### NATIONAL BANK OF THE REPUBLIC OF MACEDONIA Banking Regulations Department



### Financial Stability Report for 2006

July, 2007

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### Governor's foreword

Stable financial system is an important prerequisite for the economic wellbeing of all the citizens in the Republic of Macedonia. The possibility for the citizens and companies to have their own and dispose of financial products is one of the foundations of market economy. Encouraging the development of a safe and efficient financial system is part of the main tasks of the National Bank of the Republic of Macedonia. Despite the dominance of the banking sector in the total financial sector of the Republic of Macedonia, that responsibility for the implementation of those tasks is shared with other government institutions.

The Financial Stability Report, which we define as *a state of smooth functioning of all financial system segments, with each of them providing the highest possible level of flexibility for absorption of possible shocks*, is primarily a result of the efforts to identify the potential risks in the individual segments of the financial system which encompasses a growing part of the national economy. The covered matter is very subtle and requires competent staff and hard work. We have decided to face with this challenge and in this context we intend to increase our capacity for making better analyses and better assessments of the financial stability. As a result of that, the National Bank of the Republic of Macedonia joins the club of only around fifty central banks which through this type of reports enable the market participants to have an overview of the risk management, as a significant part of every contemporary economy. Here, one of the main preconditions for quality analysis of the financial system and its stability are the quantitative data. The weaknesses of the Macedonian data bases inevitably indicate the need of improvement in that area.

Non-financial institutions, financial institutions and financial infrastructure are the three segments of the financial system covered by this Report. Experiences show that the mutual interconnection of the influences of each segment on the other and on the entire system, as well as the influences of the international economy may cause larger problems in financial intermediation which could later on spill over into the other segments of the domestic economy. At the same time, the inefficiency in the financial system may lead to significant costs in a longer run, both for the citizens and for the companies. Therefore, it is necessary to develop and encourage sound functioning of the institutions, which will enable the maintaining of financial stability.

To that end, in the preparation of this Report, the National Bank of the Republic of Macedonia was motivated by the contribution it may give to the robustness of the financial and especially to the banking sector in the Republic of Macedonia. The Report contains data related to the monitoring of the system, individual important events, as well as part of the analyses and the research intended for better informing of the market participants. The comprehensive approach in this Report emphasizes the strong links among the three segments of the system.

In this context, the main objective of the Financial Stability Report is to assess the level of resilience of the financial system, with an accent on the banking system, identifying the main systemic risks, whose materialization could cause serious disturbances in the functioning of the financial system. At the same time, the Report summarizes part of the research work of the National Bank of the Republic of Macedonia employees, pertaining to the policies and the aspects of the research and the functioning of the financial system and it encourages public discussions on expert level regarding all the aspects of the financial system and its interconnection with the other segments of the economy.

I am convinced that the regular drawing up of the Financial Stability Report will contribute to the efforts for a more efficient and more stable financial system, by emphasizing the important information that broaden the knowledge and the discussion on that topic. Thus, the National Bank of the Republic of Macedonia will give another impetus for a successful completion of the economic reforms which are the path that the Republic of Macedonia treads in order to become a member of the family of developed countries.

Petar Goshev, MSc.

Governor

### Summary

The resilience of the financial system of the Republic of Macedonia to external shocks and its ability to manage the potential risks in 2006, could be evaluated as satisfactory. Most of the risks identified in the Report are within controlled frames and they are not expected to disturb the financial system stability.

The global financial imbalances, higher oil price, inflation expectations and the restrictive monetary policy in the USA and in the Euro zone, as well as the continuous increase in the debt of the household and the corporate sectors primarily in the EU, were the main potential factors which influenced the stability of the global financial system in 2006.

These potential factors did not influence significantly the stability of the financial system of the Republic of Macedonia. Despite the significant openness of the Macedonian economy, only part of these factors had a more significant influence on its developments. Thus, the increase in the price of oil on the world markets created negative impetus on the Macedonian economy, whereas the favorable conditions on the metal market had a positive influence primarily on the domestic exporters, which contributed significantly to the creation of the value added in the Macedonian economy. The inflationary pressures, i.e. the increase in the reference interest rates of the central banks in the developed countries during 2006, was a potential factor of increasing the costs for repayment of the credits to non-residents, having in mind that a significant portion of the external private and public debt is with variable interest rate. The problem of the low level of geographic and production diversification of the country's foreign trade and the potential negative consequences for the Macedonian economy, in case of possible unfavorable developments in the economies that the main trading partners of the Republic of Macedonia is contained by the favorable credit rating and the stable, i.e. positive prospects of these countries.

The favorable macroeconomic environment also contributed to the relatively high level of stability of the financial system in the Republic of Macedonia during 2006. The macroeconomic stability, supported by the prudential monetary and fiscal policies were the main features of 2006. Increased external liquidity position of the country, obtained from the growth of the gross foreign reserves, low and stable inflation and reduced interest rates were additional factors that contributed to the increased confidence in the business environment. However, the relatively lower rate of economic growth, compared with the other countries in the region, the high unemployment rate, the insufficient foreign and domestic investments, as well as the high trade deficit, are the main challenges for the macroeconomic policy - makers, which directly or indirectly reflect on the financial stability of the country.

The risks for the financial stability created by the households have increased in recent years. However, these risks are within controlled limits and do not have a significant systemic influence. The most important potential risk for the financial stability is the continuous upward trend in the household debt. Possible negative shocks, related to the movement of the interest rates, exchange rate and movement of their disposable income are the most significant factors which could have an adverse influence on the ability to service their liabilities to financial institutions. The increased interest of the natural persons in investing in shares contributes toward increase in the average yield on their financial assets, but at the same time it acts towards an increase in their exposure to market risks, and towards a reduction of the average level of liquidity of their financial assets.

The favorable macroeconomic environment and further restructuring and consolidation of the corporate sector in the recent years had a positive influence on the financial condition of this sector. Throughout the past years the corporate sector has continuously increased. The indicators for measuring liquidity and profitability of enterprises registered improvement in the past years, despite the fact that they are still on a low level.

Corporate sector has not caused serious negative consequences for the financial stability. Its debt to the financial system is on a relatively lower level, compared with the other countries. Still, one must not overlook the upward trend in the corporate debt, and especially the currency structure of the debt. The dominance of the debt with currency component increases the exposure of the corporate sector to a foreign exchange risk, which indirectly influences the stability of the banking system and the financial system as a whole, by the increase in the share of the so-called "indirect credit risk" in the risk profile of the financial institutions.

Also, greater attention should be paid to the improvement of the financial discipline among enterprises and other institutions, which is confirmed by the large share of uncollected liabilities of the corporate sector, especially to other non-financial entities.

The financial system of the Republic of Macedonia is characterized with a relatively simple structure from a viewpoint of the types of financial institutions and the variety of products and services they offer. The reforms in the pension system, the development of the capital market, as well as the entrance of foreign strategic investors in individual segments of the financial system, contribute to the increased diversification of the financial system and represent an incurring factor for stronger competition both among the institutions of the same kind and among the various financial institutions. However, being dominant among the financial institutions, banks have a crucial influence on the movements and developments in this sector.

In recent years, and especially in during 2006, the banking sector has significantly increased in its size, its operational efficiency and profitability. Together with the increased volume of activities, banks' solvent position remained on a relatively high level. The capital adequacy ratio remained higher than the prescribed minimum, registering further downward trend, as a result of the accelerated credit activity.

Banks' risk profile registers continuous improvement. Credit risk plays the dominant role in the spectrum of risks the banks face with throughout their operations. Increased volume of lending in foreign currency and in Denars with foreign exchange clause increases the importance of the indirect credit risk, which arises from the exposure of the borrowers to an foreign exchange risk. The credit portfolio quality does not show any signs of deterioration. However, the credit growth in the past few years and the expected increase of the competition in the banking sector impose an environment for increasing the banks' risk management capacity, which would ultimately lead towards an improvement of their overall performances.

With the expected deepening of the role and the activities of the other financial institutions, the increased importance of the financial markets and the launching of new financial products in a medium and/or long run, the banks should anticipate the risk of possible shifting of the investors and depositors to other financial institutions and to alternative investment possibilities. In such an environment the banks will face with the need to develop into "more inventive" financial institutions and to offer to the investors and depositors products which will be competitive compared with the alternative investment possibilities.

