that this debt is denominated in foreign currencies increases the importance of the currency risk for the performances and the stability of the corporate sector. However, the net foreign exchange position of the corporate sector, and thus the currency risk exposure remained stable during 2013. The financial support of the corporate sector provided by the domestic banking system in 2013 was mainly in the form of Denar loans and in the form of loans with adjustable interest rates. The possible changes in the level of interest rates on domestic and international financial markets and the manner in which they would be translated into the banks' interest rate policies and decision-making, are very important for the performances and debt servicing of the corporate sector, due to the small share of the debt with fixed interest rates in the structure of its debt to the banking system.

Banks still perceive the corporate sector as venture financing, which is confirmed by the modest changes in the risk premium built into the interest rates, in circumstances when interest rates on newly-extended loans registered a downward trend. Double-digit annual growth rates of non-performing loans to the corporate sector are in line with the reduced creditworthiness of companies in 2013. The

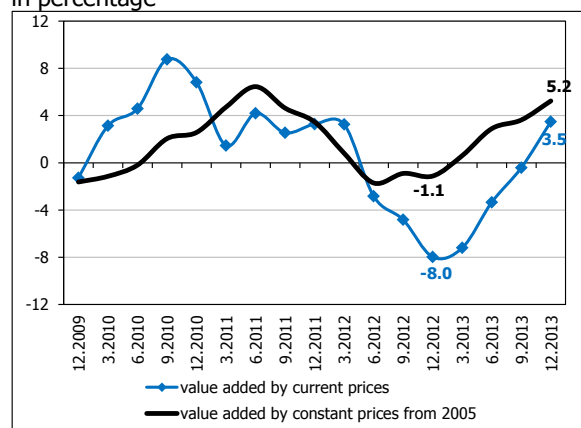




capacity of the corporate sector for regular servicing of the liabilities to the banking system is one of the main determinants of financial stability. Given the fact that the corporate sector is banks' major borrower, but it also determines the financial strength and solvency of the households, the dynamics of credit risk in the banking system largely depends on the activities and performances of the corporate sector. Hence, the transfer of the increased volume of activities and the value added of the corporate sector on the scope and pace of its cash flows is crucial for the further movements in the quality of the credit exposure to domestic enterprises and their ability to service the liabilities and capacity to absorb new debt. In addition, the growing activities of the corporate sector should act toward increasing the deposits of the corporate sector in the banking system and thereby increasing the sources of funding for banks.

### 1.1. Analysis of the performances of the corporate sector

Chart 23  
Annual rate of change of the corporate sector value added  
in percentage



Source: State statistical office

After the decline registered in 2012, the value added<sup>29</sup> of the corporate sector<sup>30</sup> again registered positive growth rates in 2013. Thus, at the end of 2013, the value added expressed at current prices grew annually by 3.5%, contrary to the decrease of 8.0% registered at the end of 2012. The value added of the corporate sector expressed at constant prices of 2005, i.e. in real values, increased by 5.2% in 2013. The annual growth of value added of the corporate sector has come to the fore in the second half of 2013, primarily due to the lower base effect due to its reduction in 2012.

Amid slow recovery of the economies of the more important trading partners, especially the economy of the Euro area, the growth of value added of the corporate sector primarily stems from the positive second-round effects on the economy coming from the public investments in road infrastructure, although the gradual increase of the capacity utilization of foreign investments

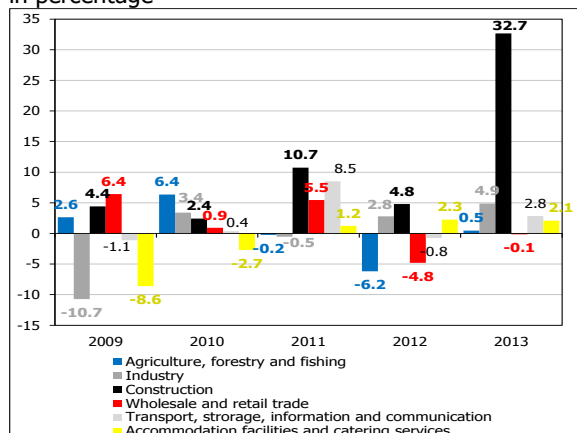
<sup>29</sup> The Report uses preliminary data on the value added of the corporate sector for 2012, and estimated data on the value added of the corporate sector for 2013, according to the SSO press release from March 2014.

<sup>30</sup> Enterprises (entities) that are included in the corporate sector are trade companies and sole proprietors with prevailing activity from the branches "industry", "wholesale and retail trade and repair of motor vehicles and motorcycles", "construction", "agriculture, forestry and fishing", "transportation, storage, information and communication", "accommodation and food service activities" and "activities related to real estate, professional, scientific and technical activities and administrative and auxiliary service activities". The corporate sector does not cover legal entities that have registered prevailing activity in: "financial and insurance activities", "public administration and defense, compulsory social security", "education", "health and social care activities", "arts, entertainment and recreation", "other service activities", "activities of households as employers", "activities of households that produce different goods and perform various services for their own needs" and "extraterritorial organizations and bodies". Due to unavailability of data, the calculation of the value added of the corporate sector does not include the entities with prevailing activity in: "activities related to real estate", "professional, scientific and technical activities" and "administrative and auxiliary service activities".



Chart 24

Annual rate of change of value added of particular activities of corporate sector, by constant prices from 2005 in percentage

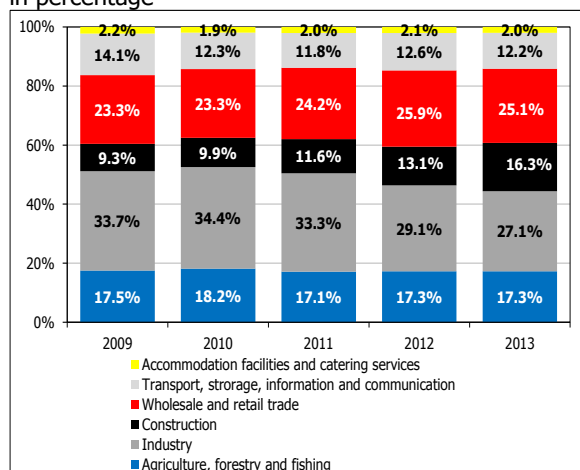


Source: State statistical office

in the domestic economy also had an effect. Public investments in road infrastructure were the main generator of the growth of value added of construction. Thus, this activity recorded a very high value added growth rate in 2013, with the construction of road infrastructure contributing with over three-quarters in the growth of construction. Due to such a fast growth of value added of construction, its share in the total growth of gross domestic product in 2013 reached 58%<sup>31</sup>. Given the enhanced investment activity in the road infrastructure also during 2014, it is expected the fast growth of value added of construction to be maintained. This activity is expected to increase its contribution in the formation of the gross domestic product and the value added of the corporate sector. Another activity which is next highest contributor to the growth of value added is industry, whose growth rate of value added in 2013 was the highest in the past five years. The growth in industry primarily stems from the growth in the manufacturing industry. Generator of this growth was the gradual increase in the capacities utilization, especially of the entities in the technological-industrial development zones. In 2013, annual growth in the value added expressed at constant prices was registered also in other activities, with the exception of "wholesale and retail trade" where there was an insignificant decline. The dynamics of value added in construction allowed for an increase in its share in the value added of the corporate sector in 2013, expressed at current prices, of 3.2 percentage points. This structural change is accompanied by a decrease in the shares of other activities, especially of the industry, whose share fell by 2 percentage points.

Chart 25

Structure of value added of the corporate sector by activities in percentage



Source: State statistical office

This dynamics and structural changes in the value added of the corporate sector inevitably contain some risks. One of the major risks is associated with the capacity for long-term sustainability of the growth of value added of different activities, especially construction, given the link between the construction business and

<sup>31</sup> More details on these developments are given in the Annual Report of the NBRM for 2013.

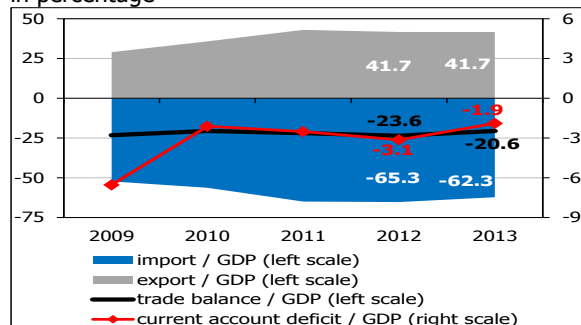




Chart 26

Relative importance of import and export of goods for Macedonia's current account balance

in percentage

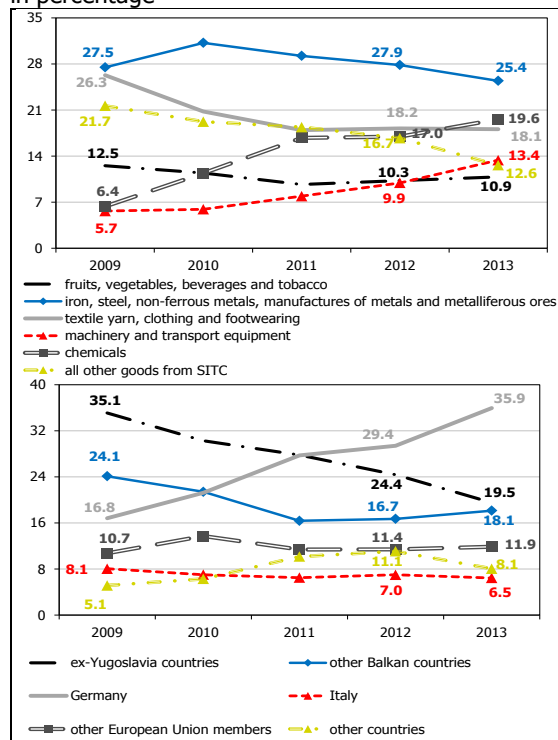


Source: State statistical office

Chart 27

Structure of Macedonian export of goods by system of international trade classification (top) and by countries (bottom)

in percentage



Source: State statistical office

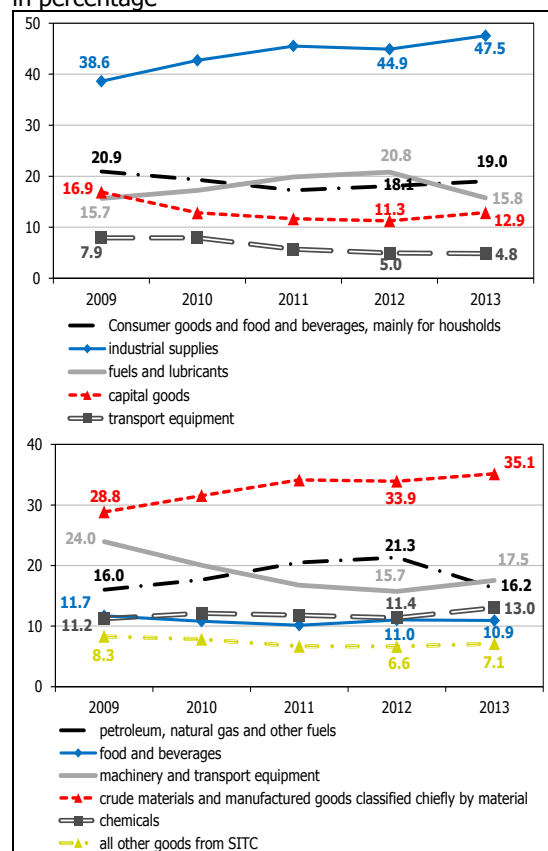
Note: ex-Yugoslavia countries are Serbia, Croatia, Bosnia and Herzegovina, Slovenia, Montenegro and Kosovo; other Balkan countries are: Turkey, Bulgaria, Greece, Albania and Romania; other EU members are EU countries without those already included in other categories (all EU members, except Germany, Greece, Italy Slovenia, Bulgaria, Romania and Croatia as of 2013).

performances, particularly the realization of infrastructural projects, with the policy of fiscal stimulus, the balance of the government budget and the general state of public finances. Hence, any changes in the fiscal policy aimed at fiscal consolidation will inevitably affect the demand for construction services in the economy and thus, in the medium run, also the performances of the construction, particularly the companies that could not switch toward foreign markets.

Another risk factor that may affect the performances of the domestic sector is the situation and the dynamics of foreign demand, especially for domestic export industrial products. After the decline registered in 2012 (of 10.7%), in 2013, the exports of goods grew (by 6.7%), which in circumstances of a symbolic growth of imports of goods (1.7%) contributed to the narrowing of the trade imbalance and the decline in the share of the current account deficit in the gross domestic product from 3.1% in 2012 to 1.9% in 2013. Given the fact that the Macedonian economy is small and open, the degree of integration of the domestic corporate sector in the international commodity flows is relatively high. This is the reason for the high sensitivity of the Macedonian corporate sector to various economic or non-economic shocks. This sensitivity has become more pronounced in the past few years, given the type of products manufactured in the new production facilities in foreign ownership, which according to the system of international trade classification are mainly classified as "machinery and transport equipment" or "chemicals". Some of these products are intermediate goods in the production process of global production chains, which means that their demand is even more influenced by global economic trends and factors. The presence of new production facilities improves the export concentration of the Macedonian economy by the type of products that are exported, with greater share of products with higher level of industrial processing. Thus, the share in the structure of exports of machinery, transport equipment and chemical products has grown steadily in the past five



Chart 28  
Structure of import of goods in Republic Macedonia by economic use of goods (top) and by system of international trade classification (bottom) in percentage



Source: State statistical office

years. On the other hand, there is some reduction in the share of the "traditional" export products of the Macedonian economy - iron, steel, metal ore, textiles, clothing, footwear etc. Analyzed by country, there is a significant increase in the share of exports in Germany, at the expense of the reduced share of exports to the countries of former Yugoslavia and the Balkans. All these countries (including Italy) are considered "traditional" trading markets of the Macedonian companies. In contrast, the structural share of the exports to other countries, either in Europe or other continents, has not registered major changes in the past five years. Hence, it can be concluded that the domestic corporate sector has modest competitive power and relatively limited capacity for direct participation in third markets.

An additional factor that determines the sensitivity of the Macedonian corporate sector to external shocks is the high import dependence of the domestic economy. Such import dependence of the domestic economy, and thus the corporate sector, is most pronounced in the supply of oil, oil derivatives and other energy products<sup>32</sup>. Hence, the competitiveness of the domestic corporate sector directly depends on the dynamics of the world energy prices, which on their part, amid possible adverse shocks of economic or non-economic nature are unpredictable and increasingly volatile. In addition, there is dependency on imports of raw materials and intermediate products used as inputs in the production process. This dependence became stronger with the operationalization of the new production facilities within the technological and industrial zones, because in the absence of domestic suppliers their production depends on imported raw materials and is fully export-oriented. Finally, it must be borne in mind that the increase in the value added of the corporate sector in itself does not improve its performance, due to the impact of certain unmeasurable factors, such as quality of the management,

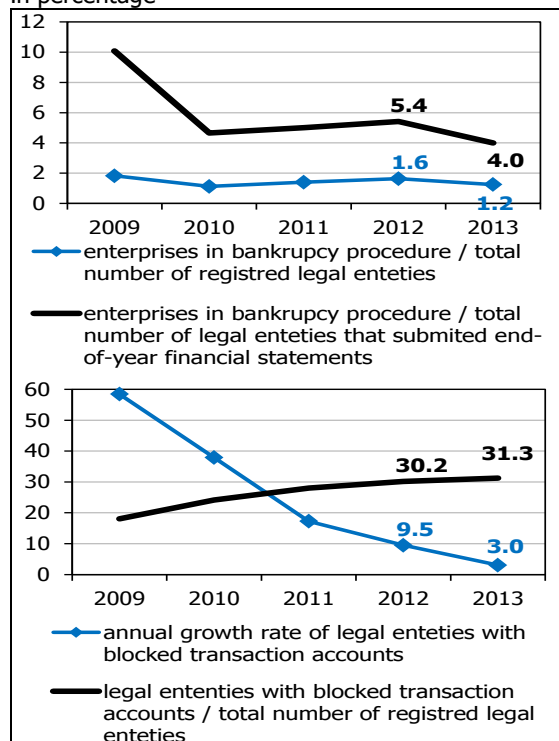
<sup>32</sup> In order to reduce the import dependence and the outflow of foreign currency from the economy for electricity imports, at the end of 2012, NBRM reduced the reserve requirement base of banks by the amount of the newly-extended loans to net exporters and domestic electricity producers.



Chart 29

Rate of bankrupted entities (top) and number of legal entities with blocked accounts (bottom)

in percentage



Source: Central registry of Republic of Macedonia and NBRM for number of blocked accounts

human capital and differences in innovation between enterprises.

The entrepreneurship initiative in the Republic of Macedonia, expressed as a change in the total number of newly established companies and sole proprietors, dropped by 3.4% in 2013. At the same time, there was a decline in the number of entities that were in bankruptcy proceedings at the end of the year and a slight decrease in the total number of registered entities. Hence, the approximate bankruptcy rate, calculated as the ratio between the number of entities in which bankruptcy proceedings have been initiated and the total number of registered entities, decreased in 2013. The number of legal entities with blocked accounts continued to grow in 2013, but at a declining rate of growth. Also, over 31% of the total number of registered legal entities in the Republic of Macedonia had their accounts blocked for any reason at the end of 2013. In 2013, the amendments to the Companies Law from December 2012 began to apply, which prescribed the procedure for determining the status of an inactive entity and its deletion from the records of the Central Registry if certain preconditions are met, with the non-performance of the activity being the main precondition. However, the effects of these legislative changes, in terms of reducing the total number of registered entities and increasing the number of entities that submit annual accounts and financial reports to the Central Registry, did not materialize in 2013.



Table 2

Movement of number of entities (companies and sole proprietors) in the Republic of Macedonia

Description	2009	2010	2011	2012	2013	Annual change 2013 / 2012		Annual change 2012 / 2011	
						absolute number	in %	absolute number	in %
<b>number of entities in bankruptcy procedure, during the year</b>	2,270	1,445	1,823	2,160	1,639	-521	-24.1%	337	18.5%
<b>newly established entities, during the year</b>	10,729	11,685	8,620	8,583	8,294	-289	-3.4%	-37	-0.4%
<b>total number of registered legal entities, end of year</b>	124,559	128,376	129,910	132,176	131,305	-871	-0.7%	2,266	1.7%
<b>total number of registered legal entities that submitted end-of-year financial statements</b>	58,203	59,051	58,082	58,179	57,073	-1,106	-1.9%	97	0.2%
<b>total number of registered legal entities with submitted end-of-year financial statements which are included in corporate sector</b>	52,628	53,238	52,242	52,120	50,972	-1,148	-2.2%	-122	-0.2%
<b>legal entities with blocked transaction accounts, end of year</b>	22,518	31,047	36,407	39,863	41,069	1,206	3.0%	3,456	9.5%

Source: Central registry of Republic of Macedonia, and NBRM for number of legal entities with blocked accounts.

\*Note: The difference between total number of registered legal entities of the end of the year and total number of registered legal entities that submitted end-of-year financial statements arises from entities that didn't submitted annual statements in Central registry or were not active during the year, regardless whether they have notified Central registry.

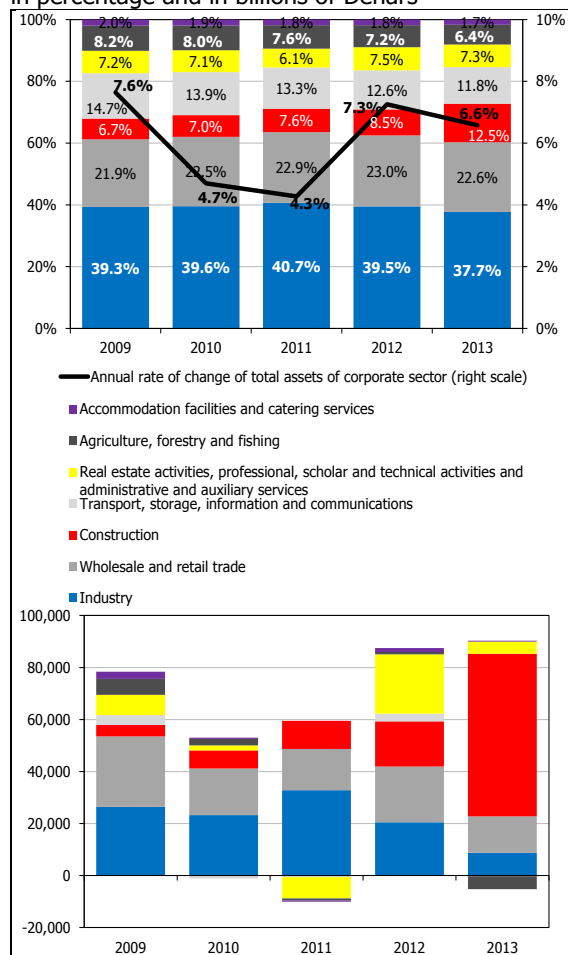
In 2013, total assets of the corporate sector increased by 9.6%. In the structure of the sources of funding, capital and reserves registered faster annual growth (11.6%) compared with the growth of total liabilities<sup>33</sup> (7.7%). Domestic corporate sector has a relatively simple structure of the sources of funding that lacks market funding, as well as issuance of debt securities, and the debt consists mainly of intercompany liabilities, including liabilities to suppliers, liabilities to nonresidents and credit support from the banking system.

<sup>33</sup> The growth rates are calculated on the basis of data from the annual accounts for 2013 for entities which submitted annual accounts to the Central Registry of RM, and are included in the corporate sector.



Chart 30

Structure of the assets of the corporate sector by activities (top) and contribution of the activities in the annual change rate of the corporate sectors' assets (bottom) in percentage and in billions of Denars



Source: Central registry of the Republic of Macedonia – data from the registry of annual accounts

Note: For every calendar year, the calculation is based on data for entities that submitted annual accounts in the registry of annual accounts.

Analyzed by different industries, construction had the largest contribution to the growth of the assets of the corporate sector in 2013, which corresponds to the intense growth of value added in this sector. According to the size of the legal entities, as of December 31, 2013, 0.7% of the total number of companies that have submitted annual statements to the Central Registry of the Republic of Macedonia are classified as large legal entities, but their share in the total assets of all legal entities accounted for 46.1 %. Small and micro legal entities together, accounted for 39.3% of total assets, but they are by far the most numerous, accounting for 98.3% of the total number of legal entities. The largest contribution to the annual increase in the assets of legal entities in 2013 (of over 60%) was that of the medium-size legal entities, while the total assets of micro legal entities decreased in 2013.



Table 3

Indicators for the performance of corporate sector of the Republic of Macedonia

INDICATORS	2013	2012
<b>Debt indicators</b>		
Total debt ratio	48.2%	49.1%
Leverage ratio - assets/equity	1.93	1.96
Debt to equity ratio	0.93	0.96
Long term debt ratio	19.3%	19.9%
Interest coverage ratio	3.05	2.63
<b>Liquidity ratios</b>		
Current ratio	1.26	1.27
Acid-test ratio	0.89	0.90
Cash ratio	0.21	0.21
Net working capital (in millions of denars)	128,535	123,988
<b>Efficiency ratios</b>		
Days sales outstanding	125	123
Days sales of inventory (approximation)	66	65
Days payable outstanding (approximation)	174	168
Total assets turnover	0.73	0.76
Inventories turnover	5.56	5.65
Receivables turnover	2.92	2.97
Equity turnover	1.41	1.50
Coverage of operating non-current assets with long-term sources of financing	132.71%	135.29%
Operating non-current assets/Total assets	48.4%	47.0%
<b>Profitability indicators</b>		
Return on assets	3.72%	3.66%
Return on equity	7.18%	7.19%
Net profit margin	5.10%	4.79%
Return on capital employed	6.23%	6.26%
Operating profit margin	5.49%	5.20%
Operating income per employee, in millions of denars (productivity indicator)	1.89	1.92
Net - profit after taxes per employee, in millions of denars (productivity indicator)	0.19	0.18

Source: NBRM calculations, based on data from the registry of annual accounts at Central registry of the Republic of Macedonia.

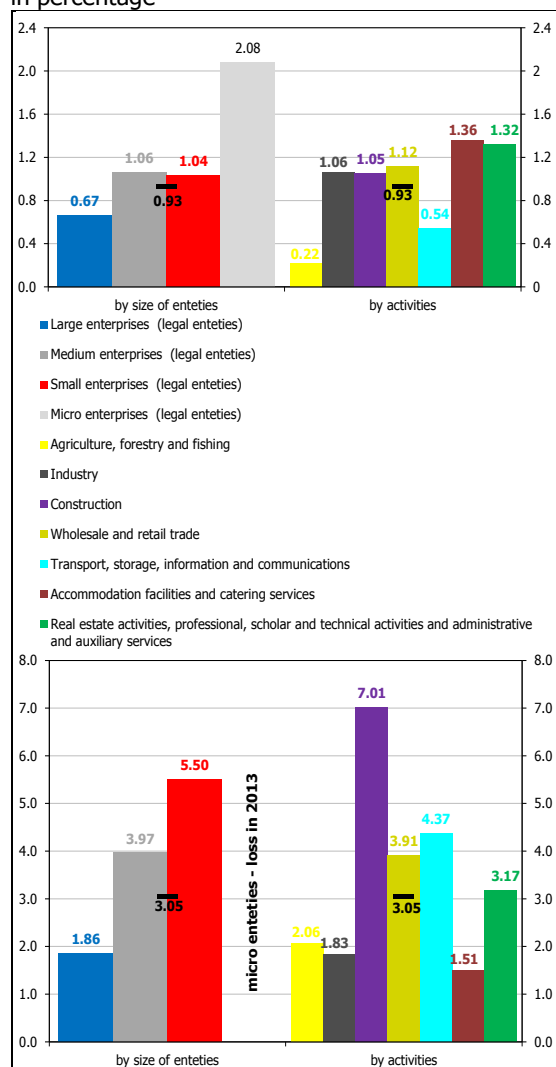
\*Notes: The calculation of indicators for the corporate sector is done on the basis of annual accounts for 2013 and comparable data for 2012 of 50,972 entities, included in corporate sector and that submitted annual accounts at Central registry of the Republic of Macedonia for 2013. The description of the method of calculation of indicators is given in Annex 9. Some of the efficiency indicators are calculated by approximation, since there are no data on the costs of the sold products and the amount of the procurements during the year. The indicators by activities included in corporate sector are presented in Annex 5. The indicators of legal entities by size are presented in Annex 6, and the classification of entities of large, medium, small and micro is based on the criteria in article 470 of the Company law. The indicators for legal entities by reported financial result are given in Annex 7.

The more dynamic growth of assets and of capital and reserves, compared with the growth of liabilities in 2013, enabled the indicators of indebtedness of the corporate sector to show little improvement. Thus, in 2013, the leverage of the Macedonian corporate sector registered a modest decline, while the share of capital and reserves recorded a slight increase in the total sources of funding of the activities. In addition, due to lower expenditures based on funding (including interest expenses) in 2013, there was a noticeable increase in the coverage of the



Chart 31  
Comparison of selected debt indicators in 2013, by size of the entities and prevailing activity:

- debt-to-equity (top) and
  - interest coverage ratio (bottom)
- in percentage



Source: Central registry of the Republic of Macedonia - data from the registry of annual accounts

funding expenditures with the profit from regular activities<sup>34</sup>. Analyzed by individual activity, there are significant differences in the level and dynamics of the debt ratios of enterprises. Thus, the lower debt ratios are concentrated in construction, where these ratios had the highest values in the previous years. The decline in the ratios with this activity is due to the growth of accumulated profits, which corresponds to the fast growth in the activities and the value added in 2013. In addition, in 2013 the entities with this prevailing activity registered a relatively large increase in the revaluation reserve, which was another factor contributing to the increase in capital and reserves. In the other industries, the annual change in the debt ratios had a more moderate pace. In addition, in almost all activities, the debt/equity ratio is greater than 1, which is a potential limiting factor for financing their growth through credit support, i.e. it limits the absorption capacity of the corporate sector for new borrowings. The exception to this is the activity "agriculture, forestry and fishing" where debt indicators are significantly lower compared to other activities. The slightly lower indebtedness of the activity "transport, storage, communications and information" was due to the classification of the enterprises in the telecommunications industry within this activity, which typically have high capitalization, i.e. greater participation of the equity in financing of their activities. In terms of the debt maturity structure, the largest share of the long-term debt in financing of the activities was registered in the activities "accommodation and food service activities", "industry" and "activities related to real estate and professional, scientific and other technical activities". According to the size of the legal entities, greater indebtedness is registered with smaller legal entities, compared with the debt of large and medium-sized legal entities.

<sup>34</sup> Profit from regular activities is calculated as the difference between income and expenditures from the regular operations of the domestic corporate sector.



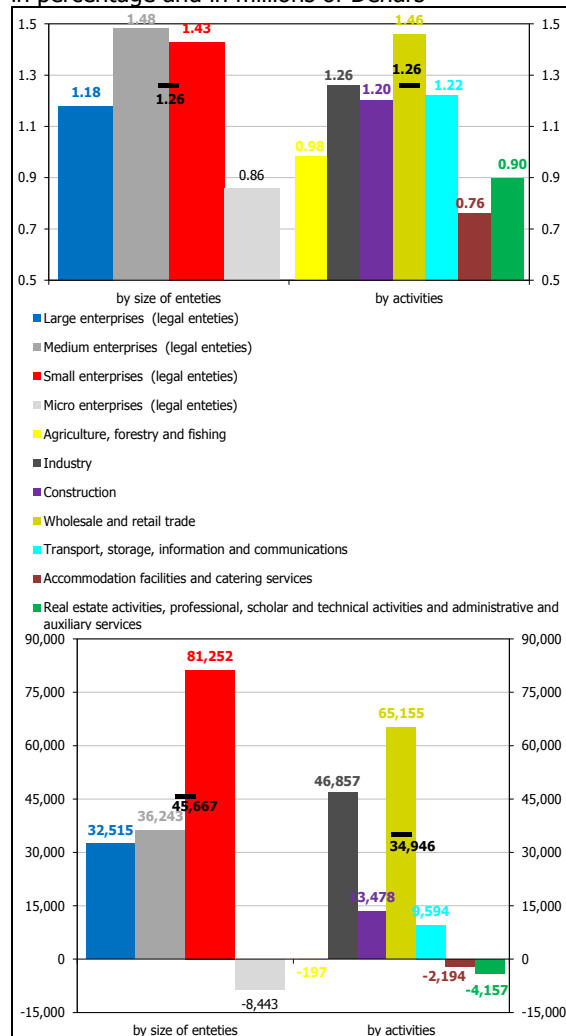


Chart 32

Comparison of selected liquidity ratios of 2013, by size of the entities and prevailing activity:

- current ratio (top) and
- weighted average of net-working capital (bottom)

in percentage and in millions of Denars



Source: Central registry of the Republic of Macedonia – data from the registry of annual accounts

Note: As the weight in the calculation of weighted average of net-working capital for the corporate sector is taken the share of activities in total aggregated assets of corporate sector. The difference of the weighted average of net-working capital is because of the difference of the number of entities - 57.073 legal entities by size, and 50.972 legal entities included in the corporate sector by prevailing activities.

In 2013, the corporate sector liquidity indicators did not notice major changes compared to 2012, due to the almost identical increase in current assets and current liabilities. These indicators are below the level that is normally considered satisfactory (1 for acid liquidity, i.e. 2 for current liquidity), which clearly shows that perhaps the biggest problem of the Macedonian corporate sector is maintaining a satisfactory liquidity position, as confirmed by the low level of the cash liquidity indicator. At the end of 2013, the highest value of liquidity indicators was registered in the activity "wholesale and retail trade" and also in this activity the liquidity indicators noted some improvement compared with 2012. The lowest level of the liquidity indicators was registered in "accommodation and food service activities." While the corporate sector as a whole has a positive net working capital<sup>35</sup>, in certain sectors it is negative, leading to the conclusion that there is an unequal liquidity distribution within the corporate sector by both individual activities and by individual companies. Small and medium-sized legal entities noted somewhat better liquidity indicators compared to large legal entities, while micro legal entities operate with negative net working capital and have the lowest liquidity indicators.

<sup>35</sup> Net working capital is defined as the difference between current assets and current liabilities.

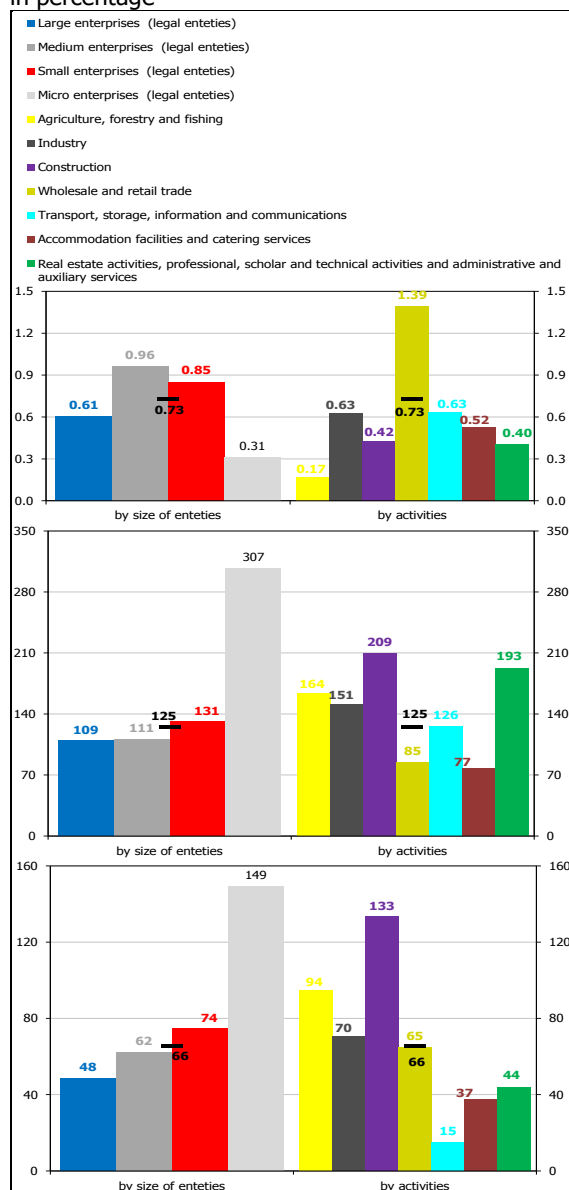




Chart 33

Comparison of selected efficiency ratios for 2013, by size of the entities and prevailing activity:

- total assets turnover (top),
  - days of sales outstanding (middle) and
  - days sales of inventories (bottom)
- in percentage



Source: Central registry of the Republic of Macedonia – data from the registry of annual accounts

The relatively weak liquidity position of the corporate sector is confirmed also by the extremely high values of the indicators of days required for the payment of liabilities, and the indicator of days needed for collection of claims. Thus, the Macedonian corporate sector needs more than four months, on average, for collection of claims, and even longer period for payment of liabilities. Hence, indicators of the efficiency of use of funds (turnover) in 2013, showed a decrease compared to 2012, indicating a modest efficiency in the utilization of funds by the domestic corporate sector. Except for "wholesale and retail trade", total assets of all other activities have a turnover lower than one during a calendar year. The highest turnover in individual categories of assets is recorded in inventories, primarily due to the higher values of this indicator in the activities "transport, storage, information and communication" and "accommodation and food service activities". Claims turnover is highest in the activities "wholesale and retail trade" and "accommodation and food service activities" and lowest in "construction". In addition, in the corporate sector as a whole, almost half of the assets are non-current working assets<sup>36</sup>, and by individual activities their share is below average only in the activity "wholesale and retail trade". This leads to the conclusion that low-yield assets, assets that do not bring any yield, or assets that are not used for the core business, are important in the structure of the corporate sector funds. On the other hand, non-current working assets are fully covered by long-term sources of funding. Same as with the liquidity indicators, the indicators of funds turnover register the lowest values in micro legal entities, while large legal entities register lower turnover indicators compared to medium and small legal entities. The extremely low efficiency of micro legal entities is confirmed by the larger number of days required for "releasing" of certain categories of assets or liabilities.

<sup>36</sup> Tangible assets, intangible assets and investments in real estate are considered non-current working assets.



### Law on Financial Discipline

In order to prevent defaults and accumulation of arrears based on business transactions between companies and determining deadlines for repayment of the liabilities, in December 2013 the Law on Financial Discipline was passed<sup>37</sup>. The Law stipulates the maximum contractual term for the timely repayment of the liabilities arising from business transactions to be 60 days, and in exceptional cases up to 120 days, if there is an explicit written consent by both parties. A business transaction is the transaction between economic operators from the private sector and between the public sector entities and economic operators from the private sector, which refers to the delivery of goods, provision of services and carrying out activities for certain financial compensation. The law entitles the creditor, in case of a delayed payment of the liabilities by the debtor, to charge a one-time fee for delayed payment in the amount of Denar 3.000, but the charging of this fee does not exclude the right to charge penalty interest or other costs that the creditor claims on the basis of the contract or other regulations.

The effects of the application of the Law on Financial Discipline on the operation of the corporate sector are related to the realization of the main purpose of the Law - timely repayment of financial obligations and therefore it can be expected to have positive effects on liquidity and efficiency in the use of funds and to urge the companies to improve their ways of managing their net working capital by using techniques for minimizing inventories, managing claims, etc. However, the practical application of these provisions depends on the business relationship between specific contractual parties, on the solvency and capacity to generate operating cash flows by specific borrowers. The positive effects of the deadlines for meeting the financial obligations will materialize in the business transactions where entities involved in the transaction have the capacity to generate positive operating cash flows and have no problems with solvency. Some companies faced with insufficient sales volume, insufficient capacity to create operating cash flows or problems with their solvency, would perhaps find it more difficult to adapt to the provisions of this Law.

<sup>37</sup> The Law on Financial Discipline ("Official Gazette of R.Macedonia" no. 187/13) was adopted in December 2013 and began to be implemented starting from 01 May, 2014. The application of this Law for the public sector entities when they appear as the debtor will start from 01 January, 2016, and the deadlines for meeting the financial obligations for debtors in the public sector which will apply to the entry into force of this Law will be up to 120 days until 31 December, 2014, i.e. 90 days during 2015.

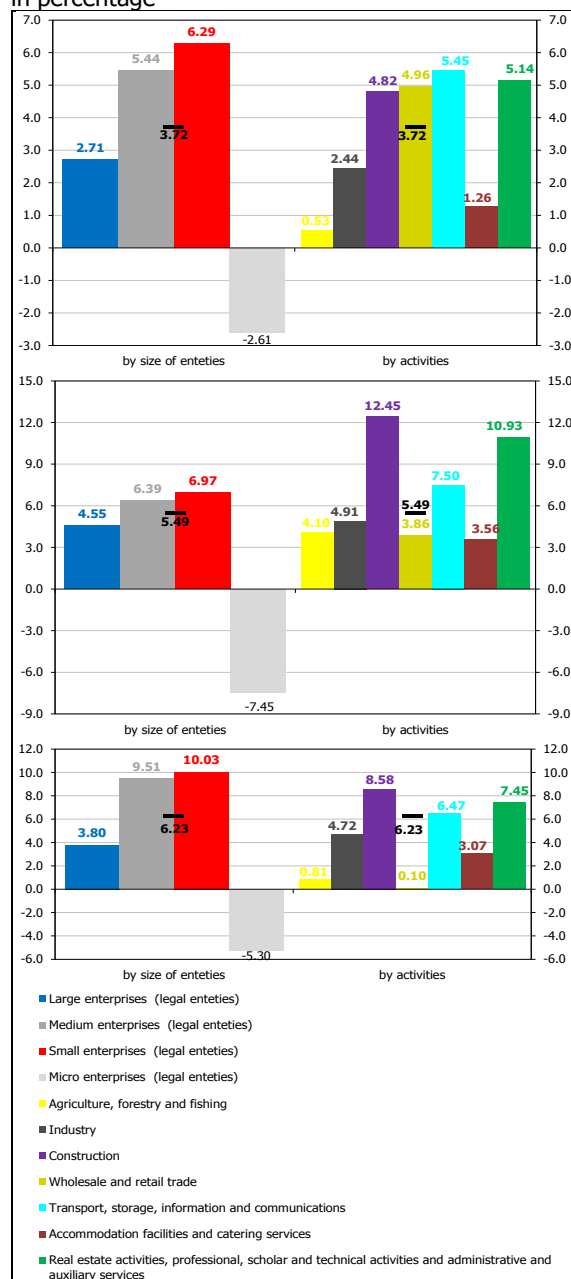


Chart 34

Comparison of selected profitability ratios for 2013, by size of entities and by activity:

- return of total assets (top)
- operating profit margin (middle) and
- return of capital employed (bottom)

in percentage



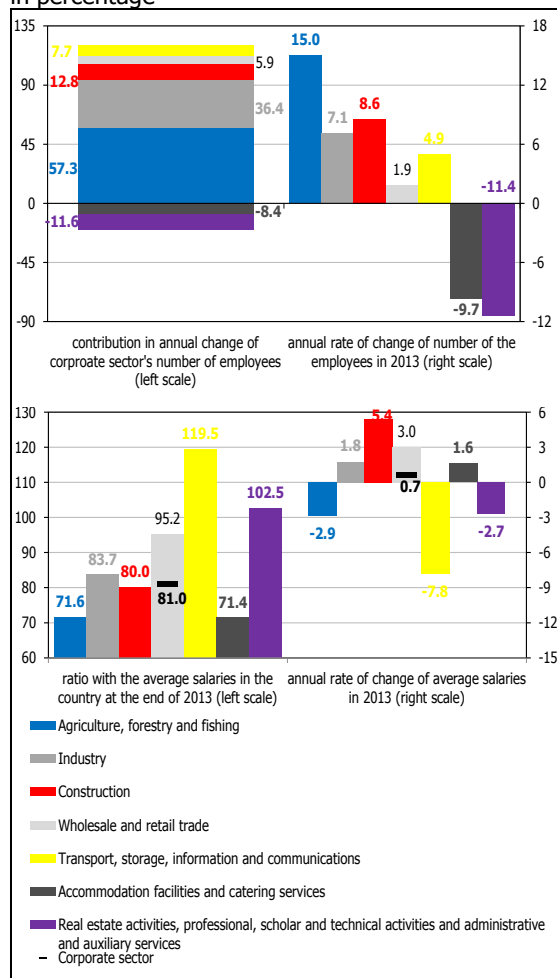
Source: Central registry of the Republic of Macedonia  
– data from the registry of annual accounts

In 2013, indicators of profitability of the domestic corporate sector registered some improvement. This improvement stems from the annual growth of 11.4% in the net profit after tax, whose generator was the faster growth of the revenues from regular operations (4.6%) compared with the growth of total expenditures (4.1%). The profit from regular operations before financial expenditures and taxes registered a similar annual growth (10.3%). Hence, in 2013, there was a slight increase in the operating profit margin and the return on total assets of the corporate sector. Analyzed by different activities, in 2013, the highest return on capital and reserves and the highest return on capital engaged<sup>38</sup> was registered with the entities where prevailing activities are the "activities related to real estate and professional, scientific and other technical activities" and "wholesale and retail trade", while a relatively high profitability indicators were registered in the activities "construction" and "transport, storage, information and communications". However, the share of legal entities operating at a loss is still relatively high, which increases the differences in the performance of legal entities making profit and those operating at a loss. Thus, in 2013 about 36% of the legal entities that have submitted annual accounts to the Central Registry showed loss and their share in the total assets of all legal entities accounted for 32.7%. The deterioration of the profitability indicators of legal entities operating at a loss in 2013 was more pronounced compared with the improvement in the indicators of legal entities that have made profit from operations. This suggests that there are major differences in the distribution of profits within the different segments of the corporate sector. The same conclusion is confirmed by the indicators of profitability of legal entities according to their size where it is evident that micro legal entities operate at a loss, while the small-size legal entities register largest indicators of return on capital and assets.

<sup>38</sup> Engaged capital is the sum of capital and reserves, long-term liabilities and long-term provisions for risks and expenses.



**Chart 35**  
Relative importance of the corporate sector for the labour market indicators – employment and average salaries in percentage



Source: State statistical office and NBRM calculations.

The activities and performances of the corporate sector are not only important in terms of creating value added and hence growth of the gross domestic product, but also in terms of the movements and conditions in the labor market and hence the disposable income and financial potential of the households. Domestic private (non-financial) corporate sector employed 77% of the total number of employed persons in the Republic of Macedonia<sup>39</sup> at the end of 2013, representing approximately 55.3% of the total active population. The number of employees in the corporate sector rose by 5.9% on an annual basis, which fully determined the employment growth in 2013. Analyzed by activity, "agriculture, forestry and fishing" had the largest contribution to the growth in the number of the corporate sector employees<sup>40</sup>, while two activities registered a decline in the number of employees. The average weighted<sup>41</sup> monthly net salary in the corporate sector registered a faster nominal annual growth in 2013 (0.7%) compared with the annual average salary growth in the country paid to all employees (0.1%). Analyzed by activity, the highest growth rate of average net salaries in 2013 was registered in "construction" (5.4%), while in three activities the average net salary decreased. The average salary in the corporate sector at the end of 2013 was only 81% of the average salary in the country, which amounted to Denar 21,500 at the end of 2013. Hence, despite the increase in the number of employees in the corporate sector and the faster growth of the average salary, there is a significant room for increasing its role in the formation of the disposable income of the households, especially given the low absorption of the active population and the difference between the salaries of the employees in the corporate sector and in the other sectors of the economy (public sector and activities that are not covered in the corporate sector). One of the factors which should have a

<sup>39</sup> Source: State Statistical Office - Labor Force Survey for 2012.

<sup>40</sup> In 2013, there was a relatively large increase (of over 16%) in the category "sole proprietors" which determined about 46% of the total employment growth. The growth of registered employment in the activity "agriculture, forestry and fishing" is mainly covered by this category, where the main driving force of the movement are the fiscal and regulatory initiatives in the form of agricultural subsidies, active programs and measures aimed at increasing employment, supporting entrepreneurship, procedures for facilitating the start of own business, etc.

<sup>41</sup> The number of employees by individual activities that comprise the corporate sector is used as weight in the calculation.

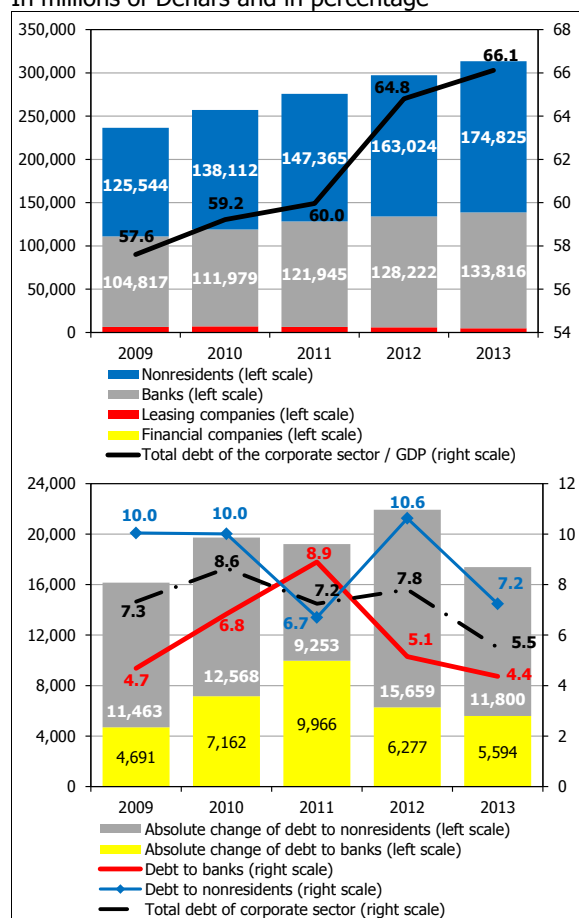


positive impact on employment in the corporate sector in the long term, beside economic growth, is the rising labor productivity. In 2013, total regular revenues per employee at the level of the corporate sector decreased, and the difference between the "wholesale and retail trade" as an activity with the highest revenue per employee and "agriculture, forestry and fishing" as an activity with the lowest revenue per employee was almost 40 times at the end of 2013.

Chart 36

Dynamics of corporate sector debt by type of creditor (top) and change of debt (bottom)

In millions of Denars and in percentage



Source: NBRM, Ministry of finance and State statistical office

\*Note: The data for external debt of corporate sector and GDP for 2012 are previous data, the data for GDP for 2013 is estimated data.

## 1.2. Indebtedness of the corporate sector

The total debt of the corporate sector<sup>42</sup> in 2013 increased by 5.5% annually, which is the lowest annual growth rate in the past five years. The dynamics of the corporate debt in 2013, was mainly driven by the growth of debt to foreign creditors, which contributed with 72.2% to the annual growth of the total corporate debt. Predominant in the debt structure is the debt to non-residents (55.8%), followed by the debt to domestic banks (42.7%), while the share of the other segments of the financial system in financing the activities of the domestic corporate sector is minor. The slower growth of the corporate sector debt is due, on the one hand, to the slower dynamics of the debt to non-resident lenders, while on the other hand, the prudence of domestic banks in the process of establishing new credit exposures to companies also has its effect. The performance of the corporate sector, especially the existing level of indebtedness and the relatively modest turnover of funds are also factors that limit the faster growth of the debt. However, despite the slowdown, in late 2013 the relative importance of the corporate debt for the economy in general was at the historically highest level. The share of corporate debt in the gross domestic product was 66.1% at the end of 2013, and it registered an annual increase of 1.3 percentage points.

<sup>42</sup> For the purposes of this analysis, the total debt of the corporate sector includes: the debt on the basis of loans, interest and other claims of banks, the total external liabilities of the corporate sector (including trade credits), the value of active contracts for leasing and the debt on the basis of active contracts with financial companies.



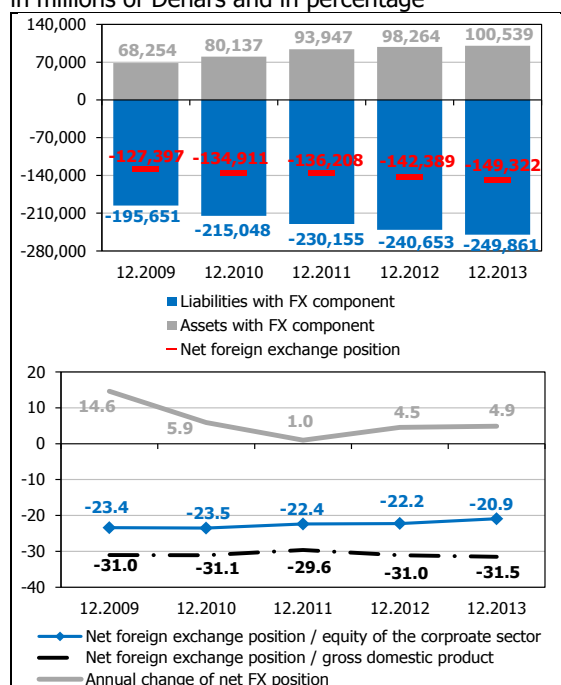
Table 4  
Structure and change of domestic corporate sector debt components

Type of debt		Structure (in %)			Absolute change (in millions of denars)		Relative change (in %)	
		2011	2012	2013	2012	2013	2012	2013
currency	Denar debt	15.7	18.0	19.4	11,040	7,274	26.1	13.6
	Foreign currency debt	72.5	70.4	70.7	13,781	12,593	7.1	6.0
	Denr debt with FX clause	11.8	11.7	9.9	2,946	-3,581	9.3	-10.3
maturity	Short-term debt	36.4	36.5	34.0	7,997	-1,953	8.0	-1.8
	Long-term debt	57.8	57.3	59.1	10,850	14,962	6.8	8.8
	Other debt (past due and nonperforming)	5.7	6.2	6.9	2,657	3,277	16.8	17.8
type of interest rate	Debt with fixed interest rate	16.0	18.6	21.9	8,327	12,572	25.5	30.7
	Debt with variable interest rate	35.2	34.1	33.0	3,498	5,555	4.9	7.4
	Debt with administrative interest rate	45.6	44.2	41.9	4,488	5,177	4.8	5.3
	Other - non-interest bearing debt	3.2	3.0	3.2	230	1,233	3.5	18.4

Source: NBRM for corporate sector debt to banks and to nonresidents Ministry of finance for corporate sector debt to leasing companies.