So far, however, the non-banking financial institutions have a relatively small role in the financial intermediation and their potential influence on the financial stability is not high. The insurance sector, as the second largest in the overall financial system still has a small share in the overall financial system, but according to the nature of the insurance activities, it is of special importance for the financial stability of the country. In the forthcoming period further development and increased security of the insurance sector is expected by improvement of the risk management process by the insurance companies, as well as strengthening of the supervisory function by establishing an independent Supervision Agency. Also, in the forthcoming years it is possible to expect increased presence of the non-banking financial institutions, especially after the completion of the reforms in the pension system and the emergence of domestic institutional investors, for which the institutional and the regulatory frameworks are being established.

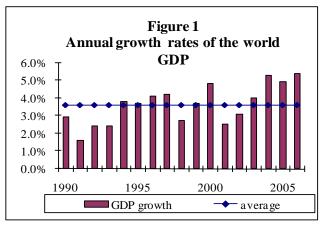
Last year was specific for the significant increase in the turnover, and hence the importance of the capital market in the framework of the financial system of the Republic of Macedonia. The increased intensity of trade in shares and bonds on the Macedonian Stock Exchange, accompanied by an inflow of foreign portfolio investments, caused an increase in the market capitalization and improvement of the market liquidity. On the other hand, however, the increased trade in shares and the increase in their prices is simultaneously a new source of risk for the Macedonian economy. Such market risks would be most evident in case of creating too high expectations for the future performances of the issuing companies and the prices of their shares.

Precondition for a stable and efficient banking system is the existence of a safe and efficient payment and settlement system. The reform of the payment system of the Republic of Macedonia was one of the more complex reforms in the country. The new payment system which has been in place for six years, and which was developed on the example of the payment systems of the countries with developed market economies, provides strong dynamic and development component of the financial system of the county, creating preconditions for new banking products, for increasing banks' efficiency and for encouraging new information and technological tendencies in the banking operations.

### I. Macroeconomic environment

### **1. International environment**<sup>1</sup>

Global economic growth rates registered in the past four years indicate such an expansion of the world economy as it has not been registered in the period after the early seventies of the previous century. During 2006, global economy grew at a rate of  $5.4\%^2$ , with the fastest increase being registered during the first quarter of the year, followed by certain slowdown in the following quarters, as a consequence of the high rise in the price of oil. The positive



trend in the economic activity was present in most of the world economies, while on a global level mostly it was supported by the growth of the economies of the USA, China, India and Russia.

According to the assessment the of International Monetary Fund, the global economic growth is expected to slow down and to reduce to 4.9% in 2007. This adjustment is expected to take place without significant disturbances of the global financial However, the stability. possible unexpected

 Table 1

 Annual rates of economic growth (in %)

noniona and states	2004	2005	2006	current projections			
regions and states	2004	2005	2000	2007	2008		
Global	5.3	4.9	5.4	4.9	4.9		
euro zone	2.1	1.4	2.6	2.3	2.3		
Central and Eastern Europe	6.5	5.5	6	5.5	5.3		
US	3.9	3.2	3.3	2.2	2.8		
Japan	2.3	1.9	2.2	2.3	1.9		
Russia	7.2	6.4	6.7	6.4	5.9		
China	10.1	10.4	10.7	10	9.5		
India	8	9.2	9.2	8.4	7.8		

change in the global imbalances, as well as the occurrence of a significant global decline of the investors' "inclination" to accept risk, could cause faster slowdown of the world economy than expected. Such a correction could lead to a massive adjustment of the asset prices, which would lead to a disruption of the global financial markets.

### 1.1. Risks of the global environment

As it was the case in the past years, also in 2006 one of the key global economic risks were the global imbalances, i.e. their most pronounced aspect - the deficit in the current account of the USA on the one hand and the surplus in the current accounts of certain Asian countries and oil-exporting countries on the other. At the end of 2006, the deficit in the current account of the USA was 6.5% of this country's GDP. Relative to the preceding year, the deficit went up by 8.2%, i.e. its share in the GDP increased by 0.1 percentage point.<sup>3</sup> During 2006, no significant structural changes were registered in the contribution of the foreign public investors to the financing of the current account deficit of the USA<sup>4</sup>. However, despite the fact that China and Japan remain to be the most important individual foreign

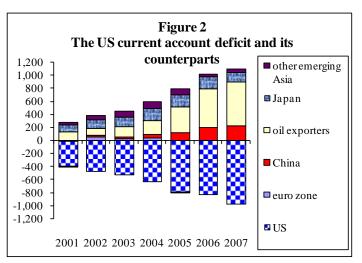
<sup>&</sup>lt;sup>1</sup> The analysis is based on data from: IMF World Economic Outlook, April 2007; ECB, Financial Stability Review, December 2006 and the electronic data service - Bloomberg;

<sup>&</sup>lt;sup>2</sup> Source: IMF World Economic Outlook, April 2007.

<sup>&</sup>lt;sup>3</sup> Source: IMF World Economic Outlook, April 2007.

<sup>&</sup>lt;sup>4</sup> Source: ECB, Financial Stability Review, December 2006.

investors in the USA, the oilexporting countries become increasingly important. In the second half of 2006, half of the inflow of the funds for purchasing long-term securities in the USA originated from Great Britain and the Caribbean "offshore" financial centers, where usually the funds of the largest oil producers were ending. Hence, the revenues from the production of oil play a significant role in financing the current account deficit of the



USA, simultaneously causing great sensitivity of the US economy, primarily due to the geopolitical risk.

Sustainability of these imbalances in the world economy, caused by the current account deficit of the USA, as opposed to the surplus on the current accounts of individual Asian countries and oil-exporting countries, is one of the main challenges the global financial stability is facing with. Sensitivity of the US economy to the possible changes in the inflow of capital used for financing of this deficit is one of the key aspects of the global financial stability. Possible sudden decline in the inflow of capital would lead to a depreciation of the US Dollar, which would increase the upward pressure on the long-term interest rates, which could have negative consequences for the accomplishment of the expected economic growth rates and lead to a slowdown in the global economic activity.

The decline in the high budget deficits is one of the conditions, which, in a short run contribute to the sustainability of the current account deficit of the USA. Despite the improved condition on the public finance account of the USA<sup>5</sup>, in a medium run, there is still risk of possible negative consequences for the global economic growth and financial stability. In circumstances of a significant negative current account imbalance and relatively low real interest rates, the budget deficit, which increases the need for financing the public sector of the USA could contribute to the emergence of a crowding out effect of the private sector's borrowing and upward pressure on the global interest rates.

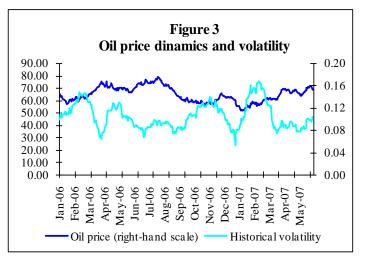
The dynamics of the overall economic activity in the USA is under the influence also of the developments on the residential property market. At the end of 2006, slowdown on this market<sup>6</sup> was registered, which per se could not lead to recession pressures in the US economy, having in mind the fact that the investments in residential property cover around 6% of this country's GDP. However, if the prices of residential property drop much more than expected, it could have significant indirect influences evident through the significant decline of the households' consumption, which on its part, is one of the main postulates on which the vitality of the US economy is maintained. In conditions of growing prices of the residential property, and adequate increase in the value of the property, the households used this property for borrowing and for financing the personal investments and consumption. As opposed to that, it is quite expected the households' consumption to decline in conditions of market slowdown and decline in the prices of residential property.

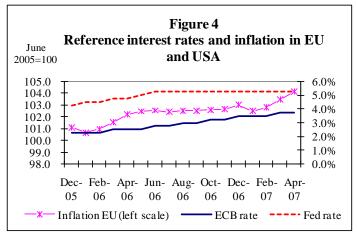
<sup>&</sup>lt;sup>5</sup> At the end of the fiscal year 2006 (September 30, 2006), according to the Congressional Budget Office of the USA, the Federal budget deficit of the USA equaled 2.3%, which is a decline of 0.3 percentage points relative to the preceding fiscal year. Source: ECB, Financial Stability Review, December 2006.

<sup>&</sup>lt;sup>6</sup> In October 2006, the sale of existing single-family homes registered an annual decline of 11%. At the same time, the time needed for cleaning the market from the existing residential property went up from 4.8 to 7.2 months. (Source: National Association of Realtors).

One of the main risks which the global economy faced with during 2006, were the inflationary pressures, which reflected the rise in the prices of crude oil and primary products, which equaled 20.5% and 28.4% respectively<sup>7</sup>, on annual basis. In the past period, the oil price was also characterized with significant changes its in volatility<sup>8</sup>. historical which created additional uncertainty with the market participants, regarding its future movements.

Due to the emphasized inflationary pressures, typical for the past year was the continuous of monetary trend policy tightening by the central banks in the developed economies. Such a trend was more evident in the multiple raising of the reference interest rates, and as a result of that, at the end of 2006 the reference interest rate of the FED equaled 5.2% and of the ECB 3.5%. Another characteristic is the fact that for





the first time after 2001, the Bank of Japan set the reference interest rate at a level higher than zero (0.3%).

### 1.2. Risks typical for the Euro-zone

Despite the favorable economic developments in the Euro-zone in 2006, one of the main challenges for maintaining the financial stability in this region was the continuous trend of increasing the debt of the non-financial sector (corporate sector and households) to the banks and other financial institutions.

In spite of the strong profitability of the corporate sector, there are certain indicators of deterioration of the financial position and the performances of this sector. Thus, the number of deteriorated credit ratings of enterprises exceeds the number of the improved ones, with the ratio of the credit ratings subject to revision due to the deterioration relative to those that are subject to revision due to the possible improvement registering an increase. Possible reasons for this are the increased level of indebtedness of the corporate sector and the expectation for deterioration of the profitability of the corporate sector, in conditions of a continuous tightening of the monetary policy. However, market indicators still do not point

<sup>&</sup>lt;sup>7</sup> Source: IMF World Economic Outlook, April 2007. Spot price of the crude oil is used, which represents weighted average of the following types of oil: West Texas Intermediate, Brent and the prices of Dubai-crude oil.

<sup>&</sup>lt;sup>8</sup> Historical volatility is a standard deviation of the daily changes in the oil price, for the values of one calendar month, reduced to an annual level. This indicator is used to show the maximum change in the oil price in one day, but also the possibility of an extreme market shock, which is larger in conditions of a higher value of the indicator.

toward an increased level of credit risk, and banks' credit policies are not becoming more restrictive. This could be a reflection of the high liquidity of the financial markets, which is evident through the increased level of competition and low levels of banks' interest spreads. In such circumstances, there is a risk of relaxing banks' credit policies, in the effort to maintain or increase the interest income. However, despite the low level of credit risk in the corporate sector, from the viewpoint of the financial stability, the fast growth of its indebtedness and the increased utilization of short-term financing increases the sensitivity of enterprises to the possible disruptions, such as economic growth lower than expected, unexpected increase in the oil price, or unexpected increase in the interest rates. In that sense, the possible deterioration of the creditworthiness of the corporate sector would lead to higher credit losses for the banks, but it could also cause significant adjustments in the prices on the financial markets.

Despite the continuous increase in the debt of the households in the Euro-zone, it is still under the levels typical for the other developed economies.

On the other hand, the value of the total assets of the households in the Euro-zone is exposed to higher risks. One of the risks pertains to the possible downward adjustment of the residential property prices, in spite of the current upward trend at the level of the Euro-zone<sup>9</sup>. Also, financial assets of the households are exposed to a raising level of market risk, through the investments in investment funds and pension funds with defined contributions. Therefore, in circumstances of unfavorable market developments, these countries' banking systems would be faced with the risk of significant deterioration of the households' creditworthiness. As for the banks' exposure to the risk of reduction of the residential property prices, it is assessed that by establishing conservative levels of coverage of mortgage loans with security, i.e. so-called "loan-to-value ratio"<sup>10</sup>, banks are protected against possible unfavorable developments on the residential property market. However, it means that the negative consequences from this risk would be borne by the households, which in case of deterioration in its creditworthiness, indirectly, could have negative consequences for the banking sector as well.

### Main risks in the global environment

In February 2007, Davos, Switzerland hosted the Annual Meeting of the World Economic Forum - WEF, where various risks of economic, financial and social character, typical for the global environment, were identified. The main risks pertain to:

- The possible negative effect of the **global economic imbalances** on the financial stability in the world. This primarily refers to the sensitivity of the US Dollar to the possible depreciation as a result of the large current account deficit of the USA. The possible sharp decline in the value of the US Dollar would adversely influence the global economic growth and the international financial markets.
- The decline in the **prices of residential property**. There is a generally accepted opinion that after few years of great demand and continuous trend of growing prices, the residential property market has already reached its peak. Such a development imposes the question about the inevitable "correction" of the prices which will follow, about its pace (fast and one-time or slow and gradual) and about the possible consequences for the financial stability.
- The risks arising from the growing use of derivative financial instruments (financial derivatives), which pertain primarily to the lack of knowledge about these instruments, as well as to the potential transfer of the risks to entities which have insufficient knowledge and/or inadequately assess the risks.
- The private equity funds and hedge funds which emerge very rapidly and at the same time are subject of an increased "interest" by the regulatory bodies and the public.
- The uncertain future of the **multilateral trading agreements**, after the termination of the

<sup>&</sup>lt;sup>9</sup> Source: ECB, Financial Stability Review, December 2006 - contains data on the movement in the residential property prices in the Euro-zone, until end 2005.

<sup>&</sup>lt;sup>10</sup> Indicator of the amount of the loan extended relative to the value of the collateral.

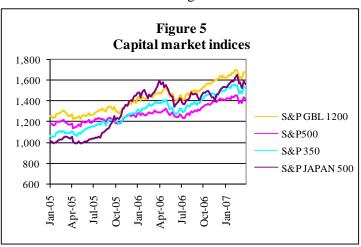
multilateral negotiations in Doha in July 2006. The negotiations pertained to the presence of protectionism in the international trading relations.

- Access to oil, in the sense of the future of the oil industry, the possibility for new conflicts, the role of the producers on the one hand, and the role of the oil consumers on the other, and the potential influence on the environment.
- Global demographic trends. Ageing and decline in the number of the population, especially in the developed countries could have negative consequences on the economic growth, as well as on the financing of pension funds in theese countries. In contrast, there is a trend of growth of the population and of the unemployment rates in the undeveloped countries.
- The risks of **geopolitical nature**, primarily the unstable situation in the Middle East, terrorism and construction of massive destruction missiles.
- The changes in the **global climate**, which could negatively reflect on the economic growth and financial markets, for example, by increasing the volatility in the product prices.

#### **1.3. International financial markets**

One of the more significant events on the global capital markets during 2006, was the significant drop in the prices of shares in May and June 2006. At the same time, the emerging markets faced with outflows of funds and their redirection into government bonds of the G7

countries (so-called safeheaven buying). Such movements were under the influence of the increase in the reference interest rates in the developed economies and of the re-assessment of the investors' positions, supplemented by the expected slowdown of the economic growth in the USA, as well as by the possibility FED to increase the reference interest rate more than expected, due to the inflationary pressures.



Since end-June prices of shares increased again<sup>11</sup>, primarily as a result of the reduced inflationary pressure, after the slowdown in the oil price, of the improved profitability position of the corporate sector and of the changed perception about the growth of the US economy. Such movements resulted in positive overall changes in the prices of shares at the end of 2006. During February 2007, another short-term, increased sale of shares on the global market occurred, which was triggered by the expected slowdown of the Chinese economy, the default of part of the claims on the so-called market of sub-prime<sup>12</sup> mortgage loans in the USA, the decreasing interest in conducting the so-called carry-trade<sup>13</sup> with the Japanese Yen, as well as the global geopolitical tensions.