Note: The debt to financial companies is not included in the total corporate sector debt. Its share in total corporate sector debt is 0.06% as of 31.12.2013. The structure of debt by interest rate, takes into account the debt to the banking system and nonresidents solely based on loan principal.

Chart 37  
Dynamics of net foreign exchange position of corporate sector  
in millions of Denars and in percentage



Source: NBRM

During 2013, the growth of foreign debt had the largest contribution to the growth of the debt of the domestic corporate sector (77.3%), resulting from the dynamics of the external debt of the corporate sector. Changes in the other two components of the currency structure of the corporate debt were mainly due to the changes in the debt to domestic banks. The annual growth of the Denar debt (13.6%) slowed down compared to 2012, while the debt in Denars with FX clause dropped (10.3%) in 2013. These developments caused a moderate annual growth (3.7%) in the currency component of the domestic corporate debt in 2013. Its share in the total corporate debt remained relatively high (80.6%), making the exchange rate stability extremely important for the stability and performances of the corporate sector. The significance of the currency risk for the domestic corporate sector is perceived also through its net short currency position<sup>43</sup>, whose share in GDP is around 30%. The possible different distribution of the net foreign currency position by specific

<sup>43</sup> Net currency position is calculated as the difference between assets and liabilities with currency component of the corporate sector, whereby if this difference is positive, i.e. the assets are greater than liabilities, it is net long currency position, and vice versa for net short currency position. Assets with currency component include deposits with currency component, total claims on non-residents including cash on accounts abroad and investments abroad. Liabilities with currency component include: credits with a currency component from domestic banks and total liabilities to nonresidents. The calculations of investments abroad use data as of 31 December, 2012 due to unavailability of data as of 31 December, 2013.





activities or by individual enterprises, further emphasizes the importance of their exposure to currency risk. Hence, the implementation of the strategy of a de facto fixed nominal exchange rate of the Denar against the Euro is one of the main factors that act toward reducing the risks to the performances of the corporate sector, maintaining the stable level of its indebtedness and preventing the spillover of the possible negative effects of the condition of the corporate sector in the financial system.

With respect to the contractual maturity of the corporate sector debt, the growth in 2013 was driven by the long-term debt. This debt recorded the highest absolute growth in 2013 amid reduction of the short-term debt. Generator of this movement was the indebtedness to nonresidents, where beside the new long-term debt agreements, there is also transformation of short-term into long-term instruments. However, identically as in the previous year, the fastest growing component was the debt with a nonperforming or past due status (growth of 17.8%), which arises entirely from the debt to the domestic banking system<sup>44</sup>. The growth of this component of the exposure is a direct consequence of the hindered debt servicing by domestic enterprises. Given the long periods of engaged assets and modest liquidity of the domestic corporate sector, the high growth rates of the nonperforming debt are another confirmation of the unequal debt distribution by individual companies and the possible indebtedness of part of the domestic enterprises and the need for banks' major steps towards debt restructuring. Furthermore, the growth of the nonperforming debt is a clear indication of reduced creditworthiness of the domestic corporate sector and reduced capacity of the existing borrowers for a new loan activity. Furthermore, the growth of the nonperforming debt leads to a conclusion for possible weaknesses of banks in the process of establishing the exposures, especially in terms of

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<sup>44</sup> Regarding the debt to non-residents it cannot be identified how much of the debt is due or non-performing and therefore this data on the non-performing debt arises only from the debt of the domestic corporate sector to the banking system, which means that there is a risk of underestimation of the growth of this debt component.

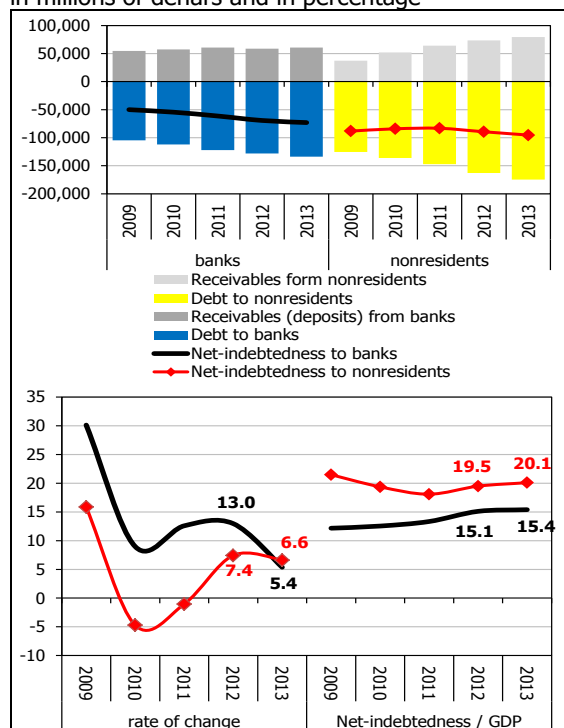


assessing the operating cash flows of companies and structuring of debt repayments.

According to the type of interest rate, in 2013, the fastest growth was registered in the debt with a fixed interest rate, which caused half of the total debt growth. This growth was a consequence of the increased loans from foreign creditors, where more than half of the growth was a result of the debt with a fixed interest rate. This part of the debt does not include the direct exposure of the corporate sector to the movements in the domestic or international financial market, because the cost of servicing is defined and known throughout the duration of the contract. In contrast, in the case of debt with floating interest rates, the amount of the cost of financing is determined according to the movements of the key interest rates in the domestic or international financial markets. The growth of this part of the corporate debt in 2013 was due to the use of financial loans from non-residents, while with the debt to domestic banks this part of the debt decreased. The growth of debt with an adjustable interest rate arises entirely from the lending activity of domestic banks and it is exactly the debt with adjustable interest rates that has the largest share in the total debt of the corporate sector. The credit contracts of the domestic banking sector often include clauses for adjusting of interest rates by a discretionary decision of the bank body, as hedging against market risk. With this possibility for adjusting the interest rates, banks effectively transfer the potential risk arising from the movements on financial markets on domestic borrowers. This practice can significantly increase the funding costs for domestic enterprises in case of possible upward movement in the interest rates on the domestic or international financial markets, because in such circumstances banks will be motivated to adjust their interest rates. The growth of interest-free debt stems solely from the existing practice of foreign parent entities to grant interest-free loans to domestic enterprises or to transform interest-bearing into interest-free credit contracts, thereby directly

Chart 38  
Dynamics of components of corporate sector net-debt (top) and rate of change and net-indebtedness to GDP ratio (bottom)

in millions of denars and in percentage



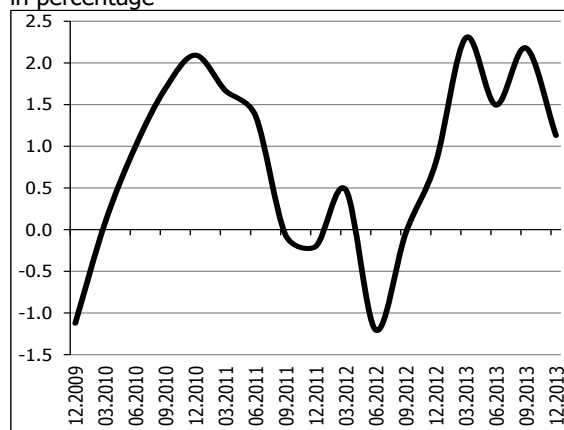
Source: NBRM





Chart 39

Annual change of sight deposits and corporate transaction accounts / annual growth of corporate added value in percentage



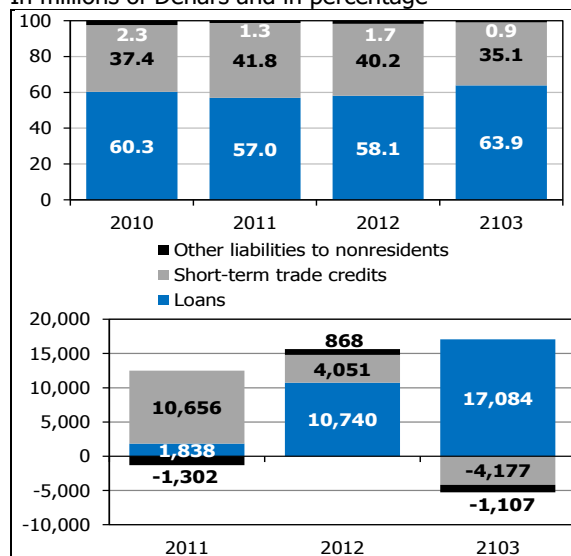
Source: NBRM, based on data submitted by banks and State statistical office

Note: Value added of corporate sector is presented on annual basis

Chart 40

Structure of debt (top) and absolute change (bottom) of domestic corporate sector to nonresidents (bottom), by instrument

In millions of Denars and in percentage



Source: NBRM

\*Note: Data for 2012 are previous data, and for 2013 are estimated data

improving the performance of the domestic enterprises.

The domestic corporate sector is also a creditor of banks and non-residents. Given the unprecedented operating conditions and the limited amount of liquid assets available to the domestic corporate sector, it is difficult to achieve more significant growth of its savings in the banking system or of the claims from abroad. Hence, the share of the net debt of the corporate sector in the gross domestic product in 2013 remained stable. The net external debt of the domestic corporate sector increased by Euro 96 million in 2013, and at the end of the year its share in GDP amounted to 20.1%, which is higher compared with the share of the net debt to the domestic banking system of 15.4%. The debt arising from the extended and received financial credits makes up over 90% of the total net indebtedness of the corporate sector to non-residents.

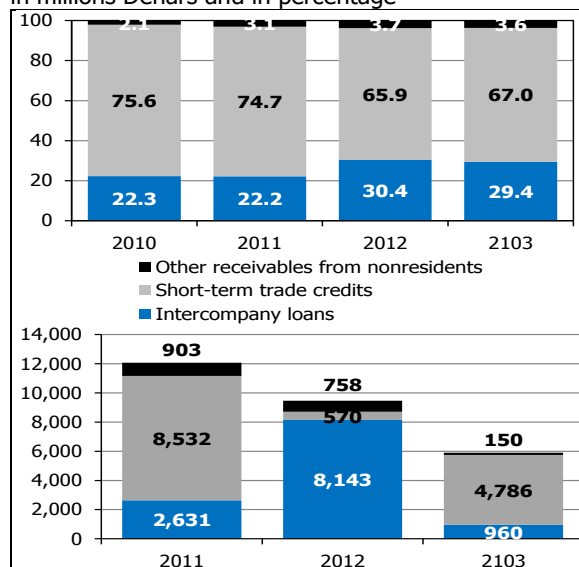
The dynamics of net indebtedness to the domestic banking system slowed significantly in 2013, not because of major changes in the dynamics of lending activity, but because of the fact that the total corporate deposits in the domestic banking system in 2013 registered an annual growth of 3.2%, versus their decline in 2012 of 2.8%. Generator of the growth of corporate deposits in the domestic banking system in 2013 were demand deposits, while time deposits decreased. Hence, the ratio of the correlation between the annual change in demand deposits and transaction accounts of domestic enterprises and the value added of the corporate sector increased during 2013, which may point to some improvement in the availability of funds of the enterprises.

The relatively important role of the external debt in financing of the activities of the domestic corporate sector is an additional factor that acts toward strong sensitivity of the performances of the domestic corporate sector to external shocks. In 2013, the indebtedness of the corporate sector to non-residents amounted to Euro 2.8 billion and grew by 7.2% (i.e. by Euro 191 million). Its share



Chart 41

Absolute change (top) and structure of claims of domestic corporate sector to nonresidents (bottom), by instrument in millions Denars and in percentage



Source: NBRM

\*Note: Data for 2012 are previous data, and for 2013 are estimated data

in GDP<sup>45</sup> amounted to 36.9%. This growth stems entirely from the increase in the liabilities based on loans<sup>46</sup>, amid reduced amount of used trade credits<sup>47</sup> and other liabilities to non-residents<sup>48</sup>. It should be noted that the growth was entirely due to the dynamics of the long-term financial instruments, while the short-term external debt of the corporate sector in 2013 decreased. At the end of 2013, over 60% of the debt of the domestic corporate sector to nonresidents was long-term, with the largest participation of loans (63.9%), followed by short-term trade credits (35.1%). The financing of the corporate sector by nonresidents depends on the capacity of the domestic corporate sector to absorb the sources of funding and the ability to provide an acceptable level of return for the creditors, but also on the credit rating of the country. Possible deterioration of the credit rating of the country will limit the sources of funding for the corporate sector, but it will also act towards growth in the price of the sources of funding. Hence, it is especially important to maintain the credit rating at a level which would mean acceptable risk assessment by foreign creditors.

The total claims of the corporate sector on non-residents amounted to Euro 1.3 billion in 2013, registering an annual growth of 8.0% (or Euro 95 million) and accounted for 16.8% of GDP. These claims generally arise from short-term trade credits extended by Macedonian exporters to foreign buyers (accounting for 67%) and approved intercompany loans (accounting for 29.4%). Some domestic enterprises appear as creditors of their parent entities and/or other foreign related parties and such claims generated about a third of the growth of intercompany loans in 2013.

<sup>45</sup> The data on GDP for 2013 is estimated data. Source: Press release of the SSO from 14 March, 2014.

<sup>46</sup> Loans denote relations between residents and non-residents (claims or liabilities) arising from direct borrowing of funds from the lender based on an agreement for credit or loan.

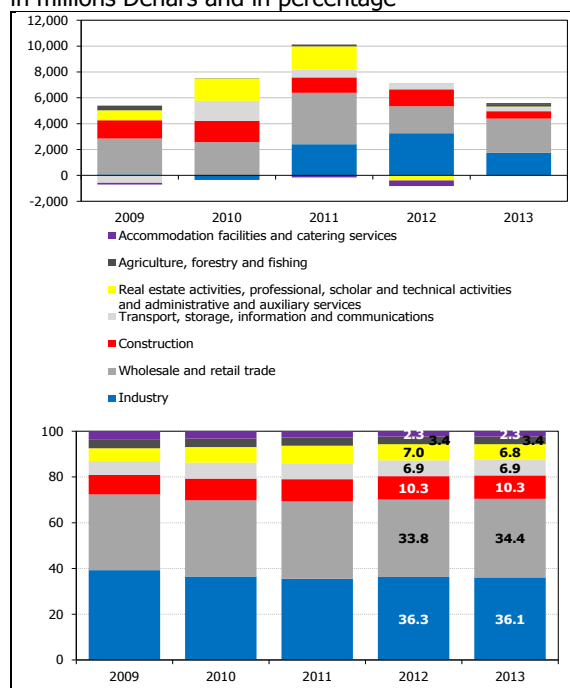
<sup>47</sup> Trade (commercial) credits denote relations between residents and non-residents (claims or liabilities) arising from direct loan approval from the supplier (supplier) to the buyer (receiver) on the basis of trade in goods and services, advance payments for trade in goods and services or for performing work.

<sup>48</sup> Other liabilities to non-residents are liabilities that are not included in the category of loans or trade credits. These include liabilities on the basis of debt securities, liabilities on the basis of currency and deposits, past due liabilities based on all the previously mentioned instruments etc.



Chart 42

Absolute change (top) and structure (bottom) of corporate sector debt to domestic banking system, by activities in millions Denars and in percentage



Source: Credit registry of NBRM, based on data submitted by banks

Due to the still incomplete recovery of the credit demand by the corporate sector and in the absence of more significant easing of the credit conditions by banks due to their perception of still present risks in this sector, in 2013 the indebtedness of the corporate sector to domestic banks<sup>49</sup> as the second most important component in the total debt structure, registered moderate annual growth (4.4%), which was slower compared with 2012 (5.1%). The share of the corporate debt to domestic banks in the gross domestic product reached 28.2% at the end of 2013. Analyzed by different industries, in 2013, banks provided credit support to all activities, and the highest growth rate was registered in "wholesale and retail trade" (6.1%) although it was the only activity with a decrease in the value added. Furthermore, almost 90% of the annual growth of the banks' credit support for the corporate sector were aimed at "wholesale and retail trade", "industry" or "construction". In addition, the banking system provided support for the corporate sector in the form of off-balance sheet credit exposure<sup>50</sup>, which in 2013 dropped by 1.1%.

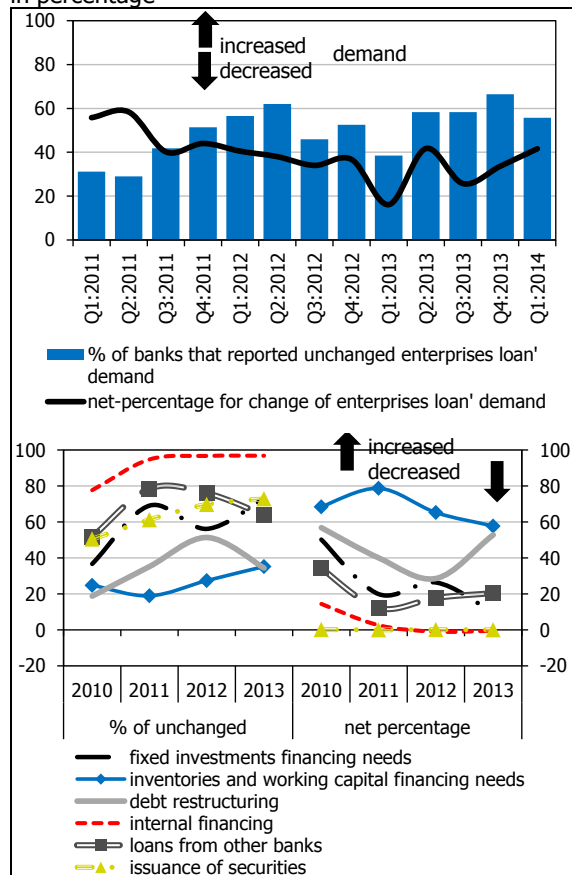
<sup>49</sup> Corporate debt to the banking system includes debt based on credits, interests and other claims. More than 98% of the total domestic corporate debt to the banking sector is based on credits.

<sup>50</sup> Off-balance sheet exposure of banks to the corporate sector is not included in the corporate sector debt, and indicates potential future liabilities of the corporate sector to other creditors or potential additional borrowing from banks.



Chart 43

Assessment of banks for loan's demand of enterprises (top) and assessment of factors which affects loan's demand (bottom) in percentage



Source: NBRM, based on data from bank lending surveys

\*Note: Percentage of banks is weighted with the share of every individual bank in total loans to enterprises of particular date. Assessment of the factors is presented as average percentage of banks with response that the factor affects for unchanged demand in surveys of particular year.

According to the results of the bank lending surveys<sup>51</sup> conducted during 2013, banks have mainly reported unchanged credit demand by the corporate sector, although there was a positive dynamics of the net percentage<sup>52</sup> of banks towards a slight increase in demand.

According to the results of the latest Bank Lending Survey (from April 2014), banks' short-term expectations for an unchanged credit demand from the corporate sector further strengthen.

<sup>51</sup> Average of the results from NBRM's Bank Lending surveys for the four quarters of 2013.

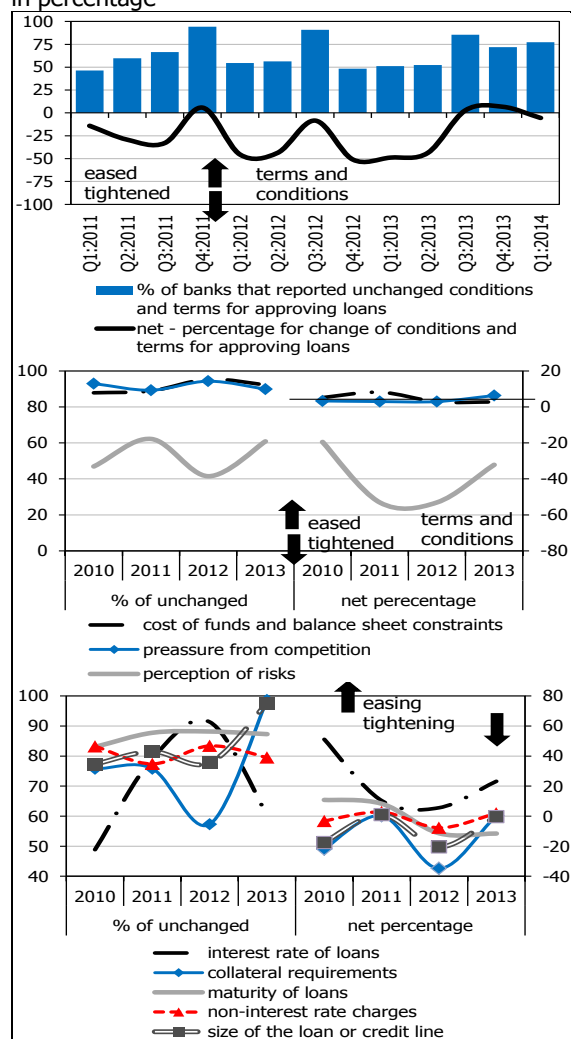
<sup>52</sup> In this report, the net percentage is the difference between banks that have reported higher demand for corporate loans and banks that have reported lower demand for corporate loans.



Chart 44

Assessment of banks for lending conditions for enterprises (top), assessment of factors which affects the conditions (middle) and change of particular lending conditions (bottom)

in percentage



Source: NBRM, based on data from bank lending surveys

\*Note: Percentage of banks is weighted with the share of every individual bank in total loans to enterprises of particular date. Percentage of unchanged is calculated as average of banks with response that particular factor affects for unchanged lending conditions to enterprises in surveys of particular year.

The credit supply for the corporate sector can be approximately estimated by the change in the conditions<sup>53</sup> for lending to enterprises by domestic banks. In 2013, most of the banks, on average, did not change the conditions for lending to the corporate sector, although in the first half of the year there was a certain change in the behavior aimed at reducing the percentage of banks that have stricter lending conditions. Hence, according to the prevailing conditions in the credit market, it can be assessed that also in 2013 domestic banks' credit supply for the corporate sector was modest, but somewhat more favorable compared with 2012.

According to the results of the latest Bank Lending Survey (from April 2014), the majority of banks (96.0%) do not expect any change in the conditions for lending to the corporate sector in the second quarter of 2014.

Another aspect that can be used for an approximate evaluation of the credit supply for the corporate sector by the domestic banking system in 2013, is the amount and the structural characteristics of the newly extended loans during the year. The gradual increase in the banks' credit risk appetite and the greater propensity to approve new credits, is confirmed also by the accelerating growth of the newly extended loans to enterprises in 2013 (11.3%) compared with 2012 (3.9%).

In 2013, the share of Denar lending in the structure of the newly extended loans continued to increase. On the other hand, the share of credit support with FX component in the newly extended loans gradually decreased, which was more pronounced in the lending in Denars with a currency clause. The main driver of this trend in the currency structure of the newly extended loans to enterprises was the greater preference of bank depositors to save in Denars rather than in foreign currency<sup>54</sup>. Hence, also in 2013, the structure of the sources of funding of banks

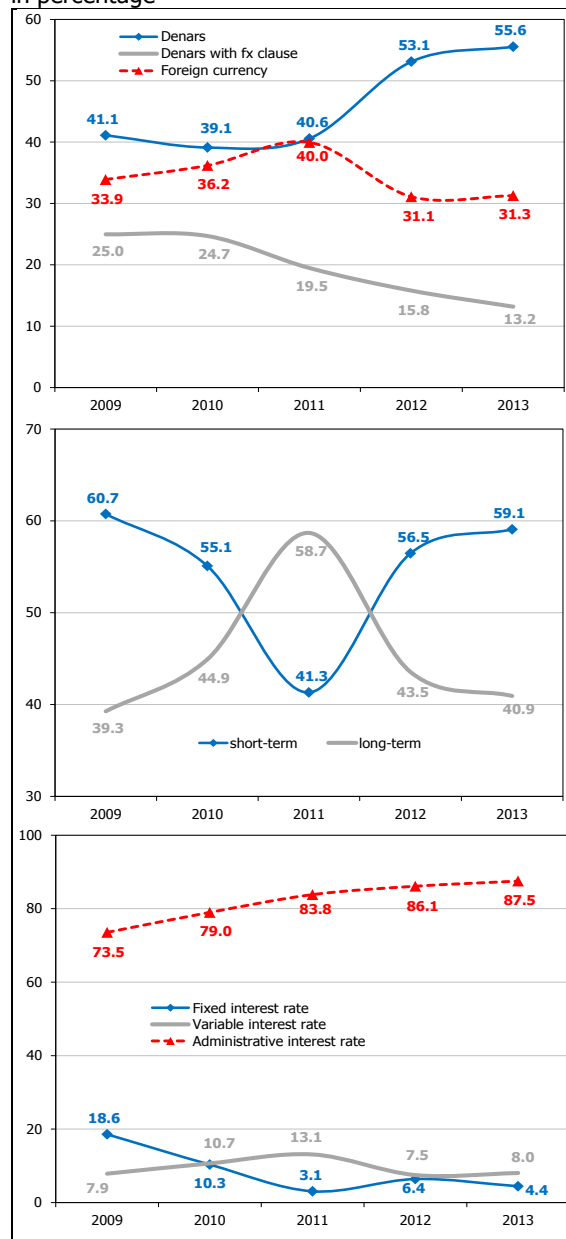
<sup>53</sup> More details on the factors that influenced the credit conditions are given in the Lending Survey of Banks, April 2014.

<sup>54</sup> To encourage savings in local currency, in 2013, the NBRM made an additional distinction of the rates of reserve requirement in terms of currency (more detail in the Annual Report, April 2104).



Chart 45

Currency structure (top) and maturity structure (middle) and structure by type of interest rate (bottom) for newly extended loans by banks to corporate sector in percentage



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

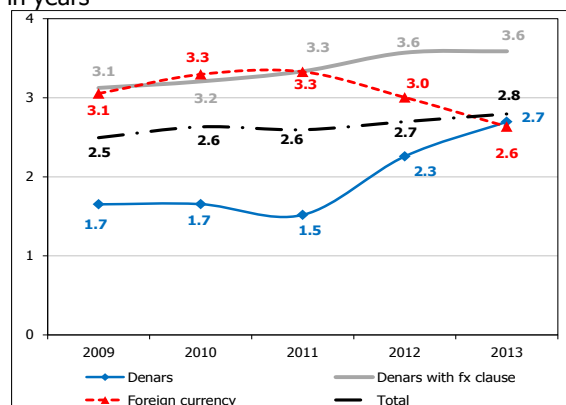
changed by further reducing of the currency component at the expense of the increase in the Denar component, which consequently determined changes in the structure of loans as the most important component in the total banks' assets. However, unlike in 2012, when the total newly extended loans with a currency component declined, in 2013 they rose by 5.5%, which was solely due to the annual growth of the newly approved foreign currency loans by 12.0%. Regarding the maturity structure of the newly extended loans, in 2013, greater share was registered in the short-term financing, which confirms the predominant focus of the domestic corporate sector on maintaining the level of current operations and the limited volume of investment activity. This corresponds with the fact that according to the banks' assessments far stronger is the impact on credit demand by the corporate sector from the need to finance investments in inventories and working capital, than the investments in fixed assets. Predominant in the structure of newly extended loans by type of interest rate, are the loans with adjustable interest rate. The moderate presence of loans with fixed and variable interest rates actually indicates the reluctance of local banks to adequately assess risk when establishing credit exposures and to determine the amount of the premium by which they would finance the companies. Hence, the use of adjustable interest rates in the credit products actually allows banks to implicitly adjust the risk premium on loans already approved and, thus, to realize the target regardless of the quality of credit decisions and the credit risk assessment. However, these adjustments increase the vulnerability of the corporate sector in case of possible changes in the banks' interest rate policies, because their practical application means unpredictability of the costs for financing the borrowers.





Chart 46

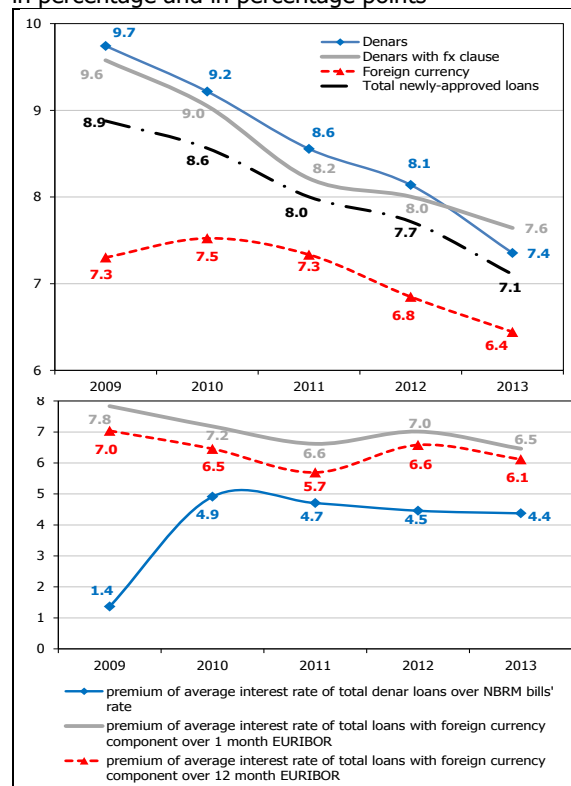
Average contractual maturity of newly extended loans to corporate sector, by currency in years



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

Chart 47

Average interest rate of newly extended loans to corporate sector (top) and premium in the average interest rate of total regular loan over basic interest rates (bottom) in percentage and in percentage points



Source: NBRM's Credit registry, based on data submitted by banks and NBRM calculations.

In 2013, the average maturity of the total newly approved loans remained at a similar level as in previous years, of around two years and ten months. Analysed by currency, there is some increase in the average maturity of newly extended Denar loans, and a reduction in the average maturity of the newly approved foreign currency loans. Given that the Denar loans had the largest share in the structure of the newly extended loans to the corporate sector, the increase in their average contractual maturity in 2013 points to a gradual increase in the banks' risk appetite when financing the activities of the corporate sector. The newly extended Denar loans with a currency clause still have the highest average maturity.

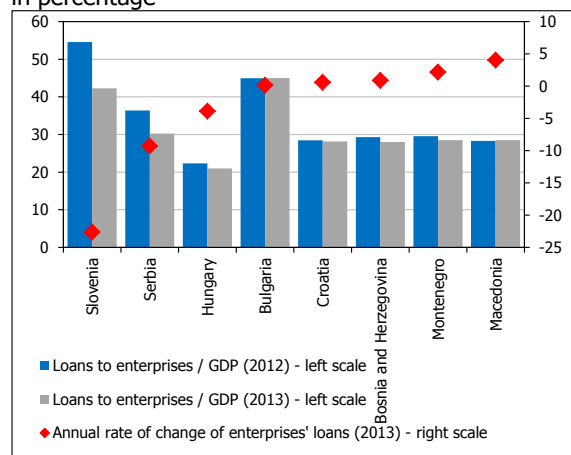
The trend of decreasing the interest rates on total newly granted loans continued during 2013, but it registered an annual decline of 0.6 percentage points. Falling interest rates are equally present in the newly extended loans by individual currency features. However, the reduction of interest rates on the newly extended loans to the corporate sector was not followed by a decrease in the average risk premium that is built into the interest rates on loans. Thus, in 2013, loans with a currency component registered a certain reduction in the risk premium, while this premium in Denar loans was more stable. The significant difference in the average risk premium that banks incorporate in the loans with currency component, compared with Denar loans, points to the conclusion that when approving loans with a currency component banks are more prudent in assessing risks. This difference makes the loans with a currency component significantly more yield-bearing financial instrument compared to Denar loans, which makes them the main source of the net interest margin of banks, incorporating a kind of compensation for the adopted erroneous credit decisions by banks. Furthermore, it is obvious that the amount of the key interest rates in international financial markets is not a decisive factor in determining the interest rates on loans with a currency component, but that the premium banks build over these key interest





rates plays a much larger role. The difference of about two percentage points in the average risk premiums embedded in Denar loans and loans with FX component, is noticeable also in the average interest rates on total loans and by individual activities (Annex 8). It should be borne in mind that the incorporation of the clauses for adjustable interest rates in the credit contracts practically gives banks the ability to unilaterally change the interest rate, and thus the risk premium.

**Chart 48**  
Annual change rate of loans to enterprises and loans to enterprise/GDP, for selected countries in the region in percentage



Source: NBRM, based on data submitted by banks (for Macedonia), internet page of IMF and internet pages of some of the national central banks.

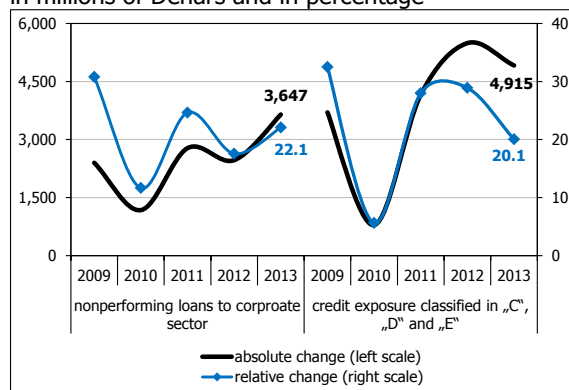
Note: The order of the countries in the chart is presented by annual rate of change of loans to enterprises for 2013.

The credit support for the corporate sector by the banking system of the Republic of Macedonia in 2013 was higher than in most countries in the region. By default, the credit support for the corporate sector in almost all countries recorded a one-digit annual growth, while in some countries it even reduced. This illustrates that the caution of banks in establishing credit exposures to the corporate sector, often amid unsatisfactory quality of the demand from the corporate sector, is not typical only for the Republic of Macedonia, but it is a phenomenon which is present also in the countries of the region. Reduced opportunities for funding of the corporate sector arise also from the condition and capacity of the banking systems in the countries of the region, especially the high growth and the level of non-performing loans with enterprises, but on the other hand it arises from the more difficult conditions for functioning of the real sector due to the spillover effects of the unfavorable global environment on the economies. According to the share of the loans to enterprises in GDP, the Macedonian banking system is within the level that prevails in the region of Southeast Europe.

In 2013, despite the growth of value added, the trend of deteriorating risk profile of the bank's exposure to the domestic corporate sector continued. The moderate liquidity available to the corporate sector in circumstances of incomplete recovery of the global environment and relatively high indebtedness of the corporate sector, often accompanied by inadequate structure of loan repayments by banks, determined the further

Chart 49

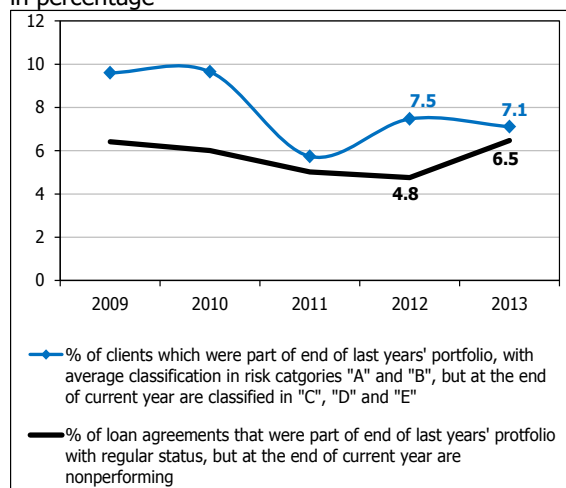
Growth of the exposure with higher risk level and of nonperforming loans of domestic corporate sector to banks in millions of Denars and in percentage



Source: NBRM, based on data submitted by banks.

Chart 50

Estimated probability of default for domestic corporate sector in percentage



Source: NBRM, based on data submitted by banks.

double-digit growth of banks' exposure to the corporate sector with higher risk. Double-digit annual growth rate (41.2%) was registered also with loans which were restructured due to deterioration in the financial condition of the companies-borrowers and which likely would have received a non-performing status, if credit conditions were not changed. In addition, it should be borne in mind that 10.9% of the total loans to enterprises at the end of 2013 were with extended maturity which is not a result of deteriorating financial condition. However, fulfilling this requirement is subject to assessment by the banks. Given the performance indicators of the corporate sector, it is an issue how banks approach the assessment of this condition and whether by prolonging the obligations they do not in fact confirm the need for restructuring of the liabilities of their clients from the corporate sector. Banks are motivated to demonstrate greater liberality in assessing whether the client is facing a deteriorating financial situation, because of the possibility of regulatory arbitrage arising from the lower regulatory criteria for classification of prolonged exposure compared with the restructured exposure. The estimated probability of default on the contractual obligations of the corporate sector to domestic banks in 2013 increased by 1.7 percentage points and is another indicator of the deteriorating creditworthiness of the Macedonian corporate sector. Hence, it requires from banks to be more transparent and active in using the mechanisms for debt restructuring in the credit risk management process, which, on the one hand, would prevent an even greater increase in exposure with a high degree of risk, but on the other, in the medium term, it can act toward easing of the restrictions for faster growth in lending to the real sector.



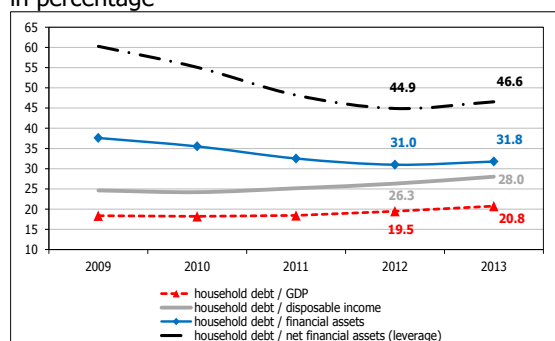
## 2. Household sector

Risks to financial stability generated by households in 2013 were under control. The accelerated growth of the household debt, compared with the slower growth of disposable income and financial assets caused a slight deterioration of the indicators of households' debt repayment ability. Indebtedness of households is still on the most part due to the debt to banks. In 2013, lending to banks was mostly directed toward households, as banks have more quickly adjusted to the risk level in this segment, given the still low household debt and favorable developments in the labor market, as opposed to the corporate sector, toward which banks' credit policy was more precautionary. Although household debt recorded higher annual growth rate than financial assets, indicating some deterioration in the ability of households to repay their full debt, the low level of indebtedness of this sector leaves room for further borrowing.

Disposable income and financial power of households, in general, are largely determined by the scope of the activities and performances of the corporate sector and its efficiency in dealing with the risks it is exposed to. Despite the positive developments on the labor market, the more dynamic growth of disposable income is hindered by the still high unemployment and the decline in labor productivity. Household consumption increased primarily influenced by the rapid growth of the wage bill and pensions, and increased credit support from banks. Disposable income was not sufficient to fully cover household private consumption, which imposed a need for further borrowing.

Households' exposure to interest rate and currency risk remains a potential risk that may affect the amount of their debt and consequently their ability to repay debts. At the same time, households are the most important creditor of the banking system and any possible materialization of the risks they are exposed to can have negative effects on the liquid and stable operations of domestic banks.

Chart 51  
Indicators for household debt  
in percentage



Source: NBRM, based on data submitted by banks and savings houses, MF, CSD, MAPAS, SEC, ISA and SSO.

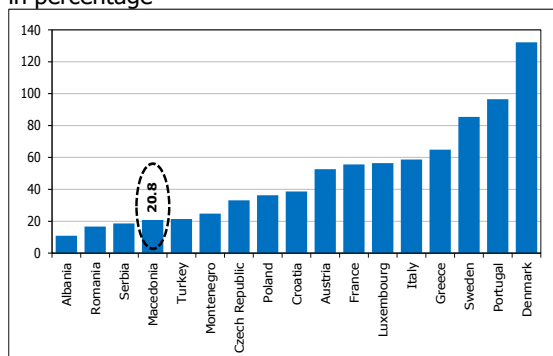
### 2.1. Debt repayment ability of the household sector

The accelerated growth of household debt in 2013 caused an increase in its share in the gross domestic product and in the disposable income. The twice slower growth of disposable income than the growth of private consumption imposes the need for borrowing by households to finance basic consumption. The annual debt growth rate has exceeded the growth of financial assets indicating a slight deterioration of the households' ability to repay their full debt (measured by the debt/financial assets ratio) and measured by the debt/net financial assets ratio<sup>55</sup>,

<sup>55</sup> Net financial assets represent the difference between financial assets and household debt.

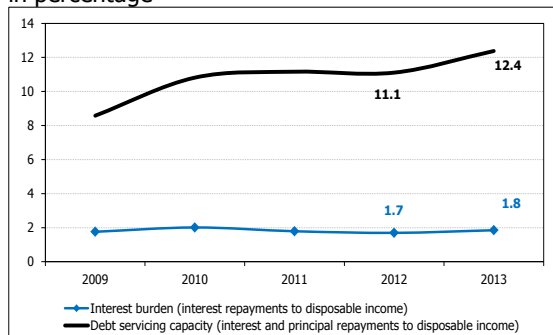


Chart 52  
Household debt to GDP ratio, by individual countries in percentage



Source: NBRM, based on data submitted by banks and savings houses, SSO, MF and IMF (Financial soundness indicators) and web sites of central banks.

Chart 53  
Debt repayment (principal and interest) and interest of households in percentage



Source: NBRM, based on data submitted by banks.

reduces the possibility for their further borrowing. However, the level of households' indebtedness in the Republic of Macedonia is still low.

The low level of household debt is particularly evident in the comparative analysis of the share of debt in GDP in selected countries. This partly reflects the historically low level of financial support to households, which makes it difficult to get closer to the level of indebtedness of households in developed countries, but the low level of disposable income also has its effect in this regard.

The ability of households to repay interest registered minor changes, but the indicator of ability to repay interest and principal together, deteriorated by 1.3 percentage points. Growing demand for loans in circumstances of reduced lending rates led to an accelerated pace of growth of household indebtedness. This has increased the repayment burden given the slower pace of growth of disposable income (3.4% or Denar 11,588 million) than the growth rate of the liabilities for repayment of interest (12.9% or Denar 740 million) and interest and principal together (15.2% or Denar 5,749 million).

The lending activity of the banks in 2013 was mostly directed to households as a result of the improved perceptions of their risk profile, in circumstances of low indebtedness of this sector and favorable developments in the labor market and generally lower risks in this sector due to the greater dispersion of placements. However, although there is a room for increasing the indebtedness of households, one should have in mind the risk of possible high indebtedness of household segments that have lower income. The majority (55%) of the total household debt to banks is concentrated with households with a net wage of Denar 7,000 to 30,000<sup>56</sup>. Debt to GDP ratio is low, but it has an upward trend and households are a significant debtor to banks and other financial institutions. This is confirmed by the constant increase in the number of

<sup>56</sup> Source: National Bank, based on data submitted by banks.



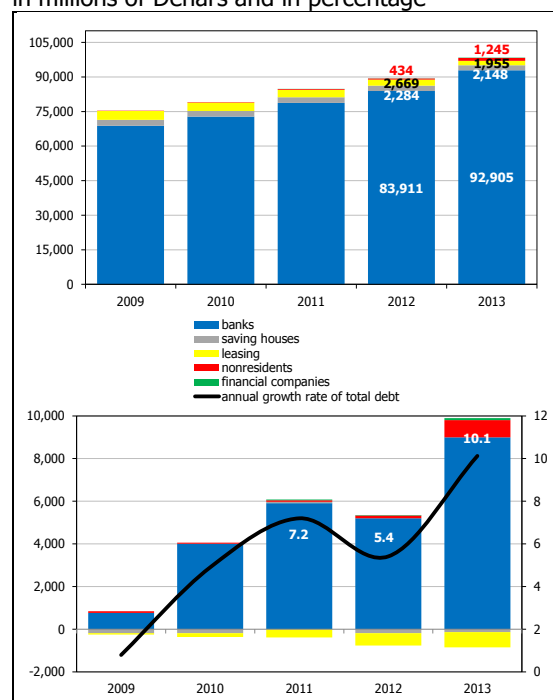
households that are beneficiaries of credit products and services of banks<sup>57</sup>. Maintaining the households' debt repayment ability is crucial for the overall financial stability.

## 2.2. Household debt

Amid favorable developments in the economy and further stabilization of the expectations, household debt<sup>58</sup> registered the highest growth in the last five years. The annual growth of household debt in 2013 was almost twice the growth achieved in the previous year and is completely a result of the debt with the banks. Households' external liabilities grew significantly as a result of two large foreign loans. However, the debt to nonresidents still has a small share in the total debt. The debt on the basis of leasing has registered a continuous downward movement in the last five years, which contributed to a reduction of its share in total debt. Debt of the savings houses also registered a smaller share in the total debt, due to the transformation of three savings houses into financial companies. The increased debt to financial companies did not contribute toward its increased share in the total household debt. Since the debt with the banks accounts for 94.4% of the total household debt, the analysis of the debt of this sector is based on this portion of the debt.

Chart 54

Total household debt (top) and annual change of individual components (bottom) in millions of Denars and in percentage



Source: NBRM, based on data submitted by banks, savings houses and MF.

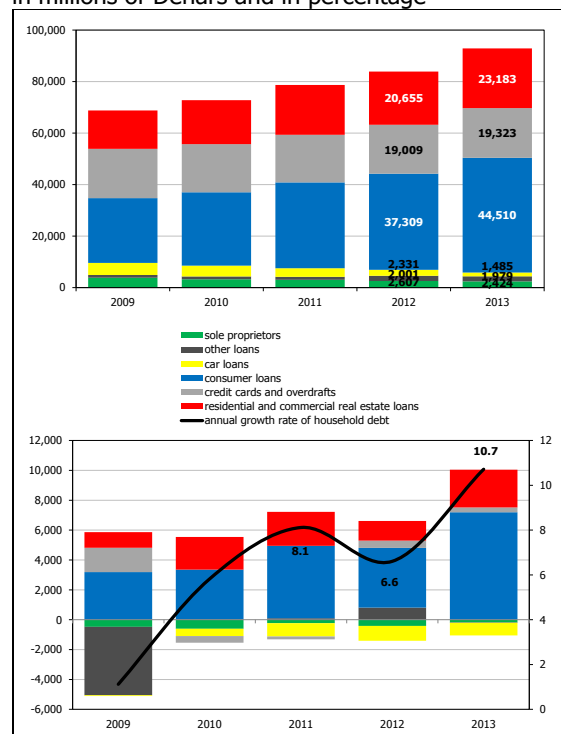
<sup>57</sup> Source: Credit Registry of the National Bank, based on data submitted by banks.

<sup>58</sup> For the needs of this analysis, the total household debt includes: debt based on loans, interest and other claims of banks and savings houses, total external liabilities of households (non-residents), the value of active leasing contracts and indebtedness based on active contracts with financial companies.



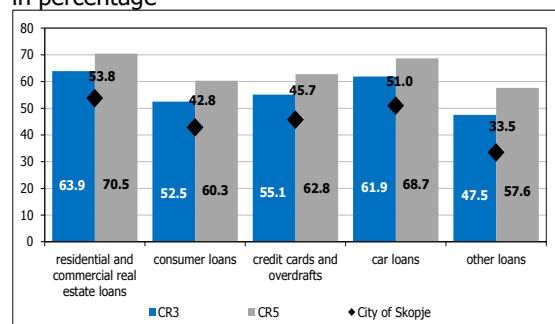
**Chart 55**  
Household debt to banks by type of loan product (top) and annual change (bottom)

in millions of Denars and in percentage



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

**Chart 56**  
Concentration of household debt by type of loan product, by municipality in percentage



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

Household debt with banks has registered the highest growth since 2008. However, the growth realized in 2013 was almost four times lower than the growth in 2008 when banks' credit activity was the strongest. Debt on the basis of consumer loans and loans for the purchase and renovation of residential and commercial properties registered the largest increase, and it was the sole generator (108.2%) of the growth of the household debt with banks. In contrast, the debt based on car loans and loans to retailers registered a downward movement, which contributed to reducing their participation in the debt. The largest part of household debt with banks (72.4%) is still consumption debt (consumer loans<sup>59</sup>, car loans, overdrafts on current accounts, credit cards and other loans).

The analysis of the concentration of household debt by individual municipalities shows that almost half of the household debt with banks is concentrated in Skopje. According the CR5 indicator<sup>60</sup>, about two-thirds of the household debt, for almost all types of credit products, is concentrated in five municipalities, which confirms the high debt concentration. This indicator has registered a downward movement in all loan products, with the exception of car loans.

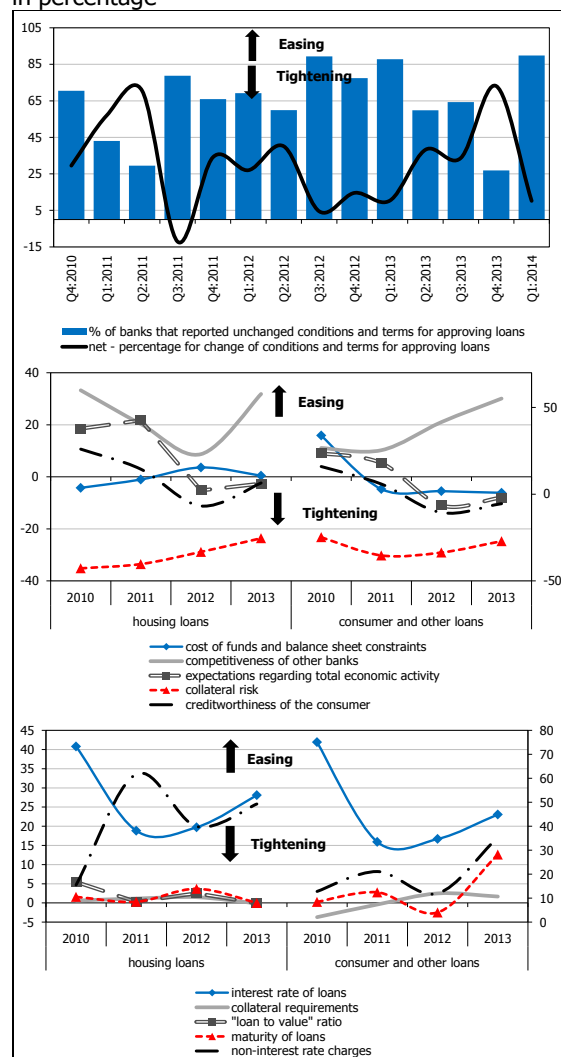
<sup>59</sup> Consumer loans account for just under half (47.9%) of the total debt.

<sup>60</sup> CR5 indicator for all credit products includes the City of Skopje and Ohrid Municipality, while the other three municipalities differ depending on the credit product (for housing loans: Bitola, Tetovo and Strumica; for consumer loans: Bitola, Tetovo and Shtip; for credit cards and overdrafts on current accounts: Bitola, Prilep and Kumanovo; for car loans: Bitola, Tetovo and Gostivar; and for other loans: Struga, Prilep and Gostivar).



Chart 57

Banks' assessment of lending conditions to households (top), net-percentage for the effect of individual factors (middle) and net-percentage for change of individual lending condition (bottom) in percentage



Source: NBRM, based on data in Bank Lending Surveys.

Note: The percentage of banks is weighted by the share of each bank in total household loans on specific dates.

In circumstances of releasing more liquidity and moderate reduction of bank lending interest rates, favorable changes were registered in the credit supply, amid an ever increasing demand for loans by households. The moderate acceleration of lending to households was followed by further easing<sup>61</sup> of the lending conditions for this sector during the year. Enhanced net easing<sup>62</sup> was registered in the lending conditions<sup>63</sup> for consumer loans.

In the first quarter of 2014, less net easing of lending conditions for households was registered, but the expectations for easing of the lending conditions in the second quarter were significantly stronger.

<sup>61</sup> In 2013, on average 40% of the banks reported easing of the lending conditions, versus 24% in the previous year.

<sup>62</sup> Net percentage is the difference between banks that have reported easing of the lending conditions and banks that have reported tightening of the lending conditions for households. Source: Lending Survey of Banks, April 2014.

<sup>63</sup> Details on the factors that affected lending conditions are given in the Lending Survey of Banks, April 2014.

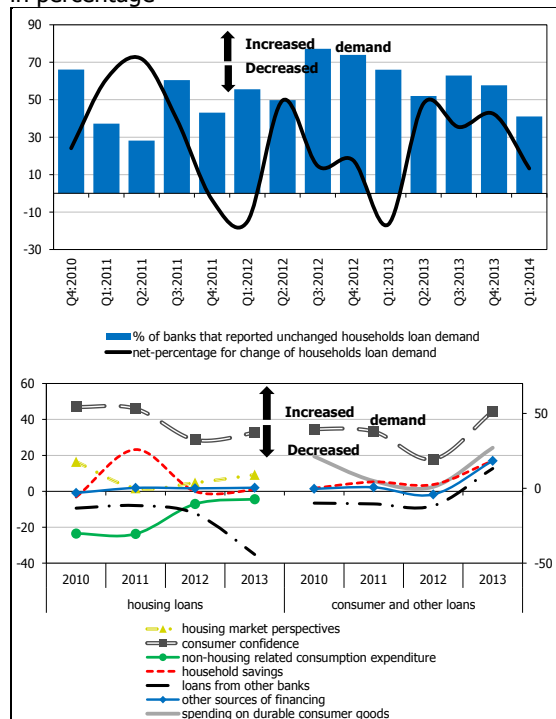




Chart 58

Banks' assessment of demand for household loans (top) and net-percentage for the effect of individual factors (bottom)

in percentage



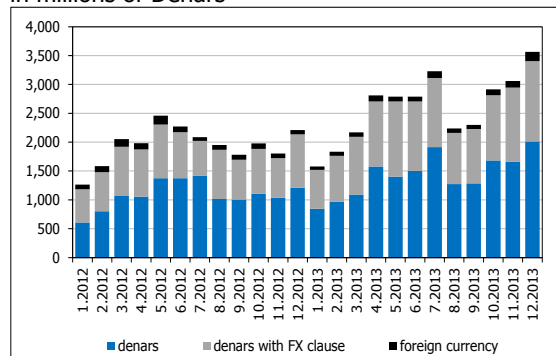
Source: NBRM, based on data in Bank Lending Surveys.

Note: The percentage of banks is weighted by the share of each bank in total household loans on specific dates.

Chart 59

Newly extended loans to households by currency

in millions of Denars



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

The demand for loans also reacted to the favorable economic movements and registered fast growth in the second quarter of 2013, followed by a steady increase in demand on a net basis<sup>64</sup> in the rest of the year.

Similar to lending conditions, the loan demand registered lower net increase in the first quarter of 2014, with the expectation of a faster increase in demand in the second quarter.

The increased household debt with banks is reflected also through the annual growth of newly extended loans in this sector, by significant 33.6%. Besides the strengthening of the economic activity in the second half of the year, the easing of the monetary policy also contributed in this direction, amid simultaneously high and stable liquidity and capitalization of the domestic banking system. The growth of newly extended loans to households is almost equally distributed between Denar loans and loans with foreign currency component. Thus, the newly extended Denar loans registered an annual growth of 31.7% (or Denar 4,144 million), while loans with a currency component grew by 35.9% (or Denar 3,715 million). Similar movement in terms of currency was registered also in the total loans to households. This shows that the pronounced denarization of the sources of funding (deposits) has not fully passed on the loans to households.

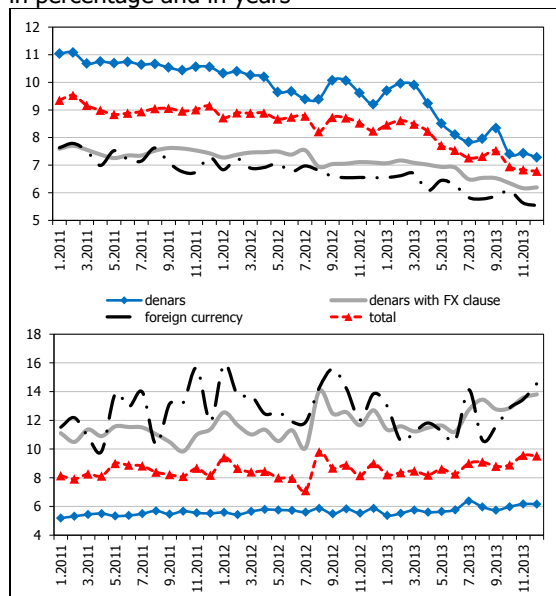
The downward trend in the average interest rates on newly extended loans to households continued in 2013, which corresponds with the lowering of the key interest rate and its reduction to a historically lowest level. At the end of 2013,

<sup>64</sup> Net percentage is the difference between banks that have reported increased demand for loans and banks that have reported reduced demand for loans by households.



Chart 60

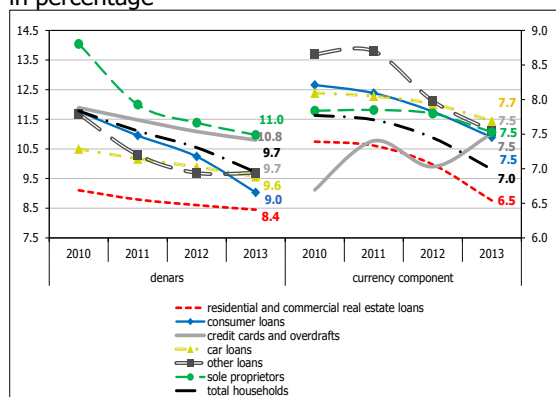
Average interest rate (top) and average maturity (bottom) of newly extended loans to households, by currency in percentage and in years



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

Chart 61

Average interest rate of household loans by type of loan product in percentage



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

the average interest rate on newly extended loans fell by 1.5 percentage points compared to the end of the previous year and was reduced to 6.8%. The sharpest decline was recorded in the newly extended Denar loans (by 1.9 percentage points), which allowed for further movement of the interest rate on these loans closer to the level of the interest rates on loans with FX clause.

The average maturity of total newly granted loans to households at the end of 2013 increased by six months and reached 9.5 years, as a result of extension of the maturity of the newly granted loans with FX clause by more than a year. The newly extended loans with a currency component have a longer maturity than Denar loans, which on the one hand reflects the maturity profile of the banks' sources of funds, but on the other hand, it represents the banks' expectations for greater stability of foreign currency sources of funds.

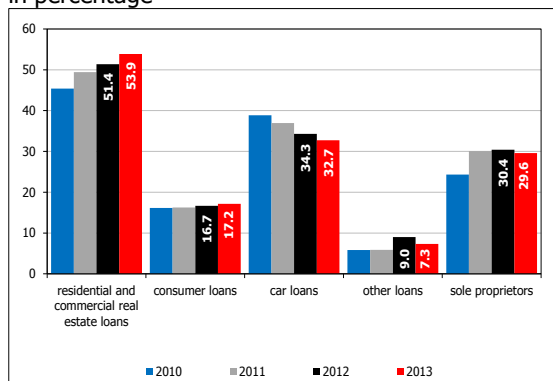
In circumstances of favorable macroeconomic developments and influenced by the monetary and macroprudential measures<sup>65</sup> undertaken during 2013, banks responded by lowering the cost of loans. Thus, in 2013, the downward movement in the average lending interest rate on certain loan products for households continued. Twice faster reduction was registered in the interest rates on Denar loans compared to the loans with currency component. Thus, the largest decrease, of 1.2 percentage points, was registered in Denar consumer loans, followed by Denar loans to retailers with 0.4 percentage points. In the loans with a currency component, the largest reduction in the interest rate, by 0.5 percentage points, was registered in housing loans. Such movements in interest rates had an adequate contribution to the increase in the household debt to banks.

<sup>65</sup> In 2013, the monetary policy was relaxed through changes in the reserve requirement, aimed at releasing liquidity in the system with the potential to be used as financial support for the private sector, but which also, through the abolition of the remuneration for the reserve requirement should contribute to a more active use of the available instruments by banks. Details on these measures are given in the "Annual Report for 2013", from April 2014. In the area of liquidity risk a change was made in the calculation of the liquidity ratio up to 30 days and up to 180 days, aimed at reducing the percentage of term deposits that presumably will be withdrawn from the banks (from 80% to 60%). The entry into force of the new Decision on the credit risk management, aimed at relaxing the requirements in terms of classification and determination of impairment of loans can also stimulate lending by the banking system.



Chart 62

Share of average monthly annuity for each type of loan product in the average net salary of natural persons in percentage

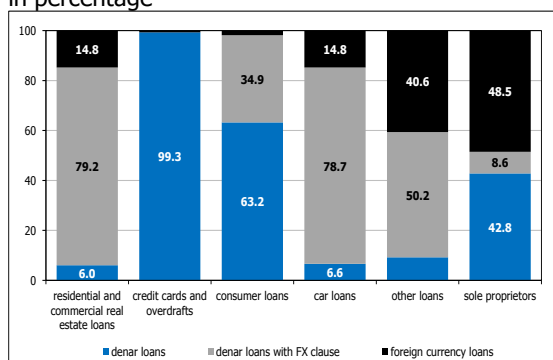


Source: NBRM's Credit Registry, based on data submitted by banks, SSO and NBRM's calculations.

The indicator for the share of the average monthly annuity for each type of loan product<sup>66</sup> in the average net nominal salary declined in the car loans, other loans and loans to retailers, due to the reduction of the monthly annuity for these loans in circumstances of reduced debt on this basis. Upward movement of the indicator is registered in the housing and consumer loans due to the increase in the average monthly annuity for these loans, as opposed to the small increase in the average monthly net salary for 2013. The increase in the average monthly annuity corresponds to the growth of household debt. Moreover, about half the monthly income of natural persons is used to cover the monthly housing loan installments, and about one-third of the monthly installments is used for car loans and loans to retailers.

Chart 63

Currency structure of household debt, by type of a loan product in percentage



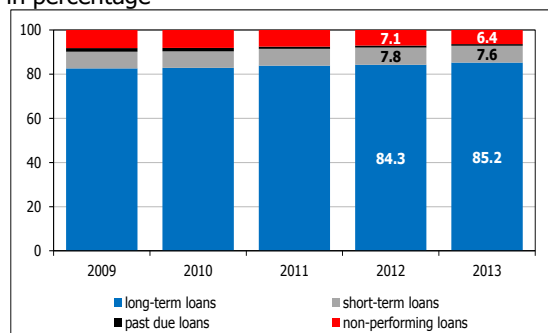
Source: NBRM's Credit Registry, based on data submitted by banks.

The exposure of households to interest rate and currency risk remains the most important source of risk, which may affect their ability to repay debt, and consequently the stability of their creditors, starting from the fact that this sector generates its revenues mainly in domestic currency. The weaker denarization of the lending to this sector (compared to the corporate sector) conditioned slight increase in the share of the debt with a currency component in the total household debt. By individual loan product, the debt with a currency component prevails in housing loans, car loans and other loans. In such conditions, the stability of the Denar exchange rate and of the interest rates in the domestic economy is important for maintaining the households' debt repayment ability.

<sup>66</sup> According to internal calculations of the National Bank based on data on the regular loans to households, the average maturity and average interest rate on regular principal for certain credit products, the average monthly installment for natural persons for certain credit products for 2013 is: Denar 11,389 for housing loans, Denar 6,919 for car loans, Denar 6,260 for loans through retailers, Denar 3,629 for consumer loans and Denar 1,546 for other loans. Credit cards and overdrafts on current accounts are excluded from the analysis because of the specificity of the determination of the monthly annuity of the client. The calculations in this analysis include the share of the monthly annuity for each credit product in the monthly salary, i.e. it does not cover the cases when one person is a beneficiary of more than one credit product when the monthly installments would take for most of the monthly salary.

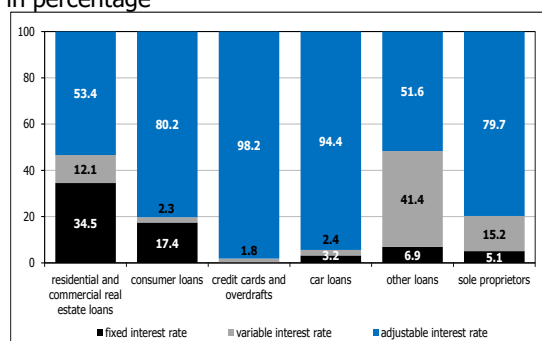


**Chart 64**  
Maturity structure of household loans  
in percentage



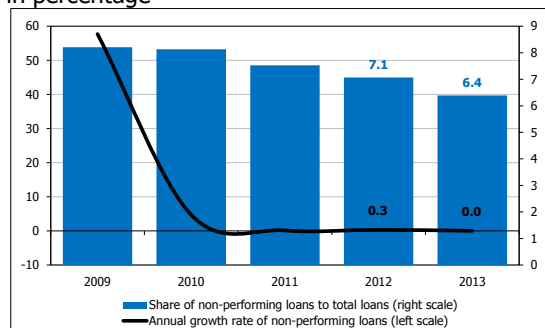
Source: NBRM, based on data submitted by banks.

**Chart 65**  
Structure of household debt by type of  
interest rate, by individual loan product  
in percentage



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

**Chart 66**  
Change rate of non-performing loans and  
share of non-performing in total  
household loans  
in percentage



Source: NBRM, based on data submitted by banks.

The increase in the long-term debt further enhances the sensitivity of households to interest rate and currency risk. The loans with currency component occupy more than half of the total long-term loans to households, which confirms the importance of the stability of the Denar exchange rate, especially in the long run. The macroprudential measure of the National Bank for facilitating the regulation on liquidity risk management is expected to contribute toward further increasing of the room for longer-term lending in the medium run.

The prevalent practice of domestic banks to finance households with loans with adjustable<sup>67</sup> interest rates, causes this part of the household debt to have the largest share in the total debt. However, in 2013 the fastest growing was the debt on the basis of loans with fixed interest rate, making its share in the total household debt rose to 17.4% (13.8% as of 31.12.2012). The growth of the debt based on loans with a fixed interest rate was due to housing and consumer loans. For housing loans, the fixed rate applies only for the first few years, whereafter for these loans an adjustable interest rate is usually applied<sup>68</sup>. The large presence of loans with adjustable and variable interest rates indicates the exposure of households to the risk of changing interest rates on the domestic or international financial markets.

Despite the increase in the indicators of household indebtedness, their payment ability was maintained, which is confirmed also by the stable level of non-performing loans to this sector. Non-performing loans to households are at the same level as in the previous year. Within their frames, non-performing consumer and car loans reduced, with simultaneous increase being registered in the non-performing housing loans. The write-offs during 2013<sup>69</sup> did not significantly

<sup>67</sup> The adjustment of the interest rates is done unilaterally because of changes in the banks' interest rate policies, rather than on the basis of a particular interest rate.

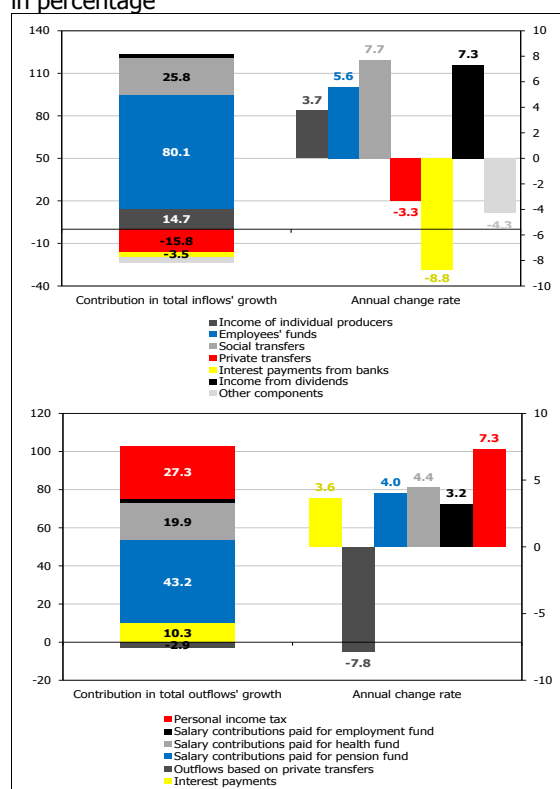
<sup>68</sup> In the reports on the interest rate risk in the banking book, banks classify the entire amount of these loans in the report on the fixed interest rate for the years when this type of interest rate is applied, while after the expiry of the period of a fixed interest rate, the remaining part of the loan is transferred to the report on the adjustable/variable interest rate.

<sup>69</sup> In 2013, banks registered more collected previously written-off claims on natural persons than conducted write-offs of receivables from clients in this sector.



Chart 67

Annual change rate of the components of inflows (top) and outflows (bottom) of disposable income and their contribution in the growth in percentage



Source: NBRM's calculations, based on data from SSO, MF and CSD.

affect the trend of non-performing loans, and if their effect is excluded, the growth rate of non-performing loans to households would be insignificant 1.2%. Given the minimal changes in the amount of non-performing loans, and in circumstances of an increasing debt, the share of non-performing loans in total household loans has registered a continuous decrease in the last four years and at the end of 2013 it was reduced to 6.4%. This movement shows that the risks for the banking sector from the exposure to credit risk from the household sector are under control and are not high. By individual products for households, credit risk is the highest with credit cards and consumer loans.

### 2.3. Savings rate, disposable income and private consumption of the household sector<sup>70</sup>

In 2013, disposable income<sup>71</sup> grew rapidly and increased by Denar 11,588 million, or 3.4%. According to individual components of the disposable income<sup>72</sup>, employees' assets, social transfers and income of the individual producers registered the highest contribution to the growth of total inflows of households, while the growth of total outflows mainly arose from the total contributions and personal income tax. The higher growth rate of outflows relative to inflows of households prevents higher disposable income growth. In general, the growth in disposable income results from the wage and pension bill. The growth of the wage bill was due to the solid growth in the number of employees, with a slight increase in the average net nominal salaries. Loans to households complement disposable

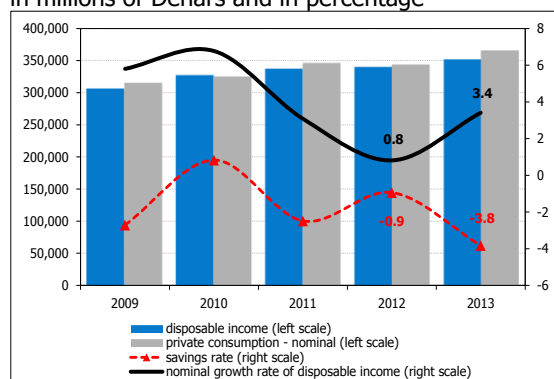
<sup>70</sup> In this chapter, some of the conclusions are based on the Annual Report of the National Bank for 2013.

<sup>71</sup> Due to lack of data on disposable income in the official statistics, since 2007 the National Bank has been creating time series of the disposable income of households in the Republic of Macedonia, which is updated annually. For some of the components of disposable income for which there is no official data, estimates are made, so that disposable income so recognized may not be comprehensive and may lack other components in its structure. The disposable income calculated for 2012 and 2013 includes estimates for certain categories.

<sup>72</sup> Disposable income is the difference between inflows (funds of employees, income of individual producers, social transfers (pensions, social welfare, unemployment benefits, sick pay), private transfers, interest payments from banks, dividend income, royalties, income from property and property rights, capital gains, inflows from denationalization bonds, revenue from gains from games of chance and other prize games, inflows based on old foreign exchange savings and denationalization, interest payments from treasury bills and workers compensations from abroad) and outflows (interest payments, wage contributions for the Pension Fund, Health Insurance Fund and Employment Fund, outflows based on private transfers and personal income tax) of households. All components of disposable income are nominal.

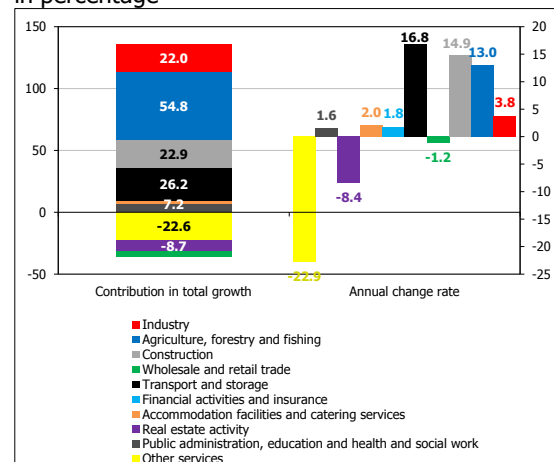


**Chart 68**  
Disposable income, private consumption and savings rate of households  
in millions of Denars and in percentage



Source: SSO and NBRM's calculations based on data from SSO, MF and CSD.

**Chart 69**  
Annual change rate in the number of employees by activity, and contribution in the total growth  
in percentage



Source: SSO.

Note: The calculations represent an average of the number of employees by quarters for the corresponding year.

income, in circumstances of faster growth in the basic consumption costs.

The negative gap between disposable income and consumer spending in 2013 determines the rate of saving<sup>73</sup>. The dynamics of disposable income is an indicator of the saving capacity of the households, determined by the rate of savings of households in the Republic of Macedonia, whose negative value has increased. This stems from the faster pace of growth of private consumption than of disposable income, which suggests that the disposable income<sup>74</sup> is not sufficient to cover the whole household consumption.

The positive developments in the labor market correspond with the favorable economic performances during 2013. The number of employees grew rapidly, and in 2013 reached a growth of 4.3%, which is associated with the operation of the new production facilities in the free economic zones, as well as with the fiscal stimulus in the form of publicly funded construction works, agricultural subsidies, and active employment programs and measures<sup>75</sup>. In terms of the economic status, the highest increase in employment is registered among sole proprietors, whose number is on the historically highest level, reflecting the effects of active government measures for employment and encouraging entrepreneurship. Favorable developments were observed in terms of the age groups. Thus, also in 2013 there was a downward trend in unemployment in the most vulnerable age groups, i.e. those aged between 15 and 24 and between 50 and 64. Analyzed by different industries, most new employees in 2013 were recorded in agriculture, followed by transport, storage and communications and construction, activities that directly or indirectly

<sup>73</sup> The rate of household saving is the ratio of the difference between disposable income and private consumption to disposable income.

<sup>74</sup> The components of disposable income for which no official data are available are estimated by the National Bank, so that disposable income so recognized may not be comprehensive and may lack other components in its structure that affect the rate of savings.

<sup>75</sup> Also during 2013, the Government of the Republic of Macedonia implemented active measures and programs designed to increase employment, such as self-employment programs, financial support to legal entities for job creation, subsidizing self-employment, internship programs and other measures.

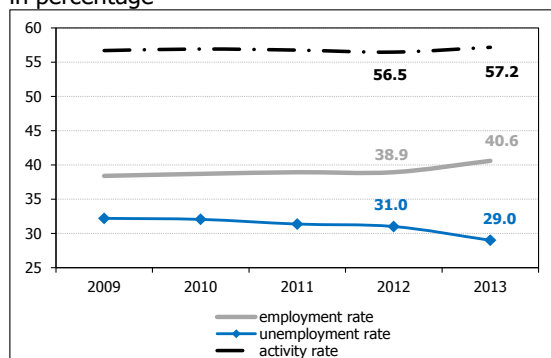




have been in the focus of fiscal incentives and the economic policies that simultaneously incurred economic growth and growth in employment<sup>76</sup>.

Along with the growth in demand, a rise was registered also in the supply of labor. Thus, in 2013 the number of economically active population grew by 1.4%. The increase in the workforce, amid simultaneous decline in the number of inactive population caused an upward shift in the activity rate, which reached the level of 57.2%. Faster growth in demand relative to that of supply of labor contributed to the downward movement in the unemployment rate of 29.0%, which reached the historically lowest level. On annual basis, the number of unemployed decreased by 15,282 persons, or 5.2%. An increase was registered also in the employment rate, which equaled 40.6% in 2013.

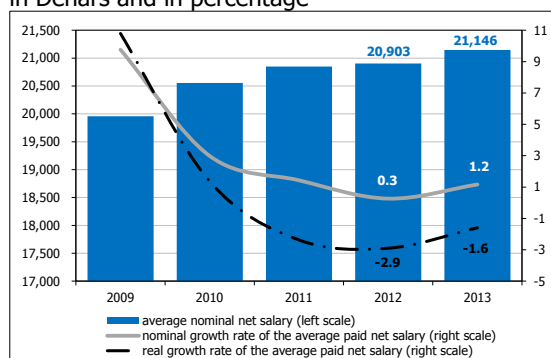
Chart 70  
Selected labour market indicators  
in percentage



Source: SSO.

According to the Job Vacancy Survey<sup>77</sup>, the number of vacancies until the fourth quarter of 2013 was approximately 5,800, which is an increase of about 1,000 jobs relative to the previous three quarters, when the number of vacancies was stable. This movement can be interpreted as a signal for further employment growth in the future. Observed by sectors, most of the vacancies are in the industry.

Chart 71  
Average nominal net salary and its  
nominal and real growth rate  
in Denars and in percentage



Source: SSO.

In terms of labor cost, in 2013 there was a moderate acceleration of the nominal growth of average salaries paid, and further slowing of their real decline. The average nominal net salary for 2013 amounted to Denar 21,146 and registered an annual growth of 1.2%. Positive trends were present in all sectors (with the exception of information and communications), with the largest annual increase being registered in the salaries in transport and storage and in construction. The average nominal net salary in the activities accommodation and food services,

<sup>76</sup> In agriculture, the largest increase in employment was registered in the subcategory – sole proprietors, which is associated with the policies of subsidizing agriculture, but also with the policies for faster growth of entrepreneurship, including simplification of procedures for starting own business. Employment growth in transport, storage and communications arises from the increased construction and industrial activity having in mind the mutual connection of these activities.

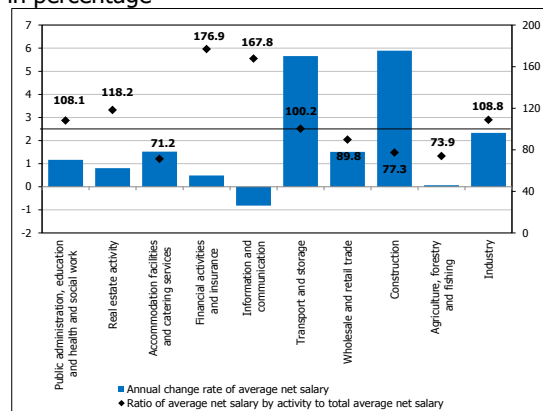
<sup>77</sup> Source: State Statistical Office.





Chart 72

Annual change rate of average nominal net salary, by individual activity and share of total average net salary in percentage



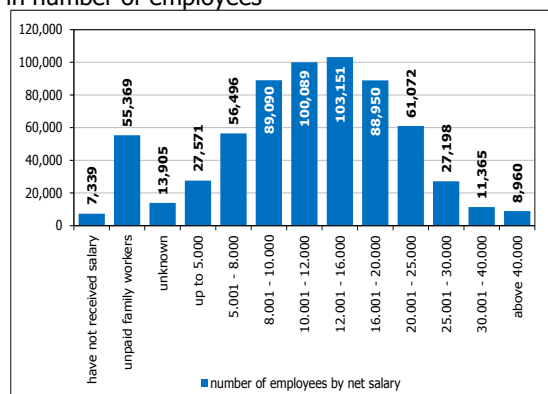
Source: SSO.

wholesale and retail trade, construction and agriculture, forestry and fishing is below the overall average salary paid. The largest positive deviation from the total average net salary was registered in the activity financial intermediation. The faster nominal salary growth amid weakened inflationary pressures caused slowing of the real decline in net real salaries, which fell by 1.6% on an annual basis.

According to the amount of the average net salary, about 60% of the total employed persons in the Republic of Macedonia received a net salary<sup>78</sup> of Denar 8,000 to 20,000<sup>79</sup>, which is below the average monthly net salary for 2013, and indicates that the high salaries of individuals in certain activities dictate the average salary. In contrast, only 16.7% of the employees receive a salary equal to or greater than the average monthly net salary, of which 20.4% are employed in administration. Only 1.4% of the total employees fall in the highest monthly income category (over Denar 40,000).

Chart 73

Distribution of employees by categories of average net salary in number of employees



Source: SSO.

Amid stronger employment growth compared to the growth of the economic activity, labor productivity declined by 1.2% and further deviated from the level of productivity achieved in the pre-crisis period. However, given the expectations for increased activity of the new capacities, the productivity ratio for the domestic economy is expected to improve in the next period. The high unemployment rate and low labor productivity hamper the more dynamic growth of disposable income.

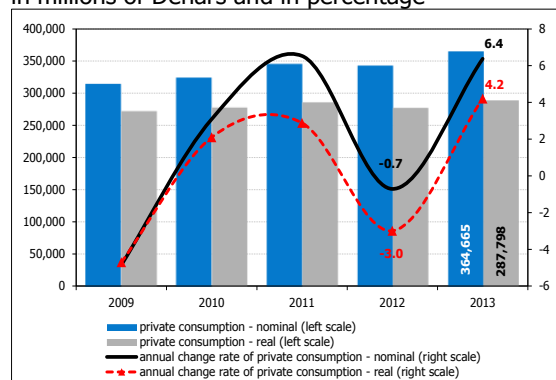
In circumstances of further favorable developments on the labor and on the credit markets, household consumption registered an upward trend and was the only component of domestic demand, which had a positive contribution to the overall GDP growth. Private consumption growth corresponds to the growth of the disposable funds, although its pace is

<sup>78</sup> Source: Labor Force Survey for 2012, SSO.

<sup>79</sup> Of the total number of individuals with such income, 24.1% are employed in the manufacturing industry and 17.9% in wholesale and retail trade, 7.6% in construction, 7.4% in agriculture, forestry and fisheries, 6.0 % in the areas of health and social care and 5.8% in education.



**Chart 74**  
Nominal and real private consumption and  
their annual change rates  
in millions of Denars and in percentage



Source: SSO.

faster. Hence, the positive shift in private consumption was partly due to the slower decline in real salaries and the rapid real growth of pensions. At the same time, the solid growth in the number of employees contributed to a rapid growth of the wage bill. Lending to households, mostly in the form of consumer loans, is an additional support to consumption. It is in line with the banks' assessment of the net easing of the lending conditions and the further increase in the demand for loans on a net basis. The increased net revenues from VAT are another indicator of increased consumption. However, these favorable trends are not fully reflected in consumption, which can be a kind of explanation for the increased savings of households in circumstances of a negative savings rate.

## 2.4. Financial assets of the household sector

The financial assets of the household sector continued to grow in 2013, but at a significantly slower pace than in the previous year. In conditions of a significant recovery of the domestic economy and real GDP growth of 3.1%, the share of financial assets in GDP rose by 2.4 percentage points and reached 65.3%. More than half of the growth of financial assets was conditional on household investments in deposits with domestic banks and savings houses. The rest of the growth of financial assets arose from the household assets in private pension funds (27.1%) and investments in life insurance policies (22.7%). These were the only components of financial assets that registered increased participation in their structure. The growth of household investments in life insurance policies slowed down in 2013, although in the previous two years, these investments represented the fastest growing component of the financial assets.

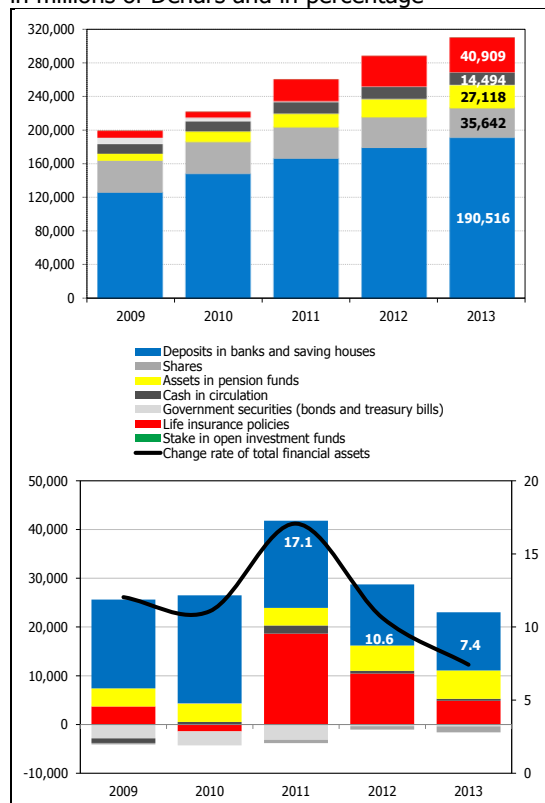
At the end of 2013, despite the slower pace, household deposits in banks and savings houses increased by Denar 11,938 million, or 6.7%. The growth of household deposits was mainly due to the long-term savings, which



Chart 75

Financial assets of households (top) and annual change of individual components (bottom)

in millions of Denars and in percentage



Source: NBRM, based on data submitted by banks and savings houses, MF, MAPAS, CSD, ISA and SEC.

Note: For the purpose of this analysis, according to NBRM's assessment, 70% of cash in circulation (outside of banks) is included in the financial assets of households; Shares represent sum of listed and non listed shares on the Stock Exchange, at nominal value; Life insurance is represented by the agreed insured amounts and annual annuities (including the profit) for life insurance policies.

highlights their stable expectations and increased propensity to save in the long run, as a more yield-bearing form of placing available funds. Slightly decelerated deposit growth may be associated with the gradual reduction of interest rates on deposits. Given that household deposits occupy about half of the sources of funding for domestic banks, this sector is a significant creditor of the banking system and the possible materialization of the risks households are exposed to can have negative consequences on the domestic banks' operations.

All instruments of the households' financial assets had a positive rate of return in 2013, with the exception of securities<sup>80</sup>, which registered higher volatility and significant fluctuations<sup>81</sup>. Thus, at the beginning of the year, the securities registered capital losses, in the second and third quarter capital gains<sup>82</sup>, while in the last quarter they again registered capital losses. Weighted interest rates on foreign currency, Denar and Denar deposits with currency clause generally decreased in comparison with the previous year. The annual nominal rate of return was the highest on the funds in the mandatory pension funds<sup>83</sup>.

<sup>80</sup> For the purposes of this analysis, securities denote shares and bonds traded on the official market and shares traded on the market of shareholding companies with special reporting obligations.

<sup>81</sup> The annual rates of capital gain/loss are calculated on the basis of the annual change in the market capitalization of securities.

<sup>82</sup> Amid the introduction of the new market sub-segment on the official stock exchange market – "mandatory listing".

<sup>83</sup> The annual nominal rate of return of mandatory and voluntary pension funds is calculated on the basis of weighting the rate of return of the individual pension funds to their net assets.



### III. Financial sector

#### 1. Structure and concentration level in the financial sector of the Republic of Macedonia

In 2013, the total assets of the financial system grew at a slower pace, and their growth was almost entirely determined by the increase in the assets of the banking system<sup>84</sup> and pension funds. The main features of the financial system are still its simple structure, weak links between individual segments and the absence of complex financial instruments and services. Such structure and setup of the domestic financial system are the main factors for minimizing the possibility of disturbing the stability of its segments, as a result of the spillover of the risks from the outside or from one to another institutional segment.

The structure of the financial system noted some changes in 2013. As a result of the amendments to the Banking Law<sup>85</sup> and the inability of savings houses to integrate into the current market conditions, their number and importance for the financial system reduced. On the other hand, the number of active and licensed financial companies grew. The further reduction of activities and non-profitable operations of leasing companies, further minimized their effect on the financial system.

The banking system stability is the most important factor in maintaining the stability of other institutional segments and the overall financial system in the Republic of Macedonia. The second most important sector for the financial stability are pension funds, primarily in the role of financial intermediaries and as assets of the household sector. The insurance sector gains in importance, as a result of the growth of activities and the significant developments in regulation and supervisory function, which is most pronounced in the segment of life insurance.

The unfavorable environment in which the domestic capital market has been functioning for a long time and the lack of liquidity caused subsequent reduction and deterioration in all indicators, i.e. reduction of the market capitalization and total turnover on the Macedonian Stock Exchange, downward trend in the value of the stock indices and further restraint of potential investors. Given the absence of foreign portfolio investors, movements on the Stock Exchange in the future period will largely depend on the perceptions of the domestic investors about the current economic and political environment in the country and beyond and the performances of companies whose shares are traded on the stock market. In the last six years, the brokerage houses have continuously registered reduction in their activities and operating losses. Compared with previous years, in 2013 investment funds registered a significant growth in total assets through the creation of cash funds. Despite this growth, their importance within the domestic financial system is

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<sup>84</sup> The term "banking system" refers only to banks, while the term "deposit institutions" also includes savings houses.

<sup>85</sup> In accordance with the amendments to the Banking Law made at the beginning of 2013, the savings houses were enabled to transform into a financial company without going into liquidation, and more details were defined for transformation of a savings house into a bank, as well as for certain status changes of savings houses into a bank.



**still small. The development of this market segment is largely dependent on the movements on part of the financial markets in which the funds invest their assets.**

Table 5

Structure of total assets of the financial sector in the Republic of Macedonia

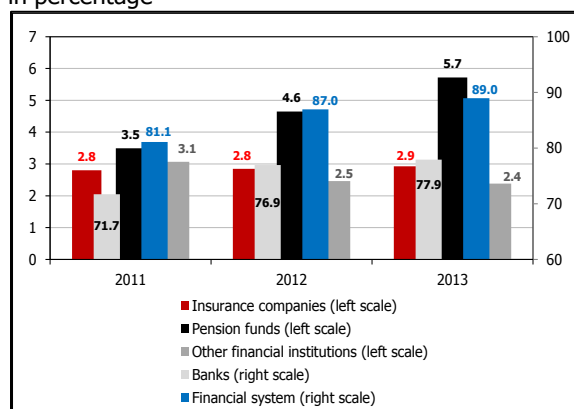
Type of financial institution	Total assets (in millions of denars)		Structure in %		Change 31.12.2013/31.12.2012		Number of institutions	
	2012	2013	2012	2013	Absolute change	In percent	2012	2013
<b>Depository financial institutions</b>	<b>355,713</b>	<b>372,404</b>	<b>89.2</b>	<b>88.3</b>	<b>16,691</b>	<b>4.7</b>	<b>23</b>	<b>20</b>
Banks	352,886	369,505	88.5	87.6	16,619	4.7	16	16
Saving houses	2,827	2,899	0.7	0.7	72	2.6	7	4
<b>Non-depository financial institutions</b>	<b>43,121</b>	<b>49,403</b>	<b>10.8</b>	<b>11.7</b>	<b>6,282</b>	<b>14.6</b>	<b>86</b>	<b>94</b>
Insurance companies	13,067	13,883	3.3	3.3	816	6.2	15	15
Insurance brokers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	20	26
Insurance agents	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	10	10
Leasing companies	6,952	5,990	1.7	1.4	-962	-13.8	10	10
Pension funds	21,315	27,118	5.3	6.4	5,803	27.2	4	4
- Mandatory pension funds	21,124	26,800	5.3	6.4	5,676	26.9	2	2
- Voluntary pension funds	191	318	0.0	0.1	127	66.5	2	2
Pension fund management companies	508	628	0.1	0.1	120	23.6	2	2
Brokerage companies	310	247	0.1	0.1	-63	-20.2	10	7
Investment funds	332	752	0.1	0.2	420	126.5	9	10
Investment fund management companies	14	21	0.0	0.0	7	50.8	4	4
Private equity fund management companies	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Financial companies	624	764	0.2	0.2	140	22.4	2	6
<b>Total</b>	<b>398,834</b>	<b>421,807</b>	<b>100.0</b>	<b>100.0</b>	<b>22,973</b>	<b>5.8</b>	<b>109</b>	<b>114</b>

Source: For each institutional segment, the competent supervisory authority (the NBRM, the SEC, the MAPAS, the ASO and the Ministry of Finance).

Notes: According to the regulation, private funds and private fund management companies have no obligation to provide data on the value of their assets and net assets. In accordance with the Law on Supervision of Insurance, insurance brokerage companies and insurance agents are not required to submit financial reports to the Insurance Supervision Agency.

Chart 76

Financial sector assets to GDP in percentage



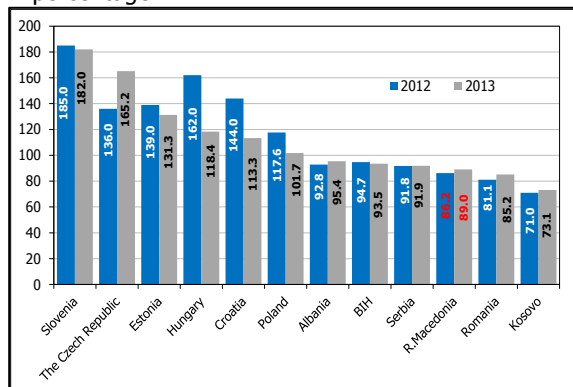
Source: For each institutional segment, the competent supervisory authority (the NBRM, the SEC, the ASO and the Ministry of Finance).

In 2013, the slower growth in total assets was the main feature of the financial sector of the Republic of Macedonia. It registered an annual increase of 5.8% (Denar 23 million), which is a decline of 0.7 percentage points compared with the growth achieved in 2012. The slowdown was mainly influenced by the slower growth of the assets of the banking system and to a small extent by the reduced activities of leasing companies. On the other hand, assets of insurance companies and investment funds grew rapidly. As a result of the increase in the number of financial companies, total assets of this institutional segment registered a significantly faster growth (by 14.6 percentage points). Mandatory pension funds registered the largest growth in assets due to the increased cash inflows from contributions paid.



Chart 77

Financial sector assets to GDP, by country  
in percentage



Source: Websites of the central banks of the countries.

Note: The data for 2013 refer to: Estonia, Slovenia and Romania as of Dec. 2013, Kosovo as of June 2013, Albania and Croatia as of March 2013 and for the rest of the analyzed countries as of 2012.

The data for 2012 refer to: Albania and Croatia as of June 2012, Bosnia and Herzegovina, Serbia and Slovenia as of 2011, Poland, The Czech Republic and Hungary as of 2010 and Kosovo, Romania and Estonia as of December 2012.

Despite the minimal reduction, with a share of 87.6% in total assets, banks have retained the dominant position within the financial system, and thus their role as the most important segment for maintaining its stability.

Although slower, the annual growth in the total assets of the financial sector in 2013 caused an increase (by 2.0 percentage points) in its significance for the national economy. The total assets of the financial sector accounted for 89.0% of GDP<sup>86</sup>.

The level of financial intermediation in the domestic financial sector is low compared with the countries of the region and the European Union. However, in 2013 (with the exception of Albania and the Czech Republic), the share of assets of the financial sector in the gross domestic product in the Republic of Macedonia recorded the highest growth. In contrast, in most of the countries further reduction in the level of financial intermediation relative to the previous year was registered.

In 2013, the level of concentration in terms of total assets was high in all analyzed segments of the financial sector. The Herfindahl index is close to the upper end of the acceptable limits for banks and insurance companies, while in the remaining segments analyzed the concentration level is well above the acceptable limits. Savings houses are a segment with the highest concentration in the financial system, where 60.3% of the total assets are concentrated in one of the four savings houses. The increase in the already high concentration with the brokerage houses is a result of the reduction in their number. Moreover, 80.6% of the total assets are concentrated in two brokerage houses. Despite the growing number of investment funds in 2013, most of the total assets (66.5%) are

<sup>86</sup> Source: Press release of the State Statistical Office of the Republic of Macedonia from 14 March, 2014.

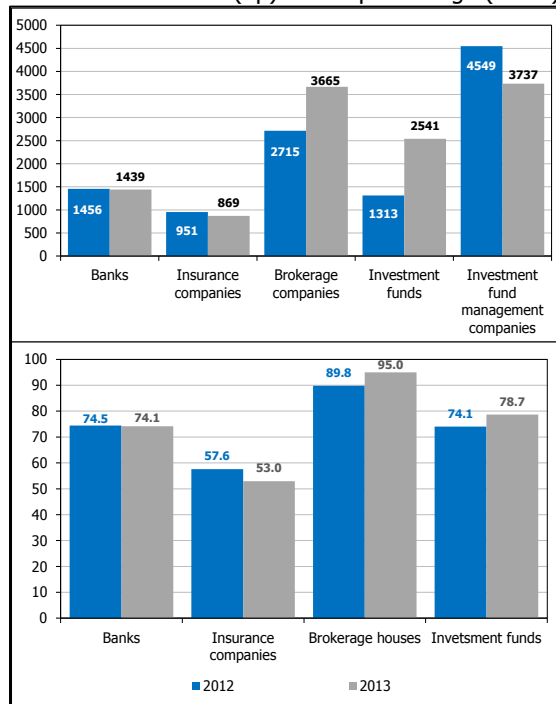
Note: Data on GDP for 2012 are preliminary, and data for 2013 are estimated.



Chart 78

Herfindahl index and CR5 index for the total assets, by segment of the financial system

In millions of Denars (up) and in percentage (down)



Source: For each institutional segment, the competent supervisory authority (the NBRM, the SEC, the ASO and the Ministry of Finance).

concentrated in three of the ten funds. Despite the decrease, the concentration with the investment fund management companies is still above the acceptable limits.

The prevalent participation of foreign shareholders in the ownership structure is typical for most of the individual financial segments in 2013. Banks did not register any change in the presence of foreign shareholders in their ownership structure, despite the transfer of one bank from predominantly foreign-owned to predominantly in domestic ownership in the second half of the year. Leasing companies are a segment with the highest share of foreign capital in the ownership structure, and insurance companies typically register higher presence of foreign ownership, too. On the other hand, in the brokerage houses domestic capital prevails, while savings houses<sup>87</sup> are the only segment of the financial sector which is fully owned by domestic entities.

Table 6  
Ownership structure of financial institutions

Owners	Banks	Saving houses	Insurance companies	Brokerage companies	Leasing companies	Pension fund management companies	Investment fund management companies	Financial companies
<b>Domestic shareholders</b>	<b>24.6%</b>	<b>100.0%</b>	<b>8.2%</b>	<b>67.0%</b>	<b>4.9%</b>	<b>49.0%</b>	<b>25.9%</b>	<b>56.0%</b>
Nonfinancial legal entities	8.3%	83.0%	0.8%	23.7%	3.2%	0.0%	0.0%	0.7%
Banks	1.5%	0.0%	0.0%	4.8%	1.8%	49.0%	17.0%	0.0%
Insurance companies	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other financial institutions	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	0.0%
Natural persons	7.5%	17.0%	7.0%	38.6%	0.0%	0.0%	4.9%	55.3%
Public sector	6.5%	0.0%	0.04%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Foreign shareholders</b>	<b>75.2%</b>	<b>0.0%</b>	<b>91.8%</b>	<b>33.0%</b>	<b>95.1%</b>	<b>51.0%</b>	<b>74.1%</b>	<b>44.0%</b>
Natural persons	2.4%	0.0%	0.1%	10.4%	0.0%	0.0%	0.2%	0.0%
Nonfinancial legal entities	8.6%	0.0%	0.0%	0.0%	15.4%	0.0%	3.5%	44.0%
Banks	57.0%	0.0%	0.0%	1.2%	32.5%	0.0%	0.0%	0.0%
Financial institutions	7.2%	0.0%	91.7%	21.4%	47.2%	51.0%	70.4%	0.0%
<b>Unclassified</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: For each institutional segment, the competent supervisory authority (the NBRM, the SEC, the MAPAS, the ASO and the Ministry of Finance).

Notes: The share of domestic and foreign capital in the ownership structure refers to shareholder capital (core capital) of the financial institutions.

<sup>87</sup> The regulation allows only Macedonian nationals to be owners of savings houses.



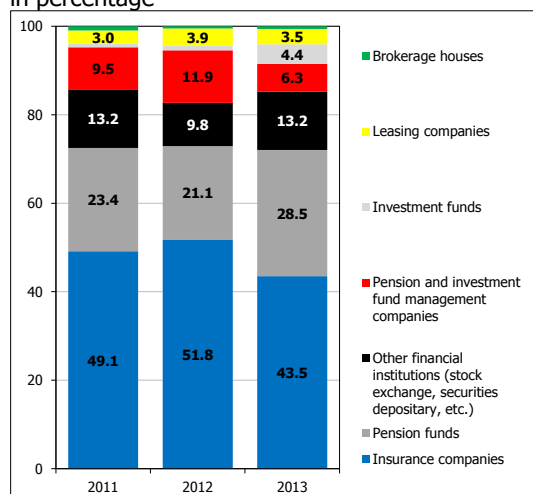


## 2. Cross-sector relation, "contagion" channels and their impact on financial stability

**Cross-sector relation among the individual financial segments of the financial sector in the Republic of Macedonia remained low in 2013. Deposits of non-deposit financial institutions invested in banks accounted for only 2.8% of the total assets of banks, while banks' capital investments in domestic and foreign entities in the total assets of the banking sector maintained the last year's level and amounted to only 0.4%. Hence, it is evident that banks remain the main link with the other financial segments within the financial network and therefore have a major impact on the movements in the overall financial system. This confirms the importance of the banking system stability for the stability of the other segments and of the financial system as a whole. The analyses and stress tests conducted indicate a stable banking system, which reduces the danger of spillover of potential risks to other segments of the financial system.**

Chart 79

Deposits structure of the non-deposit financial institutions with domestic banks in percentage



Source: NBRM, based on data submitted by banks.

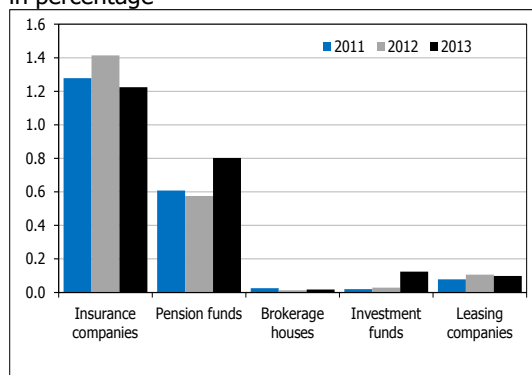
Deposits<sup>88</sup> of non-deposit financial institutions invested in banks are the main channel of business connection of non-deposit financial institutions with the banking system. They grew by Denar 774 million, or 8.0%, and at the end of 2013 they amounted to Denar 10,400 million. Despite the growth, their share in the total deposit base of banks is only 3.8%, which gives them little relevance for the banking system. Consequently, the danger of cross-sector risk spillover is now low. In support of this conclusion is their share in total deposits by bank which ranges from 0.6% to 16.6%. Their marginal importance is even more evident if one takes into account their small share in the total assets of the banking system. Namely, in 2013, deposits of insurance companies had the highest share, which was only 1.2%.