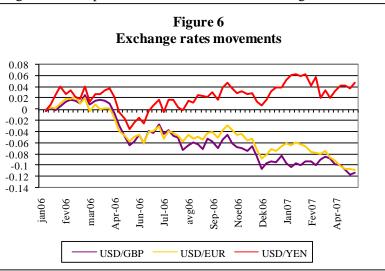
<sup>&</sup>lt;sup>11</sup> The S&P GBL 1200 index reflects the movements in the prices of a package of shares of 1200 issuers worldwide and it is derived from the movement of seven (sub)indices pertaining to the movements on the markets in the USA, Europe, Japan, Canada, Australia, Asia (Hong Kong, Korea, Taiwan, Singapore) and Latin America (Argentina, Brazil, Chile, Mexico). S&P 500 is an index of the movements on the capital market in the USA, which includes 500 leading US companies and covers around 75% of the US capital market. Movements on the markets in Europe are presented through the index S&P 350, which covers around 70% of the market capitalization on seventeen stock exchanges in Europe. The S&P Japan 500 index reflects the movements of 500 Japanese companies quoted on the stock exchanges in Tokyo, Osaka, or on JASDAQ and covers 88% of the capital market in Japan.

<sup>&</sup>lt;sup>12</sup> "Sub-prime" lending pertains to extending loans (primarily mortgage loans) to entities without or with disturbed credit history, and it is supported by the process of securitization and issuing mortgage backed securities.

<sup>&</sup>lt;sup>13</sup> The so-called "carry-trade", basically includes indebtedness in a currency with an extremely low, almost equal to 0% interest rate and simultaneous investment of the funds in high yield placements in

On the foreign exchange market depreciation of the US Dollar was registered, which

starting from March 2006 weakened relative to the Euro and the British Pound. The depreciation of the Dollar was mostly a result of the slowdown of the economic growth in the USA and of the reduced interest spread with the other countries (EU and Great Britain). The same reasons led also to weakening of the Japanese Yen relative to the Euro and



the British Pound. The indebtedness of the US economy expressed through the high levels of the fiscal and current account deficits, the continuous upward trend of the interest rates in other economies, primarily in the Euro-zone, as well as the commenced process of diversification of the foreign reserves portfolio by certain countries, towards a decline in the share of the US Dollar, could lead to further weakening of its value and increasing the instability on the global financial markets.

On the commodities market, in expectation of slower global economic growth, the "Reuters/Jefferies Commodity Research Bureau (CRB) Index" dropped by 7%. However, during 2006 the average price of gold went up significantly and reached 604.3 US Dollars per ounce (444.96 US Dollars per ounce in 2005). Usually the price of gold moves in the same direction with the oil price, which averaged 65.4 US Dollars in 2006, in contrast to 54.5 US Dollars per barrel in 2005<sup>14</sup>.

One of the main development features of the global financial markets during this last decade, has been the fast increase in the size and the diversity of the products on the markets of credit derivatives. The development of these markets enables more efficient credit risk management by the banks and better credit risk distribution within the financial system, which reflects positively on the stability of the banking and the financial system as a whole. However, better management and distribution of the credit risk does not mean its disappearing. On the contrary, banks' efforts to protect themselves against credit risk could lead to its concentration outside the banking system. One of the dominant risks related to the transfer of the risk outside the banking system is the growing role of the "hedge" funds. They have a positive contribution to the development of the financial markets as they actively monitor the opportunities for arbitrage, which contributes to an efficient price setting and improves the liquidity of these markets. However, there is a concern regarding the size of the credit risk undertaken by the "hedge" funds, primarily due to the lack of possibility to identify the manner in which they and the markets to which credit risk is transferred would react, in

<sup>14</sup> Source: Bloomberg. The spot price of crude oil is used, which is a weighted average of the following types of oil: West Texas Intermediate, Brent and the prices of Dubai-crude oil. Source: IMF WEO.

countries with higher interest rates. Such type of transactions bear yield until the moment the currency in which the loans are used is weak. The increase in the interest rates and the strengthening of the currency in which the loans are used increase the costs for loan repayment, which could cause a decline and even disappearing of the positive effect from the differences in the interest rates and massive withdrawal of the investors from such transactions. Exactly the appreciation of the Yen, which is evident since the beginning of February 2007, and the gradual increase in the interest rate in Japan are pointed out as one of the possible explanations for the increased sale of shares and bonds on the markets with high yields.

case of possible deterioration of market conditions. Failing of some significant "hedge" fund could be understood as lack of possibility to manage and transfer the credit risk. That could lead to deterioration of the business cycle, as a consequence of the increased precaution of banks when extending credits, especially if they estimate that it is not possible to transfer the credit risk to the other market participants.

### 2. Macroeconomic environment in the country

The trend of uninterrupted positive dynamics of the Macedonian economy registered in the period after 2001, continued, with the achieved economic growth rate of 3.1% in 2006. With an exception to construction, all other economic sectors registered an increase in the previous year. As it was the case in the preceding years, the increased economic activity in the services sector was the main growth generator, with a contribution of 58.1%.

Despite the trend of economic growth in the Republic of Macedonia since 2002, it is still under the level needed for reducing the differences with the developed countries, as well as for approximating the growth level of the emerging markets. The average GDP per capita in the Republic of Macedonia represents 25.8%<sup>15</sup> of the average, at the level of the European Union, and 25% of the average at the level of the Euro-zone. In conditions of a relatively harmonized economic cycle of the Republic of Macedonia and the Euro-zone, the reduction of these differences in the level of development should be based on strengthening the economic activity in the country, for which of crucial importance are the increase of the competitiveness of the Macedonian economy, the increase in the domestic saving, the increase in the level of domestic and foreign investments and the overcoming of a number of infrastructural, institutional and legal impediments. These processes will have positive influence on the business environment, and ultimately on the strengthening of the financial stability.

During 2006, inflation<sup>16</sup> increased and registered a level of 3.2%. Here, 93% of the average inflation was caused by the rise in the prices of personal consumption goods, while the more moderate increase in the services caused the remaining portion of the inflation. Despite the fact that in 2006 the average annual inflation was higher compared to that in the Euro-zone, in the period 2002-2006, it was under the average registered in the Euro-zone. The higher average annual inflation in the Republic of Macedonia should not have an adverse effect on the economic growth and on the financial stability in the country, having in mind the reduced inflationary pressures during the second half of 2006 and the stable inflation expectations<sup>17</sup> for 2007.

However, inflationary pressures, i.e. the consequential increase in the reference interest rates of the central banks of the developed countries, primarily USA (FED) and EU (ECB), which was present during 2006, could have negative consequences on the financial stability in the Republic of Macedonia, from a viewpoint of the possible rise in the costs for repayment of the credits to non-residents and the possible withdrawal of the unstable capital flows due to the changed preferences of the investors regarding the risk - return ratio. Here, 57.4% of the total external private debt, which amounts to Euro 535.1 million and 42.7% of the total external debt of the public sector, which stands at Euro 1,223 million, are with variable interest rate, i.e. they are sensitive to the changes in the world interest rates<sup>18</sup>.

<sup>&</sup>lt;sup>15</sup> At purchasing power parity. Source: WEO Database, April 2007.

<sup>&</sup>lt;sup>16</sup> Average annual inflation rate, measured according to the consumer price index.

<sup>&</sup>lt;sup>17</sup> In accordance with the results of the Survey on the Inflation Expectations of the NBRM in the fourth quarter of 2006, most of the respondents expected the inflation to remain on the existing level. <sup>18</sup> The structure pertains to the principal of the public external debt as of December 31, 2006, and to the

<sup>&</sup>lt;sup>18</sup> The structure pertains to the principal of the public external debt as of December 31, 2006, and to the structure of the principal of the private external debt as of March 31, 2007.

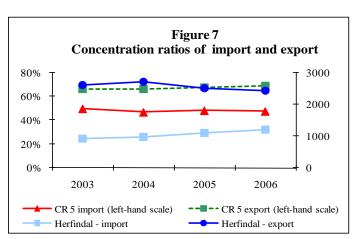
In circumstances of conducting a policy of stable exchange rate and relatively higher amounts of foreign exchange inflows in the economy in the last two years, the monetary policy of the National Bank has been facing a new challenge, i.e. potential risk from appreciation of the real effective Denar exchange rate. This potential risk could lead to a decline in the competitiveness of the domestic economy on the world market, and hence to broadening of the trade deficit. However, the analysis of the movement of the real effective Denar exchange rate indicates relatively stable movements and maintaining of the competitiveness of the economy. At the same time, during the past ten years, the central bank has successfully maintained the Denar exchange rate on a stable level, which significantly reduces the likelihood of possible materialization of this risk.

The economic growth in the country had a positive reflection also on the labor market. Thus, in accordance with the Labor Force Survey, at the end of 2006, the unemployment rate dropped from 37.3% to 36%, compared with the previous year. At the same time, the employment rate went up by 1.3 percentage points and equaled 35.2%. However, despite such movements and changes in the legislation towards enabling greater flexibility on the labor market<sup>19</sup>, the high unemployment rate, accompanied by certain negative structural features<sup>20</sup>, is still one of the restrictive factors of development.

During the past two years, significant improvement in the current account balance was registered by a reduction of the deficit in absolute amounts and by more significant decline of its share in the GDP. At the end of 2006, the share of the current account deficit was reduced down to 0.4% of GDP, which is a decline of 0.9 percentage points relative to 2005 and a decline of 7.3 percentage points relative to 2004. However, despite the positive movements in the current account, the problem with the high trade deficit remains, which in 2006 reached the level of 20.6% of GDP.

Besides the high level of trade deficit, one should also have in mind certain unfavorable structural features, from a viewpoint of the degree of concentration of foreign trade and the sources of covering the negative trade balance.

The analysis of the  $CR5^{21}$ indicator and the Herfindahl index<sup>22</sup> points to the presence of a relatively high level of concentration of the foreign trade, especially on the export side, both from the aspect of the geographical distribution and from the aspect of the share of the individual types of products. The low level of geographical and production diversification of



<sup>&</sup>lt;sup>19</sup> Changes in the legislation (Law on Labor Relations), which are aimed at increasing the flexibility on the labor market primarily pertain to the limitation of the validity of collective agreements to two years, elimination of the obstacles for temporary employment, restriction of the overtime work, simplification of the procedures for announcing excess workers without the need for announcing redundancies or changing the organizational structure, reduction of the maximum amount of severances from 8 to 6 monthly salaries, reduction of the period of paid sick leave by the employer from 60 to 30 days.

<sup>&</sup>lt;sup>20</sup> High share of the unqualified labor force in the total number of unemployed persons, highest unemployment rate (59.9%) among the population aged between 15 and 24, and high share of long-term unemployment.

<sup>&</sup>lt;sup>21</sup> The CR5 indicator represents the share of the import/export of the five countries largest exporters/importers in the total import/export of the Republic of Macedonia.

<sup>&</sup>lt;sup>22</sup> The Herfindahl-Hirschman index is calculated as a sum of the squares of the shares of the individual types of products in the total import/export of the country.

the foreign trade, in conditions of possible adverse developments in the respective economies could have negative consequences on the balance of payments and foreign trade position of the country and it could indirectly lead to disruption of the financial stability in the Republic of Macedonia. Such a situation is somewhat mitigated with the favorable rating and stable, i.e. positive prospect of the countries that are dominant in the foreign trade of the country.

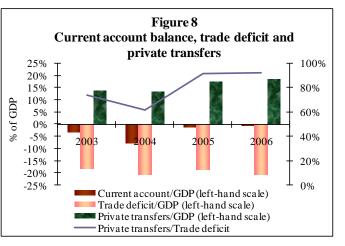
Importers	Share in the total export of RM	S&P rating	Exporters	Share in the total import of RM	S&P rating
Serbia and Montenegro	23.2%	BB- Positive BB+ Stable	Russia	15.1%	A- Stable* BBB+ Stable**
Germany	15.6%	AAA Stable	Germany	9.8%	AAA Stable
Greece	15.0%	A Stable	Greece	8.5%	A Stable
Italy	9.9%	A+ Stable	Serbia and	7.5%	BB- Positive
·	5 40/		Montenegro Del corric	( (0/	BB+ Stable
Bulgaria	5.4%	BBB+ Stable	Bulgaria	6.6%	BBB+ Stable

Rating of the large	t foreign trade ne	artnors of the Ror	oublic of Macedonia
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\* domestic currency; \*\* foreign currency;

Table 2

Another unfavorable feature of the current account of the Republic of Macedonia is the manner of financing the trade deficit. Dominant part is financed with private transfers. This was especially evident in 2005 and 2006, when over 90% of the trade deficit was financed with the inflows from private transfers. The potential risk from such manner of trade deficit financing arises from the instability of these inflows. However, in the practice, in the



Republic of Macedonia the inflows from private transfers show an upward trend and have stable share in the GDP. This unfavorable structural feature of the country's balance of payments is additionally contained if one has in mind the structure of private transfers. During 2006, dominant in the structure of private transfers were the foreign exchange inflows on the basis of currency exchange operations with 70.3%, while the rest is a result of foreign exchange inflows on the basis of remittances from abroad, which are unstable by their character. On the other hand, foreign exchange purchased through exchange offices has a share of 53.4% in the foreign exchange inflows from currency exchange operations, while the remaining portion is purchase of foreign exchange through banks. The relatively high level of purchasing foreign exchange inflow from unregistered export of goods and services, which points to the fact that the high deficit in foreign trade could still be overestimated. As long as the economy grows, it is estimated that this type of foreign exchange inflow would be stable.

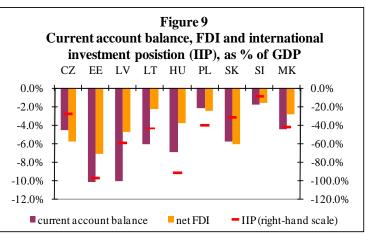
### External position of the new EU Member-States<sup>23</sup> and the Republic of Macedonia

The assessment of the sensitivity of a country to a currency crisis is based on an analysis of a number of economic and political indicators, including the external position of the country. At the end of 2006, besides USA, the countries from Central and Eastern Europe (CEE) were the only region characterized by significant and constant current account deficits, as opposed to the moderate deficits

<sup>&</sup>lt;sup>23</sup> Source: ECB, Financial Stability Review, December 2006.

or surpluses of the counties in Asia or Latin America. Despite the fact that this region is relatively small in economic terms, the unfavorable movements on the markets in this region could have an adverse effect on the global financial stability. For comparison, the Asian crisis, 1997-1998 showed

that the instability in one country could have negative consequences for a much larger economic region, especially in simultaneous case of а withdrawal of the investors from several countries with similar characteristics. In that sense, the geographical vicinity of the new EU Member-States (NMS), as part of the region of CEE, and the participation of some of them in the Exchange Rate Mechanism II, even further emphasize the importance of analysis of the external positions of these countries, as part of the broader framework for analyzing financial stability. Main elements



Note: Current account balance and FDI are the averages for the period 2002-2006, while the value of IIp is at the end of 2005. The negative value of FDI represents higher FDI inflows than outflows

of such an analysis are the following: analysis of the current account balance, its financing, as well as the net international investment position (IIP) and the level of the country's external debt.

The analysis of the current account balance points to significant differences in the situation in the individual NMS. The highest levels of current account deficit in the period 2002-2006 were registered in Estonia and Latvia, where in this period the negative current account balance averaged over 10% of GDP. Relatively high current account deficit was registered also in Hungary (7% of GDP on average), primarily as a result of the high fiscal deficit of the country. As opposed to that, Slovenia and Poland were countries with the lowest level of current account deficit, which averaged around 2% of GDP. In the other NMS current account deficit ranged between 4% and 6% of GDP. In the same period, the current account deficit in the Republic of Macedonia averaged 4.5% of GDP, which is higher only than in Slovenia and Poland.