But for some of the non-deposit institutions these deposits with banks are of great importance, having in mind the share in their total assets. This is especially evident with the investment funds, where the share of deposits with banks in the total assets of the investment funds doubled in one year, and reached 61.1%. These deposits also have a significant share in the assets of the insurance companies and brokerage houses.

<sup>88</sup> Deposits also include transaction accounts of other institutional segments in the banks.

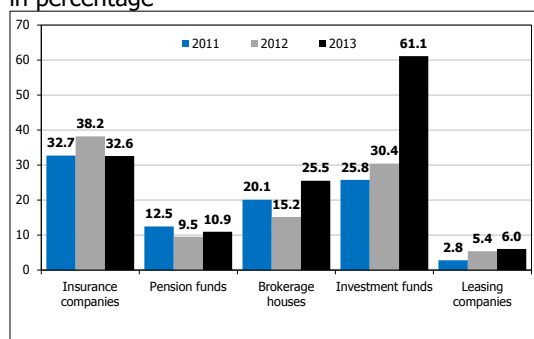


**Chart 80**  
Share of the non-deposit financial institutions' deposits in the total banking system assets in percentage



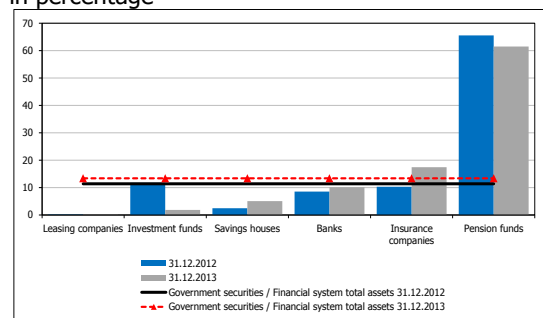
Source: NBRM, based on data submitted by banks.

**Chart 81**  
Share of deposits in total non-deposit financial institutions' assets in percentage



Source: NBRM, based on data submitted by banks.

**Chart 82**  
Share of the financial institutions' investments in government securities in the total assets in percentage



Source: NBRM, based on data submitted by banks.

Hence, deposits invested in banks are a potential "contagion" transmission channel, with the stability and liquidity of banks being a significant factor for the stable operations of the non-deposit financial institutions. This is particularly emphasized since these deposits are not subject to insurance in the Deposit Insurance Fund, and due to the fact that in circumstances of a limited range of financial products on the financial markets in the Republic of Macedonia, banks along with the investments in government securities are presently the only less risky investment opportunities. This confirms the importance of the banking system stability for the stability of the other segments of the financial system as a whole.

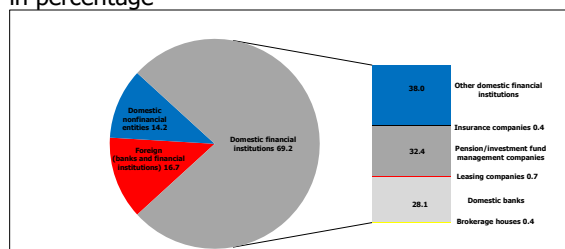
The share of financial institutions' investments in government securities in the total assets of the financial system accounts for 13.9% (12.0% as of December 31, 2012). By individual segments, with the insurance companies and pension funds these investments are above the average for the system, and especially they have significant share in the pension funds' total assets (61.5%). However, these are investments in low risk and profitable instruments issued by the government, which also represent a suitable instrument for liquidity management.

In 2013, banks' capital investments in the total assets of the banking sector maintained last year's level and amounted to only 0.4%. Moreover, for the most part (70%) they pertained to investments in domestic financial entities. A significant portion (38.0%) of banks' investments is in other domestic financial institutions (MSE CSD, KIBS, CaSys). According to the amount of the share, noticeable are banks' investments in pension funds management companies, which have a significant share (49%) in the ownership structure of the pension funds management companies<sup>89</sup>. Banks' share in the ownership structure of the investment funds management companies accounts for 17.0% and is due to the capital investment of one bank in an

<sup>89</sup> More details are given in the section on the Structure and level of concentration in the financial sector of the Republic of Macedonia.



Chart 83  
Structure of the banks' investments in financial institutions in percentage



Source: NBRM, based on data submitted by banks.

investment fund management company (64.3%). Investments in domestic banks (28.1%) were almost entirely (90.7%) related to the participation of "Eurostandard Banka" AD Skopje in the ownership structure of "Postenska Banka" AD Skopje (100.0%).

Other institutional segments are characterized by a low level of cross-ownership with the banking system (the majority of capital investments of individual banks are less than 5% of the capital of the entities in which it is invested<sup>90</sup>).

Such cross-sector connectivity implies that for the time being the only potential channel of contagion spillover are banks' capital investments in pension funds management companies given that only banks have a significant participation in their ownership structure. At the same time, households' assets in pension funds occupy 8.8% of the total financial assets of households as of December 31, 2013, confirming the important and responsible role of the competent supervisory authorities in maintaining the stability of the banking system and of the fully funded pension insurance segment, given the potential for cross-sector spillover of the contagion on households' savings.

<sup>90</sup> Table 6 Ownership structure of individual financial institutions.



### **3. Deposit institutions**

#### **3.1. Banks**

The macroeconomic environment in which the Macedonian banking system operated in 2013, moved towards the gradual recovery of domestic economic activity, but also uncertainty regarding the pace of recovery of the global economy. This had a corresponding impact on the growth of the banks' activities, especially the lending dynamics. Despite the imminent revival of credit activity in the last quarter of 2013, banks still apply prudent policies especially in lending to the entities of the corporate sector, which is also a result of the conservative strategies of some major banking groups present in the Republic of Macedonia.

The prolonged crisis continued to affect the loan portfolio quality by high growth of non-performing loans to the corporate sector in the first six months of the year. In the second half of the year, driven by the trend of revival of the domestic economy and collections of non-performing claims, some banks took concerted effort to restructure the claims on those clients for which they believed that it is necessary to adjust the credit terms to their current financial situation. These activities, along with the more intensive lending activity of banks to the corporate sector, contributed the rate of non-performing loans at the end of 2013 to be at the lowest level in the entire year (except January) and to equal 11.5%, while in March 2014, it reached 11.1%. However, in May 2014, affected by the growth of non-performing loans from the corporate sector, this rate increased again and reached 11.9%.

Stable and high liquidity is one of the basic pillars of the banking system stability. In 2013, liquid assets continued to grow at a somewhat slower pace mainly due to the gradual strengthening of the lending activity in the second half of 2013, but also due to the increased banks' investments in long-term government securities (which, given the long maturity, are not included within the liquid assets). However, they still cover almost 60% of household deposits in banks.

Besides liquidity, high solvency of banks is also one of the pillars of the overall stability and resilience of the banking system. As of December 31, 2013, the capital adequacy ratio of the banking system recorded a certain decrease relative to the previous year, but it remains twice the legally required minimum and equals 16.8%. In 2013, in the absence of more significant amounts of recapitalization, the banks were mainly oriented towards internal capital creation, i.e. reinvestment of the profit. Profitability clearly improved relative to 2012, mainly due to the growth in the net interest income, which resulted from the fall in the interest expenses. Maintaining a favorable net interest margin is an important challenge for the banks in the forthcoming period, in circumstances of a significantly reduced room for further lowering of interest rates on deposits and still present risks of impairment of the interest income.



Chart 84

## Banking system stability heat map

Components	31.12.2010	31.12.2011	31.12.2012	31.03.2013	30.06.2013	30.09.2013	31.12.2013
Capital adequacy							
Credit risk							
Liquidity							
Market risks							
Profitability							

**Legend (percentile ranks):**

0-10 percentiles		Historically high level of risk - the realized level of risk is among the 10% worst realized levels in the last 5 years
10-20 percentiles		Realized level of risk is between 10% and 20% worst realized levels in the last 5 years
20-40 percentiles		Realized level of risk is between 20% and 40% worst realized levels in the last 5 years
40-60 percentiles		Realized level of risk is between 40% and 60% worst (best) realized levels in the last 5 years
60-80 percentiles		Realized level of risk is between 20% and 40% best realized levels in the last 5 years
80-90 percentiles		Realized level of risk is between 10% and 20% best realized levels in the last 5 years
90-100 percentiles		Historically low level of risk - the realized level of risk is among the 10% best realized levels in the last 5 years

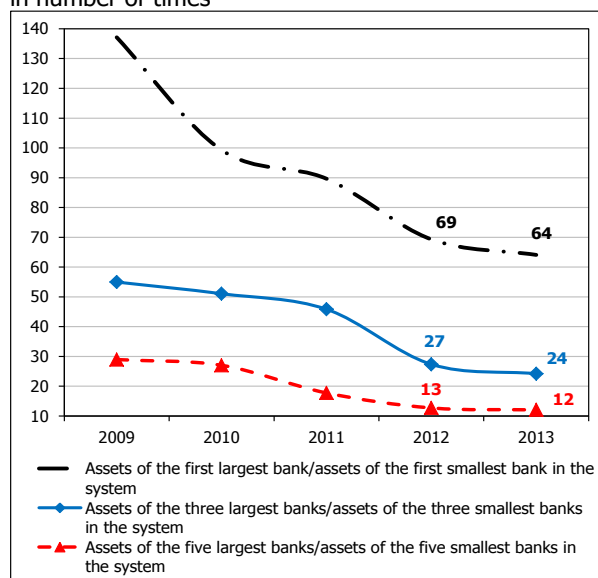
Source: NBRM, based on data submitted by banks.

Note: The banking system stability heat map includes five components (capital adequacy, credit risk, liquidity, exposure to market risks and profitability). For each component, an average of the normalized values of selected indicators is calculated (an empirical normalization on quarterly data set covering the last five years is used). Afterwards, taking into account the calculated average value for each component, its affiliation to appropriate percentile rank on each date, has been determined (seven percentile ranks are introduced). Each percentile rank has its own colour, and the spectrum of colours varies from green (that, in historical sense, corresponds to lower levels of risk) to red (that, in historical sense, corresponds to higher levels of risk).

Chart 85

## Indicators of concentration in the banking system and level of activity among smaller banks

in number of times



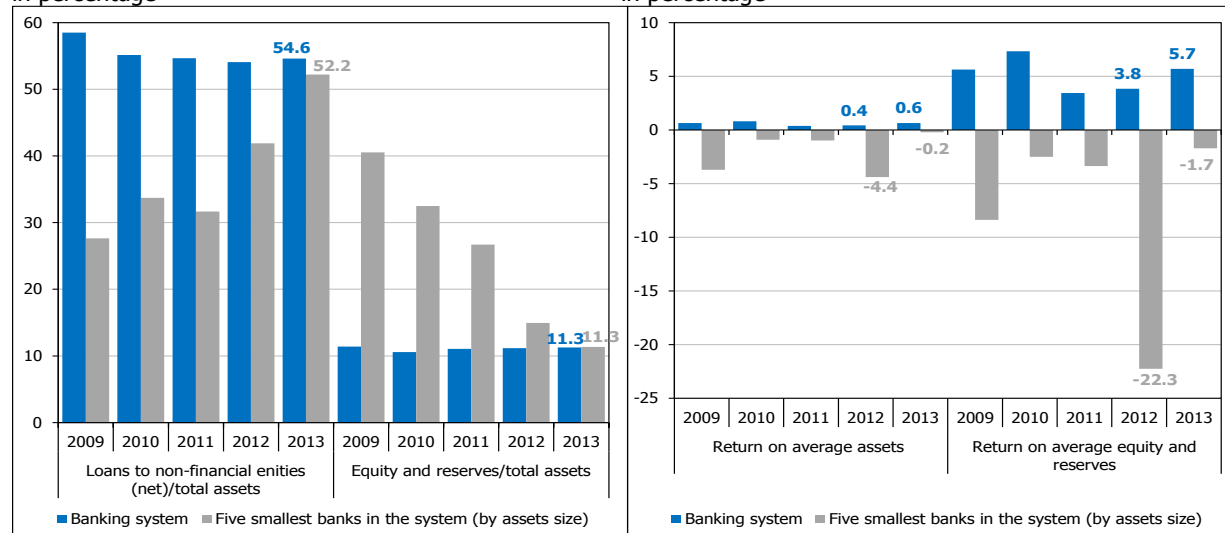
Source: NBRM, based on data submitted by banks.

Concentration in the banking system is relatively high, although there is a continuous downward trend. The high concentration leads to identifying several systemically important banks, whose achievements play a crucial role for the overall banking system and domestic economy. The accelerated activities of the smaller banks in the system, assisted by the two mergers in the last five years reduced, to a certain extent, the still high differences between individual institutions in the banking system. The effects of the market consolidation and raising the level of activity of the smaller banks in the system are reflected also in the approximation of the structure of their sources of funding and placements of funds to the structure of the activities common for the overall banking system. However, smaller banks still do not create sufficiently high and stable amounts of income that would provide positive financial results and long-term prospects for survival. Hence, some of them are likely to face the need of changing the business model or the operating strategy.



Chart 86

Total banking system vs. five smallest banks in the system  
in percentage



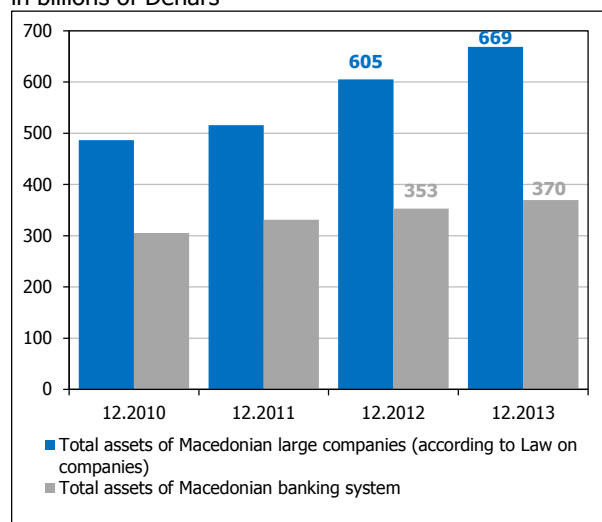
Source: NBRM, based on data submitted by banks.

The assets of large legal entities (traders)<sup>91</sup> operating in the Republic of Macedonia are almost twice the assets of the overall banking system. Attracting large, mainly foreign companies in the past period, which opened their facilities in the Republic of Macedonia, consolidated significantly the segment of large enterprises of the domestic corporate sector. Although the enlargement of the Macedonian banking system almost does not lag behind the growth of the sector of large legal entities (large foreign companies, at least for now, obtain most of the necessary financial support from their parent entities or from foreign banks), domestic banks obtained pretty large clients with significant financial needs, whose daily functioning includes high volume of business activities. Thus, domestic banks sometimes have limited capacity to meet the requirements of large companies, and the business cooperation with them can significantly increase the level of concentration in the total volume of banking activities. Thus, there is a growing impact of the activities of large companies on the operation of domestic banks, but also on the functioning of the whole banking system. Hence, some quite regular activities of larger companies (such as

<sup>91</sup> In accordance with Article 470 of the Company Law, legal entities (the law uses the term "traders") are classified into large, medium, small and micro traders.

Chart 87

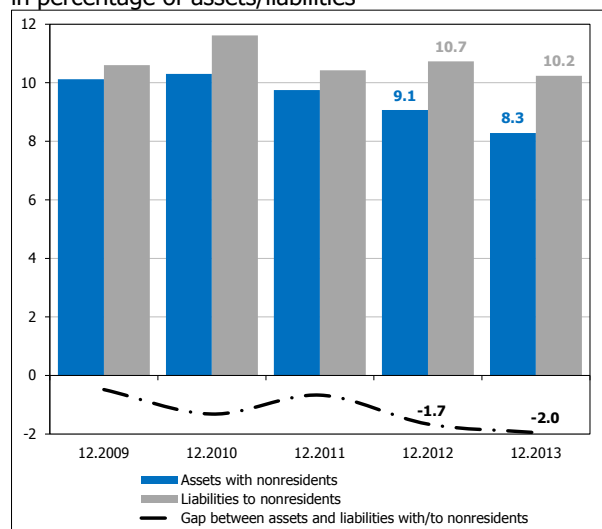
Total assets of the banking system and large companies in the Republic of Macedonia in billions of Denars



Source: CRM and NBRM, based on data submitted by banks.

Chart 88

Share of assets/liabilities with/to non-residents in percentage of assets/liabilities



Source: NBRM, based on data submitted by banks.

payment of dividends to foreign owners) can cause significant "ripples" in the banking system, which are evident not only among the individual banks, but also at the level of the overall banking sector. Amid uncertainty about the future support from parent banks, this indicates a need for further greater cooperation among domestic banks (e.g., joined engagement of banks for the purpose of providing syndicated loans or some other form of loan-guarantee support for their large customers) and adjusting their strategies to the changes in the structure of the real sector, and further consolidation of individual banks in the banking system.

Two of the three largest banks in the system are subsidiaries of foreign banks based in Greece and Slovenia. Also, three more banks are owned by banks that originate from the Euro area. According to the origin of the dominant owner, subsidiaries of foreign banks with headquarters in the Euro area have the largest share in the total assets of the domestic banking system, of 51.1%. This points to somewhat higher sensitivity of the Macedonian banking system to external shocks that originate from the Euro system, which becomes even more important given the ongoing restructuring in the banking systems of the Euro area member states, the increased supervisory and regulatory requirements for banking groups originating from these countries and the application of more conservative strategies in some of them.

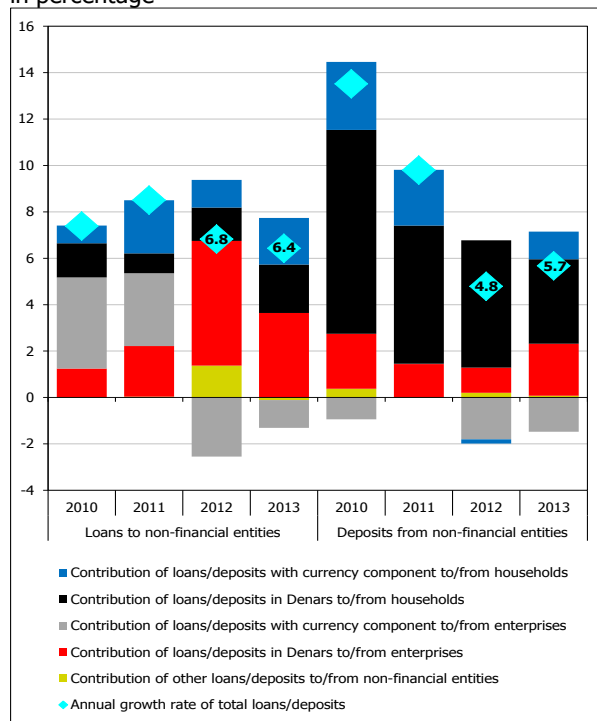
Despite the dominant share of foreign shareholders in the ownership structure (in 2013 it remained unchanged and equaled 75.2%), the domestic banking system achieved a moderate volume of operations with non-residents. Net external debt of the banking system registers some increase, indicating absence of a reduced volume of activities (deleveraging) with the foreign groups present in the domestic market and more significant direct effects on the banking system. In the past period, the funds placed with non-residents represent 8% to 11% of the total assets of the banking system, while on the liabilities side, this share is usually greater, and





Chart 89

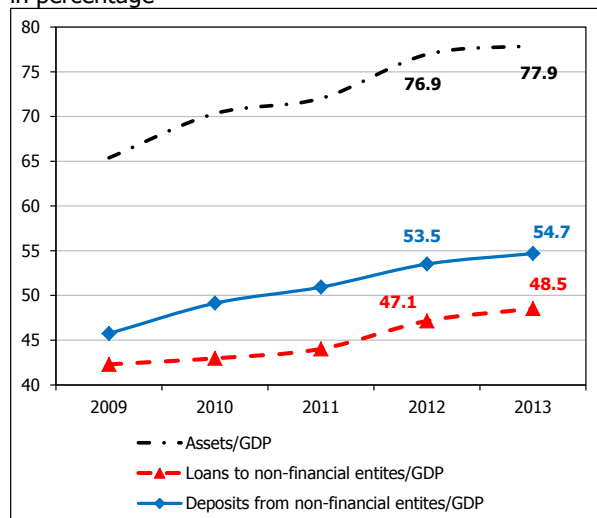
Contribution of individual components in the annual change of total loans and deposits to/from nonfinancial entities in percentage



Source: NBRM, based on data submitted by banks.

Chart 90

Level of financial intermediation in percentage



Source: NBRM, based on data submitted by banks.

Note: GDP data for 2012 are previous, and for 2013 are estimated

ranges from 10% to 12%. In 2013, the volume of activities realized with non-residents declined further, on both the assets and the liabilities side. But due to the somewhat sharper decline in the claims on non-residents, the net debt of the domestic banking system to foreign entities increased and as of December 31, 2013 it reached the level of, still moderate, 2% of total assets (liabilities). Analyzed by individual bank, the share of activities with non-residents is significantly higher with individual banks, compared with the aggregate share at the level of the banking system. Thus, as of December 31, 2013, in one large bank, claims on non-residents represent almost 20% of total assets, while in another bank of the group of medium banks, liabilities to non-residents reach nearly one third of the total sources of funding<sup>92</sup>.

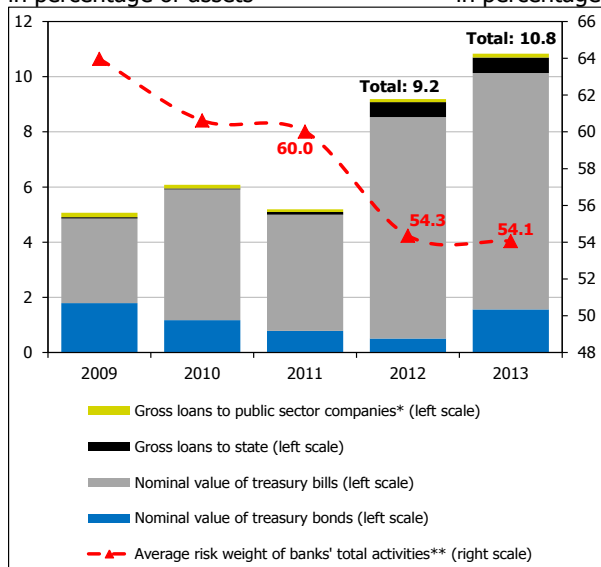
The core business of banks - intermediation between depositors and borrowers from the non-financial sector continued to grow in 2013, but at a slower pace. The annual growth of loans to non-financial entities noted further deceleration and as of December 31, 2013 it was reduced to moderate 6.4%. The banks still apply cautious policies in lending to non-financial entities (primarily from the corporate sector), as a result of the deteriorated credit portfolio quality, the application of conservative strategies by some of the major banking groups present in the Republic of Macedonia, but also as a result of the lack of quality demand in the credit market. The annual growth of corporate deposits, contrary to the decline registered in 2012, indicates improved liquidity of the corporate sector and opens up room for revival of the domestic credit market in this segment, which occurred in the last quarter of 2013. That increase in corporate deposits accelerated the annual growth rate of total deposits of non-financial entities, which at the end of 2013 rose to a level of 5.7%.

<sup>92</sup> The analysis by individual bank excludes the Macedonian Bank for Development Promotion AD Skopje, which due to the specific nature of activities has quite high amounts of liabilities to non-residents (usually to the international financial institutions).

Chart 91

Share of placements with central government and public sector companies\* and average risk weight of banks' total activities\*\*

in percentage of assets in percentage



Source: NBRM, based on data submitted by banks.

Note: \*Only performing loans to public sector companies are included. Data on non-performing loans to these particular clients of banks are not available.

\*\* The average risk weight is calculated as a ratio between risk weighted assets and total banking system balance and off-balance sheet exposure.

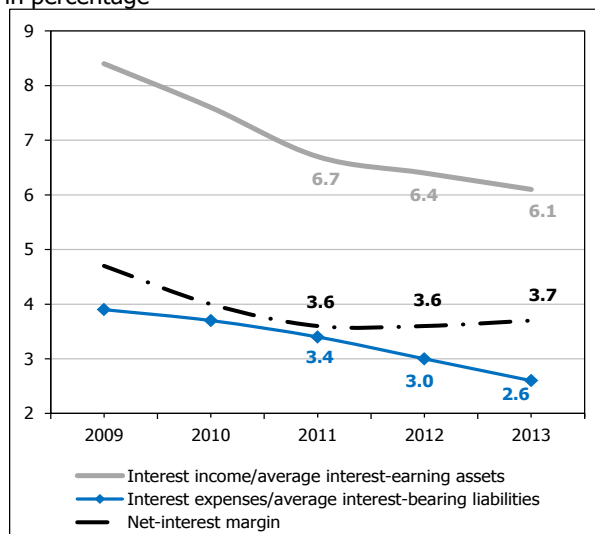
Amid deteriorating creditworthiness of non-financial entities in the private sector and consequently slower lending activity with this type of customers, banks have increased their exposure to the government and public non-financial companies, primarily by placing assets in government securities. Thus, in 2013, investments in government bonds rose by more than three times, regular loans to non-financial public companies rose by nearly 30%, and solid absolute growth was recorded also in the placements in treasury bills (annual growth of about 12%). Deteriorating prospects for lending to clients from the private sector and, in such circumstances, the search for (reliable) yield by banks, affect the growth of investments in government securities. Banks have imposed themselves as a significant creditor of the government, accounting for more than 72% in the ownership structure of issued treasury bills and share of over 22% in the ownership structure of the total issued continuous government bonds (increase of about 20 percentage points in 2013). These developments have increased the share of placements with the government and public non-financial companies by more than twice in the past 2 years and as of December 31, 2013 they reached almost 11% of the total assets of the banking system. The probability of materialization of such accumulated risk with banks of possible unfavorable trends in the government securities market and the possible inability of the government to repay the debt is still low (particularly in the short term, in which most of the funds placed in government securities are invested), although in 2013 an international rating agency downgraded the credit rating of the country<sup>93</sup>.

The rate of net interest income that banks earn (net interest margin) in the process of financial intermediation, recorded marginal growth in 2013, which was enough to significantly improve the overall profitability of

<sup>93</sup> Standard & Poor's lowered the long-term credit rating from BB to BB-.



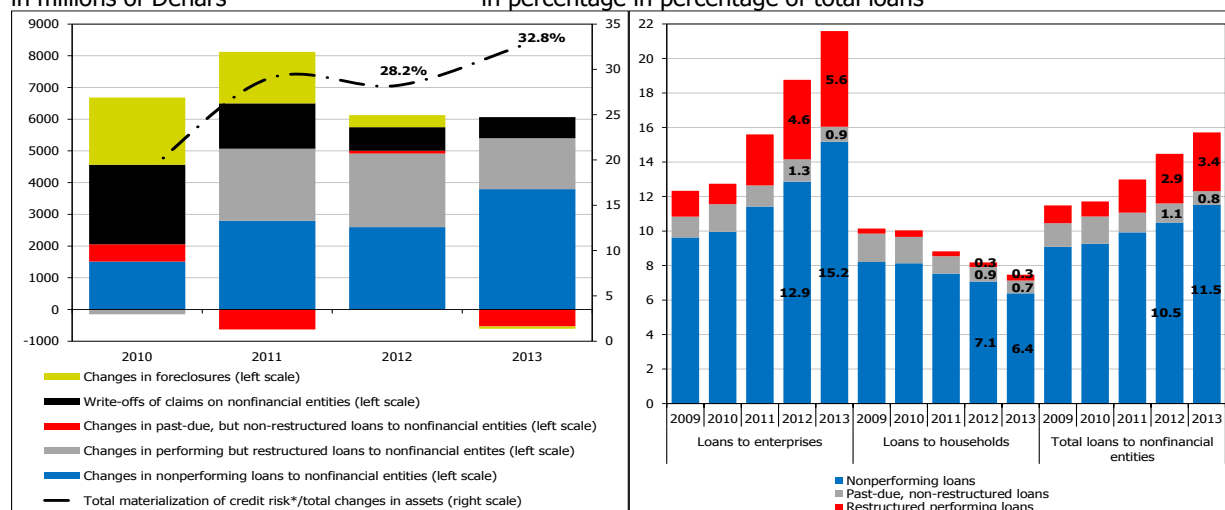
Chart 92  
Net interest margin  
in percentage



Source: NBRM, based on data submitted by banks.

the banking system<sup>94</sup>. In circumstances of falling interest rates, banks have managed to reduce the rate of interest expenditures little more (compared to reducing the rate of interest income) and thus raise the net interest margin by a minimal 0.1 percentage point. The larger decline in interest expenditures compared to the decrease in the interest income of banks was one of the main reasons for the more significant increase in the profits of the banking system in 2013, by 58%. Maintaining a favorable net interest margin is an important challenge for banks in the future, in circumstances of significantly reduced room for further lowering of interest rates on deposits (due to the threat of reallocation of savings to alternatives that bring higher yield), the phasing out of the remuneration on the reserve requirement and the still present risks of impairment of the interest income.

Chart 93  
Materialization of credit risk in banks' credit portfolio  
in millions of Denars in percentage in percentage of total loans



Source: NBRM, based on data submitted by banks.

Note (left chart): \*The total materialization of credit risk is calculated as a sum of write-offs of claims and changes in non-performing loans, performing but restructured loans, past-due but non-restructured loans and foreclosures.

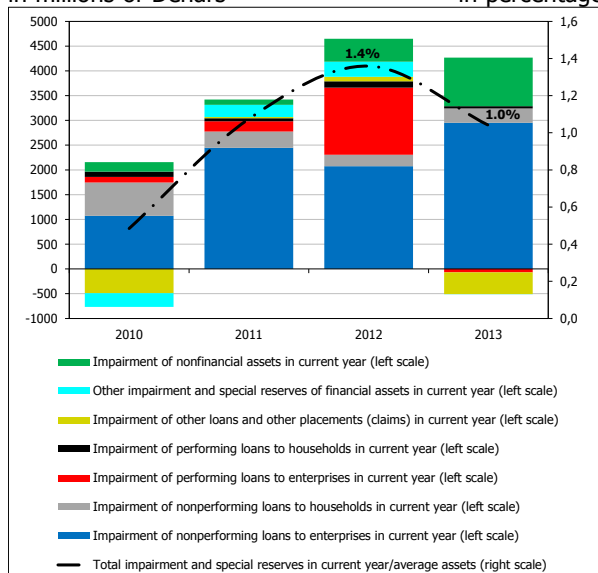
The impairment of the banks' credit channel continued in 2013, which was most evident from the significant annual growth in non-performing loans. In fact, almost one-third of the changes in

<sup>94</sup> A positive factor for the profitability in 2014 is the reduction of the deposits insurance premium by 0.2 percentage points (0.7% to 0.5%), as of June 2014.



Chart 94

Amount and structure of impairment losses and special reserves allocated in current year in millions of Denars



Source: NBRM, based on data submitted by banks.

the assets of the banking system in 2013 is due to the materialization of the credit risk in banks' portfolios. Loan impairment was most present in the portfolio composed of companies (in particular, from "industry", "wholesale and retail trade", "construction" and "activities related to real property"), where as of December 31, 2013 almost 22% of the total loans accounted for entities that are not able to regularly service their liabilities to banks<sup>95</sup>. However, compared with the previous year, banks have registered a somewhat lower impairment of assets, so that its ratio to the average amount of assets registered an annual decline of 0.4 percentage points (from 1.4% to 1%). That lower amount of impairment determined for 2013, was an additional reason, beside the increase in the net interest income, for the more substantial improvement in the profitability of the banking system.

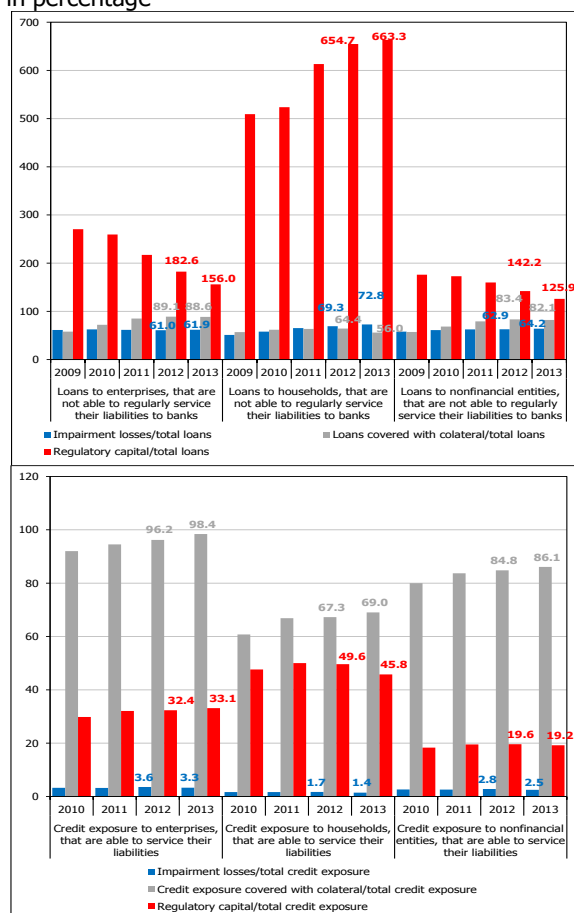
Indicators for the coverage of credit exposure indicate a satisfactory capacity of the banking system to absorb future (potential) credit losses. Thus, more than 64% of the amount of loans to non-financial entities that are not able to regularly service their liabilities have been provisioned in the banks' balance sheets. Also, about 85% of the credit exposure to non-financial entities (irrespective of whether they are regular in the repayment of liabilities or not) are covered by some kind of collateral. Finally, the own funds of the banking system as the "last line of defense" are far larger and fully cover the total amount of loans that are irregularly or not at all repaid. The level of expected losses from credit exposure which is regularly serviced (or the percentage of coverage with impairment) is usually relatively low, and in 2013 the banks further reduced it, bringing it down to 2.5% of the amount of the credit exposure which is being regularly serviced. However, the own funds of the banking system cover almost one third of the credit exposure to companies that regularly service their liabilities, and this percentage is even

<sup>95</sup> The analysis includes non-performing loans, regular, but restructured loans and past due but for the time being unstructured loans to enterprises. The analysis excludes the so-called prolonged loans, because it is assumed that the extension of the maturity of these loans is not due to the deteriorating financial condition of customers (which is in accordance with the regulatory requirements in this domain).



Chart 95

Coverage of loans to clients, that are not able to regularly service their liabilities to banks (top) and coverage of credit exposure to clients that are currently able to regularly service their liabilities to banks (bottom) in percentage



Source: NBRM, based on data submitted by banks.

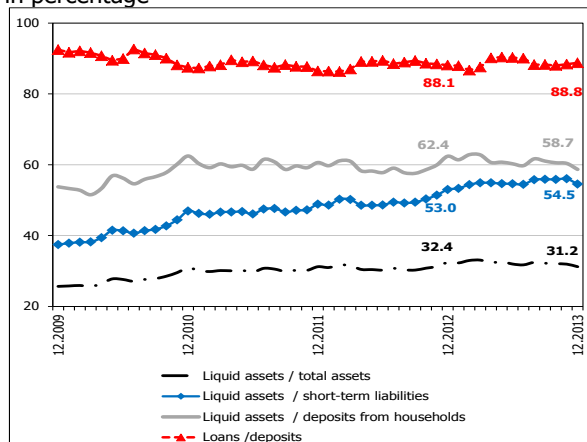
higher (45.8%) in the portfolio that consists of households. For comparison, in the first quarter of 2013, only 3% of the regular credit exposure to companies was transformed into exposure with a non-performing status, which is at the level of the historical maximum for the last five years, as is the length of the available data time series of this type (in the portfolio of natural persons, this historical maximum is 1.8%). However, one should not overestimate the capacity of individual banks to absorb potential credit losses, which may be significantly different from the one specified on an aggregate level, for the overall banking system. In addition, there is a relatively high concentration in the credit portfolios of individual banks by both individual customers and by the sector to which the customers belong, indicating a high level of correlation between the "performances" of individual segments of the loan portfolios, which, in turn, significantly accelerates the pace and increases the range of materialization of credit risk, especially in adverse business conditions. Finally, despite the relatively high coverage of the loan portfolio with some form of collateral, which reduces the level of credit risk undertaken by banks, this credit policy may be a limiting factor for the expansion of the credit activity, and can also mean transferring of the credit risk into a risk of inability to sell the foreclosures.

The liquidity of the banking system remained high and stable, despite the slowdown in the growth of liquid assets in 2013. In fact, almost one-third of bank assets accounts for liquid assets<sup>96</sup>, which cover more than half of the total short-term liabilities of banks and almost 60% of household deposits, as the most significant source of funding of banking activities. The relatively high level of liquid assets in domestic banks is necessary to some extent, taking into account the underdevelopment of markets, and the relatively high maturity mismatch between assets and liabilities, which is

<sup>96</sup> According to NBRM's internal methodology, liquid assets include: cash and assets on the National Bank accounts, CB bills of the National Bank, correspondent accounts and short-term deposits with foreign banks and investments in short-term securities issued by the government. For the purposes of liquidity analysis, assets and liabilities in denars with foreign exchange clause are considered as denar assets and liabilities.

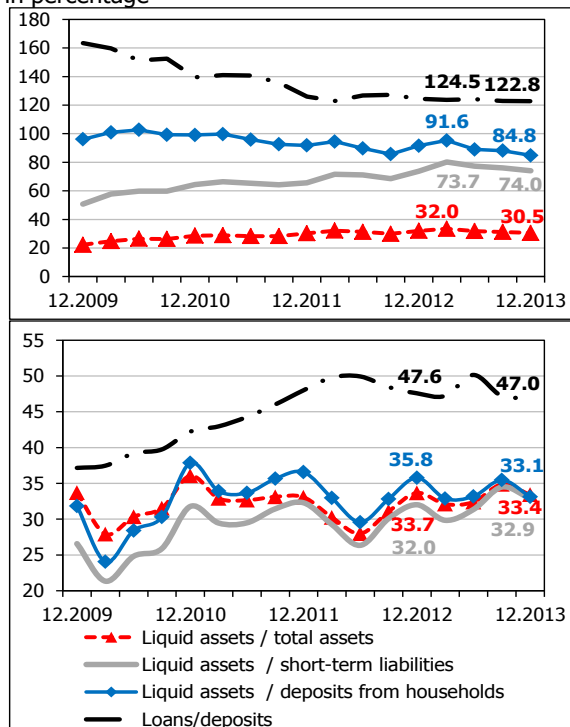


Chart 96  
Banking system liquidity ratios  
in percentage



Source: NBRM, based on data submitted by banks.

Chart 97  
Banking system liquidity ratios, according to  
currency structure - Denars (top) and FX  
(bottom)  
in percentage



Source: NBRM, based on data submitted by banks.

associated with the more emphasized so-called maturity transformation performed by banks. The analysis by currency indicates a significantly lower coverage of foreign currency liabilities with foreign currency liquid assets, which in turn indicates more pronounced vulnerability of banks to larger foreign exchange outflows and subsequent risk of creating a more significant pressure on the domestic foreign exchange market amid possible crisis episodes.

The maturity mismatch between banks assets and liabilities is high and additionally increased in 2013. Namely, as much as one third of the banks' liabilities falling due in the next 30 days are not covered by assets that have the same remaining contractual maturity (up to 30 days), and this gap, although smaller, is still significant also in the maturity segment of up to 1 year (just over a quarter of the liabilities with remaining contractual maturity of up to 1 year are not covered by assets from the same maturity segment). However, given the expected residual maturity, the gap between assets and liabilities of banks is positive, in all analyzed maturity segments, according to banks' expectations, i.e. in the maturity segments up to 30 and 180 days, according to the expectations of the regulator (NBRM)<sup>97</sup>.

The exposure of the banking system to currency risk increased in 2013, despite the persistent denarization in banks' balance sheets. At the same time, exposure to indirect credit risk arising from the presence of loans with currency component in the portfolios of banks has decreased, but is still relatively high. In circumstances of implementing a monetary

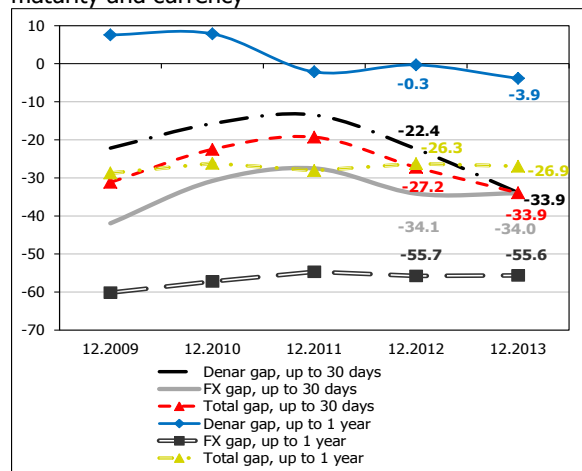
<sup>97</sup> In accordance with the Decision on banks' liquidity risk management ("Official Gazette of R.Macedonia" no. 126/11, 19/12 and 151/13), banks are required to calculate and meet regulatory liquidity ratios, in the maturity segments of up to 30 and 180 days.





Chart 98

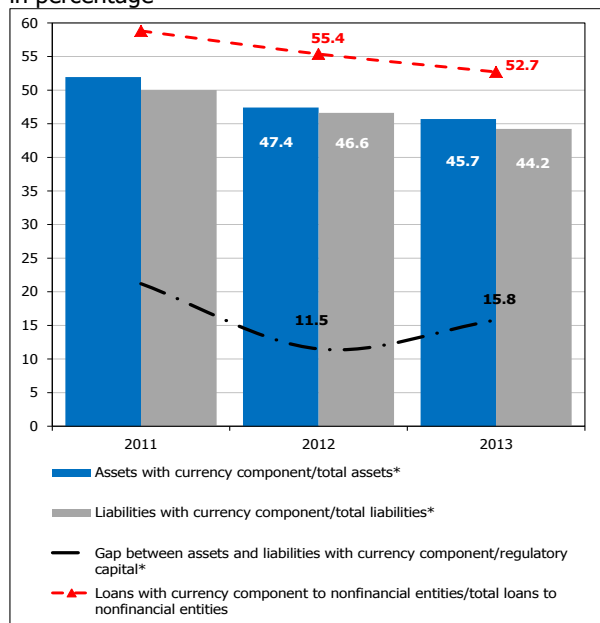
Gap between banks' assets and liabilities with residual maturity of 30 days and 1 year in percentage of liabilities with corresponding residual maturity and currency



Source: NBRM, based on data submitted by banks.

Chart 99

FX risk exposure and exposure to indirect credit risk in percentage



Source: NBRM, based on data submitted by banks.

Note: \*Data on Macedonian Bank for Development Promotion AD Skopje are not included in calculation of assets and liabilities with FX currency component and the gap between them.

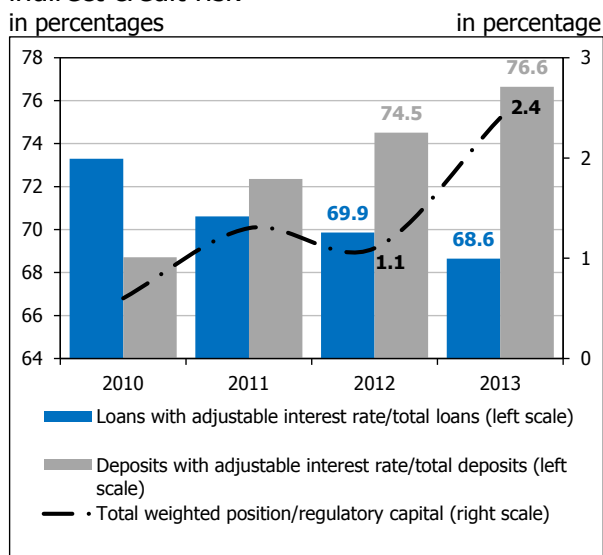
strategy of maintaining a fixed exchange rate of the Denar against the Euro, the probability of materialization of these risks remained small. The differences in the yield of Denar and foreign currency savings, amid declining domestic interest rates, and the payment of large amounts of dividends from foreign currency accounts of one domestic company, caused a reduction of the share of the currency component in the total liabilities of the banking system. Denarization is present also on the part of the banks' assets, but it is slower, probably as a consequence of the maturity transformation conducted by banks (longer maturity of assets compared with the maturity of the liabilities of banks). The share of loans with a currency component in the total loans to non-financial entities declined in 2013, but their share is still slightly above 50% of total loans. The somewhat sharper decline of liabilities with currency component, compared with the decrease in assets with currency component caused an annual growth of the gap between them and as of December 31, 2013 this gap rose to a level of almost 16% of the own funds of the banking system. Analyzed by individual bank, the exposure to currency risk is significantly higher among certain banks, compared with the aggregate level of the overall banking system. Thus, as of December 31, 2013, the aggregate currency position in one small bank reached 28.9% of its own funds, which is close to the prescribed limit (30% of the own funds).

Banks' exposure to the risk of changing interest rates in the banking activities remained low. At the same time, exposure to indirect credit risk arising from the presence of loans with adjustable interest rates in the banks' portfolios has decreased, but is still quite high. The high presence of adjustable interest rates, i.e. the practice of banks to adjust the level of interest rates in accordance with their business policies are the main reason for the interest rate risk to



Chart 100

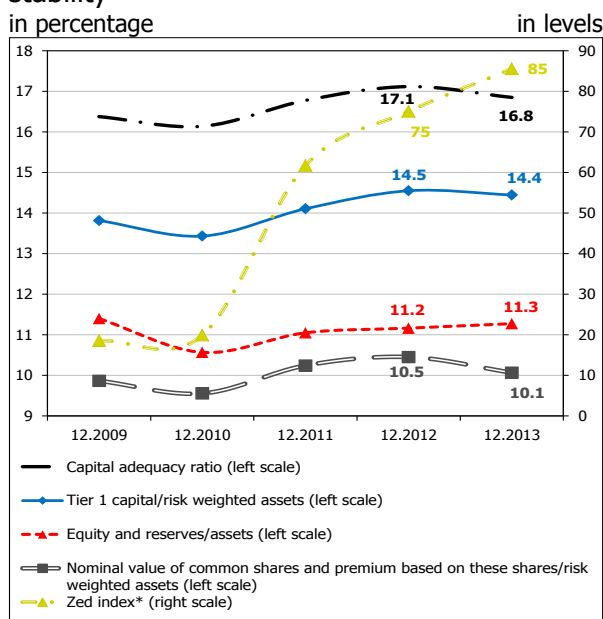
Exposure to interest rate risk and exposure to indirect credit risk



Source: NBRM, based on data submitted by banks.

Chart 101

Indicators of banking system solvency and stability



Source: NBRM, based on data submitted by banks.

Note: The Zed Index is calculated as follows:  $Z = (ROA + E/A) / (\sigma(ROA))$ , where ROA is the rate of return on assets, E is equity and reserves, A is assets and  $\sigma(ROA)$  is the standard deviation of the rate of return on assets, calculated for the last three years.

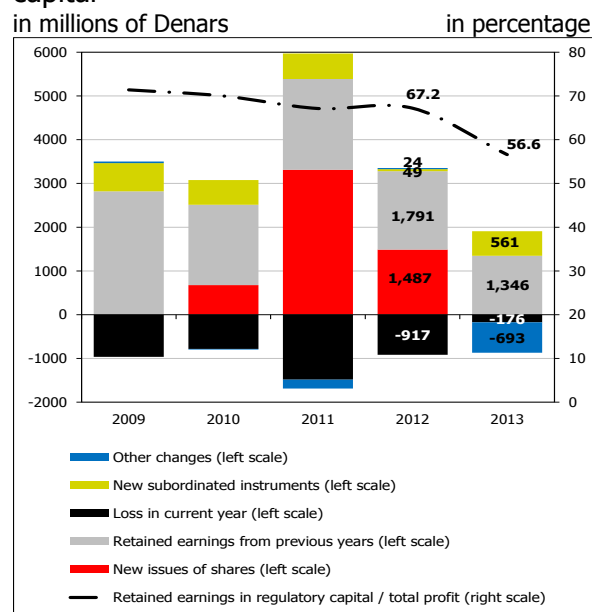
keep its moderate and limited impact on the banks' risk profile. On the other hand, the application of interest rate adjustability clauses in the loan contracts expose the banks to an indirect credit risk which would materialize in the event of a significant upward movement in interest rates, which, in the current business conditions, is less likely, at least in the short term.

The solvency of the banking system remained high and stable. In the absence of more significant amounts of recapitalization, the banks were mainly oriented towards the internal creation of capital. Improved share of capital and reserves in the total assets of the banking system and increased rate of return on average assets enabled the improvement of the overall stability of the banking system (as measured by the so-called zed index) and expansion of its capacity to absorb losses. The capital adequacy ratio registered a downward change of 0.3 percentage points, but its level (16.8%) is more than twice the legally prescribed minimum. Reinvested earnings were the most important source of increasing the own funds of the banking system, and the relatively high profits earned in 2013, are expected to raise the own funds also in the next 2014. Recapitalizations are still uncertain (mainly in the short term), especially among domestic banks owned by banks based in the EU (six banks with a total market share of 53.3%), which are faced with restructurings in their banking systems, and increased supervisory and regulatory requirements.



Chart 102

Structure of annual changes in regulatory capital

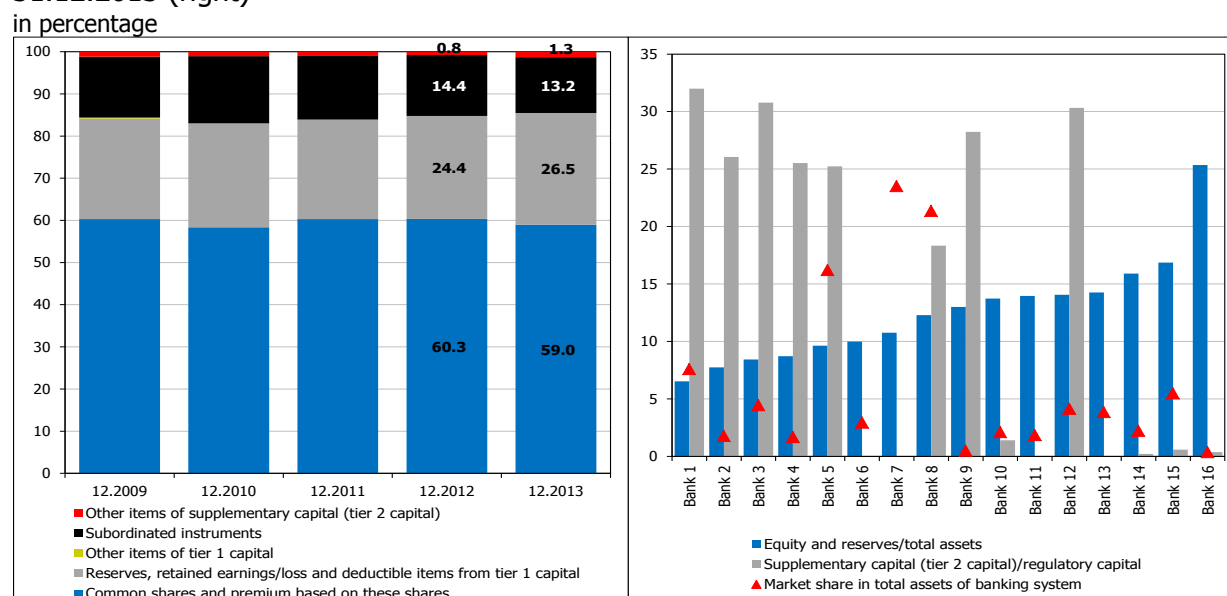


The structure of the banking system's own funds is of good quality, given that the core capital accounts for over 85% of the total own funds. In addition, only half of the own funds are used to cover the individual risks, i.e. nearly half of them are free (or a surplus) to cover unforeseen losses.