Such levels of current account deficit are possible indicator of the cost and price inefficiency and incompetitiveness of the countries, but in the case of the NMS, they could be triggered also by the process of convergence of their economies with the EU. The results from the analyses which are grounded on certain models for estimation of the "excessiveness" of the deficits of the NMS, suggest that the current account deficits of the NMS are mostly on sustainable levels. However, these models indicate that there is great possibility the current account deficits which are significantly higher than 10% of GDP (as it is the case with Estonia and Latvia in certain years) to be unsustainable in a medium run. Also, certain indicators point to "excessiveness" of the negative balance on the current account in Hungary, especially in the years when it exceeds 8% of GDP.

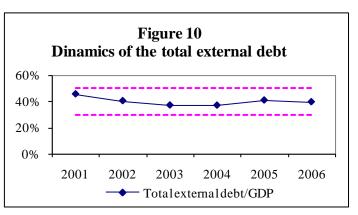
Financial stability is in correlation also with the structure of financing the current account deficit. Financing with long-term and more stable sources of funds contributes to the sustainability of the current account deficit in a longer run. In that sense, emphasis is put on the importance of the foreign direct investments (FDI) as a source of financing this deficit. In the analyzed period, the net inflows of FDI, on average, exceeded the current account deficits in the Czech Republic, Poland and Slovakia. As opposed to that, the net inflows of FDI financed only around half of the current account deficits of Hungary, Latvia and Lithuania, which reflects the relatively lower level of FDI and the high amounts of current account deficit. In the same period (2002-2006), the net-inflows of FDI financed, on average, around 60% of the current account deficit of the Republic of Macedonia. The gap in financing the current account deficit of Hungary, Latvia and Lithuania, as well as of the Republic of Macedonia was bridged with the higher inflows, primarily on the basis of the external borrowing and portfolio investments.

Another important aspect of the analysis of the external position of the countries is the assessment of their international investment position (IIP). IIP is the difference between the total international financial assets and liabilities of the country, i.e. it covers all claims and liabilities of the residents of a country on/to third countries, incurred on the basis of capital and other financial

investments. From a viewpoint of the IIP, especially favorable is the position of the Czech Republic, as a result of the high inflow of FDI, which reduces the need of covering the current account deficit with direct borrowing. In Hungary, in conditions of a high fiscal deficit and increased demand of the corporate sector for foreign currency credits, significant increase was registered in the gross external debt and the negative value of the IIP. The high level of external debt in Estonia is to a large extent related to the borrowing of the banks from their parent banks abroad, which from the aspect of the financial stability, implies lower level of risk. At the end of 2005, the Republic of Macedonia had a negative IIP of 42.7% of GDP, and it reflects the larger amount of foreign liabilities compared with the foreign assets of the country. On the part of the country's foreign assets, the official foreign reserves have a dominant share of 53.9%, while dominant on the part of the liabilities are the trade credits and loans with a share of 48.2% and the inward direct investments, with a share of 43.6%.

The composite assessment of the external position of the NMS and the Republic of Macedonia from all three aspects (the level of current account deficit, the structure of its financing and the international investment position), does not point to a conclusion for their "excessiveness". In most of the NMS the current account balance seems to reflect the process of convergence of the economies within the frames of the single EU market. Also, in most countries the current account deficit is mostly financed with net inflows from FDI, which are less susceptible to sudden outflows of capital. Unlike them, one of the key prerequisites for improvement of the external position of the Republic of Macedonia is improvement of the structure of the current account deficit financing. To that end, especially important is the increase in the inflows on the basis of FDI, which necessarily assumes improvement of the investment climate. That will contribute to further positive perception of the Macedonian economy by the foreign investors.

Positive feature of the Macedonian economy is the moderate level of indebtedness, which in the past few years equals around 40% of GDP. At the end of 2006, the total external debt stood at Euro 1,830.5 million and registered a decline of 5.1%, compared with the preceding year. Such a trend of the external debt was to a large extent caused by the



strategy for its reduction and improvement of the structure. This strategy was applied also during 2007.<sup>24</sup>

### 2.1. Country risk

In July 2004, Republic of Macedonia received its first credit rating BB/B with positive outlook for foreign currency and BB+/B with positive prospect for domestic currency, from the "Standard & Poor's" rating agency. The rating was supported by the fast progress towards political stability and the prospects for EU membership, while the main risks were a reflection of the structural problems, interethnic relations, inflexible structure of the costs of the central government and the inefficient social security system.

In the following years country's credit rating continuously improved<sup>25</sup>.

<sup>&</sup>lt;sup>24</sup> By January 2007, early repayment of the debt to the Paris Club was made, which comprised 13.7% of the total external debt. On May 23, 2007, NBRM made full early repayment of the liabilities of the Republic of Macedonia on the basis of loans from the IMF, in the total amount of SDR 29.2 million, i.e Euro 32.8 million. On June 11, 2007, the Ministry of Finance made early repayment of part of the credits taken from the World Bank, in the total amount of Euro 96.1 million, which led to a reduction of the external public debt to a level of 28% of GDP. (Source: Ministry of Finance and National Bank of the Republic of Macedonia).

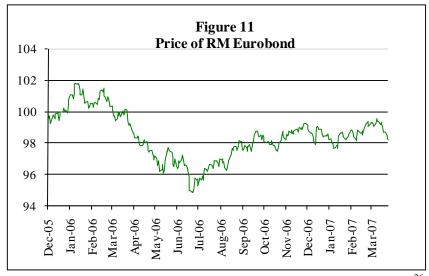
<sup>&</sup>lt;sup>25</sup> Source: Web sites of "Standard&Poor's" and "Fitch".

		2004	2005	2006
S&P	foreign currency	BB positiv outlook	BB+ stable outlook	BB+ stable outlook
Sar	domestic currency	BB+ positiv outlook	BBB- stable outlook	BBB- stable outlook
Fitch	foreign currency		BB positiv outlook	BB+ stable outlook
FIICH	domestic currency		BB positiv outlook	BB+ stable outlook

Table 3Credit rating of the Republic of Macedonia

On May 29, 2007, the "Standard & Poor's" credit rating agency confirmed the credit rating of the Republic of Macedonia "BB+ with stable outlook" for foreign currency and "BBB- with stable outlook" for domestic currency. The improvement of the political stability, the continuity in implementing the reforms, the economic growth, the prudent fiscal policy and the reduction of public debt, were the main factors which led toward confirmation of the rating. The positive steps in the field of regulatory guillotine, the continuous implementation of the Ohrid Agreement and the continuation of the reforms for convergence toward the EU caused the stable outlook. In the forthcoming period, the rating agency expects continuity in the reforms and in the conduct of the macroeconomic policy, which would result in improvement of the current credit rating and classification of the Republic of Macedonia in the group of countries with an investment rating (BBB).

In December 2005. Republic of Macedonia issued the first Eurobond. in the total amount of Euro 150 million, with maturity of 10 vears (December 2015) and coupon interest of 4.625%. After the initial period of а downward trend in the price of this bond, in the period



after June 2006, there is a trend of continuous strengthening in the price of the Eurobond<sup>26</sup>, which indicates better perception of the investors about the level of risk typical for this instrument. Such a dynamics may be directly related to the improvement of the country's credit rating, as well as with the holding of the parliamentary elections in the country.

<sup>&</sup>lt;sup>26</sup> Source: Ministry of Finance.

### **II.** Non-financial institutions

In the contemporary conditions of functioning of the financial system, risk management by the individual institutions or sectors is actually distribution of risks within the framework of the financial system or in other sectors. As a result of that, the various risks that the banks and other financial institutions manage are transferred, inter alia, also to the *household sector* and to the *corporate sector*. The assessment of the level of exposure of these sectors to the individual risks and their ability to manage them is a complex, yet very important aspect when assessing financial stability.

Companies and households are the most important "business partners" of the financial institutions. Their performances, primarily the financial strength, the ability to generate regular income in their operations and the level of their indebtedness, directly reflect on the performances of the financial institutions. The business behavior of the companies, their habits, households' mentality, the education level and information regarding the operations of the financial institutions and functioning of the financial markets influence the type of financial services that the financial institutions offer, and hence on the composition of the financial system.

### 1. Household sector

### 1.1. Financial assets and disposable income of households

When analyzing the developments in the household sector and the effects on the financial stability, one of the key aspects is the identification and measurement of the financial assets of the households. It is an important factor in determining the total financial strength of the households. On the other hand, the decisions and the propensities of the households related to the structure and management of their assets directly influences the structure and value of the assets and liabilities of financial institutions and of the corporate sector.

At the end of 2006, total financial assets of households stood at Denar 154,235 million and registered annual increase of Denar 18,729 million, or 13.8%. This increment was caused mainly by the increase in the deposits with banks and savings houses, which at the end of 2006, had the largest share of 46.7% in the total financial assets of the households. One of the factors behind the increase in this part of the financial assets was the net-sale of securities<sup>27</sup> by the households on the Stock Exchange, during 2006. The increase in private transfers from abroad is another factor that also influenced the growth of this type of financial assets at the end of 2006.

Second largest item, participating with 33.4% in the financial assets of the households, are the shares<sup>28</sup>. Having in mind that these calculations use the nominal value of the shares (at which they are registered in the Central Securities Depositary), as well as the movements on the Macedonian Stock Exchange, one may assume that the value of this type of financial assets, its annual increase and its share in the total financial assets of the households are underestimated. This is especially typical for 2006, in circumstances when the market value of the largest part of the shares was several times above their nominal value. On the other hand, the increased participation of the shares means increased exposure to market risk, i.e. increased sensitivity of the households' assets to the variability of the prices on the capital market.

<sup>&</sup>lt;sup>27</sup> Households appear as net-sellers of securities. The net-sale is calculated on the basis of the realized value (not the number) of sold and purchased securities in a certain period.

<sup>&</sup>lt;sup>28</sup> Source: Central Securities Depositary.

	31.12.	31.12.2005		2006		Annu	al change	
Type of assets	Ammount in millions of denars	Structure	Ammount in millions of denars	Structure	In millions of denars	In %	In the structure (in p.p.)	Share in the change
Deposits in banks and savingshouses	58,037	42.8%	72,009	46.7%	13,972	24.1%	3.9	74.6%
Cash in circulation*	10,107	7.5%	11,344	7.4%	1,237	12.2%	-0.1	6.6%
Shares	46,480	34.3%	51,456	33.4%	4,976	10.7%	-0.9	26.6%
Bonds	19,693	14.5%	16,719	10.8%	(2,974)	-15.1%	-3.7	-15.9%
Treasury notes	151	0.1%	127	0.1%	(24)	-16.0%	0.0	-0.1%
Pension funds' assets			1,242	0.8%	1,242		0.8	6.6%
Life insurance	1,037	0.8%	1,337	0.9%	300	28.9%	0.1	1.6%
TOTAL	135,505	100.0%	154,235	100.0%	18,729	13.8%		100.0%

# Table 4Financial assets of households

\* For the purpose of the analysis, according to NBRM's estimate, 70% of the cash in circulation (outside of banks) are included in the financial assets of households

Bonds with a share of 10.8% are the third largest item in the financial assets of the households. Relative to the end of 2005, they dropped by 15.1% and reduced their share in the total financial assets by 3.7 percentage points. Having in mind that over 99% of them pertain to structural bonds (for old foreign exchange saving and denationalization), for which the government makes repayments during the year, in the forthcoming period this type of financial assets is expected to continue to lose its significance in the total financial assets of the households. This is all under the assumption that in the forthcoming period, the interest of the households in investing in continuous bonds will not change.

At the end of the two analyzed years, currency in circulation had a stable share of around 7.5% in the total financial assets of the households. At the end of 2006, they registered an annual increase of 12.2%, which caused 6.6% of the total increase in the financial assets of the households.

As of December 31, 2006, all other types of financial assets have an individual share smaller than 1% of the total financial assets. Still, having in mind the expected fast growth of the assets of pension funds, in the future it could be expected the net-assets of pension funds to become more important and to increase their share in the total financial assets of the households. Also, the expected development of the financial markets and financial instruments will reflect on the volume and the structure of the financial assets of the households.

Besides on the volume of the financial assets, households' debt repayment ability to a large extent depends also on its revenues. At the end of 2005, the households' debt to disposable income ratio<sup>29</sup> equaled 21.9%, which despite the increase of 14.3 percentage points relative to 2004, is still on a lower level compared with the developed countries<sup>30</sup>. This points to the conclusion that there is still room for deepening of the credit support for the household sector provided by the financial institutions, and hence for an additional increase in the financial intermediation.

Income from employment has the dominant share of over  $50\%^{31}$  in the households' disposable income. Income on the basis of pension and social insurance is the second largest category of disposable income with a share of around 20%. In the past period there was a trend of certain increase in the share of the income from employment (from 52.9% in 2003 to 55.5% in 2005), at the expense of the income from pension and social insurance (from 22.5% in 2003 to 21% in 2005) and the remaining sources of funds. It is estimated that the positive developments on the labor market during 2006, when the employment rate registered annual increase of 1.3 percentage points and net-wages went up by 7.3% (increase in real terms of 4.1%), had positive influence also on the level and the increase in the households' disposable

<sup>&</sup>lt;sup>29</sup> The latest available data pertains to 2005.

 <sup>&</sup>lt;sup>30</sup> For comparison, at the end of 2004, in a number of countries (USA, Japan, Germany, Great Britain, Canada, Spain, Australia, The Netherlands, Sweden, Switzerland) this indicator exceeded 100%. Source: BIS, CGFS Paper No.26 - Housing finance in the global financial market, January, 2006.
 <sup>31</sup> Australia Control of Control

<sup>&</sup>lt;sup>31</sup> Available data for 2005. Source: Calculations on the basis of data of the State Statistical Office.

income in the same period<sup>32</sup>. The increase in the disposable income positively reflected on the households' creditworthiness and indirectly on the level of the credit risk of the banking sector.

On the other hand, dominant part (over 85%) of the total households' income is used for personal consumption, and a relatively small part, of below 8% is used for saving<sup>33</sup>. However, it should be emphasized that in the past few years the use of the disposable income<sup>34</sup> experienced an upward trend in the share of saving. Within the personal consumption structure, more than 3/4 pertain to expenses for essential<sup>35</sup> products, and more than 1/2 to expenses for food and beverages. All these products, especially food and beverages are characterized with low price elasticity. At the same time, during 2006, the average value of the consumers' basket for food and beverages equaled 76% of the average net-wage in the same period. Having this in mind, as well as the fact that in 2006 the changes in the prices of these essential products caused over 50% of the average inflation, each future increase in their prices will inevitably lead to an increase in the expenses for households' personal consumption. This would adversely affect the level of the disposable income intended for saving, especially in conditions of relatively low employment growth rates. The decline in saving would, on its part, negatively affect the level of the financial potential of the financial system, especially of banks, which finance a significant portion of their assets (41% at the end of 2006) with household deposits.

One of the potential risks to which the household sector is usually exposed, is the possible decline in the disposable income, which would act towards reducing its creditworthiness. However, in conditions of a stable macroeconomic environment, positive trends on the labor market, expected membership in the NATO, positive prospects for starting the negotiations for EU accession, announcements for more significant FDI in the country, there is a small chance for this risk to materialize.

### 1.2. Households' debt

Determining the level of households' debt is a significant indicator of its payment ability. Excessive debt may reflect negatively on the credit portfolio quality, primarily of banks, wherefrom the households traditionally borrow. However, one should have in mind that determining the possible overindebtedness and the so-called sustainable level of households' debt is a complex issue, due to the lack of adequate data. It is especially difficult to identify the portion of the population with the highest debt and that to be compared with the disposable income in order to assess the sustainable debt level.

	31.1	2.2005	31.1	2.2006	Change				
Type of debt	Ammount in million of denars	Structure	Ammount in million of denars	Structure	In million of denars	In %	In the structure (in p.p.)	Share in the change	
Banks	25,857	89.3%	39,738	90.7%	13,881	53.7%	1.4	93.3%	
Savinshouses	1,274	4.4%	1,566	3.6%	292	22.9%	-0.8	2.0%	
Leasing	1,829	6.3%	2,526	5.8%	698	38.1%	-0.6	4.7%	
TOTAL	28,959	100.0%	43,830	100.0%	14,871	51.4%		100.0%	

#### Table 5 Total households' debt<sup>36</sup>

 $^{32}$  The data on the level of the households' disposable income in 2006 were not available at the time of writing this report.