However, analyzed by banks, there is a more pronounced presence of the supplementary capital in some banks (primarily in the form of subordinated instruments), which points to somewhat higher level of leverage in these banks. Additionally, about 60% of the subordinated instruments already entered the last five years to maturity (and some of them will enter in 2014 and 2015) and are (will be) included in the calculation of own funds at a discounted value, which could be another limiting factor for future growth of the own funds.

Chart 103

Structure of regulatory capital before deductible items of tier 1 and supplementary capital\* (left) and leverage ratio and indicator of regulatory capital structure, by individual banks, as of 31.12.2013 (right)





### 3.2. Savings houses

The importance of the savings houses for the financial system in the Republic of Macedonia is small, as shown through their marginal share in all segments of operations of deposit institutions<sup>98</sup>. Savings houses perform limited scope of activities, which are aimed at collecting Denar deposits from households, lending to natural persons and, in a limited scope, to legal entities. Their importance declined further in 2013. At the beginning of the year, amendments to the Banking Law were passed, allowing the savings houses to transform into a bank or financial company (without conducting a liquidation procedure) or to make a status change for acquisition of a savings house by a bank. On the basis of this new legislation, over the year three savings houses were transformed into financial companies, bringing the total number of savings houses down to four.

The biggest risk for the savings houses is still their economic viability, given the strong competition from banks and expensive standards for banking operations, which are almost entirely applicable also for savings houses. However, due to their insignificant role in the financial system and the high levels of capitalization relative to the risks from their operation, there is no threat to the financial stability in the country from this segment of the financial system. The use of increasingly complex standards of banking operations, while maintaining the efficiency and profitability of operations, are the most important factors that in the future could contribute to further decline of the number of savings houses through their status change or transformation.

Table 7  
Structure of total assets and liabilities of savings houses

Balance sheet	Amount in millions of denars		Structure		Change 31.12.2013/31.12.2012	
	31.12.2012	31.12.2013	31.12.2012	31.12.2013	absolute change	in %
Cash and balances with NBRM	120	345	4.3	11.9	225	187.0
Financial instruments held at maturity	70	147	2.5	5.1	77	111.1
Placements to financial institutions	112	145	4.0	5.0	33	29.4
Placements to nonfinancial institutions (net)	2,233	2,078	79.0	71.7	-154	-6.9
Gross loans of nonfinancial entities	2,635	2,386	93.2	82.3	-250	-9.5
<i>Accumulated amortization of loans to nonfinancial entities</i>	-29	-26	-	-	3	-9.0
<i>Impairment (provisions) of loans to nonfinancial entities</i>	-374	-281	-	-	93	-24.8
Accrued interest	24	22	0.9	0.8	-2	-8.8
Other assets	49	33	1.7	1.1	-16	-32.1
Fixed assets	219	128	7.7	4.4	-91	-41.5
<b>Total assets</b>	<b>2,827</b>	<b>2,899</b>	<b>100.0</b>	<b>100.0</b>	<b>72</b>	<b>2.6</b>
Deposits of households	846	919	29.9	31.7	74	8.7
Short-term borrowings	3	3	0.1	0.1	0	-12.6
Long-term borrowings	605	669	21.4	23.1	64	10.6
Other liabilities	98	137	3.5	4.7	39	39.6
Provisions	1	1	0.0%	0.0	0.5	100.0
Equity and reserves	1,273	1,170	45.0	40.4	-103	-8.1
<b>Total liabilities</b>	<b>2,827</b>	<b>2,899</b>	<b>100.0</b>	<b>100.0</b>	<b>72</b>	<b>2.6</b>

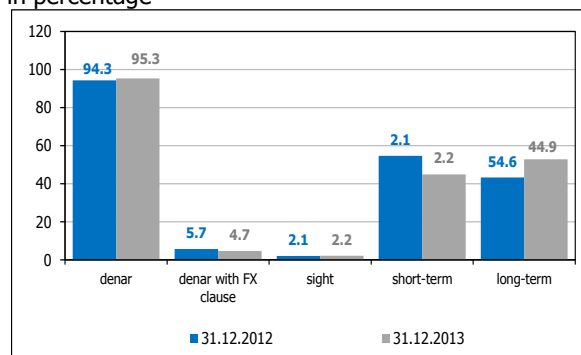
Source: NBRM, based on data submitted by saving houses.

Despite the decrease in the number of savings houses in 2013, the total assets of savings houses recorded an annual growth of Denar 72 million, or 2.6% (in 2012, assets

<sup>98</sup> Within depository institutions (banks and savings houses), the share of savings houses equals only 0.8% of total assets, 0.4% of the total household deposits and 1.0% of the total loans to non-financial institutions.



**Chart 104**  
Structure of deposits to non-financial entities by currency and maturity in percentage



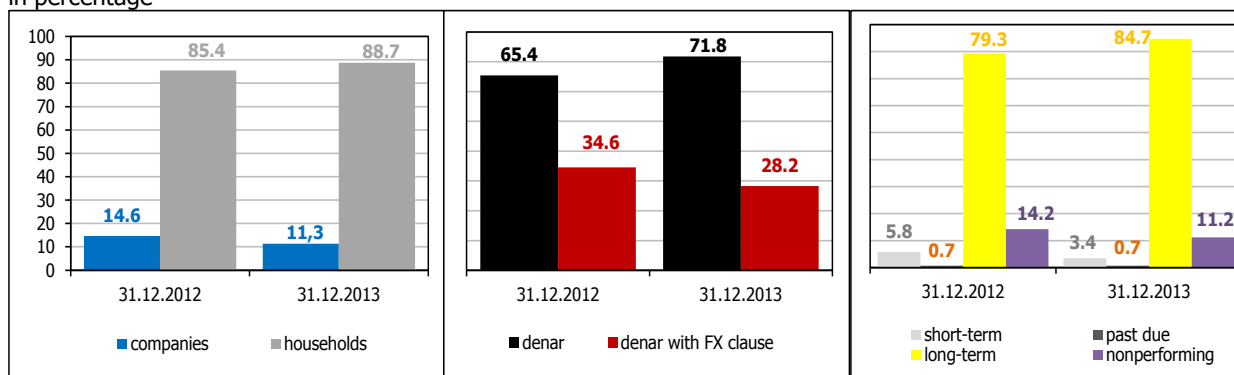
Source: NBRM, based on data submitted by saving houses.

decreased by 10.6%). The growth has been supported primarily by the increase in the long-term household deposits and liabilities based on long-term credit lines. On the other hand, loans to non-financial entities registered an annual reduction of Denar 250 million, mainly due to the reduced number of savings houses in 2013. This fact confirms the "justification" of the decision of the three savings houses to transform into financial institutions, because they almost entirely financed their credit activities from own funds.

Some of the remaining savings houses (which continued to operate as savings houses) mainly financed their activities from their own capital. The reduction of capital and reserves in 2013 was due to the aforementioned transformation of three savings houses into financial institutions.

The reduced credit activity of the savings houses in 2013 was a result of both the reduction in the loans to households (contribution of 54.5%) and the reduction in the corporate loans (contribution of 45.5%). In 2013, increased share of the dominant positions in the sector, currency and maturity structure of loans to non-financial entities, was recorded.

**Chart 105**  
Structure of loans to non-financial entities by sector, currency and maturity in percentage



Source: NBRM, based on data submitted by saving houses.

Credit risk is the main risk the savings houses are exposed to throughout their operations. Indicators of the savings houses' loan portfolio quality show some improvement



compared with the previous year, despite the reduction in their credit exposure.

Table 8

Indicators of the quality of the credit portfolio of savings houses  
in percentage

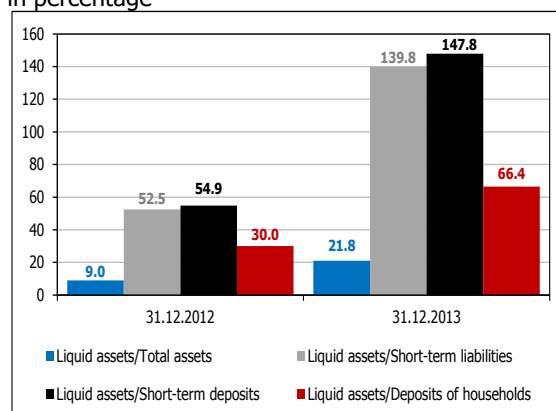
Indicator	31.12.2012	31.12.2013
Average level of risk	13.2	10.6
* for legal entities	15.4	11.1
* for households	13.9	11.9
Share of „C“, „D“ and „E“ in the total credit risk exposure	13.8	12.8
Share of nonperforming loans in total loans	13.6	10.5
Share of nonperforming loans - legal entities in total loans - legal entities	13.6	11.6
Share of nonperforming loans - households in total loans - households	14.3	11.1
Share of nonperforming loans in total loans (excluding banks and other financial institutions)	14.2	11.2
Share of past due loans in total loans	0.7	0.7
Share of past due loans - legal entities in total loans - legal entities	0.7	1.2
Share of past due loans - households in total loans - households	0.7	0.7
Coverage of „C“, „D“ and „E“ with total calculated impairment losses and special reserves for credit risk	95.5	82.6
Coverage of „C“, „D“ и „E“ with total calculated impairment losses and special reserves for „C“, „D“ и „E“	78.7	69.4
Coverage of nonperforming loans with impairment losses and special reserves for nonperforming loans	81.2	83.2
Coverage of nonperforming loans with impairment losses and special reserves for credit risk	101.0	107.8

Source: NBRM, based on data submitted by saving houses.

Unlike banks, the savings houses have almost the same degree of risk of the credit exposure to legal entities and natural persons. Non-performing loans declined by Denar 107 million (28.8%), which is mostly a result of write-offs, but also of the enhanced collection activities. The high rate of capitalization of savings houses will ensure safety in terms of the opportunities for covering new credit risk losses.

Chart 106

Liquidity ratios of savings houses  
in percentage



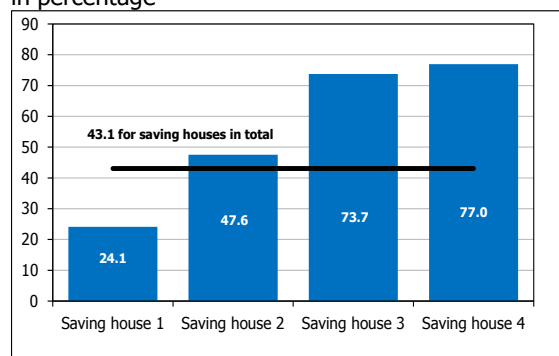
Source: NBRM, based on data submitted by saving houses.

In 2013, savings houses maintained a steady level of available liquidity and met the prescribed liquidity ratios for both maturity segments. Liquid assets of savings houses amounted to Denar 611 million and grew by Denar 379 million compared with the previous year. The growth in liquid assets was largely conditioned by the more significant cash growth and to a smaller extent by the increased investments in treasury bills, and contributed to the improvement of all liquidity indicators of savings houses.



Chart 107

Capital adequacy ratios of savings houses,  
as of December, 2013  
in percentage

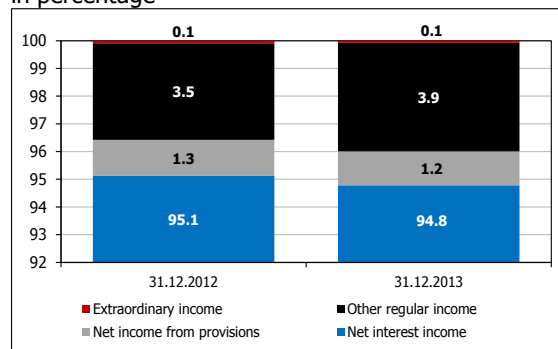


Source: NBRM, based on data submitted by saving houses.

In 2013 the solvency of savings houses remained at an extremely high level. The capital adequacy ratio stood at 43.1% (which is about 5.5 times higher than the legally prescribed minimum).

Chart 108

Structure of the total income of savings houses  
in percentage

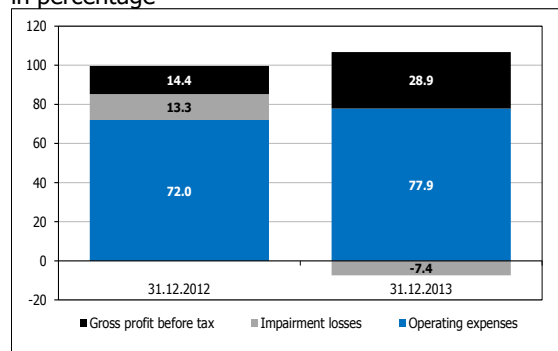


Source: NBRM, based on data submitted by saving houses.

In 2013, profits of savings houses were higher than in the previous year by Denar 33 million (or 78.8%), despite the reduced number of savings houses. The profit reached Denar 75 million, and all savings houses registered profit from operations. The main cause of the more significant profit growth is the released impairment that resulted from the application of the new regulations on the credit risk management, and the undertaken efforts for loan collection.

Chart 109

Utilization of the total income of savings houses  
in percentage



Source: NBRM, based on data submitted by saving houses.

The basic indicators of profitability of savings houses in 2013 were affected by the increased profits. The high inefficiency of savings houses is "covered" by the high interest margin.



Table 9

Indicators of the profitability and efficiency of savings houses  
in percentage

Indicators	31.12.2012	31.12.2013
Rate of return of average assets (ROAA)	1.4	2.6
Rate of return of average equity (ROAE)	3.3	6.1
Operating expenses/Total regular income (Cost-to-income)	72.0	77.9
Non-interest expenses/Total regular income	73.7	79.8
Labour costs / Total regular income	34.5	40.0
Labour costs / Operating expenses	47.9	51.3
Impairment losses of financial and non-financial assets / Net interest income	14.0	7.8
Net interest income/ Average assets	9.6	8.7
Net interest income / Total regular income	95.2	94.9
Non-interest income / Total regular income	4.8	5.1
Net interest income / Non-interest expenses	129.2	118.8
Financial result /Total regular income	13.9	28.3

Source: NBRM, based on data submitted by saving houses.

#### 4. Insurance sector

**In 2013, the insurance sector remained the third largest sector within the financial system of the Republic of Macedonia (it covers 3.3% of the total assets of the financial system). Banking insurance is still in the beginning of its development, and invested deposits of insurance companies with banks are below 2% of the total deposit base, with the threat of risks of spillover from one sector to the other being small for the time being. In 2013, gross premiums written continued to grow slowly, and the degree of penetration and density remained low, which are features of an underdeveloped insurance market. This indicates that the insurance sector has the potential for further development especially in the life insurance segment, which is the fastest growing component of the sector, according to the gross premiums written. Coverage of technical reserves is above the required minimum, profitability has improved, and insurance companies have consolidated their solvency position. The activities of the supervisory and regulatory body gave a significant contribution to these positive developments, acting toward improvement of the regulatory framework and strengthening the supervision, and thus maintaining the stability of this sector.**

##### 4.1. Movements in the insurance sector<sup>99</sup>

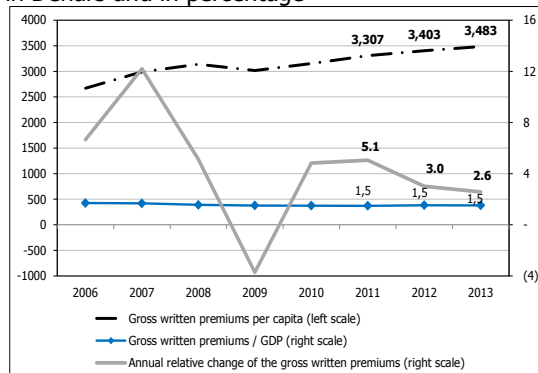
The development of the insurance sector in the Republic of Macedonia is moderate. The degree of density (measured by gross premiums written - GPW per capita) increased by 2.4% (growth in 2012 was 2.9%), while the rate of

<sup>99</sup> As of 31 December, 2013 the insurance sector in the Republic of Macedonia consisted of 15 insurance companies (11 nonlife insurance companies and 4 life insurance companies), 26 insurance and brokerage companies, 9 insurance agencies and 1 bank - life insurance agent. Compared to 2012, the number of insurance companies and insurance agents remained unchanged, while the number of insurance and brokerage houses increased by 6.



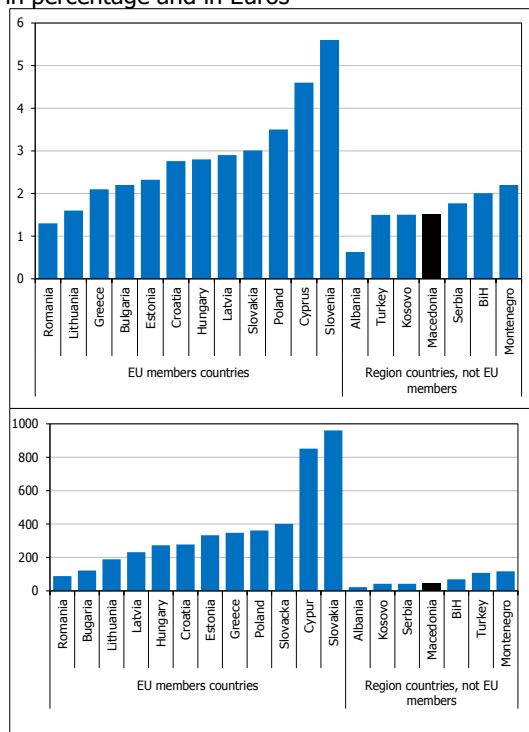


**Chart 110**  
Development indicators of the insurance sector in the Republic of Macedonia in Denars and in percentage



Source: Insurance Supervision Agency (ISA) and NBRM internal calculations.

**Chart 111**  
Penetration level (top) and density level (bottom) in percentage and in Euros



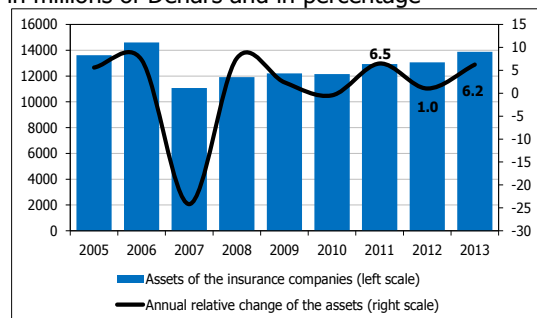
Source: Insurance Supervision Agency (ISA), internet page [www.xprimm.com](http://www.xprimm.com), IMF and NBRM calculations.

penetration (share of GPW in GDP), has not registered any change for five years and equals 1.5%.

A similar trend of stagnation in terms of the degree of penetration is observed in the other countries included in the analysis, with the highest annual growth in the share of 0.3 percentage points being registered in Estonia. According to these two indicators, the Republic of Macedonia is in the middle of the list of countries in the region that are not members of the European Union. Low growth rates and dominance of the statutory compulsory insurance (motor third party liability - MTPL) are characteristics of an underdeveloped insurance market. At the same time, it means that there is a high potential for growth and development of this sector, particularly in conditions of continuing positive macroeconomic trends that characterized 2013, and the willingness of the insurance sector to invest more in educating their staff and potential customers. In 2013, the assets of the sector registered six times higher growth rate compared to the growth in 2012.

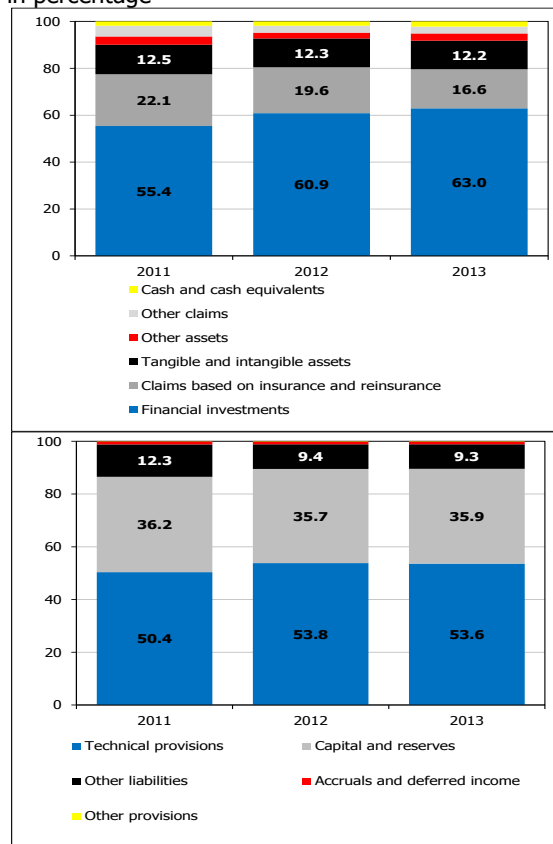


**Chart 112**  
Assets of the insurance companies  
in millions of Denars and in percentage



Source: Insurance Supervision Agency (ISA) and NBRM internal calculations.

**Chart 113**  
Structure of insurance companies' assets  
and liabilities  
in percentage



Source: Insurance Supervision Agency (ISA) and NBRM internal calculations.

Namely, at the end of 2013, assets of insurance companies increased by Denar 816 million (6.2%) and reached Denar 13,883 million. As part of the assets, the largest annual increase was registered in the financial investments of insurance companies, by Denar 785 million or 9.9%. These are primarily investments in government securities with a maturity of over one year and in deposits with banks.

On the other hand, claims based on insurance operations continued to decline<sup>100</sup>, although at a slower pace, which is positive given the fact that those are sold, but unpaid insurance policies, which are present in the balance sheets of the companies for an extended period of time. They have a downward trend after the establishment of the independent supervisory and regulatory body in 2009, given the introduced legislation which envisages allocation of impairment for the uncollected claims.

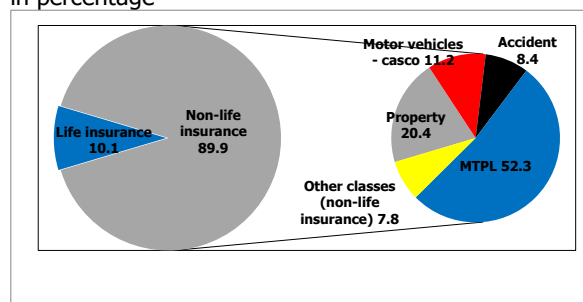
Generators of the growth of the liabilities of insurance companies were technical reserves<sup>101</sup> with contribution of 50.5% and capital and reserves with 39.9%. The annual growth in technical reserves was mostly (88.5%) attributed to the growth of mathematical reserves corresponding to the growth of GPW for life insurance. Working with profit contributed to an annual increase in capital and reserves by 7.0%.

<sup>100</sup> The annual decrease was 9.6%, compared to the decrease of 10.8% and 12.6% in 2012 and 2011, respectively. Thus, the share of these claims in the total assets of the companies was reduced from 22.1% (2011) to 16.6% in 2013.

<sup>101</sup> According to Article 3 of the Regulation on minimum standards for the calculation of technical reserves ("Official Gazette of the Republic of Macedonia" no. 187/2013), insurance companies are required to allocate adequate technical reserves for permanent securing of the performance of liabilities under insurance contracts and possible losses for risks arising from their insurance operations. Companies are required to set up the following types of technical reserves: unearned premiums provisions, mathematical provisions, provisions for bonuses and rebates, claims provisions and other technical provisions.



Chart 114  
Structure of GPW according to insurance classes in percentage



Source: Insurance Supervision Agency (ISA) and NBRM internal calculations.

Table 10  
Structure of GPW according to insurance classes

GPW	Herfindahl-index			
	2010	2011	2012	2013
Insurance sector	1,237	998	951	892
non-life	1,250	1,136	1,104	1,056
life	4,777	4,095	3,732	3,818
GPW	CR5 (in percentage)			
	2010	2011	2012	2013
Insurance sector	69.8	60.3	57.6	54.4
non-life	73.1	65.0	63.0	60.5
life	-	100.0	100.0	100.0
Assets	Herfindahl index			
	2010	2011	2012	2013
Insurance sector	1,320	1,078	896	869
non-life	1,576	1,363	1,173	1,151
life	3,677	3,075	2,966	3,178
Assets	CR5 (in percentage)			
	2010	2011	2012	2013
Insurance sector	69.9	60.4	55.0	53.0
non-life	74.2	69.7	66.1	65.5
life	-	100.0	100.0	100.0

Source: Insurance Supervision Agency (ISA).

As a result of the double-digit growth rate of GPW for life insurance (22.0%), at the end of 2013, total GPW increased by 2.6% and amounted to Denar 7,194 million. The increased activity in the life insurance is a result of the intensified competition due to the entry of foreign regional brands on the market in recent years. However, despite the expansion of the life insurance in the past few years in the Republic of Macedonia, GPW for this type of insurance are still low and cover 10.1% of the total GPW (8.5% in 2012)<sup>102</sup>. The growth of this type of insurance should continue in the coming years, taking into account the recovery of the Macedonian economy, growth of disposable income, and increasing financial literacy in the country contributing to the understanding of the characteristics of this financial product that offers both insurance and stable savings.

GPW for non-life insurance registered minimal growth of 0.8% in 2013, despite the increased number of contracts for non-life insurance (4.0%), indicating a decrease in prices in the insurance industry<sup>103</sup>, probably reflecting the competition within the sector. However, the continuation of this trend could pose a risk to the level of the technical result and profitability of the sector and the individual companies.

The insurance market in the Republic of Macedonia is moderately competitive with tendency to gradually strengthen its competitiveness also in 2013. Both the Herfindahl index<sup>104</sup> and the concentration ratio of the top five insurance companies (CR5), measured by the share of GPW and assets, are declining.

<sup>102</sup> Compared to the neighboring countries and some countries in the region, except in Albania where life insurance has a similar share (11.2%), in other countries this share ranges from 14.9% in Montenegro to 42.8% in Greece. In some EU Member States the share of life insurance is as follows: Estonia 18.4%, Latvia 18.9%, Romania 19.9%, Slovenia 27.9%, Cyprus 42.5%, Czech Republic 45.7%, Poland 54.0%, Hungary 54.5% and Slovakia 56.8%.

<sup>103</sup> The decrease in the prices of policies was mainly registered in the class of property insurance.

<sup>104</sup> Herfindahl index is calculated according to the formula  $HI = \sum_{j=1}^n (S_j)^2$ , where S is the share of GPW or assets of each company

in total GPW or total assets of the insurance sector, and n is the total number of insurance companies in the sector. When the index ranges from 1,000 units to 1,800 units, the level of concentration is considered to be acceptable.

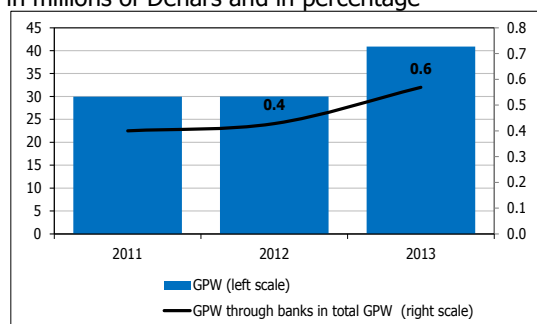


The trend of changes in total insurance is correlated with the trend in non-life insurance companies as a dominant part in the insurance. The small number of companies offering life insurance services is the reason for the high concentration in this segment of the insurance sector. Two companies account for 86.4%<sup>105</sup> of the total amount of GPW issued by life insurance companies. The small market share of the other two companies is due to their relatively short presence in the market (since 2011).

#### 4.2. Contagion channels and risks to financial stability

The relations of insurance companies with banks in 2013 remained low. The amount of GPW through banks<sup>106</sup> (as insurance services distribution channel) accounted for 0.6% of the total GPW (0.4% in 2012). However, in 2013, GPW through banks recorded the fastest annual growth of 36.3%. Double-digit growth rates (about 13%) were registered also in the GPW through insurance-brokerage companies and insurance agents, whereby their share in total GPW reached 23.3% and 5.9%, respectively. GPW through car sellers (as a distribution channel) rose by 16.1% annually, but their share in total GPW is low (0.1%). In 2013, most of the sales of insurance policies still took place directly through insurance companies (about 50%).

Chart 115  
GPW through banks and number of agent banks  
in millions of Denars and in percentage



Source: Insurance Supervision Agency (ISA).

Banking insurance is still in the beginning of its development and therefore it has potential for further development in the Republic of Macedonia. During 2013, none of the five insurance companies that are licensed for credit insurance did not write premium, nor paid claims in this class of insurance. The cooperation (on the basis of a contract for insurance agent) initiated between one bank and one life insurance company, for using the life insurance policies as a component of certain credit products is very small

<sup>105</sup> BPP individually participation of these two companies for life insurance is about 43%.

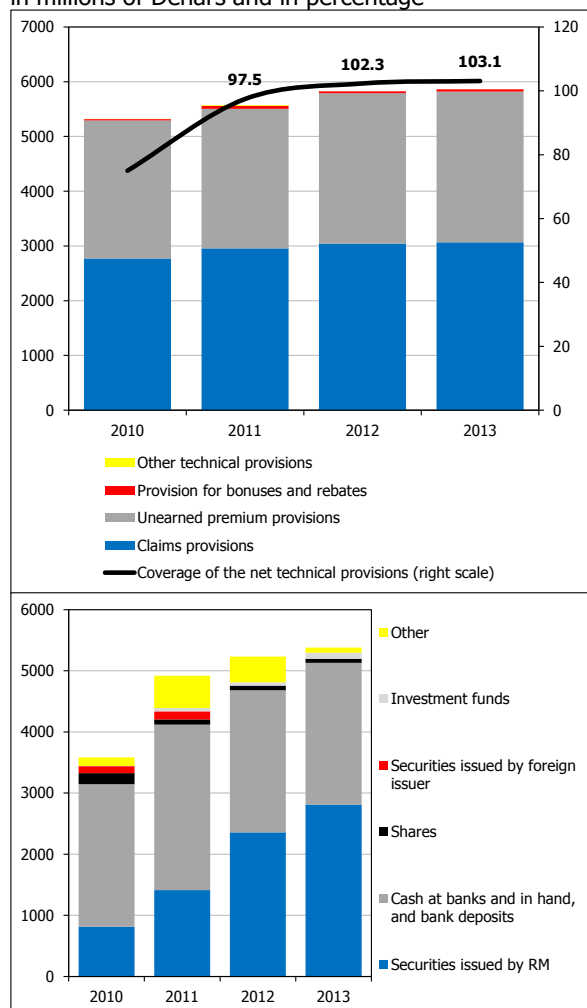
<sup>106</sup> In 2012, one bank signed a representation contract with an insurance company, which launched the promotion of banking insurance as a new distribution channel in the country. According to Article 134 h) of the Law on Insurance Supervision ("Official Gazette of R. Macedonia" No 27/2002, 79/2007, 88/2008, 67/2010, 44/2011, 188/2013 and 43/2014), this bank is licensed for performing this activity by both competent supervisory bodies (ASO and the NBRM). Other banks perform the role of an agent in insurance in accordance with the exception from Article 133 of the same Law, all in the group of non-life insurance.



Chart 116

Technical reserves of non-life insurance companies and coverage (top) and investment of funds used to cover technical reserves (bottom)

in millions of Denars and in percentage



Source: Insurance Supervision Agency (ISA) and NBRM internal calculations.

Note: Technical reserves are presented in a gross amount.

for the time being<sup>107</sup>, and thus the threat of risks spillover from one into the other sector is minimal. Another potential channel of contagion spillover are the invested deposits of insurance companies in the banks that are now the main channel of business relation between these two sectors. In 2013, the deposits of insurance companies invested in banks occupied about 30% of the assets of the insurance companies. Moreover, about 17% of the total deposits of the insurance sector are concentrated in one bank. However, these deposits have little relevance to the banking system given that they occupy only 1.6% of the total deposits of the banking system, which by individual banks ranges from 0.02% to 6.1%. Hence, it can be concluded that the stability of the insurance companies is more dependant on the stability and liquidity of banks, rather than vice versa. This is especially important if it is taken into consideration that these deposits are not subject to indemnification by the Deposit Insurance Fund, and the fact that banks are currently one of the few reliable sources of income amid the limited supply of financial instruments and services on the financial markets in the Republic of Macedonia.

#### 4.3. Risks in the operations of insurance companies and performance indicators

The upward trend in technical reserves in 2013 was followed by the growth in the investments of the assets that cover the technical reserves<sup>108</sup> of insurance companies (7.5%). Coverage of technical reserves with assets is over 100% in both insurance groups, whereby the legal minimum is fulfilled. Full coverage in the non-life insurance was achieved in 2012, as a result of the activities of the supervisory authority of this sector.

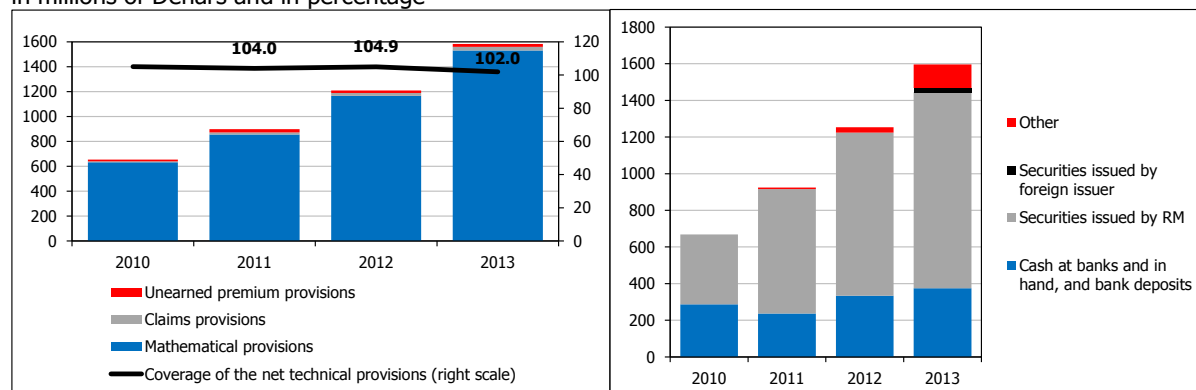
<sup>107</sup> During 2013, one bank entered into a single insurance contract with a total insurance premium of Denar 3.01 million, and collected commission was Denar 747 thousand. Credit exposure to natural persons secured by life insurance policies was Denar 756 million.

<sup>108</sup> Assets covering technical reserves are the assets of the insurance companies that serve to cover future liabilities arising from insurance contracts, and possible losses from the risks associated with doing insurance work that requires from insurance companies to allocate funds for covering the net technical reserves. Insurance companies are required to invest funds in the amount at least equal to the value of net technical reserves, in accordance with the provisions of the Law on Insurance Supervision ("Official Gazette of R.Macedonia" no 27/2002, 79/2007, 88/2008, 67/2010, 44/2011, 188/2013 and 43/2014) and the Regulation on the types and characteristics of the assets covering technical reserves and the assets covering mathematical reserves, as well as detailed placement and restrictions on those investments and their valuation ("Official Gazette of R.Macedonia" no. 64/2011).



Chart 117

Technical reserves of life insurance companies and coverage (left) and investment of funds used to cover technical reserves (right) in millions of Denars and in percentage

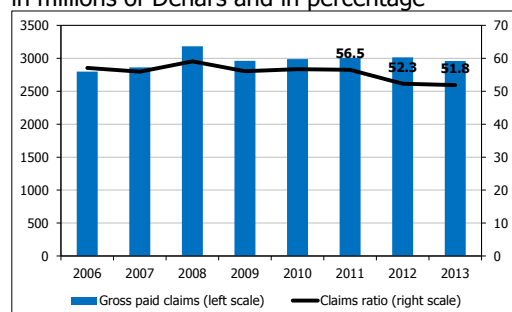


Source: Insurance Supervision Agency (ISA) and NBRM internal calculations.

Note: Technical reserves are presented in a gross amount.

Chart 118

Claims ratio and gross paid claims in millions of Denars and in percentage



Source: Insurance Supervision Agency (ISA) and NBRM internal calculations.

The structure of the investments of non-life insurance companies is almost equally distributed in securities issued by the Republic of Macedonia (52.2%) and in deposits with banks (43.1%), while with the life insurance companies, 67.0% of the assets are invested in securities issued by the Republic of Macedonia and 23.5% are invested in banks.

In 2013, favorable movement is observed in the claims ratio<sup>109</sup>. This is primarily due to the decline in the gross paid claims by 1.8%, contrary to the increase in the total GPW of 2.6%.

The profitability of insurance companies in 2013 improved<sup>110</sup>. During 2013, the insurance industry made profit in the amount of Denar 212 million, of which 76.6% are due to the profit of non-life insurance companies. The realized profit was due to the increased non-technical result (from Denar 277 million to Denar 362 million), as well as the reduced negative technical result<sup>111</sup>.

<sup>109</sup> It is calculated as the ratio between the sum of claims incurred in the period and the change of gross reserves and earned premium.

<sup>110</sup> In 2011 and 2012, insurance companies operated at a loss primarily due to the increased costs for value adjustment of claims based on premium in relation to the premium earned due to the adopted Rulebook on the method for valuation of the items of the balance sheet and preparation of business balance sheets ("Official Gazette of R.Macedonia" no.169/10 and 141/13), which entered into force on 01 January 2011.

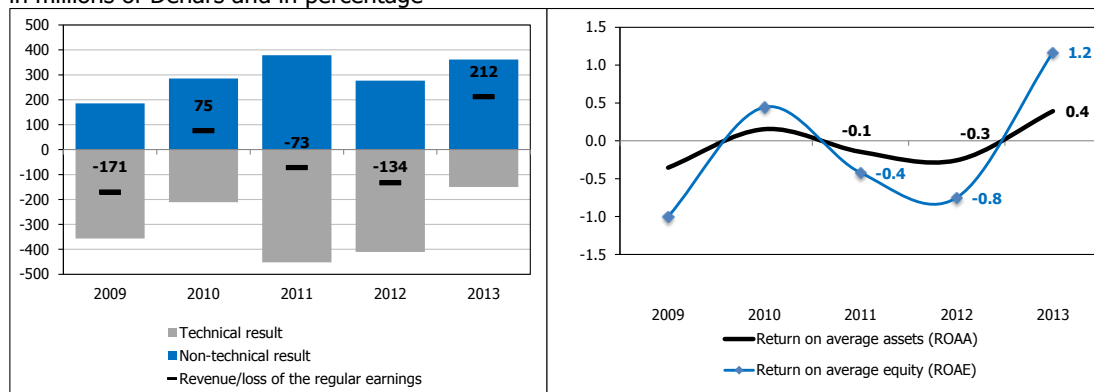
<sup>111</sup> The technical result of the insurance companies' operation is a result of the performance of their core business - insurance (income from gross premiums written decreased by net costs related to insurance and by the net cost of claims). Other income and expenses of their operation represent the non-technical result.



(from Denar 411 million to Denar 150 million). The negative net technical result is equally a result of non-life insurance companies (Denar 78 million) and life insurance companies (Denar 72 million). Realized profit contributed to the improvement of the profitability indicators at the level of the insurance sector.

Chart 119

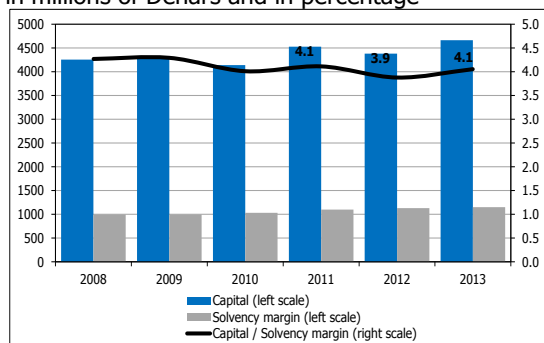
Structure of the financial result and profitability ratios of insurance companies in millions of Denars and in percentage



Source: Insurance Supervision Agency (ISA) and NBRM internal calculations.

Chart 120

Capital and solvency margin in millions of Denars and in percentage



Source: Insurance Supervision Agency (ISA) and NBRM internal calculations.

The solvency of the insurance sector is high. The capital of insurance companies is four times greater than the required solvency margin<sup>112</sup>, which is the major indicator of stability and resilience to shocks.

<sup>112</sup> According to regulations, the insurance companies have to maintain the capital value at least equal to the required level of the solvency margin.



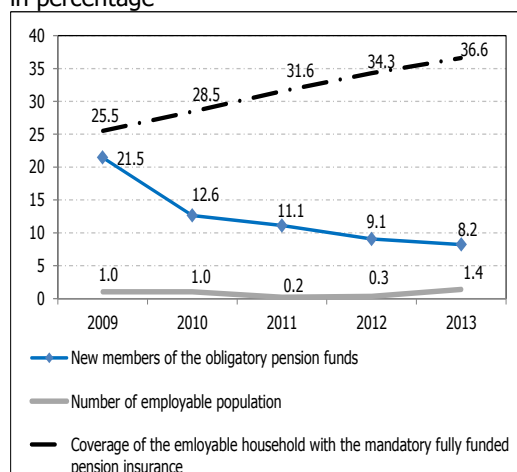


## 5. Fully funded pension insurance

Pension funds are the second largest segment of the financial system, which also has great potential for further growth based on constant inflows for pension insurance. Its significance for the financial stability is wide: as part of the financial assets of households, which are a significant debtor and creditor of the banking system, and of other segments of the financial sector; as investor of deposits in domestic banks; and because of the ownership links between the companies for managing pension funds and some of the domestic banks, which highlights the reputational risk as extremely important and difficult to measure. Government bonds are predominant in the total assets of the pension funds. In 2013, amid generally low interest rates, and for the purpose of achieving better yields, funds management companies shifted part of the funds' assets from debt (interest bearing) securities into equity securities. In their framework, there was a particular increase in the investments in foreign investment funds (ETF), which are generally characterized by relatively lower risk than the risk associated with the investments of pension funds in stocks. However, it is an investment alternative that in a short time has become increasingly important on the international financial markets both in terms of growth and in terms of complexity. Hence, there is uncertainty about the capacity of domestic companies for managing pension funds, for timely identification of risks associated with these investments. Annual rates of return in both the mandatory and the voluntary pension funds continued to grow.

Chart 121

Growth rate of the number of members of mandatory pension funds and of the number of active population in percentage



Source: Agency for supervision of fully funded pension insurance.

### 5.1. Mandatory fully funded pension funds

The number of members of the mandatory pension funds increased also in 2013, but at a slower pace (lower percentage growth), despite the rapid growth of the active population. Just like in the previous year, the higher number of new members of the funds (26,560) than the number of new active population (13,002), contributed to an increase in the rate of coverage of the active population with the fully funded pension insurance, which as of 31.12.2013 reached 36.6%. Most of the members of the mandatory pension funds are aged 26 to 30.



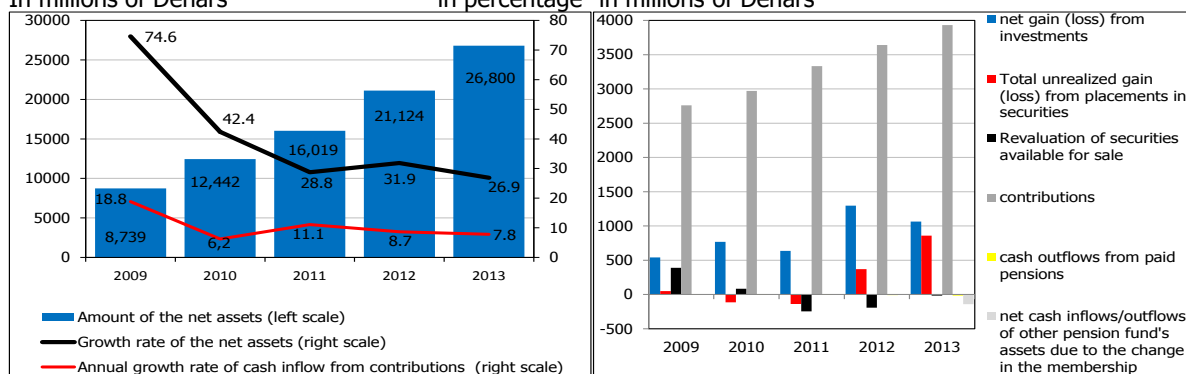
Paid contributions that are determinant of the movement of the net assets<sup>113</sup> of mandatory pension funds are constantly increasing. However, despite the accelerated absolute growth in 2013, the growth rates of these two categories slowed down compared to the previous year.

Chart 122

## Net assets and annual growth of net assets of mandatory pension funds

In millions of Denars

in percentage in millions of Denars

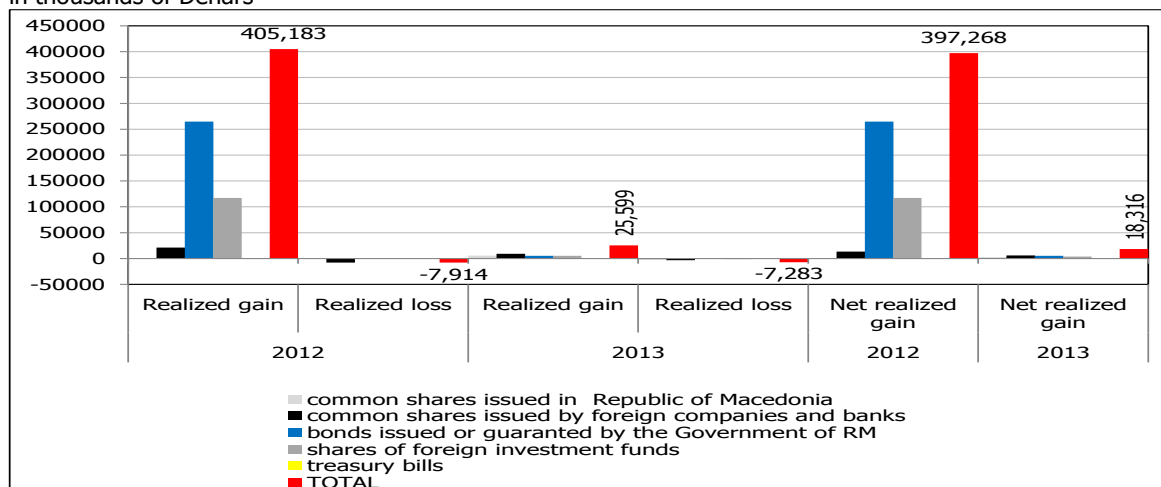


Source: Agency for supervision of fully funded pension insurance and audited financial statements of fully funded pension insurance for 2013.

Chart 123

## Realized capital gain and capital loss

in thousands of Denars



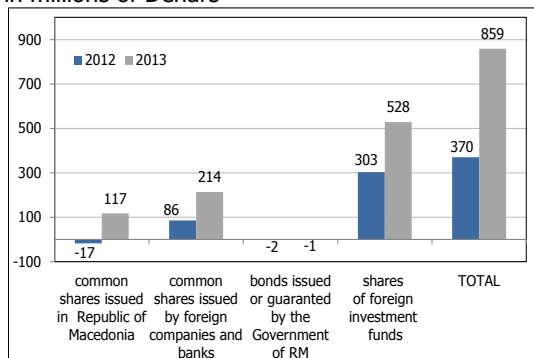
Source: Audited financial statements of fully funded pension insurance for 2013.

Net realized capital gains in 2013, which amounted to Denar 18 million, are the next category that determines the movement of the net assets of the funds. In 2013, it almost equally

<sup>113</sup> Net assets of the pension fund are determined as the difference between the value of the pension fund assets and of the pension fund liabilities, other than liabilities to the members of the pension fund.

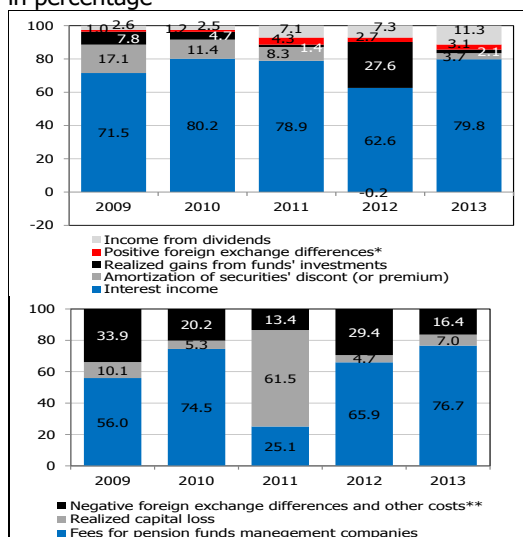


**Chart 124**  
Net unrealized capital gain  
in millions of Denars



Source: Audited financial statements of fully funded pension insurance for 2013.

**Chart 125**  
Structure of income (top) and expenses (bottom) of mandatory pension funds  
in percentage



Source: Audited financial statements of fully funded pension insurance for 2013.

\* Other income of funds includes extraordinary income and other income.

\*\*Other expenses of funds include brokerage fees and other operating costs of the funds.

derived from the sale of ordinary shares issued by foreign companies and banks, domestic government bonds and stakes in foreign investment funds<sup>114</sup>. Its decline compared to the previous year is due to the lower net realized gains from the sale of the government Eurobond<sup>115</sup> and of the stakes in foreign open-end investment funds.

Net unrealized gains from investments in securities increased by Denar 489 million (Denar 370 million in 2012), with the largest contribution of the unrealized gains from investments in stakes in foreign open-end investment funds with a share of 46.1%<sup>116</sup>. Stabilization and improved performance of the economies of the Euro area and the United States, led to positive market movements also on global financial markets. Thus, in 2013, the indexes of the New York and Frankfurt stock exchanges grew, leading to an increase in the price of the shares quoted on these markets, as well as in the price of the stakes that accompany these indices. On the other hand, although the Macedonian Stock Exchange Index (MBI-10) registered variable movements during 2013, and the long-term trend of this index is still moving downward, mandatory pension funds ended the year with unrealized net capital gains from investments in domestic shares<sup>117</sup>.

Total revenues of the mandatory pension funds amounted to Denar 1.239 million. They fell by 15.5% compared with the previous year, largely as a result of the lower realized capital gains. The most important source of income is interest income (which in 2013 amounted to Denar 989 million), which is mostly derived from

<sup>114</sup> Those are placements in the assets of several investment funds whose rates of return, in accordance with the published investment policies of the funds, follow the movements of certain stock exchange indices (global indices for the movement of stock prices of the largest telecommunication companies in the world and the movement of the prices of shares that carry the highest dividend yield and the stock exchange index for certain segments of the Polish and American capital markets).

<sup>115</sup> In accordance with the amendments to Articles 17 and 18 of the Law on Mandatory Fully Funded Pension Insurance ("Official Gazette of R.Macedonia", no. 98/2012), in 2013 the mandatory pension funds fully sold the government Eurobond which falls due on 08 December, 2015 and partly the Eurobond which matured on 08 January 2013. In 2012, the compulsory sale of these Eurobonds were the main reason for the high realized capital gain of the funds.

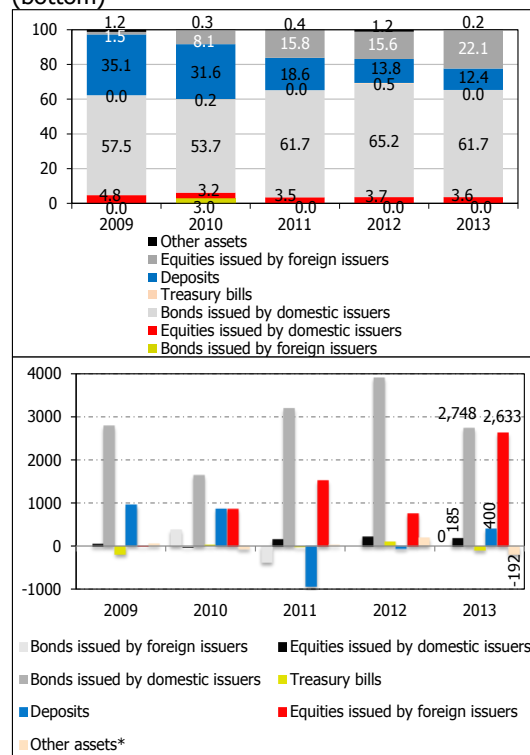
<sup>116</sup> The majority of the unrealized net capital gain arising from investments in the ISHARES funds in different countries, which are managed and are part of the company "BlackRock", USA. The investment policy of these funds is such that the yield derived from funds invested in them follow the returns that would be achieved on certain stock exchange indices.

<sup>117</sup> This capital gain arises primarily from the increase in the prices of the shares of the company "Fershped" AD Skopje, which starting from 30 December, 2013 is no longer included in the calculation of the index MBI-10.



investments in domestic government bonds (77.8%) and a smaller proportion (21.6%) from deposits invested in banks.

**Chart 126**  
Structure of assets (top) and annual growth of each asset category (bottom) of the mandatory pension funds in percentage (top) and in millions of Denars (bottom)



Source: Agency for supervision of fully funded pension insurance.

\* Other assets include funds' cash and claims.

Total expenditures of mandatory pension funds increased by 3.2% and at the end of the year they amounted to Denar 176 million. Their structure is mostly composed of the costs of the funds management companies, which increased this year, too<sup>118</sup>.

In 2013, although there was a significant increase and an accelerated pace of growth of investments in equity securities as riskier instruments, mandatory pension funds still represent a conservative policy and most of the funds (or 61.7%) are still kept in domestic government bonds. Namely, in 2013, investments in foreign equity securities increased by Denar 2.6 billion or 79.7%. The increase was mainly due to the increased investment of the funds in stakes in foreign investment funds, primarily investments in stakes of the so-called Exchange traded funds - ETF. These investments account for 17.3% of the total assets of the funds. The significant growth of these investments is motivated by the growing popularity of these funds in the developed markets, given the benefits they bring in terms of the Mutual funds<sup>119</sup> and in terms of the shares<sup>120</sup>. However, as is usually the case with any new investment alternative that is developing at a rapid pace and is becoming more complex and risky, investments in these funds could pose a risk of

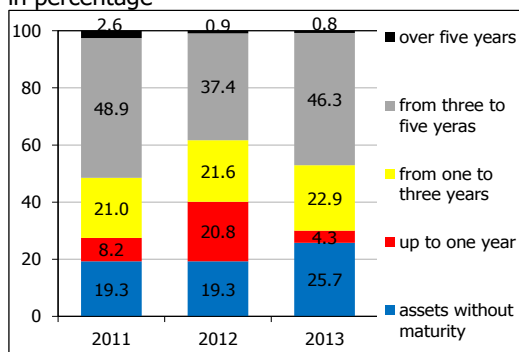
<sup>118</sup> Costs for managing the assets of the mandatory pension funds, which are charged on a monthly basis as a percentage of the total net assets of funds and reimbursement from the contributions from members of the funds.

<sup>119</sup> Stakes in Exchange traded funds-ETF are characterized by greater liquidity, lower costs and lower taxes compared to other investment funds. These funds are more liquid because they can be bought and sold just like shares, i.e. at the current market price at any time during the day on which the trading is conducted (which means several times a day), as opposed to the stakes in Mutual funds that are traded at the end of the day (only once). These funds have lower costs because most of them are passively managed, unlike Mutual funds that are actively managed, meaning that Stock Exchange traded funds realize the purchase of stakes through brokers (and only pay a brokerage commission), rather than from the fund, thus avoiding the cost of managing these stakes. Also, these funds do not have transaction costs, which means they do not pay entry fee when buying or an exit fee when selling the stakes. Also, they have no fees for advising on investment, costs for marketing and distribution, and other related expenses. Tax advantages of these funds are evident in the fact that when many investors want to buy their shares in the Mutual funds, then, in order to redeem them, the fund must sell securities. This procedure can pull large tax obligations for the capital gain, which are transferred to the remaining shareholders. In contrast, when smaller shareholders want to purchase their position in the Stock Exchange traded funds, they simply sell their shares to other traders without the fund having to sell any of its current portfolios.

<sup>120</sup> Investment funds in which part of the assets of the mandatory pension funds are invested are funds whose rates of return replicate movements of certain stock exchange indices, so the risk in these investments is lower compared to direct investments in shares of a particular company, which carry the risk of failure or worse performance of that company.

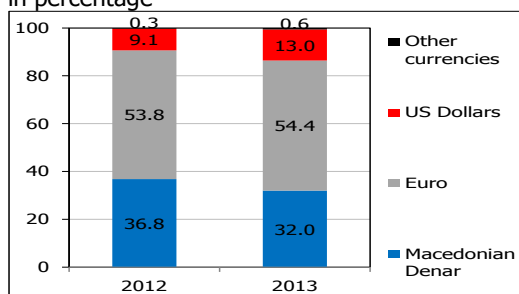


**Chart 127**  
Structure of assets of pension funds, by residual maturity in percentage



Source: Agency for supervision of fully funded pension insurance.

**Chart 128**  
Currency structure of assets of pension funds by residual maturity in percentage



Source: Agency for supervision of fully funded pension insurance.

unpreparedness of domestic companies to manage investment funds for proper monitoring of the risks associated with the operations of these funds. Companies that manage mandatory pension funds take concentration risk because the dominant part of the investments in foreign stakes is investments in stakes issued by the same issuer<sup>121</sup>.

In 2013, funds management companies increased the investments of mandatory pension funds in instruments with longer maturity and in equity securities with no specified maturity. On the other hand, there was a significant reduction in the assets with residual maturity up to one year. Such decisions are probably motivated by the still minimal liquidity risk, because liabilities based on pensions that the fund pays are still small. Dominant in the currency structure of assets of mandatory pension funds are assets invested in Euros. However, this year there was an increased investment in US Dollars arising primarily from the increase in funds' investment in stakes of investment funds.

The annual rate of return<sup>122</sup> of mandatory pension funds is variable, but starting from the third quarter of 2011 until 31.12.2013, it moved mostly upward. The smaller nominal annual yield<sup>123</sup> at the end of 2013 is in line with lower financial results of the investments of funds compared with the previous year. On the other hand, the three-year rates of return are better than in the previous year.

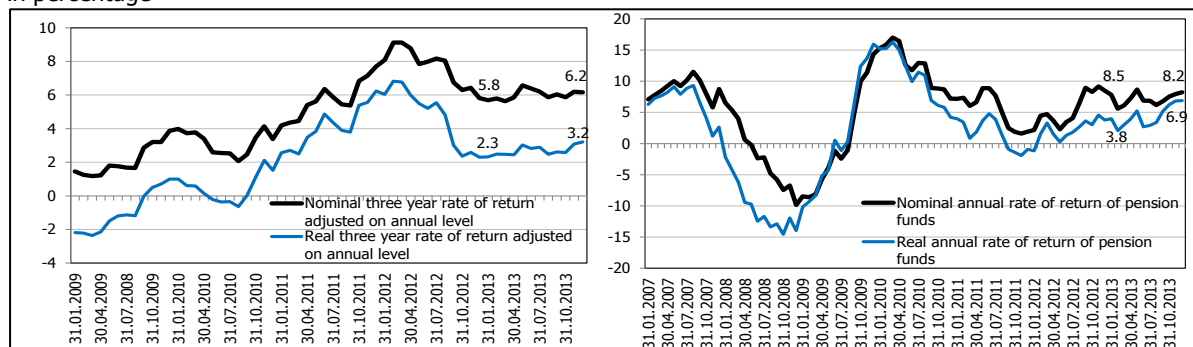
<sup>121</sup> BlackRock, USA.

<sup>122</sup> The return of the mandatory pension fund is a change in percentages between the value of the accounting unit on the last day in the month and the value of the unit on the last day of the month that precedes the 12-, 24- or 36-month period, depending on the particular case.

<sup>123</sup> Annual and three-year nominal rates of return are calculated on the basis of the weighted rates of return on individual pension funds with their net assets. The real rate of return of pension funds is the difference between the nominal rate of return and rate of inflation for the corresponding period.



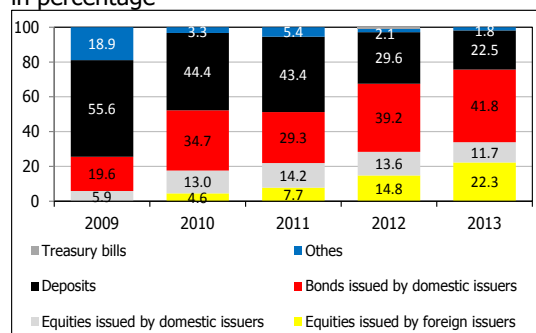
**Chart 129**  
Rates of return of the mandatory pension funds  
in percentage



Source: NBRM, based on data submitted by the Agency for supervision of fully funded pension insurance.

## 5.2. Voluntary fully funded pension funds

**Chart 130**  
Structure of assets of voluntary pension funds  
in percentage

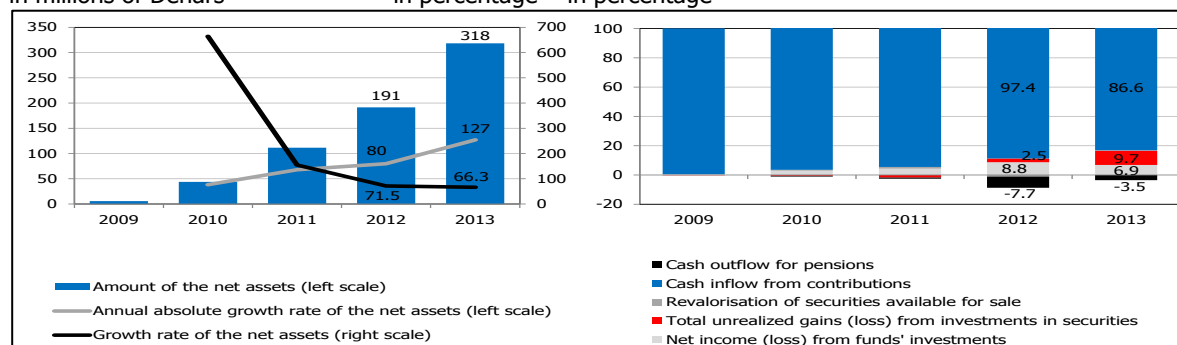


Source: Audited financial statements of voluntary pension fund management companies for 2013.

At the end of 2013, voluntary pension funds comprised 18,524 persons. In 2013, the number of new members in these funds amounted to 1,769 persons, which compared to the previous year is an increase of 10.6% (in 2102, this growth was 37.4%). Most members of the voluntary pension funds are aged 36 to 40.

Net assets of the voluntary, as well as of the mandatory pension funds continued to grow, but the growth rate is lower than in the previous year. Paid contributions of the members, followed by the total unrealized gain from investments in securities had the largest contribution to the increase in the net assets of these funds.

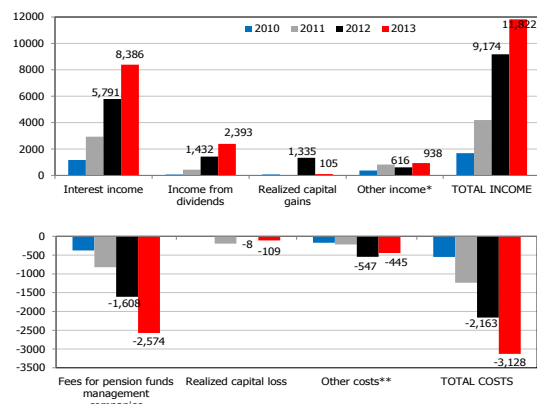
**Chart 131**  
Amount and annual change (left) and structure of the growth (right) of the voluntary pension funds' net assets  
in millions of Denars in percentage in percentage



Source: Agency for supervision of fully funded pension insurance (left) and audited financial statements of fully funded pension insurance for 2013.



Chart 132  
Income (top) and expenses (bottom)  
based on investments of voluntary  
pension funds  
in millions of Denars



Source: Audited financial statements of voluntary pension funds for 2013

\*Other income includes positive exchange rate differentials and depreciation of discount or premium.

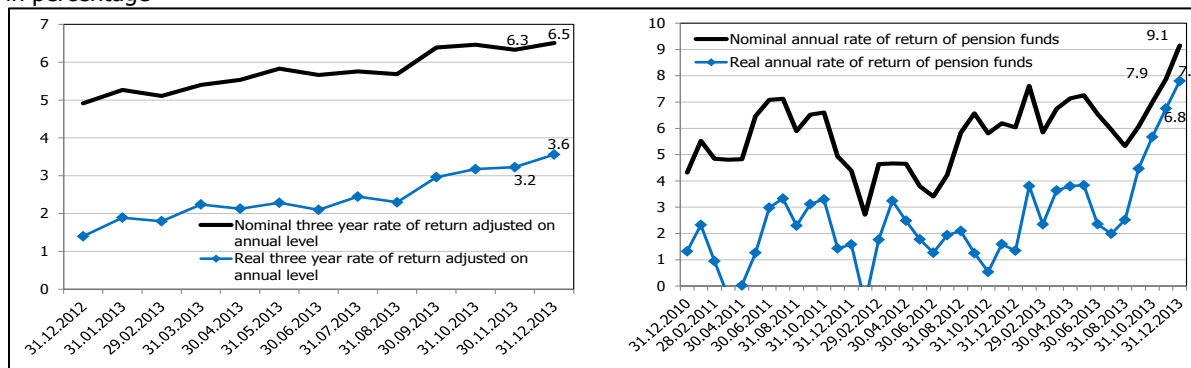
\*\*Other expenses include negative exchange rate differentials and other operating expenses for the funds.

Net profit of the voluntary pension funds, from the time they were established<sup>124</sup> until the end of 2013, was mainly due to interest income<sup>125</sup>. On the other hand, realized capital gains are significantly reduced due to the lower profit from the sale of ordinary shares issued by foreign issuers, compared with the previous year, but also due to the absence of sales of domestic bonds.

Fees that the funds pay to the fund management companies<sup>126</sup> still have the largest contribution to the total expenditures of voluntary pension funds.

Despite the increased share of the investments in foreign equity securities<sup>127</sup>, voluntary pension funds still invest the majority (or 64.3%) of the funds in low-risk instruments, government bonds and bank deposits.

Chart 133  
Rates of return of the voluntary pension funds  
in percentage



Source: NBRM, based on data submitted by the Agency for supervision of fully funded pension insurance.

Yields of voluntary pension funds, from their establishment until the end of 2013, mainly move upward.

<sup>124</sup> Voluntary pension funds were established in the second half of 2009.

<sup>125</sup> On 31 December 2013, 70.9% resulted from interest income, while 20.2% are from the income from dividends. The rest is attributed to the realized capital gains and other nonspecified income of funds.

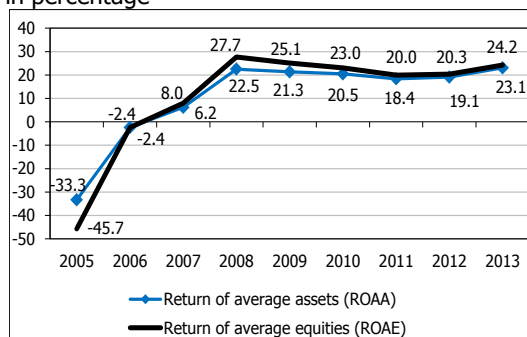
<sup>126</sup> Fee charged by the fund management companies is calculated on a monthly basis as a percentage of the funds' assets.

<sup>127</sup> Of the total foreign equity securities, 80.0% are investments in stakes of investment funds, and 20.0% are investments in shares.



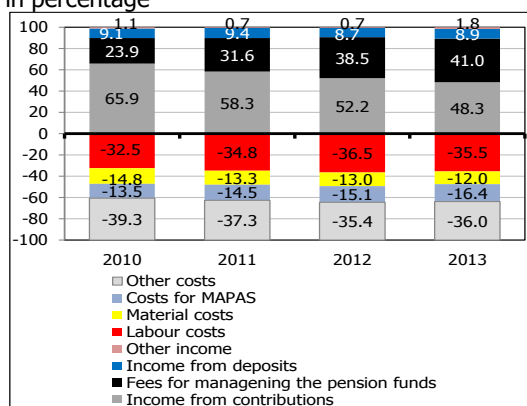


Chart 134  
Profitability ratios of pension funds  
in percentage



Source: Audited financial statements of voluntary pension fund management companies for 2013.

Chart 135  
Structure of income and expenses of  
pension fund management companies  
in percentage



Source: Audited financial statements of pension fund management companies for 2013.

### 5.3. Profitability of pension fund management companies

Net profits of pension funds management companies amount to Denar 131 million and are 43.0% higher than in 2012, leading to growth of both return on assets and return on equity indicators.

The increase in net profits of pension funds management companies was mainly due to the increase in the revenues from fees charged for the pension funds management (a growth of Denar 23 million). Somewhat smaller was the influence of the revenues from fees from contributions, which increased by Denar 7 million<sup>128</sup>.

## 6. Leasing

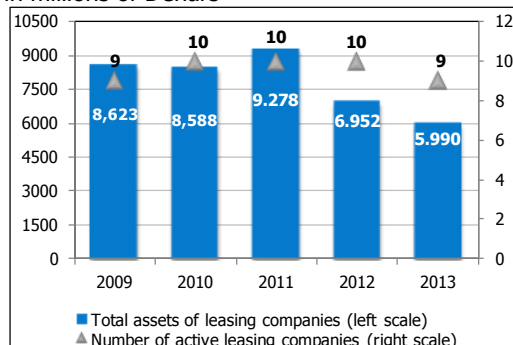
Leasing companies, which emerged as one of the fastest growing segments of the financial system, failed to become an appropriate addition to bank loans. In 2013, leasing companies reduced the activities in their core business. However, the increased number of terminated leasing contracts, indicates, on the one hand, a deteriorated collection of claims based on leasing that is not matched by corresponding growth in impairment, but may also be indicative of the loss of interest for using financial leasing. However, due to the small volume of their activities and small links with other sectors, this sector does not pose risk to the maintaining of overall financial stability.

<sup>128</sup> Contribution fee is calculated as a percentage of contributions paid to the fund members. In 2012, these costs were reduced as a result of reducing the amount of the contribution fee.



Chart 136

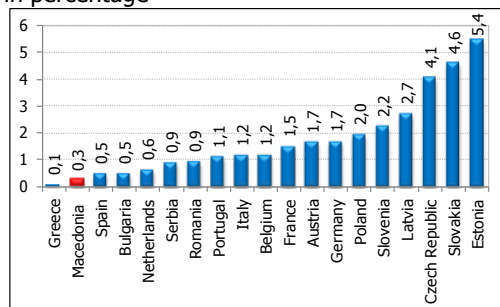
Total assets of leasing companies  
in millions of Denars



Source: Ministry of Finance.

Chart 137

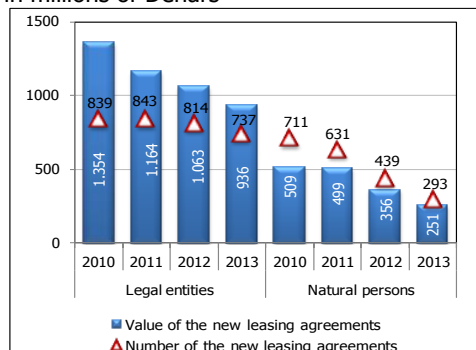
Share of the value of the newly  
concluded leasing agreements in GDP  
in percentage



Source: Ministry of Finance, web site of the Federation of the National Leasing Associations in Europe, Eurostat. The data refer to 2012, except for Macedonia which refer to 2013.

Chart 138

Number and value of the newly  
concluded leasing contracts  
in millions of Denars



Source: Ministry of Finance.

In 2013, the number of leasing companies decreased by one and the funds of this sector decreased by 13.8%. The decrease was primarily due to the reduction in the claims based on financial leasing (by 12.0%) as the dominant position in the balance sheets of leasing companies<sup>129</sup>. In 2013, there was an increase also in the number and value of terminated leasing contracts<sup>130</sup>. These developments suggest a serious, structural reduction in the volume of work of this sector, and growth of the risks associated with the collection of claims on the basis of financial leasing.

Reduced assets of the leasing sector influenced the reduction of its share in the assets of the non-deposit financial institutions (the share reduced to 12.1%) and the financial system as a whole (1.4%). Its share in GDP also reduced<sup>131</sup> (down to 1.3%), whereby this sector in Macedonia is still with the slightest importance for the national economy, compared with some countries in the region and the European Union (with the exception of Greece).

## 6.1. Value and structure of the financial leasing contracts

The reduced volume of operations of leasing companies is also reflected in the decrease in the number and value of new leasing contracts, with both legal entities and natural persons. Also, the value of active contracts (Denar 6,676 million) moves to the downside with both natural persons and legal entities, with the decline among natural persons being more significant. Legal entities are still dominant users of leasing, accounting for 78.9% of the total value of newly concluded contracts and 70.7% of the total value of active contracts.

<sup>129</sup> In 2012, claims based on financial leasing registered an increase of 4.4%.

<sup>130</sup> During the year, 347 leasing contracts were terminated, totaling Denar 750 million, which represents a significant increase compared to the previous year (by Denar 307 million, or 69.4%), when the total value of terminated contract was Denar 443 million.

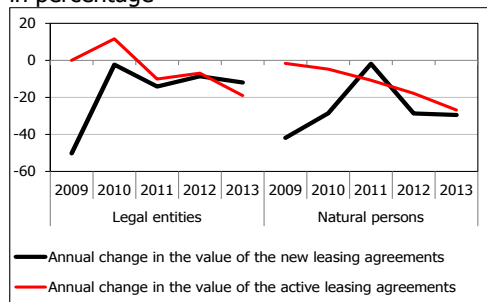
<sup>131</sup> Source: Press release of the State Statistical Office of the Republic of Macedonia from 14 March, 2014.

Note: Data on GDP for 2012 are preliminary, and data for 2013 are estimated.



Chart 139

Annual change in the value of the newly concluded and active leasing contracts in percentage

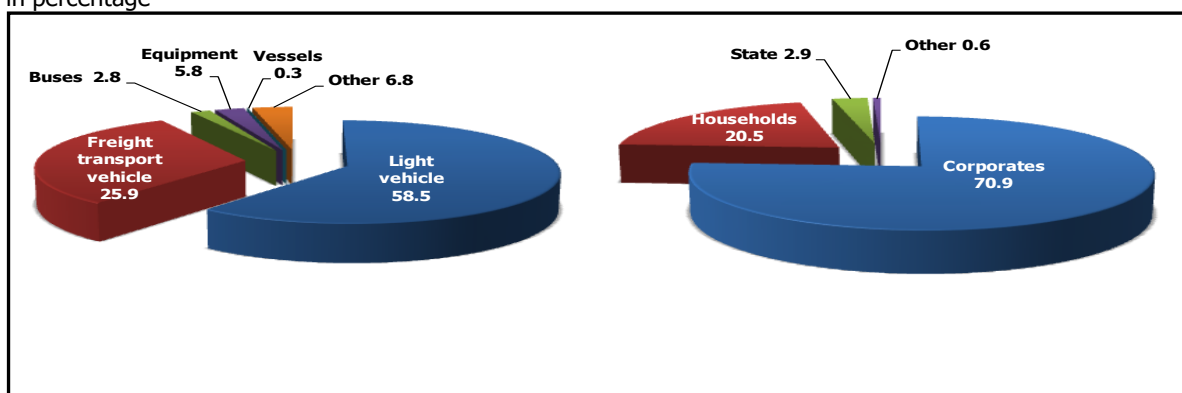


Source: Ministry of Finance.

Over 80% of the value of active and newly concluded contracts are with repayment period of up to five years. Almost all active contracts are in Denars with FX clause (99.9%). According to the subjects of active leasing contracts, contracts for passenger vehicles with a maturity period of 5 years are with highest value (65.7% of them are contracts concluded with legal entities). Unfavorable tax legislation<sup>132</sup> adversely affected the real estate leasing, with this segment remaining underdeveloped with only five active contracts.

Chart 140

Structure of the value of the newly concluded leasing contracts, by leasing subjects (left) and sector (right) in percentage



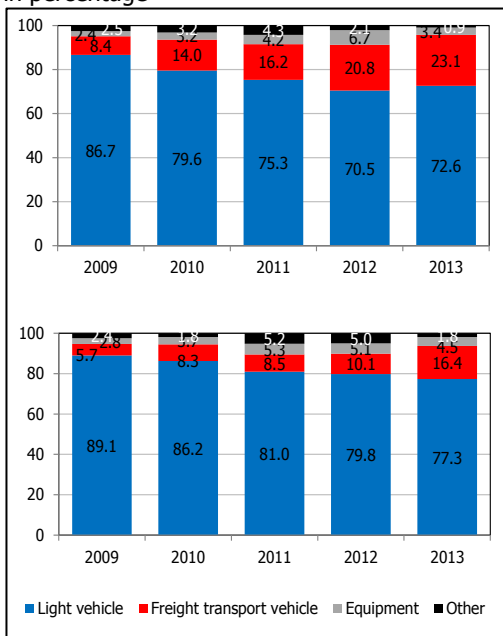
Source: Ministry of Finance.

<sup>132</sup> According to the regulations, the turnover tax with these contracts is paid twice: by the leasing company when purchasing the subject of the leasing, and by the leasing beneficiary after the expiration of the leasing contract and when transferring the property ownership.



Chart 141

Structure of the newly concluded (top) and active (bottom) leasing contracts for leasing of movables in percentage



Source: Ministry of Finance.

In the structure of the number of movable objects, light vehicles still have the largest share, in both the newly concluded, and in active contracts. Also, in 2013 an increase in the number<sup>133</sup> of contracts for leasing of trucks was registered.

## 6.2. Structure of the balance sheets and basic indicators for the performances of leasing companies

Underdevelopment, and therefore the little importance of leasing companies for the stability of the financial system is seen through the balance sheets of this sector.

Table 11

Balance sheet of the leasing companies

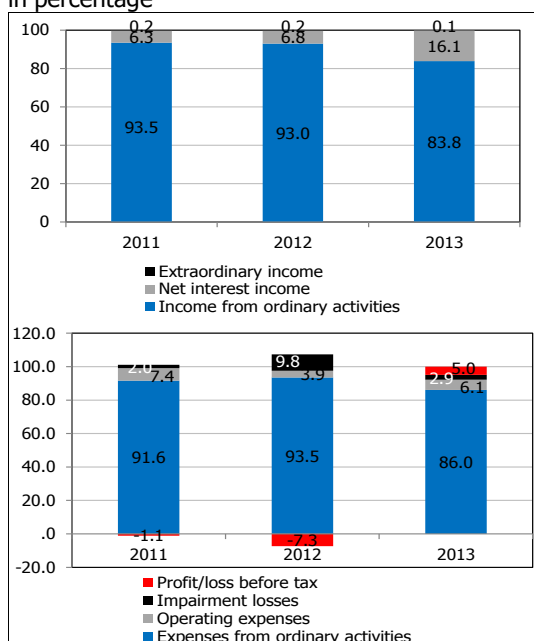
Items	In millions of Denars		Structure in %	
	2012	2013	2012	2013
Claims for financial leasing	4,261	3,399	61.7%	56.7%
Fixed assets	920	872	13.3%	14.6%
Loan	1,009	983	14.6%	16.4%
Deposits	176	206	2.5%	3.4%
Other assets	541	530	7.8%	8.8%
<b>TOTAL ASSETS</b>	<b>6,907</b>	<b>5,990</b>	<b>100.0%</b>	<b>100.0%</b>
Borrowings	5,007	4,193	72.5%	70.0%
Reserves	1,255	1,260	18.2%	21.0%
Other liabilities	631	483	9.1%	8.1%
Equity and reserves	14	54	0.2%	0.9%
<b>TOTAL LIABILITIES</b>	<b>6,907</b>	<b>5,990</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Ministry of Finance.

<sup>133</sup> According to the number of signed and active agreements, rather than the value of the leasing agreements (no available data on the value of active agreements for the leasing of movables, by type of movable object).



Chart 142  
Structure (top) and use (bottom) of total income of leasing companies in percentage



Source: Ministry of Finance.

Deposits of these companies in domestic banks occupy insignificant 0.1% of the total deposits of the banking system<sup>134</sup>. Also, these deposits are not very significant for the leasing companies either, as they take only 6% of the total assets of the sector<sup>135</sup>. Given the nature of the activities of this sector, having in mind that the subject of the lease is usually insured, there is interconnectedness and dependence in terms of stability, between leasing and insurance sectors, but there is no available data to substantiate this conclusion.

In 2013, leasing companies operated with profit<sup>136</sup>, due to lower costs of current operations<sup>137</sup> and lower impairment of receivables based on financial leasing<sup>138</sup>. The imprudent behavior of the sector can be seen in the smaller impairment allocated in 2013, in circumstances of growth in the number of terminated financial leasing contracts.

## 7. Domestic financial markets

### 7.1. Money and short-term securities market

The essential importance of the money markets for the transmission of the signals about the monetary policy direction to the financial markets and the real sector was especially pronounced during the last global financial and economic crisis, where the hindered functioning of financial markets caused frequent interventions by central banks for maintaining a stable level of liquidity. The money market in the Republic of Macedonia is characterized by still poorly developed individual market segments, a limited number of instruments in the primary market and a moderate volume of trading on the secondary market, as well as low level of integration in international financial flows. The impact of the money and short-term securities market on the creation of the financial flows in the country and the conditions under which systemically important sectors for the national economy are financed, is limited. In 2013, the interbank market of non-collateralized deposits remained the major segment of the money market (accounting for 91.2% of the total turnover) despite its reduced activity during the year. The share of other

<sup>134</sup> Compared with the previous year, these deposits decreased by 3.7%, but their share in the total deposits of the banking system remained unchanged.

<sup>135</sup> This share rose by insignificant 0.6 percentage points compared with the previous year.

<sup>136</sup> The previous year showed a loss in the operations of Denar 210 million. In 2013, the profit was Denar 53 million.

<sup>137</sup> Income from current operations decreased by Denar 1,709 million (amounting to Denar 960 million), while expenditures from current operations decreased by Denar 1,700 million (amounting to Denar 984 million).

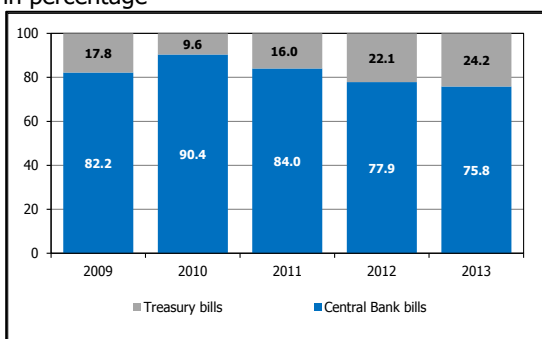
<sup>138</sup> Impairment of claims based on financial leasing fell by Denar 249 million and at the end of the year it was Denar 33 million.



market segments (short-term securities market and repo market) is negligible. The activity on the repo-market was reduced, unlike the more substantial growth of the secondary market for short-term securities.

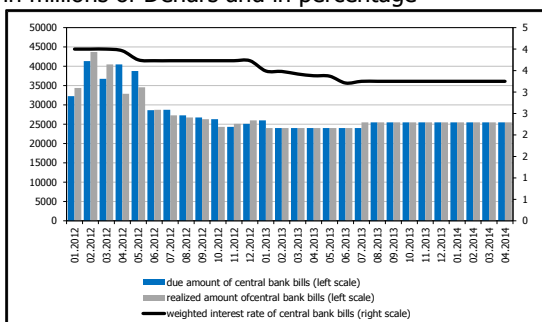
The changes in the operational framework of the monetary policy and in the reserve requirement made in 2013, are expected to contribute to more flexible banking system liquidity management and further development of the money and short-term securities market, by creating monetary instruments which would increase the volume of trading among market participants. In the future, further growth in the domestic money market would arise from increased trading on the secondary market for government securities and more active use of repo transactions by market participants amid short-term lack of liquidity.

Chart 143  
Structure of the primary money market  
in percentage



Source: NBRM

Chart 144  
Due and realized amount of CB bills and  
interest rate, by months  
in millions of Denars and in percentage



Source: NBRM

CB bills are one of the most important instruments on the primary money market in the Republic of Macedonia, and are also the main instrument for transmission of the signals about the monetary policy direction to the financial markets and the real sector. In 2013, the banks' interest in investing in this instrument was high, amid unfavorable perceptions for the risks and simultaneously slow recovery of the real sector. In circumstances of a sluggish lending activity and lower inflationary pressures, on several occasions during 2013, the National Bank took measures to ease monetary policy and release liquid assets, by reducing the maximum interest rate on CB bills by 0.25 percentage points on two occasions, (reducing it to the historical minimum of 3.25%), by introducing changes in the reserve requirement<sup>139</sup>, by implementing a Methodology for determining the potential demand for CB bills<sup>140</sup>. The reduction in the interest rate on CB bills and changes in the supply acted toward diversion of the banks' excess liquidity toward the government securities market and toward enhancing the support of lending to the non-financial sector (in the last quarter of the year, loans to non-financial entities noted a more significant acceleration of growth).

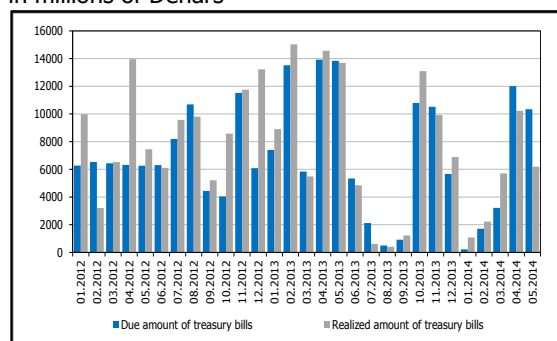
<sup>139</sup> The amendments provided for reduction of the basis of the reserve requirements of banks by the amount of the newly granted loans to net exporters and the energy sector, as well as for investments in debt securities in the domestic currency issued by non-financial companies. More information on the monetary measures taken are provided in the Annual Report for 2013, April 2014.

<sup>140</sup> According to the methodology, if the demand for CB bills at the level of the banking system is higher than the potential demand, banks that bid with higher amounts than their own liquidity potential have an obligation to place the difference relative to the potential in standing deposits with maturity of seven days.



Chart 145

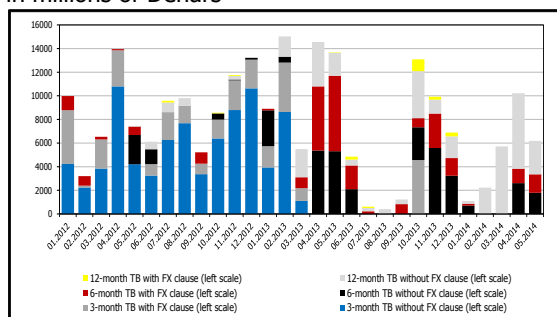
Due and realized amount of Treasury bills,  
by months  
in millions of Denars



Source: NBRM

Chart 146

Realized amount of Treasury bills, by  
currency  
in millions of Denars



Source: NBRM

Table 12

Treasury bills structure, by maturity and  
currency  
in millions of Denars and in percentage

Type of Treasury bills	2012		2013	
	Amount	Structure	Amount	Structure
Realized amount of 3-month TB without FX clause	71,705	77.6	13,666	54.0
Realized amount of 3-month TB with FX clause	20,673	22.4	11,644	46.0
<b>Total realized amount of 3-month TB</b>	<b>92,378</b>	<b>87.7</b>	<b>25,310</b>	<b>26.7</b>
Realized amount of 6-month TB without FX clause	3,966	40.6	27,891	56.9
Realized amount of 6-month TB with FX clause	5,791	59.4	21,113	43.1
<b>Total realized amount of 6-month TB</b>	<b>9,758</b>	<b>9.3</b>	<b>49,004</b>	<b>51.8</b>
Realized amount of 12-month TB without FX clause	2,965	91.4	18,390	90.3
Realized amount of 12-month TB with FX clause	278	8.6	1,966	9.7
<b>Total realized amount of 12-month TB</b>	<b>3,242</b>	<b>3.1</b>	<b>20,356</b>	<b>21.5</b>
<b>Total realized amount of TB</b>	<b>105,379</b>	<b>100.0</b>	<b>94,669</b>	<b>100.0</b>

Source: NBRM

During 2013, there was high interest in investing in treasury bills on the primary money market, although the total amount of issued treasury bills of Denar 94,669 million recorded an annual decline of Denar 10,709 million (or 10.2%). During 2013, there was an increased interest in investing over longer periods. The treasury bills with a maturity of six months were dominant in the structure of total treasury bills, while treasury bills with a maturity of twelve months<sup>141</sup> further increased their structural share in the total issued treasury bills. In the first five months of 2014, the total amount of issued treasury bills was Denar 25,437 million, of which 68.4% relate to the twelve-month treasury bills, while the rest are treasury bills with a maturity of six months. In terms of currency, 88.5% of the total issued treasury bills are in domestic currency. Depending on the currency component and maturity, the interest rate on treasury bills in 2013 ranged from 3.10% to 4.25%, which is a decrease compared to the previous year. In the first five months of 2014, interest rates on treasury bills remained unchanged.

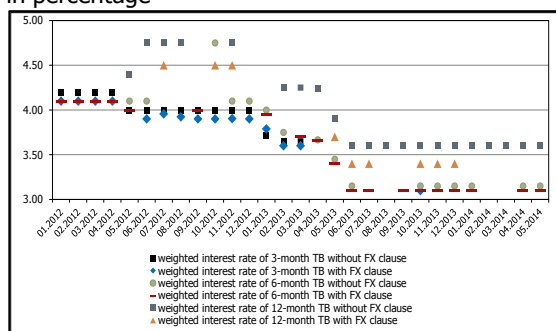
In 2013, in the structure of the secondary money and short-term securities market there was an increased share of CB bills and treasury bills, amid reduced share of the non-collateralized interbank deposits. Trading in CB bills and treasury bills on the secondary money and short-term securities market continued to increase and reached Denar 2,945 million (which is a significant increase of 50.4% compared to 2012). Such positive developments largely result from the increased volume of trading in treasury bills (66.0% of total turnover), which contributed with

<sup>141</sup> The Ministry of Finance started issuing treasury bills with maturity of up to twelve months in May 2012.



Chart 147

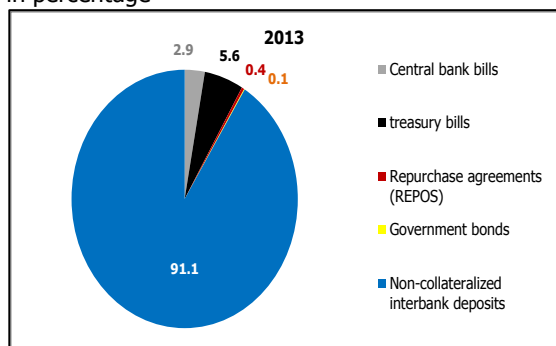
Treasury bills' interest rates, by maturity and currency in percentage



Source: NBRM

Chart 148

Structure of the secondary money and short-term securities market in percentage

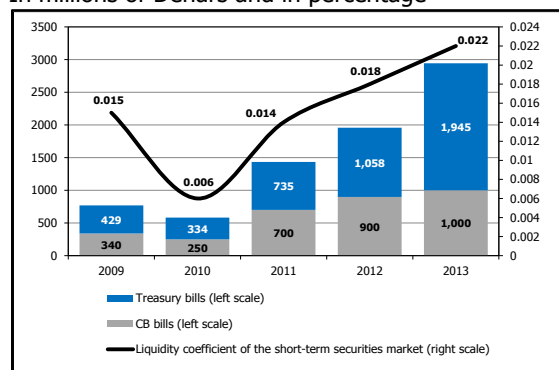


Source: NBRM

Chart 149

Trading volume on the short-term securities market

In millions of Denars and in percentage



Source: NBRM

nearly 90% to the growth in the total turnover. However, the share of the short-term securities market in the total turnover on the money markets is small and in 2013 it amounted to 8.5% (despite the annual growth of 3.1 percentage points). Weak activity on the secondary market and the insufficient liquidity compared to its potential is confirmed by the low value (0.02%) of the liquidity ratio of the OTC market<sup>142</sup>.

The interbank market of non-collateralized deposits is the most significant segment of the secondary money market in the Republic of Macedonia, although in 2013 the total turnover on this market registered an annual decline of Denar 10,779 million, or 25.3%. The decline is mainly a result of the reduced turnover of trading in deposits with overnight maturity. On the other hand, in 2013, trading on longer terms (up to 1 month and up to 3 months) recorded a significant annual growth of 47.3%. Despite the lower volume of trading on the interbank market of non-collateralized deposits, the banks' increased tendency for trading on longer terms is moving in a positive direction through liquidity management in a longer term, which also contributes to reducing the banks' refinancing risk.

Reduced trading volume on the market of non-collateralized deposits, in circumstances of stable liquidity position of banks, contributed to the reduction of the liquidity ratio on the market of non-collateralized deposits<sup>143</sup> and reduction of the share of the market of non-collateralized deposits in the total economic activity of the country<sup>144</sup>. On the other hand, the weak development of this market and small amounts of deposits traded enable relatively small exposure of banks to the risk of spillover of potential liquidity problems from one bank to another.

<sup>142</sup> The liquidity ratio (of the OTC market) is calculated as correlation between the average daily turnover on the over the counter markets and the average balance of CB bills and Treasury bills.

<sup>143</sup> The liquidity ratio on the market of non-collateralized deposits is the correlation between the average turnover on the interbank market of non-collateralized deposits and the average balance on banks' accounts with the National Bank.

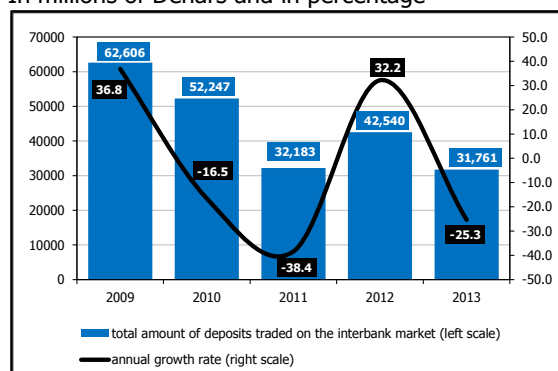
<sup>144</sup> Source: Press Release of the State Statistical Office of the Republic of Macedonia from 14 March, 2014. Data on GDP for 2012 are preliminary, and data for 2013 are estimated.



Chart 150

Trading volume on the interbank market of non-collateralized deposits

In millions of Denars and in percentage

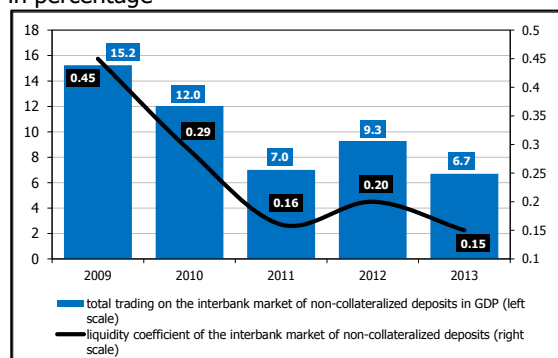


Source: NBRM

Chart 151

Liquidity coefficient of the interbank market of non-collateralized deposits and share in GDP

in percentage



Source: NBRM

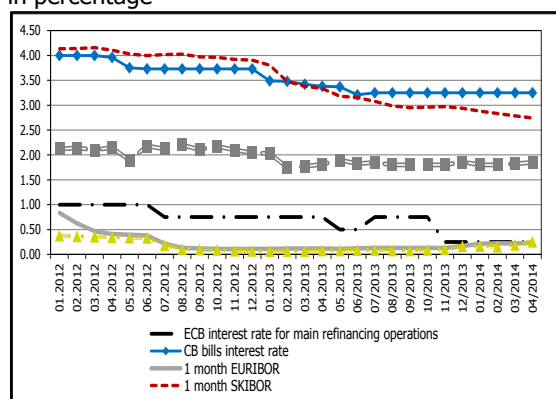
Main features of the collateralized deposits market (repo market) in 2013 were underdevelopment and low activity. During the first seven years of introduction of the collateralized deposits market (repo market) the only activities were the monetary interventions (approval of intraday credits and standing overnight credits) of the National Bank with the banks. The first interbank repo transactions were concluded in 2012 with a turnover of Denar 331 million (the turnover in 2013 amounted to Denar 129 million). Such an annual decline in the activity of the repo market has caused a decline in the already small share in the total turnover of the money markets (from 0.7% in 2012 to 0.4% in 2013). Possible factors for the underdevelopment of this market segment are the still low liquidity of the government securities market, poor applicability of repo transactions as practice in the banks' operations and the possibility for their use as a hedging instrument against credit risk, but also the high frequency of auctions of treasury bills.

On the other hand, the change of the operational framework of the monetary policy<sup>145</sup> (introduction of regular auctions of seven-day repo operations with the National Bank) and the introduction of a rate of 0% for reserve requirement for the repo - transactions in local currency in 2012, are expected to lead to an increased use of repo - transactions by banks when facing short-term lack of liquidity in the future.

In 2013, the excess liquid assets over the reserve requirement amounted to 0.8% and remained unchanged relative to 2012. However, the significant decline of this percentage compared with the last five years is an indicator of an improved management of liquidity fluctuations by banks. Amendments to the Decision on the reserve requirement from

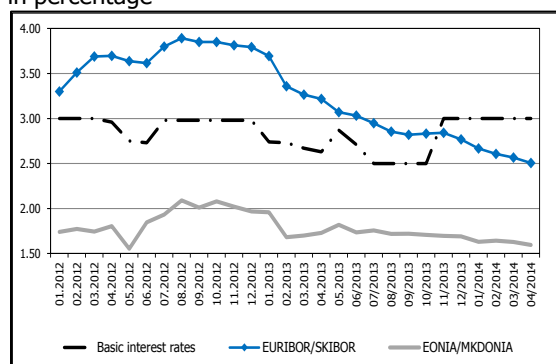
<sup>145</sup> In accordance with the changes of the operational framework of the monetary policy in May 2012, the total amount of realized repo transactions with the National Bank in 2013 amounted to Denar 2,590 million. In the first five months of 2014, repo transactions with the National Bank amounted to Denar 1,200 million. For comparison, in 2012, repo transactions with the National Bank amounted to Denar 15,725 million.

Chart 152  
Interest rates on the money market in the Republic of Macedonia and the EU in percentage



Source: NBRM

Chart 153  
Interest rate spread of the interest rates on the money market in the Republic of Macedonia and the EU in percentage



Source: NBRM

November 2013<sup>146</sup> could contribute to more active involvement of banks in the money markets.

In 2013, amid a more fragile economic recovery and slower credit growth in the euro area, the ECB undertook measures to further ease the monetary policy, and the key interest rate of the National Bank moved in the same direction. However, changes in the key interest rates of the ECB and the National Bank were not conducted at the same time, which caused alternate contraction and expansion of the interest rate spread between the interest rates of the ECB and the National Bank. In the last two months of 2013 and in the first four months of 2014, the interest rate spread was 3 percentage points. The expansion of the interest rate spread contributed to the increased attractiveness of domestic instruments. Movements in interest rates on the interbank markets, EURIBOR<sup>147</sup> and EONIA<sup>148</sup>, i.e. SKIBOR<sup>149</sup> and MKDONIA<sup>150</sup> (as reference interest rates when designing interest rate policies and investment decisions of market participants) are influenced by the movements of the key interest rates of the ECB and the National Bank. After some fluctuations during the year, at the end of 2013, the difference between the rate on the average one-month Euribor and the rate of the average one-month SKIBOR was 3.0 percentage points, while the difference between interbank interest rates EONIA and MKDONIA is 1.7 percentage points.

In 2013, the total foreign exchange market turnover was in the amount of Euro 7,198

<sup>146</sup> In accordance with the amendments to the Decision on the reserve requirement, the National Bank does not reimburse the reserve requirement (previously, the reimbursement rates of the reserve requirement in Denars and the reserve requirement in Euros amounted to 1.0% and 0.1%, respectively). This Decision came into effect in January 2014.

<sup>147</sup> EURIBOR (Euro Interbank Offered Rate) - interest rate at which one reference bank on the EU money market is ready to sell deposits to another reference bank and it is calculated on the basis of indicative interest rates.

<sup>148</sup> EONIA (Euro OverNight Index Average) - effective interest rate on the EU money market calculated as a weighted value of all overnight transactions where the reference bank is a deposit seller. The interbank interest rate EONIA fluctuates between the marginal lending and deposit rates.

<sup>149</sup> SKIBOR (Skopje Interbank Offer Rate) - interbank indicative interest rate introduced in July 2007 for selling non-collateralized Denar deposits, calculated as arithmetic mean of the quotations of reference banks, for the following standard maturities: overnight, one week, one month, three months, six months, nine months and twelve months (the last three maturities were introduced in 2011).

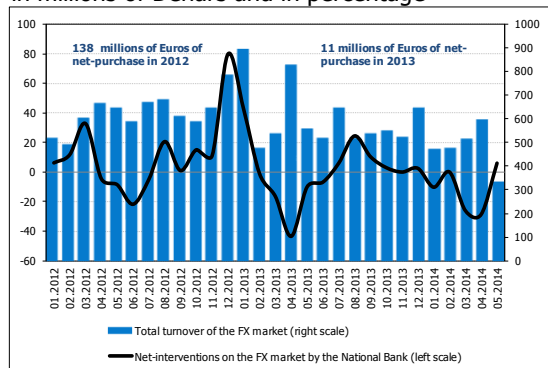
<sup>150</sup> MKDONIA - its calculation began on October 15, 2008, as weighted average interest rate of already concluded overnight transactions, with reference banks emerging as sellers of non collateralized Denar deposits. Opposite to SKIBOR which is an indicative interest rate, MKDONIA is based on concluded transactions, with the reference banks on the transactions of which MKDONIA is calculated are the same reference banks that quote SKIBOR interbank interest rates.



Chart 154

Total turnover and net-interventions on the foreign exchange market by the National Bank

in millions of Denars and in percentage



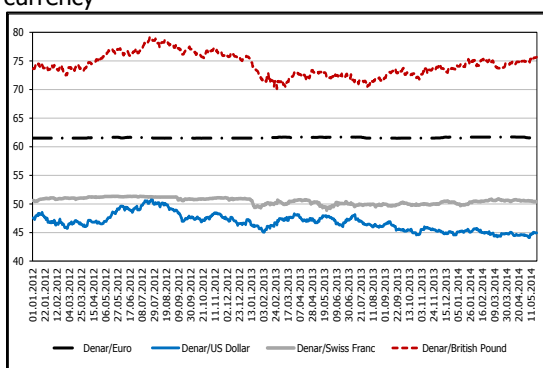
Source: NBRM

million<sup>151</sup> and compared to 2012, it declined by Euro 263 million, or 3.5%, resulting from the reduction of the net foreign exchange inflows in the country based on the smaller portfolio investments (due to the high base effect<sup>152</sup>). The NBRM interventions on the foreign exchange market in the first half of the year were focused on net sales of foreign currency, which is one of the key factors for the implementation of the strategy for targeting the nominal exchange rate of the Denar against the Euro and thereby maintaining price stability in the country. In the second half of 2013, the movements on the foreign exchange market and the interventions of the National Bank in the direction of net purchase of foreign currency stabilized. Thus, annually, the National Bank made net purchase of foreign currency in the amount of Denar 11 million. In 2013, the total turnover on the foreign exchange market was 93.4% of GDP<sup>153</sup>, which is a decline of 5.8 percentage points compared with the previous year.

Chart 155

Movement of the official spot exchange rate of the Denar for certain important currencies

In millions of Denars per one unit of foreign currency



Source: NBRM

The implementation of the strategy of targeting the nominal exchange rate of the Denar against the Euro implies the changes in the cross-currency rates of the Denar with the other currencies to be formed in direct dependence on the fluctuations in the value of the Euro on the international foreign exchange markets. The successful management of the temporary mismatch between the supply and the demand of foreign currency through interventions by the National Bank on the foreign exchange market has contributed to maintaining a stable exchange rate against the Euro, which in 2013 averaged 61.58 Denars per one Euro. Regarding the other currencies, on average less Denars were needed per one US Dollar, British Pound and Swiss Franc compared to 2012<sup>154</sup>.

<sup>151</sup> The total turnover on the foreign exchange market encompasses the banks' transactions with the enterprises, the interbank transactions, including the transactions of the National Bank with the market makers.

<sup>152</sup> In the third quarter of 2012 proceeds were realized from the sale of Eurobonds issued by the Republic of Macedonia in the ownership of domestic financial entities (mostly private pension funds). The high base effect stems from changes in the trade of these two state Eurobonds.

<sup>153</sup> Source: Press release of the State Statistical Office of the Republic of Macedonia from 14 March, 2014.

Note: Data on GDP for 2012 are preliminary, and data for 2013 are estimated.

<sup>154</sup> In 2013, one American Dollar was exchanged for 1.50 Denars less, one British Pound was exchanged for 3.33 Denars less, one Swiss Franc was exchanged for 1.01 Denars less, compared to 2012.



## 7.2. Capital market

### 7.2.1. Primary capital market

**The capital market in the Republic of Macedonia is characterized by a small number of low-liquid capital financial instruments that are issued and traded on the Macedonian Stock Exchange (MSE). The already small volume of the primary capital market in the Republic of Macedonia in 2013 further reduced.** The total value of the realized issues of long-term securities is significantly reduced (by Denar 7,963 million, or 38.8%), which is solely due to the reduced amount of securities issued by the private sector (primarily shares of banks and non-financial companies)<sup>155</sup>. The private sector remained reticent from providing capital and long-term financial support through new issuance of securities also in 2013, and was limited to receiving financial support from banks. Thus, companies continued to show little interest in financing their activities through the primary capital market, and there was no new issuance of corporate bonds. During 2013, the most active issuer of long-term non-government securities were other financial institutions (other than banks), which through a private offering conducted five new share issues<sup>156</sup> totaling Denar 111 million. Their share in the total number and total value of newly-issued non-government securities, is more than 60%. However, the value of securities issued by other financial companies is lower by Denar 80 million, or 41.7%, compared with the previous year, and occupies an insignificant 0.9% of the total realized issues of long-term securities. Only one bank had one new issue, i.e. sale of own shares through a public offering<sup>157</sup> in the amount of Denar 18 million (which is 99.3% less than in 2012). Non-financial companies realized only two issues of shares in the amount of Denar 46 million or 99.4% less compared to the previous year.

Contrary to the fall of the securities issued by the private sector (both financial and non-financial), realized issues of government securities reached Denar 12,359 million, which is an increase of Denar 1,893 million, or 18.1%, compared with the previous year. In 2013, thirty-four auctions of continuous government bonds of several maturities were conducted<sup>158</sup>. Nearly 80% of the total amount of issued continuous bonds were in Denars with a currency clause, and the rest are in Denars. Also, the twelfth issue of the denationalization bonds was conducted, in a total amount of Euro 13 million.

<sup>155</sup> In 2013, the total value of the actual issues of non-government securities amounted to Denar 175 million, which is a decline of 98.3%, compared to the last year.

<sup>156</sup> In 2013, the Securities and Exchange Commission of the Republic of Macedonia issued eight approvals for issuance of long-term securities, of which seven issues were through private offering of shares and one issue was through a public offering of shares. One of the issues through private offering and the issue through public offering were sales of own shares. All approved issues registered success rates of 100%.

<sup>157</sup> The sale of own shares through public offering at one bank was conducted on the basis of the Banking Law, according to which such shares must be sold within one year from the date of acquisition.

<sup>158</sup> Eight auctions of two-year bonds (in July 2013, after previous four-year break, the Ministry of Finance continued to issue two-year continuous bonds), three auctions of three-year and twenty-three auctions of five-year continuous bonds.



Table 13  
Structure of the realized issues of long-term securities  
in millions of Denars

Realized issues of long-term securities	2011	2012	2013
Amount of realized issues of long-term government securities	1,845	10,466	12,359
1. two-years continuous government bonds	0	0	3,055
2. three-years continuous government bonds	0	2,082	1,417
2. five-years continuous government bonds	1,168	7,768	7,085
3. Denationalization bonds	677	616	802
Amount of realized issues of long-term, non-government securities	3,531	10,032	175
1. Corporate bonds	0	0	0
2. Shares	3,531	10,032	175
- Issued by banks	3,314	2,546	18
- Issued by other financial institutions	217	191	111
- Issued by non-financial legal entities	0	7,295	46
Total amount of realized issues of long-term securities	5,376	20,497	12,535

Source: The Securities and Exchange Commission of the Republic of Macedonia, web site of the Ministry of Finance and National Bank calculations.

### 7.2.2. Secondary capital market

The recovery of the domestic economy in 2013 and the early signals of recovery of the Euro area from the consequences of the global crisis did not have major impact on the secondary capital market in the Republic of Macedonia, which also in 2013 remained illiquid and unattractive. The uncertainty in the international financial markets largely influenced the restraint and pessimism of investors from the stock market investment (particularly evident was the small presence of foreign investors), as well as the liquidity of the securities. All this, as well as the growing lack of confidence in the capital market have led to a reduction in the turnover and volume on the MSE, and reduction was noted also in the market capitalization of shares and bonds. The level of market prices, as measured by the movement in the value of MBI-10, further decreased, and in the last quarter of 2013 this index reached the lowest value in the last eight years. The upward movement of MBI-10 at the beginning of 2014, is largely explained by the impact of the common information about the payment of dividends at this time of year, and the divergent movements of the value of regional stock indexes were mostly influenced by the signals from the leading markets, relevant economic data of the developed economies, and the crisis in Ukraine.

The interest of foreign investors is decreasing year by year. In the absence of a net inflow of foreign portfolio investors, domestic investors were still the main participants in the capital market. Led by the long-term expectations for maximizing the return on stock exchange trading, domestic legal entities retained the role of the only net buyers of securities, and domestic natural persons showed increased interest in selling securities.

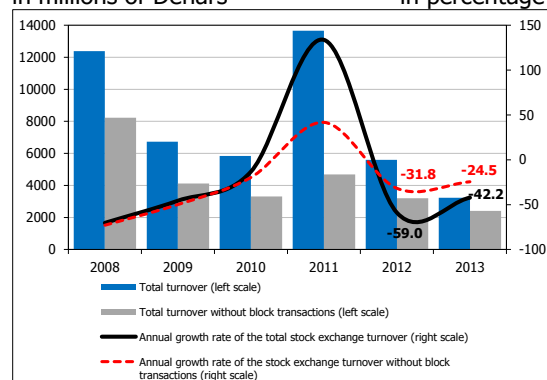
Despite the abolition of the capital gains tax<sup>159</sup>, as an incentive for investment in securities, in 2013, the impact of the legal measures that contribute to the

<sup>159</sup> According to the amendments to the Law on Personal Income Tax of 2012, the provisions concerning the taxation of capital gains realized from the sale of securities, shall not apply in the period 1.1.2013 - 31.12.2015.



disincentive of payment of dividends continued<sup>160</sup>. During the year there were no significant new developments in terms of the open issues that are a precondition for the realization of the commitments of the Republic of Macedonia for membership in the Euro-Atlantic organizations, which had a further impact on the expectations of investors on the stock exchange and on their business and investment decisions. Also, it was relatively early for any major effects from the compulsory listing<sup>161</sup> on the improvement of the situation of the Macedonian capital market. However, this innovation is expected to increase transparency in the future and to facilitate the access to capital for the joint stock companies, through alternative ways of funding their capital projects by issuing securities under much more favorable conditions than bank loans, and the listing will contribute to increase the market value of companies and the attractiveness of investments in those companies.

Chart 156  
Total turnover and annual growth rate of the total turnover on the Macedonian Stock Exchange  
in millions of Denars in percentage



Source: Web site of the Macedonian Stock Exchange and National Bank calculations.

The role and importance of the MSE in the overall financial system are very small, and continue to decrease. After the significant decline in turnover in 2012, the reduction in the turnover and in the number of transactions continued in 2013 but at a slower pace. Despite the initial signs of recovery of the Euro area, which have raised the optimism and confidence of the financial markets, the turnover on the MSE worth Denar 3,235 million, almost halved compared to the previous year (a decrease of Denar 2,365 million, or 42.2%).

The reduction of the total stock exchange turnover derives primarily from the reduced amount of block transactions<sup>162</sup> (contribution of 66.8%), but also of the lower turnover in standard trading with shares and bonds (26.7% contribution)<sup>163</sup>. Apart from the turnover, there

<sup>160</sup> In 2013, the provisions of the Law on Profit Tax ("Official Gazette of the Republic of Macedonia" no. 80/1993, 33/1995, 43/1995, 71/1996, 5/1997, 28/1998, 11/2001, 2/2002, 44/2002, 51/2003, 120/2005, 139/2006, 160/2007, 159/2008, 85/2010, 47/2011, 135/2011, 79/2013 and 13/2014) were still valid, according to which the amount which is distributed in the form of dividends and other distributions from profits, in cash or in non-cash form, is taxed at the time of its payment. Easing in this area was made with the amendments to this law at the beginning of 2014, according to which the income from dividends generated by participation in the capital of another taxpayer are not to be included in the tax base, provided that they are taxed with the tax payer that pays dividend.

<sup>161</sup> The amendments to the Law on Securities of 23 January 2013 ("Official Gazette of the Republic of Macedonia" no. 13/2013) introduced "mandatory listing" of the securities of issuers that were not listed, and that meet the specific requirements for listing on the official market of the Stock Exchange. New rules for listing were adopted, whose implementation started on 15 March, 2013. With the introduction of the compulsory listing, most of the companies whose shares were previously traded on the regular market on the sub-segment shareholding companies market with special reporting obligations, were transferred to the new sub-segment on the official market - mandatory listing.

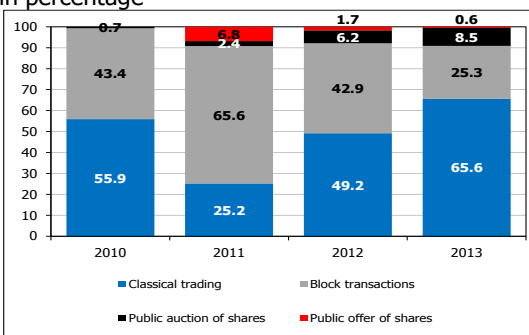
<sup>162</sup> Block transactions realized in 2013, amounting to Denar 820 million, are three times less than in the previous year (a decrease of Denar 1,580 million, or 65.9%). Hence, their share in the total stock exchange turnover significantly reduced (by 17.6 percentage points).

<sup>163</sup> The turnover in standard trading does not include block transactions, the turnover on public stock exchange auctions and public offerings of securities. The turnover in traditional trading was lower by Denar 632 million, or 22.9%, compared with 2012. Most of the fall, i.e. 75%, is a result of the significant decline in the turnover of bonds (by Denar 474 million or 39.4%), while the shares turnover is lower by Denar 158 million, or 10.2%.



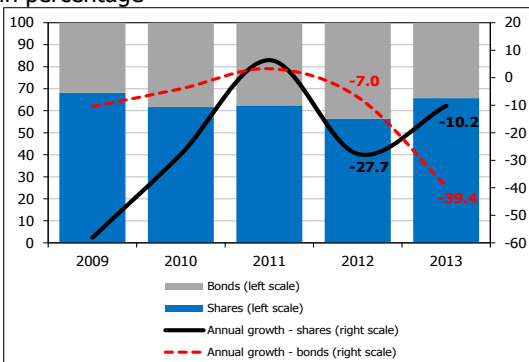


**Chart 157**  
Structure of the turnover on the Macedonian Stock Exchange in percentage



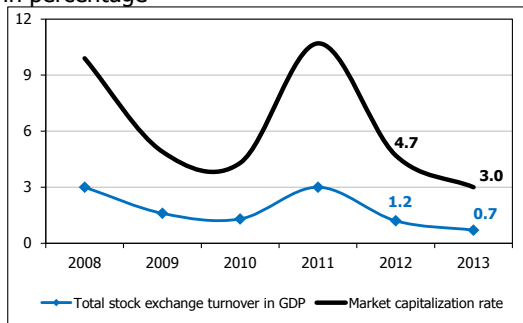
Source: Web site of the Macedonian Stock Exchange and National Bank calculations.

**Chart 158**  
Structure and annual changes in the turnover of shares and bonds in case of standard trading in percentage



Source: Web site of the Macedonian Stock Exchange and National Bank calculations.

**Chart 159**  
Liquidity indicators of the capital market in percentage



Source: Web site of the Macedonian Stock Exchange and National Bank calculations

was also a reduced volume (number) of trading in shares and bonds<sup>164</sup>. The faster reduction of the turnover on the stock exchange relative to the reduction in the volume of stock exchange trading contributed to a decrease in the average value per transaction in standard trading from Denar 186 thousand in 2012 to Denar 158 thousand in 2013. The average daily turnover in standard trading also decreased in 2013, by 2.5 million. In the following period, positive movement in the turnover and trading volume, and increasing transparency and corporate governance of trading companies could be expected, as a result of the compulsory listing, which in the relatively short period since its introduction (March 2013) until the end of the year, did not have a significant effect on stock exchange trends.

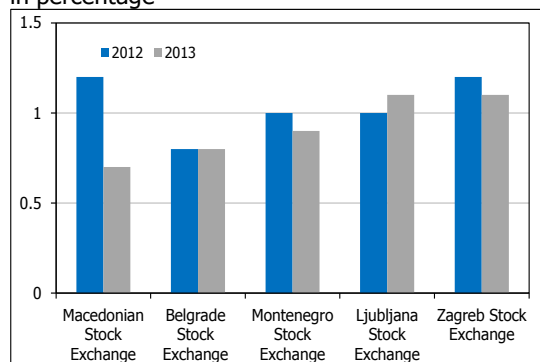
The reduced turnover consequently led to a reduced liquidity in the capital market. Thus, the share of the total value of the realized trading on the capital market in GDP has almost halved, from 1.2% in 2012 to 0.7% in 2013. An annual decline of 1.7 percentage points was recorded also in the ratio of market capitalization<sup>165</sup>. However, the lower trading volume comes primarily from the significantly reduced block transactions that are incidental and are not a relevant indicator of market liquidity, unlike the transactions from regular trading (purchase or sale of securities in a quick and simple way at low transaction costs). The limited liquidity of the Macedonian secondary capital market often prevents quick and easy sale of securities, in circumstances of a decline in their prices, which reflects negatively also on the value of the financial assets of investors.

<sup>164</sup> In 2013, the number of transactions with shares and bonds on MSE was reduced to 13,396 transactions, which is 1,410 transactions, or 9.5% less, compared to the previous year.

<sup>165</sup> Ratio of total trading on the capital market to market capitalization.

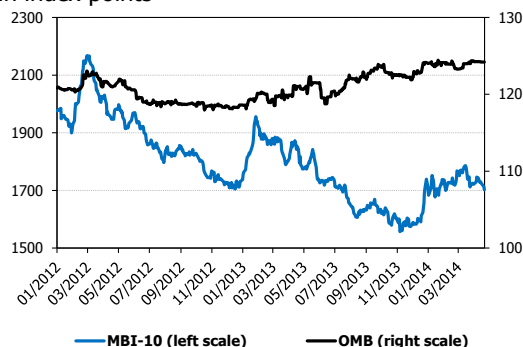


**Chart 160**  
Turnover on the regional stock exchanges in GDP in percentage



Source: Web sites of the regional stock exchanges, IMF, Macedonian Stock Exchange and National Bank calculations

**Chart 161**  
Movement of the basic stock exchange indices in index points



Source: Web site of the Macedonian Stock Exchange and National Bank calculations

Reduced liquidity in 2013, measured by the share of the total stock exchange turnover in GDP, was registered in most markets in the region. An exception is the Ljubljana Stock Exchange, which is on the rise, which could be interpreted as a reflection of the economic growth in the Euro area and its gradual emerging from the recession, and the economic policy and plans for selling the companies that encourage international investors to invest on the stock exchange in Ljubljana. If this trend continues, the increase in the prices of shares there will lead to the creation of free money supply, which is likely to spill over into other stock exchanges in the region, including the MSE.

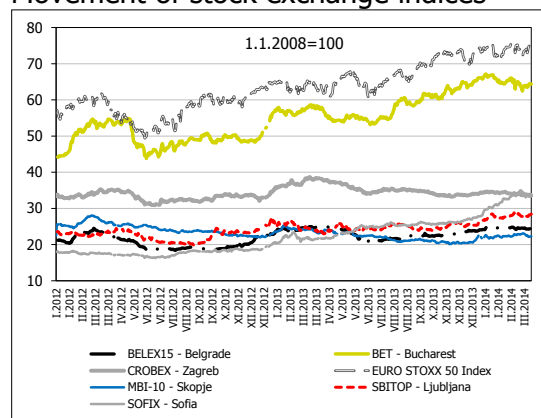
The downward trend in the value of the MBI-10<sup>166</sup>, which began in the first half of 2012, overall, continued in 2013. Sustainability of the positive movements of MBI-10 remains uncertain and will depend on the interest for the Macedonian shares, investment policy of foreign investors, and the subsequent effects of the compulsory listing.

In 2013, the trading in the shares of listed companies from MBI-10, as the main indicator of the price levels of the most liquid companies listed on the official market of the MSE, in the total trading of listed companies on the MSE, was reduced to 43.5%, which is a significant decline in the share relative to 2012 (65.7%) and 2011 (87.3%).

<sup>166</sup> At its session held on 29 July, 2013, the Board of Directors of the "Macedonian Stock Exchange" AD Skopje passed a Decision on adopt a new Methodology for calculation of MBI-10. The procedure of mandatory listing significantly increased the number of companies listed on the official stock exchange market, and thus the heterogeneity of listed shares. This has made the difference between the companies in terms of the size of market capitalization and in terms of the percentage of market capitalization that is intended for public (free float) more pronounced. The new methodology for calculating the MBI-10 can be downloaded via the following link: <http://www.mse.mk/en/content/13/3/2010/structure-of-index-mbi10>. At the same meeting, the Board of Directors adopted a Decision on abolishing the calculation of the index of publicly owned companies MBID, starting from 16 September, 2013. With the procedure for mandatory listing, most of the companies whose shares were previously traded on the regular market on the sub-segment shareholding companies market with special reporting obligations, were transferred to the new sub-segment on the official market - mandatory listing, making the calculation of the MBID index lose its viability as an indicator of market movements.



Chart 162  
Movement of stock exchange indices



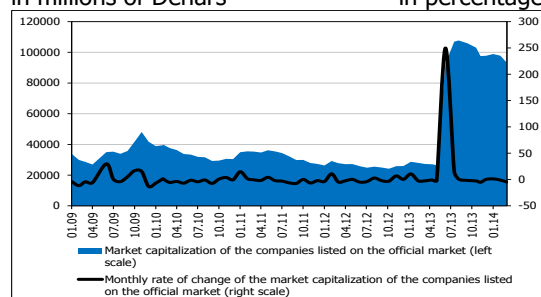
Source: Web site of the Macedonian Stock Exchange, Bloomberg and national stock exchange

Table 14  
Correlation coefficient of the movements of MBI-10 with the movements of the main indices of the stock exchanges in the region, by years

Stock exchange index	MBI - 10 Skopje			
	2011	2012	2013	2014
BELEX15 - Belgrade	97.3	60.9	57.1	-18.4
BET - Bucharest	89.2	41.9	-64.8	-65.0
CROBEX - Zagreb	96.6	36.2	83.1	-56.2
EURO STOXX 50 Index	84.7	-20.7	-76.3	-17.4
SBITOP - Ljubljana	88.1	0.8	-14.9	30.6
SOFIX - Sofia	92.4	-53.2	-87.3	68.8

Source: Web sites of regional stock exchanges and National Bank calculations

Chart 163  
Market capitalization of the listed companies on the official stock exchange market  
in millions of Denars in percentage



Source: Web site of the Macedonian Stock Exchange and National Bank calculations

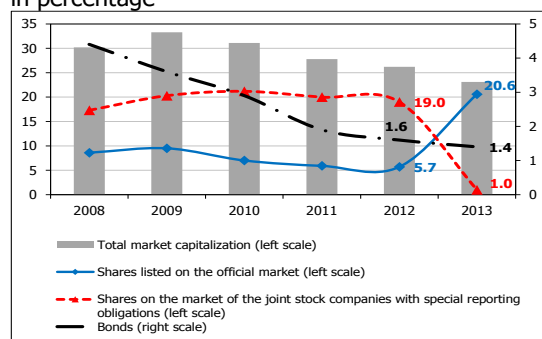
The index of bonds (OMB) mainly moved upwards in 2013, as a result of the trading in the denationalization bonds of the Republic of Macedonia.

In 2013, the correlation of the underlying stock exchange index of the MSE with the indices of regional stock exchanges continued to decline. The downward movement of the MBI-10 during most of the year, amid a relatively upward trend of the stock exchange indices of regional stock markets, caused a significant drop, even a negative percentage of correlation with the major indices of most markets in the region. The more evident differences in the correlation of MBI-10 with the movements of major indices of regional stock markets reflect possible differences in the behavior of investors in the domestic market with the behavior of investors in the markets of the analyzed countries, which points to the fact that the stagnation and the downward correction of the main stock index are not common of all stock markets in the region. This is another indication that the more intensive movement on the domestic capital market depends on the investment policy of foreign investors, whose interest is currently focused on the economies with faster growth. Given that the global post-crisis period is characterized by high volatility and greater risk aversion of investors, stronger recovery of the domestic capital market could be expected along with an accelerated economic growth, which is likely to cause more interest of both foreign and domestic investors to invest in the domestic stock exchange.

The introduction of the new market sub-segment on the official stock exchange market - mandatory listing, caused significant changes in the movements of the market capitalization of listed companies during 2013. Unlike the slight decline in the market capitalization of listed companies in the first few months of the year, after the introduction of the compulsory listing there was an enormous increase in the market capitalization of listed companies at the end of the first half of the year. The increased level was maintained during the whole second half of 2013



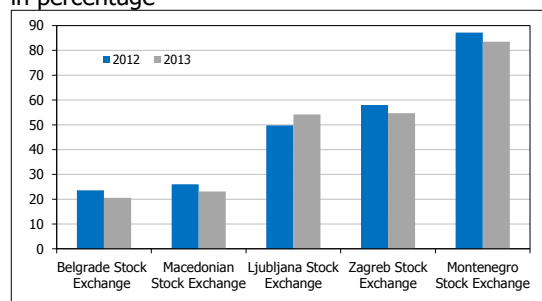
Chart 164  
Market capitalization by markets segments relative to GDP in percentage



Source: Web site of the Macedonian Stock Exchange and National Bank calculations

and beginning of 2014 (with occasional signs of a slight decrease). Thus, as of 31.12.2013, the market capitalization of the shares of companies listed on the MSE amounted to Denar 97,756 million, which is almost a fourfold increase compared to 2012. As a result of that, the share of market capitalization of the shares listed on the official market in GDP rose by 14.9 percentage points, compared to 2012. Consequently, the market capitalization of the companies with special reporting obligations fell by 94.3% on an annual basis. A decline was registered also in the share of the market capitalization of these companies in the GDP, which fell from 19.0% in 2012, to 1.0% in 2013. This is due to the spillover of trading in the shares from the sub-segment of the regular market - the market of shareholding companies with special reporting obligations<sup>167</sup> on the new sub-segment of the official market - mandatory listing.

Chart 165  
Share of the market capitalization of the regional stock exchanges in GDP in percentage



Source: Web sites of the regional stock exchanges, IMF, Macedonian Stock Exchange and National Bank calculations

As with the Macedonian capital market, reduced share of total market capitalization in GDP is registered also with the other analyzed stock markets in the region (except for the Ljubljana Stock Exchange).

The structure of the stock market by type of investors has registered some shifts, compared to the previous year, on both the purchasing and the selling side of the stock exchange turnover. The average share of resident legal entities declined by about 9 percentage points on both the purchasing and the selling side of the stock exchange turnover at the expense of the increased average share of resident natural persons.

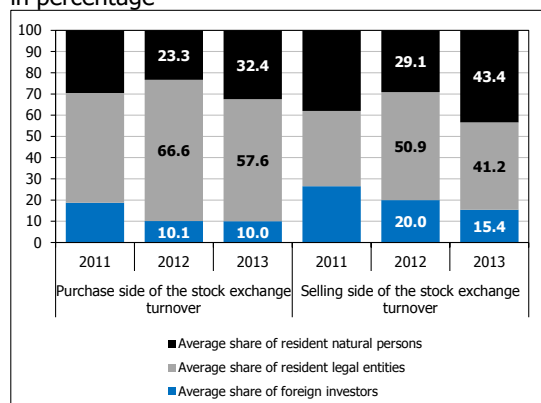
Despite such developments, resident legal entities retained the role of the only net buyers of securities, realizing a net purchase in the amount of Denar 678 million, which is lower by 8.6% compared to the previous year. Such behavior of domestic legal entities, as in the past years,

<sup>167</sup> According to the data of the Macedonian Stock Exchange, with the introduction of the procedure of mandatory listing, the shares of only 18 companies that are with extremely low liquidity remained to be traded on the market of shareholding companies with special reporting obligations.



Chart 166

Structure of the total turnover on the stock exchange by the type of investor in percentage



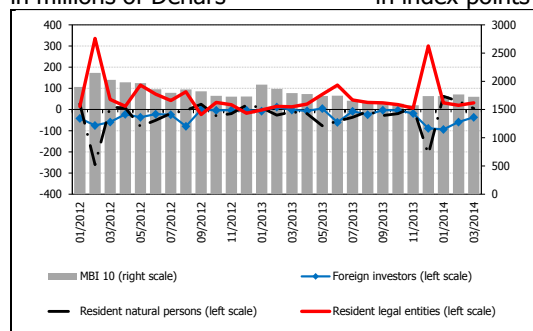
Source: Web site of the Macedonian Stock Exchange and National Bank calculations

Note: According to the announcements of MSE, for more realistic presentation of the activity of portfolio investors, the calculation of the percentages of the average share does not take into consideration transaction of public auction for large packages with the shares of TE-TO AD Skopje (realized in August), as well as block transactions with the shares of Fershpel (realized in November).

Chart 167

Net effect of the trading of individual investor types and MBI-10

in millions of Denars in index points



Source: Web site of the Macedonian Stock Exchange and National Bank calculations

Note: According to the announcements of MSE, the calculation of the net effect of the total stock exchange trading does not take into consideration transaction of public auction for large packages with the shares of TE-TO AD Skopje, as well as block transactions with the shares of Fershpel.

shows that they still prefer to make long-term investments in order to maximize yields amid the expected growth in prices in the long run. On the other hand, the increased interest among resident natural persons to sell securities, caused these entities to achieve net sales of securities in the amount of Denar 472.6 million in 2013. Moreover, during most of the year, the resident population did not follow the economic logic in making investment decisions related to stock exchange trading and did not always buy securities when their prices (following the movement of the MBI-10) registered a decline, i.e. it did not always sell when prices of securities (through MBI-10) grew.

Lower interest of foreign investors in investing in securities on the MSE, continued in 2013. Thus, foreign investors registered net sales of securities totaling Denar 205.5 million, which on an annual basis is lower by 44.6%. In circumstances of recovery of the Macedonian economy and initial signs of recovery of the Euro area (which of course raised the optimism and confidence of the financial markets), the weak activity and restraint of foreign investors to invest on the MSE remain associated with their precaution in taking risks, as well as the insufficiently attractive yields from the Macedonian securities.

Transactions that take place on the OTC markets<sup>168</sup> are more of incidental than of permanent character. So, after a break of four years, in July 2013, only two bonds were traded on the OTC markets.

In 2013, a decline was registered in all indicators that reflect the concentration on the secondary capital market and the activities of the members of the MSE. The participation of the trade with the ten most traded shares is lower by 14.7 percentage points compared to last year, but it still covers high 79.8% of the total

<sup>168</sup> The over the counter markets are markets organized by the National Bank, in cooperation with the Ministry of Finance where beside purchase and sale of short-term securities and realization of repo agreements, purchase and sale of government bonds, other than bonds issued for payment of the deposited foreign exchange deposits of the households and denationalization bonds, is performed.



turnover, which is an indicator of the still small supply of attractive investment alternatives on the domestic capital market. Despite the reduced number of members of the stock exchange<sup>169</sup>, CR-indicators of the total turnover and the turnover from the standard trading<sup>170</sup> among the members decreased. It is mostly a result of the significant decline in the stock exchange trading of domestic legal entities and foreign investors, amid simultaneous increase in the trading of domestic natural persons, which in turn caused greater dispersion of the stock turnover by individual members. Further reduction in the level of concentration of the stock market turnover might mean encouraging the development of competitiveness among the members of the stock exchange, and thus the supply of high-quality services for customers and improvement of the overall efficiency of their operations.

Table 15

Indicators for the concentration degree on the secondary capital market in the Republic of Macedonia  
in percentage

Concentration indicators	2011	2012	2013
Number of stock exchange members'	18	15	13
CR3 for the total stock exchange members' turnover	81.3	59.4	47.8
CR5 for the total stock exchange members' turnover	88.7	74.7	68.2
CR5 for the total stock exchange turnover in standard trading	64.7	72.1	71.6
Turnover with the five most traded securities/total turnover	80.2	80.4	67.3
Turnover with the ten most traded securities/total turnover	93.9	94.5	79.8
Share of the five shares with the largest market capitalization in the total market capitalization	62.3	62.8	59.8
Share of the ten shares with the largest market capitalization in the total market capitalization	80.4	82.2	70.8

Source: Web site of the Macedonian Stock Exchange and National Bank calculations

Note: In the determining of the CR3 and CR5 indicators for the total stock exchange turnover and the total turnover based on standard trading of the members, the turnover of the brokerage houses which ceased to be members of the Macedonian Stock Exchange in 2013 is also included.

Amid significantly increased market capitalization of listed companies, the indicators of concentration of market capitalization of listed companies decreased, due to the increased number of listed companies due to the newly introduced mandatory listing<sup>171</sup>.

<sup>169</sup> On 31 December, 2013 there were 13 authorized participants performing securities operations on the MSE (9 brokerage houses and 4 banks licensed to operate in securities). In 2013, two members were permanently revoked the license for operating in securities ("Moj Broker" AD Skopje and "Centralna Kooperativna Banka" AD Skopje).

<sup>170</sup> The data taken into consideration when calculating the turnover of the Macedonian Stock Exchange members are based on double calculation (at both purchasing and selling) in order to cover also the activity of the members in the crossed transactions, except the data on government securities trading that pertain only to the purchasing side.

<sup>171</sup> With the introduction of compulsory listing, the number of listed companies on the Stock Exchange increased from 32 companies in 2012 to 116 companies in 2013.





The sustainability of the profitability and survival of the **brokerage houses**<sup>172</sup> was hot issue also in 2013. In circumstances of reduced volume of stock exchange trading and decline in the stock market turnover, the ability of brokerage houses to generate revenue dropped significantly. As of 31.12.2013, they showed negative financial result in the amount of Denar 17 million<sup>173</sup>, which increased by 43.0% compared to the loss realized in 2012. Although at a slower pace, the total assets of the brokerage houses continued to decline, and in 2013 they reduced to Denar 274.2 million (from Denar 309.6 million in 2012).

### 7.3. Investment funds<sup>174</sup>

**The importance of investment funds for the financial system in the Republic of Macedonia is still small, although open-end investment funds were the fastest growing segment of the financial system in 2013 (according to the percentage increase, although the absolute increase was small). The share of the assets of investment funds in the total assets of financial institutions has doubled but still is minimal 0.2%. The opening of cash funds increased the interest in investment by investors, which increased the trading in documents for stakes in the investment funds. Due to the favorable movements on some of the financial markets on which investment funds have invested, the nominal annual yield of investment funds had positive values in most of the year. Despite these trends, investment funds management companies continue to operate with a negative financial result.**

In 2013, the assets of the open-end investment funds continued to grow at a significantly accelerated pace and reached Denar 752 million (an increase of Denar 420 million compared with the previous year). As a result of the increased liabilities<sup>175</sup> of investment funds,

<sup>172</sup> During 2013, the number of brokerage houses decreased by one and at the beginning of 2014, liquidation procedure was initiated in another two brokerage houses.

<sup>173</sup> Source: Securities and Exchange Commission and National Bank calculations. The calculations of the financial results and total assets of brokerage houses as of 31 December, 2013 do not include the data on the brokerage houses "Peon Broker" AD Skopje and "Alta Vista" AD Skopje, against which in the beginning of 2014 a liquidation procedure was initiated.

<sup>174</sup> The analysis in this section of the Report does not include private investment funds and private funds management companies, given the fact that according to the Law on Investment Funds ("Official Gazette of the Republic of Macedonia" No. 12/2009, 67/2010, 24/2011 and 188/2013), in the Republic of Macedonia supervision of private funds, i.e. of the companies authorized to manage private funds, or an obligation to submit regular reports to the appropriate authority, is not stipulated.

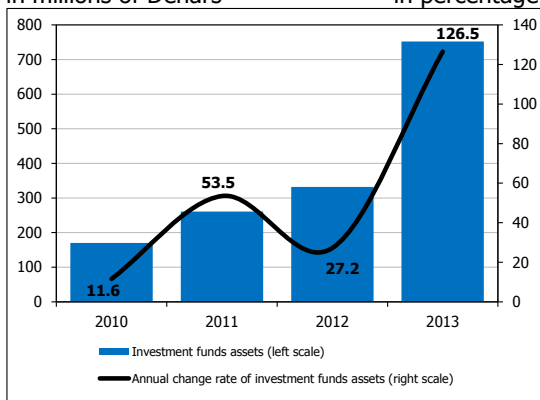
<sup>175</sup> In 2013, total liabilities of investment funds (liabilities on the basis of investments in securities, liabilities to fund management companies, liabilities to the depositary bank, liabilities on the basis of expenses of the Fund, liabilities on the basis of sold stakes and other liabilities) significantly increased and reached an amount of Denar 215.7 million, which is by Denar 213.3 million more, compared with the last year. Most of them (or 98.7%) are liabilities on the basis of sold stakes, which generally derive from one open investment fund.





Chart 168

Assets of the open-end investment funds  
in millions of Denars in percentage



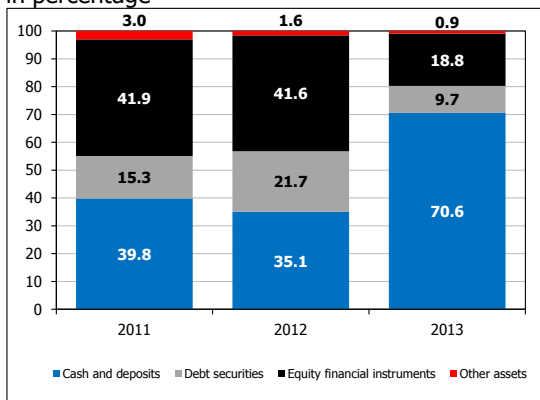
Source: The Securities and Exchange Commission of the Republic of Macedonia

the growth of net assets<sup>176</sup> is lower and amounts to Denar 207 million.

The annual growth in the assets of investment funds is in full (98.7%) resulting from the increase in cash and deposits<sup>177</sup>, which annually grew almost fivefold. This significant increase in cash and deposits, can be explained by the established cash funds<sup>178</sup>. Because of their nature, these funds have the largest inflows of funds, i.e. they are most attractive to investors, which obviously in this time period do not favor risk.

Chart 169

Structure of the assets of the open-end investment funds  
in percentage



Source: The Securities and Exchange Commission of the Republic of Macedonia

In contrast, equity financial instruments increased by minimal 2.5% (generally because of the growth of the shares issued by domestic joint stock companies), and their share in the increase of the total assets of investment funds accounted for only 0.8%. Debt securities also registered slight increase (0.9%), and insignificant contribution to the total annual change in the assets of the investment funds (of 0.1%).

Following these developments, cash and deposits became the dominant item in the structure of the assets of investment funds. Dominant among them (61%) are term deposits with maturity up to one year in domestic banks, while the remaining 39% belong to cash and demand deposits. The structural share of all other components of the assets of investment funds is reduced.

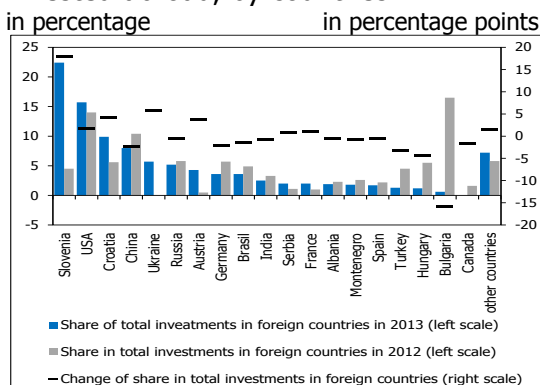
<sup>176</sup> Net assets of investment funds are obtained when the value of the fund's assets will be reduced by the value of its liabilities.

<sup>177</sup> Most of this growth is due to the term deposits with maturity up to one year in domestic banks (52.7%), while cash and demand deposits contributed with 46.0%.

<sup>178</sup> Cash funds are open-ended investment funds which invest funds in savings deposits and bonds. Unlike share funds, these funds carry fixed income from instruments in their portfolio, often placing the funds in bank deposits in domestic banks, thus offering a level of risk which is the equivalent of the assets held on a transaction account or kept in a classic term deposit. The investment strategy of these funds suggests investing in the short term without a predefined investment period, i.e. they are intended for investors who want to invest their capital for a period shorter than one year, and not wishing to be bound by term agreements. Their main goal is to offer the most competitive interest rate and market liquidity. Owners of stakes in these funds may be domestic and foreign institutional and individual investors allowed to invest in accordance with the regulations, which means they are suitable replacement not only for the savings deposits, but also for the transaction accounts of legal entities that are usually without interest yield.

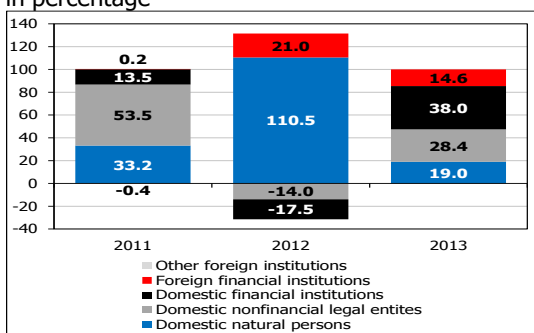


**Chart 170**  
Assets of the open-end investment funds  
invested abroad, by countries  
in percentage



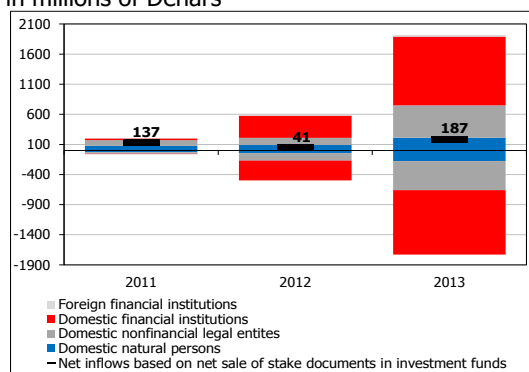
Source: Open investment funds' web sites

**Chart 171**  
Structure of net-inflows based on  
transactions with documents for stakes  
in percentage



Source: The Securities and Exchange Commission of the Republic of Macedonia

**Chart 172**  
Structure of inflows and outflows based  
on transactions with stakes documents  
in millions of Denars



Source: The Securities and Exchange Commission of the Republic of Macedonia

The majority, or 77.1% of funds' investments are in the country, while the rest of 22.9% are investments abroad. In 2013, placements in securities issued by foreign issuers increased by Denar 23.4 million, or 15.7%. The largest increase was registered in the investments in bonds issued by other countries, registering still low share of 4.0% in the total assets of the investment funds. Equity financial instruments still have the largest share in the structure of outward investments (65.9%).

Analyzed by country, in 2013, faster growth was registered in the share of invested assets in Slovenia, Croatia and the United States. Investing in foreign financial markets means assuming higher currency and country risks by the open-end investment funds, which in turn requires greater capacity of the companies for managing these risks, especially when investing in equity securities of riskier countries such as Slovenia and Croatia, whose credit rating was downgraded in 2013<sup>179</sup>. On the other hand, open-end investment funds are still dependent on the banking system, taking into account that the deposits in domestic banks are still dominant in the structure of the investments of investment funds in the country (accounting for 55.9%).

In 2013, there was a significant increase in the volume of transactions for purchase, i.e. sale of documents for stakes in investment funds. The increased trading in documents for stakes in investment funds was most pronounced with the domestic (primarily non-bank) financial institutions, followed by non-financial legal entities, which had high participation in both purchasing and selling of documents for stakes. Thus, net inflows based on net sales of documents for stakes in open-end investment funds reached Denar 187 million, which is more than a fourfold increase on an annual level.

The long-term trend of the index for the movement in the prices of documents for stakes

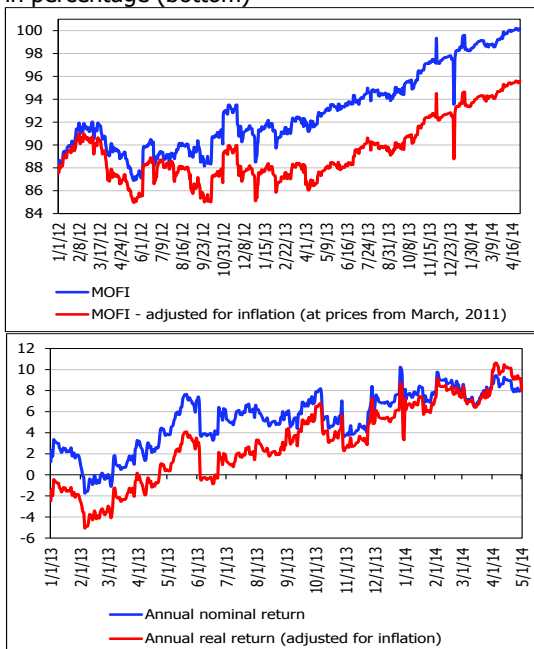
<sup>179</sup> The credit rating institution, "Moody's" downgraded the credit rating of Slovenia by two degrees from "Baa2" to "Ba1", while the credit rating institution, "Fitch Ratings" downgraded the credit rating of Croatia from "BBB-" to "BB+". Additionally, in 2013, the GDP of the two countries decreased, by 1.1% (Slovenia) and 1.0% (Croatia).

Chart 173

Movement of the index MOFI (top) and annual return on open investment funds (bottom)

in index points (top)

in percentage (bottom)

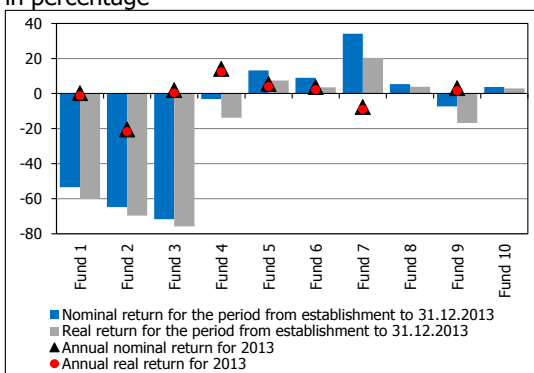


Source: Web site of the Macedonian Stock Exchange and National Bank calculations

Chart 174

Returns on individual open-end investment funds

in percentage



Source: Web site of the Macedonian Stock Exchange and National Bank calculations

in open-end investment funds (MOFI)<sup>180</sup> is upward. The value of this index as of 31.12.2013 increased by 6.0% compared to the value of the index registered on the last day of the previous year (31.12.2012), and the actual yield is positive and amounts to 3.3%. The nominal annual return on the net assets of open-end funds was also positive throughout most of the year. More pronounced volatility of MOFI was registered at the end of 2013 and in the beginning of 2014, when the value of this index reached +/- 4%.

Analyzed by individual funds, six open-end investment funds ended the year with positive nominal annual return on net assets (as of 31.12.2013, the market share of these funds in the total value of net assets was 67.5%). Despite the dynamic growth in the assets of open-end funds, their assets are still far lower than the level required for profitable, even solvent operations of some of the open-end investment funds management companies. The four investment funds management companies had losses in 2013 totaling Denar 8 million, which is still nearly halved compared to the previous year.

Investment funds have been operating in the Republic of Macedonia for six years, but it did not prove to be sufficiently long period for their growth, given the limited supply of investment alternatives on the Macedonian financial market. Also, there are still reservations and distrust regarding this form of investment, and the general level of financial education of potential investors and their perception of the funds as a whole is relatively low. All of this points to a still insufficient level of development of this segment of the financial market in the Republic of Macedonia, which also explains the unfavorable profitability position of the investment funds management companies.

<sup>180</sup> The index for the movement in the prices of documents for stakes in open-ended investment funds (MOFI) is designed by the National Bank, as a price index weighted by the value of the net assets of individual funds. MOFI is constructed as a weighted average of the value of the individual indices for the movement in the prices of documents for stakes in each of the investment funds. So calculated value of MOFI is corrected by a so-called correction factor, determined at each change in the number of funds, thus ensuring time comparability of the index. The base of MOFI, with value 100 is 25 March, 2011, when the data necessary for its calculation started to be available.



In any case, it is a segment of the financial system that is small in scale and that can not cause significant distress to the stability of the overall financial system in the country (the share of the assets of investment funds management companies and the assets of open-end investment funds in the total assets of the financial system is minimal 0.01% and 0.2%, respectively).



## **ATTACHMENTS**

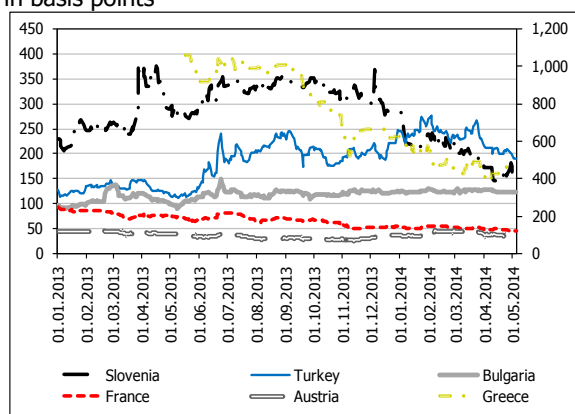


## Attachment 1 Some more relevant characteristics and trends in the banking systems of Slovenia, Greece, Turkey, France, Bulgaria and Austria

Taking into consideration the share of the foreign capital in the domestic banking system, its stability to a great extent depends on the stability and the successful functioning of the foreign parent entities. Namely, seven banks in the Republic of Macedonia, with participation of 58.8% in the total assets, are subsidiaries of banks from Austria, Greece, Slovenia, France, Bulgaria and Turkey. Moreover, another two banks are in the ownership of entities from Bulgaria (one financial institution and two entities which are simultaneously owners of a bank in Bulgaria). Hence, the movements in the banking systems of these countries are particularly significant for the financial stability in the Republic of Macedonia.

Four of the countries where parent entities of domestic subsidiaries are located, are members of the Euro area, hence the main macroeconomic developments in these countries follow the same direction that is typical for the entire area. They are all characterized by slight improvement of the perceptions of the investors regarding the risk, which is particularly evident in Slovenia and Greece, although both countries were in recession in 2013 as well. The reduction of the risk premiums which started at the end of 2013 to a great extent represents a result of the structural reforms which take place in these two countries.

Chart 175  
Credit default swaps  
in basis points



Source: Bloomberg

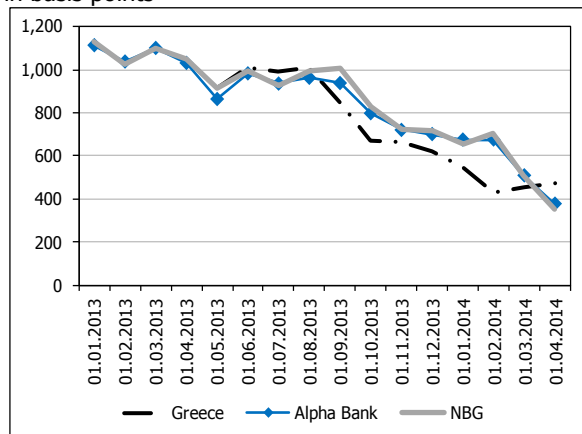
Namely, since May 2010, the member countries of the Euro area and the International Monetary Fund provided funds for Greece through the two programs for economic adjustment. The objective of these programs is support of the activities of the government of Greece for fiscal consolidation and conducting structural reforms directed towards improvement of the competitiveness of the Greek economy. Within the first program, the Euro area member countries and IMF approved financial assistance for Greece in a total amount of Euro 73 billion, while the second program envisages additional 130 billions Euro, which will be provided from the newly formed European Financial Stability Facility. The approval of the assets is related to meeting

economic quantitative and qualitative criteria. The recovery of the financial system, and particularly the banking system of Greece, is one of the main structural reforms supported with the economic adjustment programs.



Chart 176

Credit default swaps for Greece and the two banks with subsidiaries in RM  
in basis points



Source: Bloomberg

billion) were provided by private investors<sup>183</sup>, while the remaining part of Euro 24.4 billion was provided by the Hellenic Financial Stability Fund.

In 2013, the Bank of Greece, in cooperation with the European Banking Authority (EBA), the European Commission, the European Central Bank and the IMF, conducted another additional stress-test of the banking system, on the basis of the condition as of 30 June, 2013. This stress-test included 8 banks, i.e. more than 95% of the assets of the banking system and it was conducted on the basis of two scenarios for the movement of the basic macroeconomic variables, the baseline and the adverse scenario. The baseline scenario is based on the IMF projections regarding the Greek economy from July 2013, while the adverse scenario is based on delayed and weaker recovery of the economy in the following three and a half years (from June 2013 to the end of 2016). In parallel with the stress-test, all banks were analyzed in detail regarding their credit portfolio and the credit risk management systems. The objective is the banks to have sufficient capital for achieving a rate of core capital of 8% (in the baseline scenario) and 5.5% (in the adverse scenario). The stress test showed that the eight banks need additional capital of Euro 6.4 billion, which is a considerably lower amount than the one determined with the previous stress test from 2012. It shows that the previous recapitalizations provided a significant amount of capital, but it also shows that Greek banks have undertaken appropriate activities in order to improve and strengthen the systems for assessment of credit risk and identification of potential losses. As a result, the impairment for credit losses allocated by Greek banks in June 2013 covers 67% of the losses determined according to the baseline scenario<sup>184</sup>.

<sup>181</sup> National Bank of Greece, "Alpha Bank", "Eurobank" and "Piraeus Bank".

<sup>182</sup> Ratio of the core capital of the bank to the risk-weighted assets.

<sup>183</sup> The full amount of new capital was provided by issuing common shares. "Eurobank" is the only of the four banks which was recapitalized without capital of private investors, but only with capital invested by the Hellenic Financial Stability Fund. In the other three banks, the participation of the new private investors is at least 10.8%, thereby meeting the condition according to which if at least 10% of the new shares are purchased by private shareholders, the shares of the Hellenic Financial Stability Fund have a limited voting right, and the new shareholders acquire rights to purchase its shares.

<sup>184</sup> Source: 2013 Stress Test of the Greek Banking Sector, Bank of Greece, March 2014.

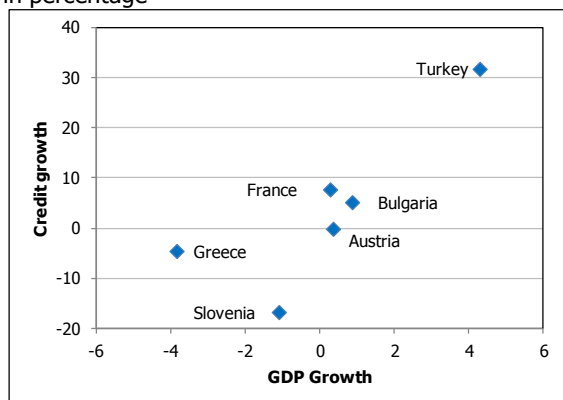




Prior to the financial crisis, the economic growth in Slovenia was one of the highest in the Euro area, but since the emergence of the crisis, the gross domestic product has reduced by more than 10%. The economic recession had an adverse effect on the banking system as well, which, although being one of the smallest in the Euro area, represents an important segment for the financial support of the Slovenian economy. In order to overcome the problems, at the end of 2012 a package of measures was adopted aimed towards strengthening of the stability of banks

Chart 177

Growth of banks' loans to the domestic nonfinancial sector and GDP growth in 2013 in percentage



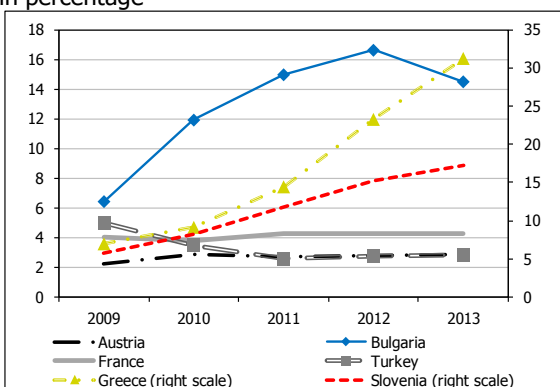
Source: IMF (World Economic Outlook Database, Financial Soundness Indicators), April 2014.

Note: Data for the credit growth in Greece refers to Q3 2013, while for France to Q2 2012.

Chart 178

Nonperforming loans ratio

in percentage



Source: IMF (Financial Soundness Indicators) and the internet pages of the central banks.

Note: Data for France for 2103 refers to Q2.

through recapitalization of banks, sale or transfer of claims of separately established legal entities, guaranteeing a liquidity support of the banking system etc. Same as in Greece, in July 2013, the Bank of Slovenia started a process of assets quality review of the banking system and conducting two types of stress-tests, in order to identify the real level of provisions and capitalization of banks<sup>185</sup>. The analysis included ten banks, with a share of almost 70% in the total banking assets, including the three systemically important banks<sup>186</sup>. On the basis of the stress-tests, the Bank of Slovenia determined an additional amount of capital for the three important banks in a total amount of Euro 3 billion, provided by the government, in accordance with the rules of the European Union for providing state assistance to the financial system. In addition to the recapitalization, the two largest banks are supposed to transfer non-performing loans in a total amount of Euro 1.1 billion to the newly formed bank assets management corporation<sup>187</sup>. Thus, the three banks are expected to have a rate of core capital of about 15%.

Such detailed reforms for ensuring stability of banking systems have not been undertaken in the remaining four countries, although almost all of them registered negative movements in the period after 2008 and deceleration or recession of the economic activity. As a result, the banking systems of almost all countries, excluding Turkey, in 2013 registered negative or low rates of credit growth.

<sup>185</sup> The objective is to achieve a rate of core capital of 9% (in the baseline scenario) and 6% (in the adverse scenario). Stress-tests cover a period of three years (2013 to 2015).

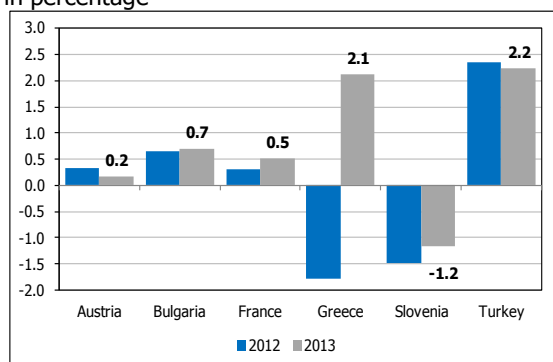
<sup>186</sup> "Nova Ljubljanska Banka" (NLB) "Nova Kreditna Banka Maribor" (NCBM) and "ABanka"

<sup>187</sup> The bank assets management corporation is formed by the Government of Slovenia, on the basis of the Law on the measures of the Republic of Slovenia for strengthening the banking system stability, which entered into force at the end of 2012. The main objective of this corporation is purchase and management of non-performing loans or other problematic assets of the banking system.



The poor performances of the corporate sector, accompanied by the low or negative rates of credit growth and the weaknesses in the systems of the banks for timely identification of credit risk, led to growth of the non-performing loans in the last five years, in all six countries. This growth is particularly typical for the banks in Slovenia, Greece and Bulgaria, while the banking systems of Austria and France registered relatively stable movements of the amount of non-performing loans. Even the banking system of Turkey, which in the first years after the crisis registered a reduction of the non-performing loans, in the last three years has been recording a slight growth in the rate of non-performing loans. As in the remaining countries from the Euro area, the asset quality review of the credit portfolio and the stress-tests conducted by the ECB are expected to contribute for the continuation of this growth also in 2014. Slovenia and Greece could be an exception, where this process of additional assessment of the provisioning and capitalization of the banks should be largely finished in 2013. In addition, the conducted analysis and the removal of weaknesses in the credit risk management systems of the banks in these two countries is expected to strengthen their capacity for timely and appropriate credit risk assessment.

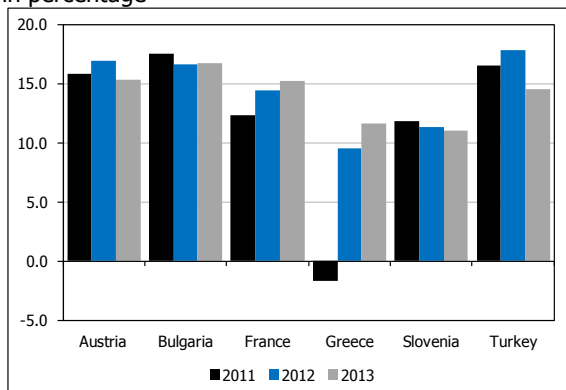
Chart 179  
Return on assets  
in percentage



Source: IMF (Financial Soundness Indicators) and the internet pages of the central banks.  
Note: Data for France for 2103 refers to Q2.

The inappropriate credit risk identification is one of the causes for the low profitability position of banks in the six analyzed countries, although in all countries, improved rates of return on assets are being registered. Part of this improvement is a result of the improved conditions for achieving operating profit, but it is also a result of the lower growth rates of the total banking assets. The banking system of Slovenia is the only system which has been operating at a loss for four consecutive years.

Chart 180  
Capital adequacy ratio  
in percentage



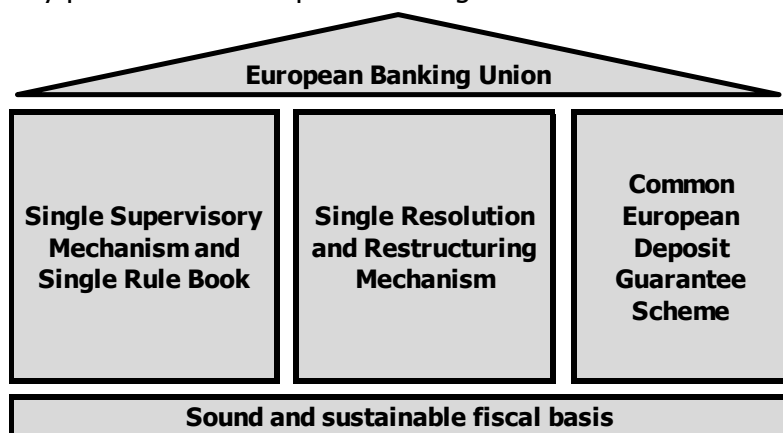
Source: IMF (Financial Soundness Indicators) and the internet pages of the central banks.  
Note: Data for France for 2103 refers to Q2.

In such conditions, completely logical is the reduction of the capital adequacy present in 2013 in all countries, excluding France and Greece. Still, the capital adequacy ratios of all analyzed banking systems in 2012 are above Basel's requirements of 8% and 10.5% (if the additional conservation buffer is included).

## Attachment 2 Implications for the Macedonian banking system from the establishment of a mechanism of a single supervisory authority in the Euro area, as one of the key pillars of the future European Banking Union

In the history of the European Union, the financial crisis which started with one segment of the mortgage market in the USA (the subprime market), and then spilled over the European continent and grew into the biggest crisis after the one from the 1930s, is the first major crisis event that this geopolitical entity faced with (and is still facing). It is a major challenge and the present and future of the EU depend on its overcoming. The institutions of the European Union and its financial system were not prepared for the crisis, which is why the design and the implementation of the necessary mechanisms which would prevent the emergence and the development of the crises and/or would help in the resolution of the current and future crises take place on the go, under certain (time) pressure. Hence, the crisis has brought to light all weaknesses in the current design of the European Union, highlighting, among other things, the need of greater deepening of the integrative processes (inside the Union itself), primarily, in the conduct of the fiscal policy (establishing a fiscal union), but also in the banking operations (establishing a banking union).

Figure 1  
Key pillars of the European Banking Union



Source: Deutsche Bundesbank, with certain adjustments

The absence of a single supervisor for the large credit institutions with significant cross-border activities, the problems in the cross-border cooperation between the supervising authorities and the lack of uniform instruments for efficient resolution of the crisis in the systemically important banking institutions are some of the most important lessons learned from the financial crisis, which are planned to be covered through establishing a European Banking Union, primarily for the banks

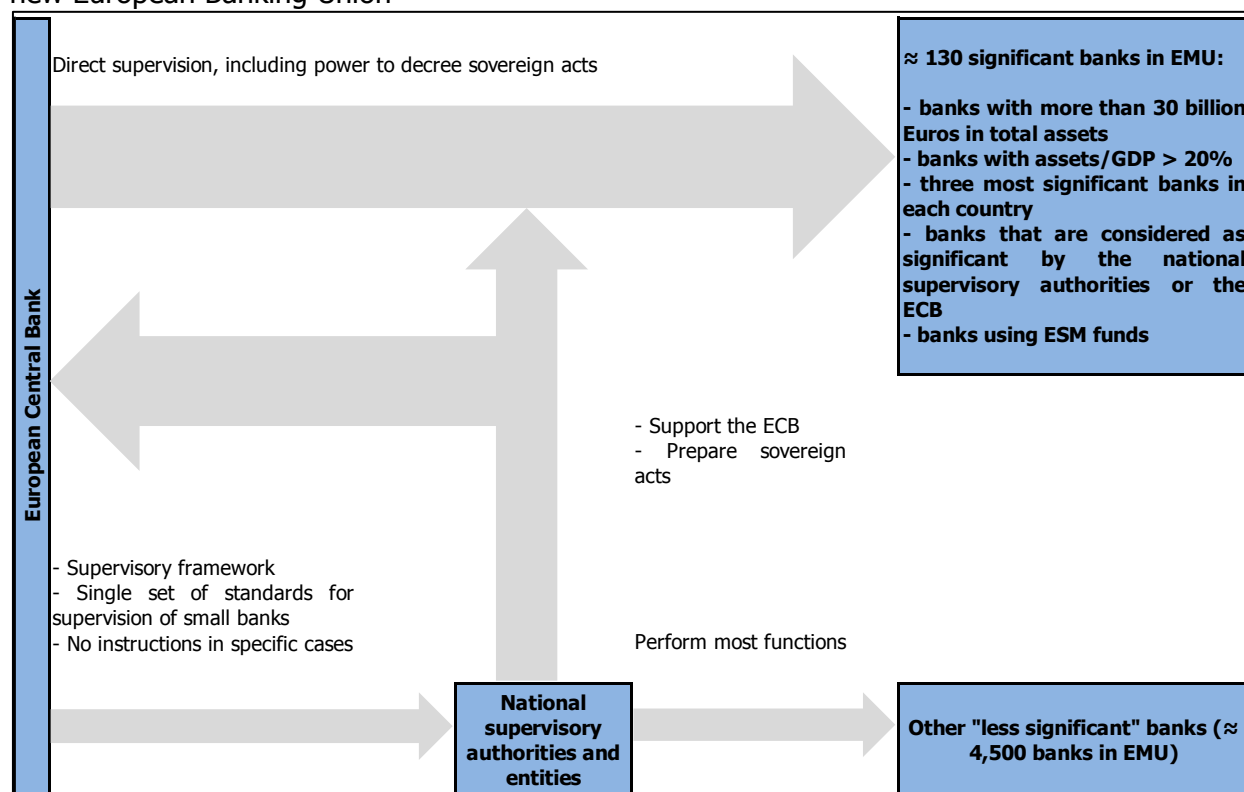
seated in the Euro area. Also, the introduction of the single mechanism for supervision and for addressing banks which face problems in their operations, should provide overcoming of the adverse effects caused by the feedback loop which usually exists in conditions of crisis, between the public finances of the countries and the banking institutions (for example, it will provide direct support for the problematic banks which are part of the European Banking Union from the funds of the European Stability Mechanism, without additionally encumbering the government finances).

One of the key pillars on which the future European Banking Union will rest, is the establishment of a single mechanism for supervision of banks in the Euro area, where the European Central Bank will play a central role<sup>188</sup>. The introduction of the new mechanism will

<sup>188</sup> Pursuant to the EU regulations adopted in November 2013, the functioning of this mechanism should start in November 2014, although the European Central Bank has the right to postpone the beginning, if it considers that this is required in order to finish all the preparatory activities.

fundamentally change the supervisory architecture in the Euro area and will have particular impact on the cross-border cooperation between the supervisory authorities, inside and outside the Euro area. Namely, one of the key changes is the transfer of numerous competences, from the national supervisory authorities towards the European Central Bank, which in the future banking union has specific competences and tasks for conducting supervision, ensuring uniform and efficient application of the prudential rules, controlling risks and preventing future crises. The European Central Bank will be the only supervisory authority competent for the conducting of direct supervision and the undertaking of appropriate measures towards all banks, banking groups and their members, which are determined as "significant" in the Euro area (see the figure below). Hence, in the cross-border cooperation between the supervisory bodies, the European Central Bank will play a role of a home supervisor for the banks and the banking groups whose seat is in the Euro area, and they also conduct activities outside the Euro area, i.e. a role of a host supervisor, for the banks and the banking groups which have a seat outside the Euro area, and perform activities in the Euro area.

Figure 2  
Distribution of tasks among national supervisory authorities and European Central Bank, in the new European Banking Union



Source: Deutsche Bundesbank, with certain adjustments

The Republic of Macedonia, as a small and open economy, with strong connections with the European countries, is quite interested in the financial stability of the European Union. Namely, the establishment and functioning of a comprehensive and successful European

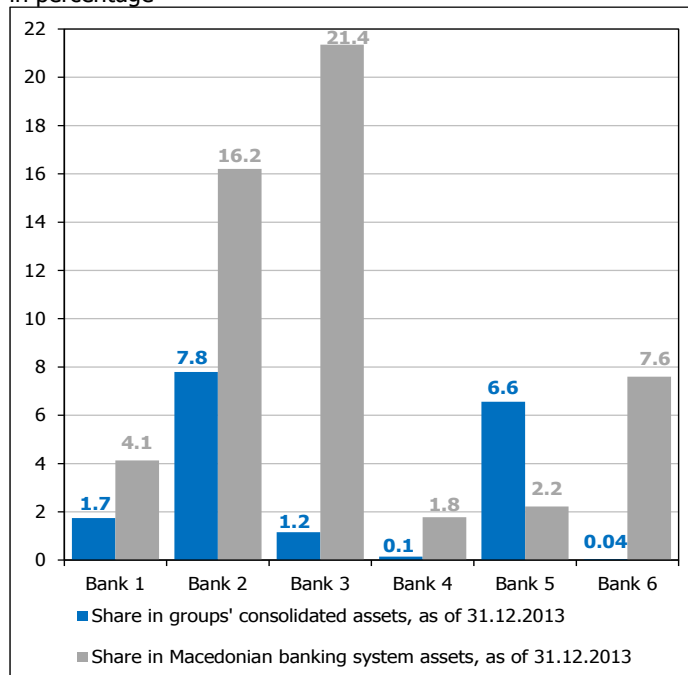


Banking Union, where the mechanisms of a single supervisor, single regulatory framework, uniform dealing with banks facing problems in their operations and harmonized rules for deposit insurance, would provide higher level of efficiency of the entire system. This is particularly important if one considers that six banks in the Republic of Macedonia are in the ownership of banks with a seat in the Euro area or the European Union, and therefore the stability of their parent banks is of great importance also for the stability of the domestic banking system and for the Macedonian economy in general.

Chart 181

Size of domestic banks that are subsidiaries of foreign banks with headquarters in the European Union

in percentage



Source: NBRM, based on data submitted by banks and internet-sites of banking groups

Five domestic banks, with total market participation of more than 50% are in the ownership of banks seated in the Euro area, which, at the moment, pursuant to the regulations of the European Union, are considered "important" banks, which is why they would be subject to direct supervision of the European Central Bank. In other words, with the introduction of the mechanism of a single supervisor in the Euro area, more than half of the assets of the Macedonian banks, through consolidation at the level of the banking groups they belong to, will be subject to direct supervision of the European Central Bank, which, at the same time, will play a role of a home supervisor for the banking groups which perform activities in the Republic of Macedonia, and have a seat in the Euro area. This simplifies the entire process of cross-border cooperation with the supervisory authorities from the Euro area, where the counterparty, previously presented with an entire network of national

supervisory authorities, with different national traditions in their operation, is replaced and boils down to a single supervisory authority, with uniform rules of operation. In addition, it is foreseen to continue the tradition of organizing supervisory colleges (although with different composition and form), which are a good opportunity for cross-border cooperation between the supervisory authorities (home and host supervisors) and presentation of own attitudes, interests and possible worries.

In the new negotiating environment, created in the Euro area, the National Bank of the Republic of Macedonia, as a host supervisor, will formally communicate only with one home supervisor, where at a higher (than before) centralized level, it will present and protect its attitudes and interests regarding the domestic banks. The communication and the negotiation with a powerful, authoritative and respected institution, which is a central bank of a union of countries with long state tradition, considerable negotiating experience and capacity to influence the global flows in any domain, imposes a need of using every given opportunity to familiarize



with the essential interests and attitudes of the counterparty (the European Central Bank) and application of a serious, strategic approach, free of any improvisations and ad hoc moves, during the establishment of the negotiating position of the National Bank. The last is not at all easy and it has even bigger importance if one takes into consideration the fact that Macedonian banks which are subsidiaries of banks seated in the Euro area, have small and even marginal shares in the banking groups they belong to, but relatively high shares which are even systemically important for the domestic banking system. In such conditions, the efforts undertaken by few regional supervisory authorities within the Vienna Initiative for joint approach in the negotiations with the ECB and the other relevant European authorities<sup>189</sup> are of particular importance.

The engagement of the banks seated in the Euro area regarding the implementation of the new regulatory requirements could additionally draw the attention away from the subsidiaries which function outside the European Union, in the sense of reduction of their efforts for further increase of the complexity and the scale of activities of these subsidiaries, and with the purpose of easier and simplified adjustment to specific (newly introduced) regulatory conditions. Hence, at least in a short run one can expect reduced financial support by the parent banks with origin from the Euro area and/or their deleveraging with direct effects on the Macedonian economy, until they adjust to the increased demands imposed on them as members of the future European Banking Union. Still, the intensity of these effects is limited to some point, if one has in mind the relatively weak dependence of the domestic banks on the sources of financing which arise from the parent entities, that is, the prevailing reliance on the deposits from residents during the financing of the activities.

In a long run, once the European Banking Union is completely introduced, as it is imagined, one can expect acquiring additional competitive advantage on the domestic market and better image in the public for the Macedonian banks which are part of banking groups seated in the Euro area. This will even further deepen the competition among banks – members of banking groups which belong to the European Banking Union and the remaining banks in the system, which on the one hand should provide better products and services for the clients, but it may also threaten the opportunity for growth of the remaining banks which are not part of the European Banking Union. Finally, having in mind the candidate status of our country for joining the European Union, the set “rules of the game” in the European Banking Union, in the long run, will play the role of reference rules and their fulfillment will be one of the priorities, for both the domestic banks, and for the National Bank of the Republic of Macedonia as their supervisory authority. In the meantime, close monitoring and timely information is necessary regarding the latest events related to the European Banking Union (its positioning, potential proposed and considered changes, macroprudential and other measures, which as planned, will be undertaken at the level of the Union or for specific banking groups etc.), in order to develop appropriate attitudes and cooperation with all involved parties and define the negotiating positions in the communication with the relevant European institutions.

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<sup>189</sup> During the second half of 2013, within the Vienna Initiative 2, an informal group of representatives from few supervisory authorities in the region started to function, the objective of which is to identify the possible problems and obstacles in the exchange of information and data with the new bodies in the new European supervisory structure, as well as to define a joint approach in the resolution of the determined problems.



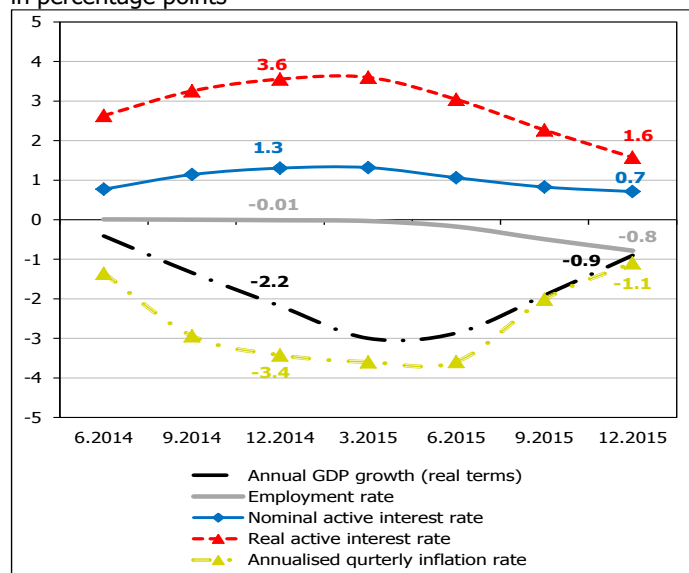


## Attachment 3 Macro stress testing of the banking system of the Republic of Macedonia

In order to determine the resilience of the Macedonian banking system to unfavorable movements in the macroeconomic environment, **two adverse macroeconomic scenarios** were designed. Analysis was made also of the behavior of certain indicators of the banking system operations amid realization of the so-called **baseline macroeconomic scenario**, constructed within the latest, April cycle of macroeconomic projections made by the NBRM (April, 2014). The time horizon of the macroeconomic scenarios presented below extends in a period of two years (including the fourth quarter of 2015).

Chart 182

Deviation of forecasted values of macroeconomic variables determined with adverse macroeconomic scenario in EU from forecasted values determined with baseline macroeconomic scenario on Macedonian economy  
in percentage points



Source: NBRM staff calculations.

Note: Actual values of macroeconomic variables realized in 2013Q4 are presented in Table 16 of this attachment.

**The first adverse macroeconomic scenario is hypothetical and it is based on the scenario prepared by the European Systemic Risk Board – ESRB).** This adverse scenario is designed for the needs of the last series of stress-tests (from April 2014), for examining the resilience of a selected sample of banks seated in the EU<sup>190</sup> and reflects the most important systemic risks which are currently assessed as relevant threat for the stability of the banking sector in the EU: 1) growth of the rates of return on bonds at global level, followed by sudden reassessment of risks, primarily of those arising from the emerging economies, 2) further impairment of the credit portfolios in countries with weak, low-quality demand on credit markets, 3) delay of political reforms and consequential distrust in the sustainability of the public finance of the countries and 4) unadjusted balance sheets of banks, necessary for establishing continuous, but acceptable (favorable) market financing. Also, the

scenario covers unfavorable movements on the real estate markets, as well as shocks in the movements of the exchange rates in the countries from Central and Eastern Europe. In case of such an adverse scenario, it is assessed that the European Union GDP growth rate would be lower than the projected growth in the baseline macroeconomic scenario (prepared by the European Commission), by 2.2 percentage points in 2014, i.e., by 5.6 percentage points in 2015. At the same time, the unemployment rate in the EU would be higher than the projected one, by 0.6 percentage points in 2014, i.e. by 1.9 percentage points in 2015 etc. (more details regarding the adverse macroeconomic scenario, prepared by ESRB, can be found also on the web site of

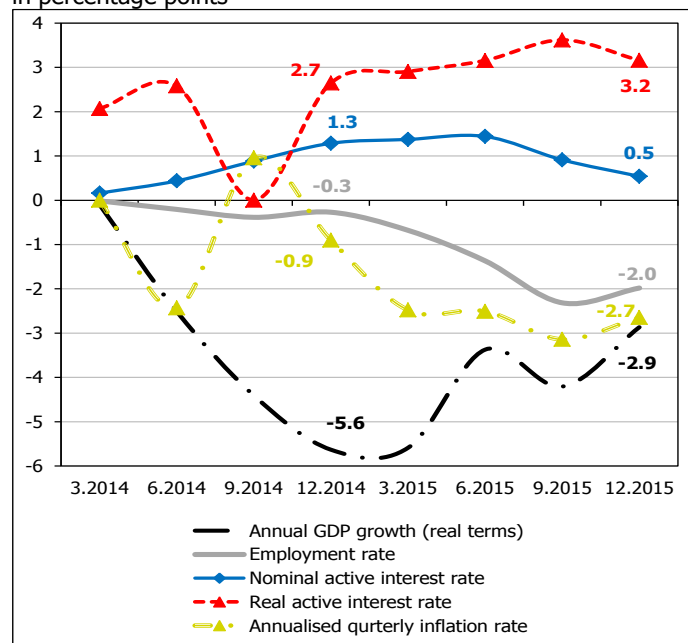
<sup>190</sup> These are stress-tests which are being conducted on almost regular basis, since 2009, in coordination and close cooperation between the European Banking Authority, the European Central Bank, the European Board for Systemic Risks and the appropriate national authorities within the EU.



the European Banking Authority<sup>191</sup>). Taking into consideration the close economic and other relations of the Republic of Macedonia with the EU countries, the assumed adverse events in the EU would have appropriate implications for the domestic economy as well. Hence, if the scenario for EU described above is realized, in 2014 the growth of the Macedonian economy would be lower in relation to the one projected in the baseline macroeconomic scenario, by 1.3 percentage points on average, i.e. by 2.2 percentage points in 2015 (still, the growth of the domestic economy will not enter the negative zone). The nominal active interest rate will be higher by about 1 percentage point, on average, and the deviation of the real lending interest rate is slightly higher (about +3 percentage points, on average), due to the reduced price level in the economy (in one part of the covered time horizon, the annualized quarterly inflation rate would be negative). Most constant (most rigid) among the analyzed macroeconomic variables in this scenario is the employment rate, which would be almost identical as the projected one, amid the baseline macroeconomic scenario for 2014, and in 2015 it would be lower by almost 1 percentage point compared to the projected level in the baseline scenario.

Chart 183

Deviation of forecasted values of macroeconomic variables determined with adverse historical scenario from forecasted values determined with baseline macroeconomic scenario on Macedonian economy in percentage points



Source: NBRM staff calculations.

### The second adverse macroeconomic scenario is the so-called historical scenario,

which in the following two-year period (2014 Q1 – 2015 Q4) assumes mirroring of the movements in the analyzed macroeconomic variables, achieved in a selected past period. Namely, this scenario mirrored the dynamics of changes in the macroeconomic variables achieved in the period from 2008 Q3 – 2010 Q2, when the annual GDP growth rate hit its lowest values in the past eleven analyzed years (more precisely, the annual GDP growth rate achieved in the second quarter of 2009 was negative and equaled -2.4%, which is the lowest growth rate registered in the past eleven years), in the following two-year period. The historical scenario is characterized by higher level of extremity compared to the hypothetical macroeconomic scenario in the EU and it assumes slightly less favorable movements in part of the macroeconomic variables, primarily, in the annual GDP growth rate, which would be negative in three consecutive

quarters.

In order to examine the behavior of the Macedonian banking system amid the adverse macroeconomic scenarios presented above, few **econometric equations** have been developed,

<sup>191</sup> On the following link: [https://www.eba.europa.eu/documents/10180/669262/2014-04-29\\_ESRB\\_Adverse\\_macroecomic\\_scenario\\_-\\_specification\\_and\\_results\\_final\\_version.pdf](https://www.eba.europa.eu/documents/10180/669262/2014-04-29_ESRB_Adverse_macroecomic_scenario_-_specification_and_results_final_version.pdf)



which describe the mutual dependence among selected indicators of banks' operations (the indicator of the participation of the non-performing loans in the total loans of non-financial entities and the rate of return on average assets) and some basic macroeconomic variables. More precisely, by applying a dynamic panel method with GMM technique (Generalized Method of Moments), on a sample of 15 banks<sup>192</sup>, which operate over the entire analyzed period (a quarterly time series is applied, from 2003 Q1 – 2013 Q4), the following three econometric equations were derived, which "passed" all relevant diagnostic tests regarding their proper positioning and specification:

$$\text{Eq. 1: } LNPL_{it} = -0,449 + 0,788 * LNPL_{it-1} - 0,015 * GDP\_GR_t - 0,012 * EMP\_GR_t + 0,013 * INF_t$$

$$\text{Eq. 2: } LNPL_{it} = -0,728 + 0,689 * LNPL_{it-1} - 0,016 * GDP\_GR_t - 0,010 * EMP\_GR_t + 0,014 * REINT_t$$

$$\text{Eq. 3: } ROAA_{it} = -0,703 + 0,799 * ROAA_{it-1} - 0,118 * GDP\_GR_t - 0,079 * INF_t - 0,024 * LEND\_RATE_t$$

where,

*LNPL*: logit form of the ratio of the share of non-performing loans in total loans of nonfinancial entities, i.e.  $\ln(NPL/(1-NPL))$ , where NPL indicates the share of non-performing into total loans;

*ROAA*: rate of return on average assets, calculated as the ratio of the financial result achieved in the last four quarters and the total assets, calculated as an average of the stocks of assets for the past five quarterly dates;

*GDP\_GR*: annual growth rate of real GDP;

*EMP\_GR*: annual growth rate of the employment rate;

*INF*: annualized quarterly rate of inflation;

*REINT*: real lending interest rate (on the system level);

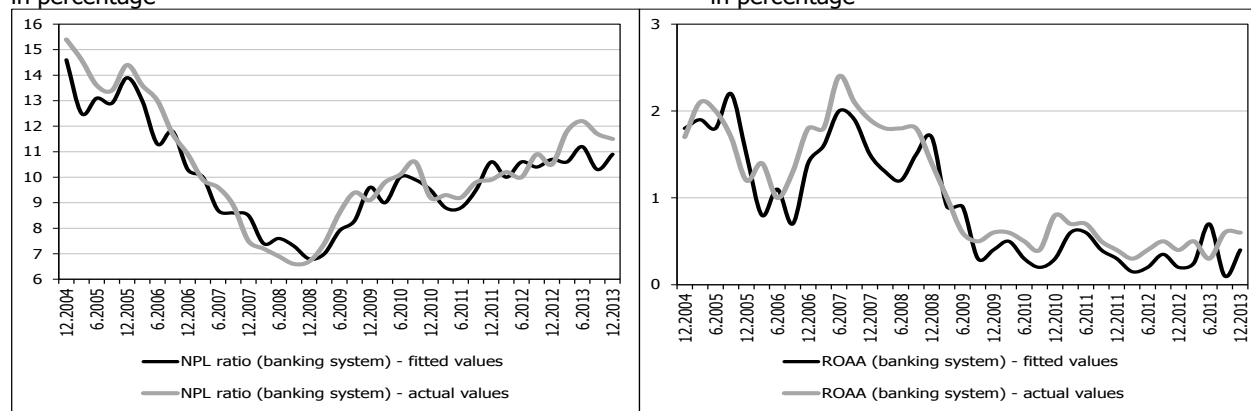
*LEND\_RATE*: nominal lending interest rate (on the system level)

*i*: indication for bank,  $i = 1, 2, \dots, 15$ ;

*t*: indication for period, in this case quarter.

Chart 184

Comparison between actual and fitted values of NPL and ROAA ratios, obtained with application of the aforementioned econometric equations in percentage

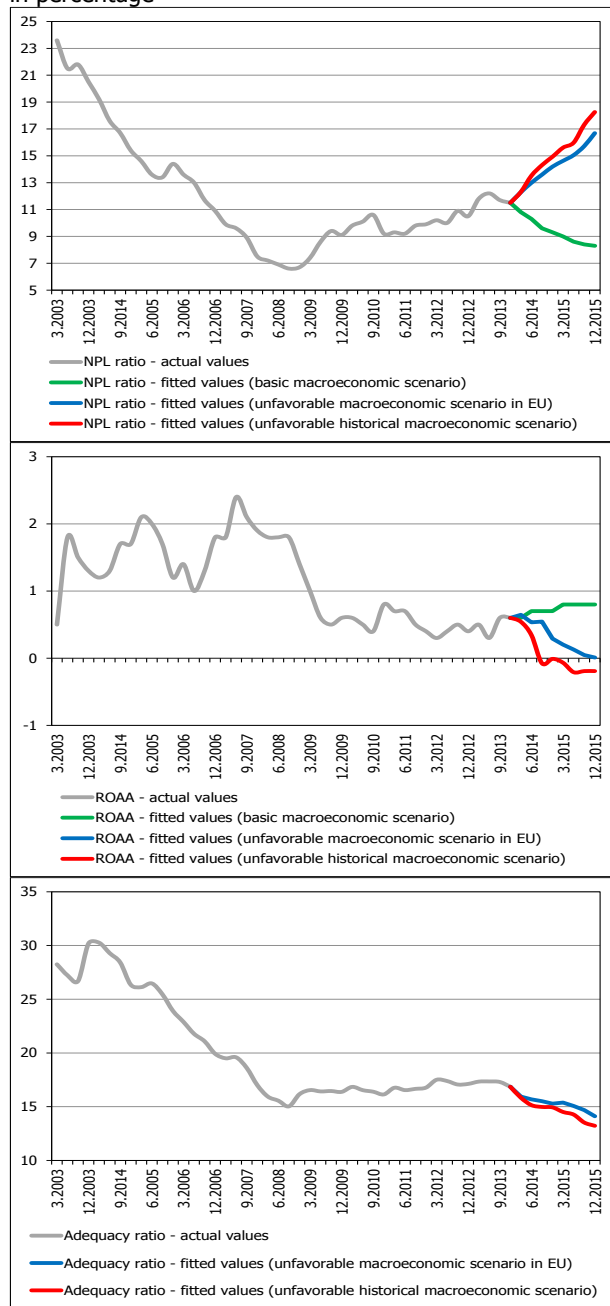


Source: NBRM staff calculations.

<sup>192</sup> Virtually all that are operating as of 31.12.2013, except the Macedonian Bank for Development Promotion AD Skopje.

Chart 185

Forecasted values of NPL, ROAA and capital adequacy ratio determined with different macroeconomic scenarios, covering the period from 2014Q1 – 2015Q4 in percentage



Source: NBRM staff calculations.

For the needs of the macro stress-tests, so called **long-run elasticity coefficients** are used, which take into account the cumulative effect of the assumed changes in the macroeconomic variables on the share of the non-performing in the total loans and on the rate of return on average assets<sup>193</sup>. Hence, these coefficients helped to determine the increase in the share of non-performing in total loans, i.e., the amount of new non-performing loans of non-financial entities, as a consequence of the deteriorated macroeconomic environment. Here the impairment for the new non-performing loans has a treatment of unrecognized impairment and it is considered a deductible item from the core capital and the own funds, which reduces the capital adequacy ratio. At the same time, by using the third econometric equation presented above (which describes the mutual dependence of the rate of return on average assets and selected macroeconomic variables), the change (reduction) of the rate of return on assets was calculated, i.e., the financial result of the banks amid realization of the assumed adverse scenarios was determined. Hence, the banks which showed negative rate of return on assets, i.e., a loss in the current period (for 2014 and 2015), will have respectively lower own funds and lower capital adequacy ratio. At the same time, it is assumed that the banks which realized profit in 2013, will reinvest part of it in their own funds (it is also assumed that part of the profit realized in 2013 is reinvested and increases the own funds in the banking system in the following period).

On the other hand, in the period covered with the macro stress-test, it is assumed that the banks will not conduct recapitalizations, in any form.

<sup>193</sup> The long-term elasticity coefficient for different macroeconomic variables is calculated when the coefficient before the macroeconomic variable of econometric equations previously presented (so-called short-term ratio) is divided by the difference of 1 (one) and the coefficient before the lagged dependent variable (logit - form of the ratio for the share of nonperforming loans in the total loans, with a time lag of one period - quarter). Such estimated long-term coefficients are significantly higher than the short-term, and their use in implementing macro stress tests raises the level of the extremity of assumed shocks.



**The results of the macro stress-testing** indicate a satisfactory resilience of the banking system to unfavorable movements in the macroeconomic surrounding. Namely, despite the increased share of non-performing in total loans of non-financial entities to the level of 18.3% (in 2015) and the simultaneous fall of the rate of return on average assets to -0.2%, the capital adequacy ratio of the banking system did not decrease below 13% and in the end of 2015, it was reduced to 13.2%. Analyzed by individual bank, in only two banks from the group of small banks (with a total market share in the assets of the banking system of 2.2%), the capital adequacy ratio is reduced below 8%, whereby recapitalization would be necessary in a total amount of Denar 299 million (which represents 0.1% of GDP for 2013), so that the capital adequacy in these banks can return to the level of 8%.

Table 16

Results of macro stress-testing of the Macedonian banking system

Description	Q4 2013	Unfavorable macroeconomic scenario in EU		Unfavorable historical macroeconomic scenario	
		2014	2015	2014	2015
Annual GDP growth (real terms)	3.2%	2.6%	2.2%	0.3%	0.3%
Employment rate	40.9%	41.4%	41.9%	41.2%	40.7%
Annualized quarterly inflation rate	0.9%	-2.4%	0.8%	0.1%	-0.7%
Active interest rate (real terms)	6.5%	9.4%	7.0%	8.5%	8.6%
Active interest rate (nominal terms)	7.8%	8.6%	8.0%	8.6%	7.8%
NPL ratio (share of nonperforming loans in total loans to nonfinancial entities)	11.5%	14.2%	16.7%	14.9%	18.3%
ROAA (return on average assets)	0.6%	0.3%	0.0%	0.0%	-0.2%
Capital adequacy ratio	16.8%	15.3%	14.1%	14.9%	13.2%
Number of banks with CAR below 8% (market share in total assets, as of 31.12.2013)	0 (0%)	1 (1.7%)	2 (2.2%)	1 (1.7%)	2 (2.2%)
Number of banks with CAR below 2% (market share in total assets, as of 31.12.2013)	0 (0%)	0 (0%)	1 (1.7%)	0 (0%)	1 (1.7%)
Required recapitalization, in 000 of Denars (% of GDP)	0 (0%)	21,807 (0.01%)	236,605 (0.1%)	45,865 (0.01%)	298,530 (0.1%)

Source: NBRM staff calculations.

The relatively high resilience of the banking system to shocks is also confirmed with the **conducted sensitivity tests** as of 31.12.2013. Thus, the simulations show that, within the portfolio comprised of non-financial entities, growth of the non-performing credit exposure of 95% is required (the exposure classified in the risk categories "C" – non-performing part, "D" and "E"), i.e., transfer of 14,4% of the regular to the non-performing credit exposure, so that the capital adequacy of the banking system can lower to the legally required minimal level of 8% (these simulations would lead to more than double increase of the share of non-performing in total loans to non-financial entities, from the current 11.5%, to 26.3%).

Despite the favorable results from the conducted stress testing, still **one should not overestimate the capacity of the banking system and the individual banks** for absorption of shocks. Namely, the credit portfolios of the individual banks are characterized by relatively high concentration, by both individual clients (single name concentration), and according to the sector classification of clients, which indicates a high level of correlation of the "performances" of the individual segments of the credit portfolios, which, on its part, significantly accelerates the dynamics and increases the scale of materialization of credit risk, amid unfavorable business conditions. Hence, amid an assumed migration of only the five largest credit exposures to non-financial entities (including the connected entities), from the current risk category to the "transitional" risk category "C", the capital adequacy ratio of the banking system



reduces by 2.7 percentage points (from 16,8% to 14,1%). Analyzed by individual sectors, the banking system of the Republic of Macedonia shows largest vulnerability in the case of worsening of the quality of the credit portfolio comprised of clients from the "industry", where amid assumed migration of 30% of the credit exposure, from each risk category to the following two categories with lower quality level, the capital adequacy of the banking system reduced to a level of about 15,5% (namely, one third of the credit exposure of the banking system to the corporate sector belongs to clients from the industry<sup>194</sup>). Relatively high level of concentration is present also in the banks' deposit base. Hence, amid hypothetical withdrawal of deposits of the 20 largest depositors in each bank, the liquid assets of the banking system are reduced by almost 40%, while in case of assumed withdrawal of 20% of the household deposits, liquid assets of the banking system decline by almost 35%<sup>195</sup>.

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<sup>194</sup> Similar results are obtained also for the portfolio comprised of clients that deal with trade, which also covers almost one third of banks' credit exposure to the corporate sector.

<sup>195</sup> More details about the individual tests of sensitivity of the banking system can be found in the Report on the banking system of the Republic of Macedonia in 2013, published on the web site of the National Bank.

#### Attachment 4 Survey of banks' perceptions for the risks in their operations

**The perceptions of Macedonian banks<sup>196</sup> regarding the main sources of risks that they face with during their operations, can be analyzed through the results of the Survey which is conducted by the National Bank of the Republic of Macedonia for this purpose.** The risk factors that affect the operation of banks and which are a subject of the survey are classified in five groups: macroeconomic environment, risks of financial markets, risks from the banking sector, risks from the internal strategy of the bank or the banking group and risks which arise from the changes in the regulatory framework. The survey refers to the respective ranking of the groups according to their importance for the bank, assessment of the influence that the group of risks has on the banks' operations and the banks' expectations regarding the relevance of the individual groups of risks during 2014. The banks rank the five groups of risks in the range from I to V, whereby I is used for the group of risks which are least important, and V for the group which are most important for the operations and each of the grades can be used only once. Further on, for each of the groups, the impact on the banks' operations is assessed in the given moment in an interval from 1 to 5, where 1 denotes that the group has little importance for the bank's operations, while 5 denotes that a group of risks is exceptionally important for the bank, whereby there is no limitation for the use of the specific grades. The expectations for the future dynamics of risks are expressed through an assessment about the direction expected for the following year, which could be growing – "+1", declining – "-1" or unchanged – "0".

Like last year, banks assess the risks from the macroeconomic environment as the most important for their operations. The remaining groups of risks on average are ranked similarly, but their average level is significantly lower compared to the importance that banks assign to the risks of macroeconomic nature. At the same time, the group of macroeconomic risks was given the highest average grade in regard to its impact on banks' operations, followed by the risks which arise from the banking sector and risks related to changes in the regulatory framework. The general conclusion regarding the banks' expectations for 2014 is that stable expectations are predominant, that is, banks do not expect drastic changes in regard to the influence of the individual groups of risks. According to the results, the average expectations of the banks are in the direction of small reduction of the importance of macroeconomic risks, at the expense of certain strengthening of the influence of the remaining groups of risks.

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<sup>196</sup> The Survey includes the responses of all sixteen banks which make up the banking system of Republic of Macedonia.



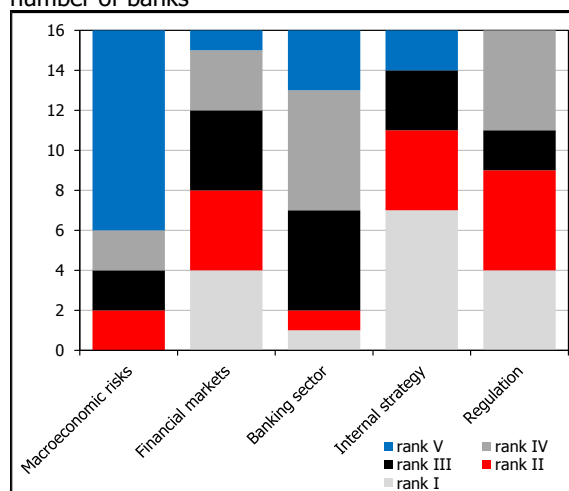
Table 17  
Results of the Survey on the risks

Results of the conducted survey		Groups of risks									
		Macroeconomic risks		Financial markets		Banking sector		Internal strategy		Regulation	
		2012	2013	2012	2013	2012	2013	2012	2013	2012	2013
Average rank of particular group of risks	unweighted	4.2	4.3	2.3	2.6	2.9	3.6	2.9	2.1	2.8	2.5
	weighted	3.9	4.7	2.2	2.5	2.9	2.8	2.8	2.1	3.2	2.9
Average grade of impact assesment of the group of risks on banks' operations	unweighted	n.a.	3.9	n.a.	2.3	n.a.	3.4	n.a.	2.8	n.a.	3.0
	weighted	n.a.	4.2	n.a.	2.3	n.a.	2.6	n.a.	2.0	n.a.	3.0
Average banks' expectations for risk's directions in the following calendar year	unweighted	0.3	-0.1	0.4	0.2	0.3	0.3	0.2	0.0	0.4	0.1
	weighted	0.3	-0.2	0.1	0.2	0.2	0.1	0.2	-0.2	0.1	0.0

Source: NBRM, based on the responses provided by banks.

Note: The share of the banks' assets in the total assets at a level of the banking system is used as a weight for calculation of the weighted average grade.

Chart 186  
Structure of banks' liquid assets by financial instruments  
number of banks



Source: NBRM, based on data submitted by banks

**The importance of the macroeconomic risks which is perceived by banks is also confirmed through the number of banks which gave the highest ranking of this group of risks in the Survey.** Contrary to this, banks made more even ranking for the remaining groups of risks, where none of the banks assigned the highest grade for the risks related to changes in regulations.

The analysis of the weighted average ranking shows that the banks with higher amount of assets show greater propensity to assign highest rank and highest grade of impact on the operations, to the risks related to the macroeconomic environment. However, unlike last year's survey, when banks expressed negative expectations for the macroeconomic environment next year, this year's survey shows positive expectations regarding the dynamics of

this group of risks. According to the explanation by banks, the relevance and the expectations for the macroeconomic risks are mainly determined by the external factors: the present uncertainty regarding the dynamics of the foreign demand for the domestic corporate sector, the increased price pressure due to the uncertainty of fuel prices, the uncertain dynamics of the private transfers, while there are positive expectations in regard to the recovery of the economies in Europe, which is expected to positively affect the dynamics of the industrial production, the export and the foreign investments in the country. The uncertainty regarding the condition of public finances is mostly pointed out as a risk factor from the domestic macroeconomic environment, related to the condition of the public debt, the presentation of the deficit in the Government budget on cash basis, rather than on accrual basis, the risk of weaker realization of budget income, the accumulation of the liabilities of the central government and





the consequential effects on the real sector. The realization of the major infrastructural projects acts towards the formation of positive expectations regarding the activity of the construction sector and the investment activity, although the low liquidity of construction companies is still pointed out as the main problem.

**The second most important group of risks, according to banks' perceptions, are the risks which arise from the banking sector.** Compared to last year's survey, the average ranking of this group of risks is increased and the banks expect their increased importance in the following period. It should be noted that these risks register significantly lower values of average ranking, grade and expectations, when the results are weighted with the size of the banks' assets, which clearly shows that smaller banks consider this group of risks as more relevant compared to banks with larger market share, which can be partially explained also with the use of the effects of the economy of scale in larger banks. According to the banks' perceptions, the main risk factor in this group is the pressure of the competition from the other banks, in the area of the interest rate policy, in the context of more aggressive approach of some banks on specific market segments, but also the possibility for additional strengthening of the competition due to the expectations of consolidations in the banking system.

**The third most important group of risks is that comprised of the risks which arise from the developments on the domestic or the international financial markets.** The banks assessed this group of risks as least influential on their operations, compared to the other groups. Such assessment reflects the limited role of the financial variables in the banks' operations, due to their low involvement in the financial markets, lack of large direct exposure to market risks and absence of direct market financing of activities. In addition, the possibility for transmission of the effects from the movement of market variables on the clients through introducing clauses for adjustable interest rates in the banking products also influences the modest impact of this group of risks on banks' operations. At the same time, there are no major differences between the normal and the weighted average from the results, which indicate that the grade does not depend on the bank size. Some of the more relevant risk factors of this group that are most commonly mentioned by banks are the movement of market interest rates at an international level and the possible need of change in the banks' interest rate policy.

**Banks assign less importance to the group of risks which arise from changes in the regulatory framework, which is perceived through the fall of the average ranking compared to the previous year.** Identical with the group of macroeconomic risks, one can notice that the weighted average ranking is slightly higher than the normal average, which is an indicator that banks with larger market participation assign more relevance to this group of risks. At the same time, banks assess this group of risks as the second most important group for their operations, but they do not expect major change in regard to risks, i.e. they expect that their influence will remain stable. It is worth to note that according to the banks' perceptions, the impact of this group of risks should not be expected only in the regulatory framework in the domain of the banking supervision and their operations, but in a wider spectrum of laws and by-laws which affect their operations, such as the application of the Law on Personal Data Protection, the regulations for calculation and charging value added tax in executive procedures, the regulations on bankruptcy procedures, on registration of trade companies etc. Main risk factors from this group, indicated by banks, are the frequent and fast changes of laws, the short time period for the implementation of these changes, the insufficient transparency in the



preparation of the regulations, which creates problems in the practical application of regulations and reduces the effectiveness of the regulations.

**The banks assigned lowest average ranking to the risks which arise from the strategy of the bank or the banking group, i.e., they consider them as a group of risks with the least importance.** Banks with larger market share, on average, assess the impact of this group of risks on the operation as weak and they expect moderate reduction of their importance in the following year, which is not the case with banks with smaller market share, which consider this group as more influential in the operations. The most prominent risk factor of this group, according to banks, is the condition of the parent entities of banks and the possible loss of the market position due to the limitations in the banking group. Some of the banks also point to the volume of foreclosures due to uncollected claims and the inability for their quick sale as a risk factor in this group.



## **ANNEXES**