<sup>33</sup> In 2005. Source: State Statistical Office.

 $<sup>^{34}</sup>$  At the end of 2003, saving accounted for only 0.4% of the households' used funds (this is the term used by the SSO).

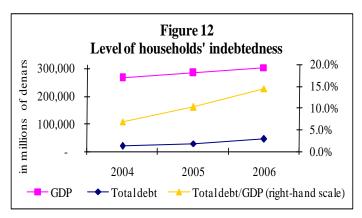
<sup>&</sup>lt;sup>35</sup> Calculations are based on the data for 2005. Essential products include: food, beverages, clothing and wearing apparel, housing, heating and lighting, and hygiene and health care.

<sup>&</sup>lt;sup>36</sup> Source of data: National Bank of the Republic of Macedonia (for the banks and savings houses) and Ministry of Finance (for the leasing companies).

At the end of 2006, the total debt of the household sector<sup>37</sup> stood at Denar 43,830 million which was an increase of Denar 14,871 million, or 51.4% relative to the end of 2005. Such an increase was primarily a result of the emphasized credit support for the households provided by the banking sector, which just as at the end of 2005, was the largest creditor of the household sector, with a share of over 90% in the total debt. At the same time, the increased debt to this sector caused 93.3% of the growth of the total households' debt. Second largest creditor, with a share of 5.8% in the total households' debt are the leasing companies. In spite of the increase of 38.1% in the value of the leasing agreements, at the end of 2006, the share of this type of debt in the total households' debt dropped relative to 2005. However, with the growth and the development of the leasing market (primarily the emergence of new entities and new products on the market), one should expect this source of households' debt to become increasingly important in the future.

Despite the significant increase in the households' debt, during 2006 debt accumulation did not exceed the accumulation of the households' financial assets. During 2006, the ratio of the annual increase in the debt to the financial assets was 79.4%, which means that the accumulation of financial assets provided "coverage" of the debt increase of 125.9%. At the same time, at the end of 2006, the level of coverage of the total households' debt with financial assets equaled 351.9%. As of the same date, households' net financial assets, calculated as the difference between the total financial assets and the total households' debt stood at Denar 110,405 million and registered an annual increase of 3.6%. All this points to the conclusion that on aggregate level, households are capable of servicing their debt, even in case of possible decline of their total income. However, the picture could be completely different at the level of the individual segments of the households or on a micro level, as in most cases there is a mismatch between the owners of the assets and the borrowers. This is supported also by the fact that the largest portion of the financial assets is usually concentrated with the wealthier segments of the population.

At the end of 2006, the ratio of the total households' debt to GDP equaled 14.4%, which is still a relatively low level of indebtedness, despite the rise of 4.2 percentage points relative to 2005. For comparison, at the end of June 2006, households' debt relative to GDP in the Euro zone was 58.3%, while in USA and in Great Britain it was around 80% and 100%, respectively. This



suggests that on aggregate level the households in the Republic of Macedonia may sustain even higher level of indebtedness. Still, the assessment about the households' debt should be interpreted with a great amount of precaution, as even a low level of debt may be a potential risk for the financial stability, especially if there is a concentration of the debt with a relatively small portion of the households.

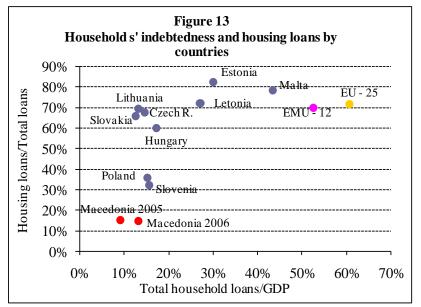
<sup>&</sup>lt;sup>37</sup> For the needs of this analysis, the total debt of the household sector consists of: the total debt from credits taken from banks, debt on the basis of credits and interest to the savings houses and the value of the active leasing agreements. In the absence of data on the value of the active leasing agreements on December 31, 2005, for comparison purposes, the amount of the debt on the basis of leasing as of December 31, 2005 was obtained as an arithmetical mean of the values from the end of 2004 and 2006. Having in mind the relatively low share of the leasing in the total households' debt, such manner of calculation should not have major influence on the analysis of the amount and the structure of the overall debt.

The comparative analysis of the level of indebtedness by country indicates lower level of households' debt in the Republic of Macedonia relative to all 26 countries<sup>38</sup> which provided data on this indicator within the IMF's Coordinated Compilation Exercise for Financial Soundness Indicators. At the end of 2005, the households' debt to GDP ratio in these 26 countries ranged between 23.2% in Hungary and 118.4% in Denmark, while in the Republic of Macedonia it was 10.2%.

### 1.2.1. Debt to the banking sector

At the end of 2006. the total households' debt to the banking sector equaled Denar 39,738 million, which is an annual increase of Denar 13.881 million or 53.7%. Despite the significant rise of the credit support for the households. the financial

intermediation at the level of this sector, expressed as a ratio of the total households' credits to GDP, is still



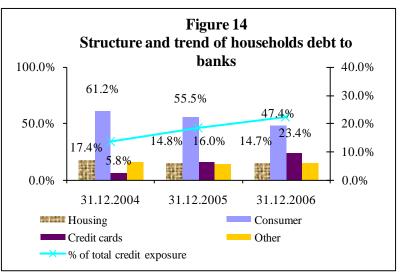
on a low level compared with the Euro-zone (EMU-12) and the European Union (EU-25), where at the end of 2005 this indicator equaled 52.4% and 60.6%, respectively. For comparison, at the end of 2005 and 2006, this indicator in the Republic of Macedonia equaled 9.1% and 13.1%, respectively. However, the comparative analysis between the Republic of Macedonia and individual EU NMS indicates relatively smaller differences in the level of the credit support for the households relative to the GDP<sup>39</sup>. Greater credit support for the households relative (27%), Estonia (30%), and Malta (43.3%). The comparative analysis points to more significant differences in the households' debt structure in the Republic of Macedonia and in the other countries. Almost in all NMS<sup>40</sup> (except Poland and Slovenia) the share of housing loans in the total households' loans exceeds 60%, while at the level of the Euro zone and the EU, this share equaled 69.6% and 71.2%, respectively, at the end of 2005. In contrast, in the Republic of Macedonia, the share of the housing loans in the total loans is far lower (14.7% at the end of 2006) and registers a downward trend. At the expense of that, there is an increase in the share of the households' debt on the basis of credit cards, which equaled 23.4% at the end of 2006. If the amount of consumer loans is added, the

<sup>&</sup>lt;sup>38</sup> At the end of 2005, households' debt relative to the GDP, for various countries equaled as follows: 120.5% in Norway, 118.4% in Denmark, 113.3% in The Netherlands, 109% in Iceland, 105.5% in Great Britain, 102.8% in Australia, 98% in the USA, 93.1% in Portugal, 82.4% in Singapore, 80.2% in South Korea, 77.4% in Spain, 71.6% in Ireland, 69.8% in Germany, 66.1% in Sweden, 61.1% in Canada, 54.2% in Austria, 45.6% in Belgium, 43.9% in Finland, 42.9% in France, 41.8% in Luxembourg, 41.6% in SAR, 38.4% in Greece, 38.3% in Italy, 34.3% in Croatia, 32.2% in Latvia and 23.2% in Hungary.

<sup>&</sup>lt;sup>39</sup> At the end of 2005, the total households' credits relative to the GDP, for individual NMS equaled: 12.5% in Slovakia, 13.2% in Lithuania, 14.6% in the Czech Republic, 15.1% in Poland, 15.7% in Slovenia, 17.1% in Hungary.

<sup>&</sup>lt;sup>40</sup> At the end of 2005, the share of the housing loans in the total households' loans, by individual NMS, equaled: 60% in Hungary, 65.7% in Slovakia, 67.5% in the Czech Republic, 69.1% in Lithuania, 71.9% in Latvia, 78.1% in Malta and 82.2% in Estonia. As of the same date, this share equaled 31.9% in Slovenia and 35.8% in Poland.

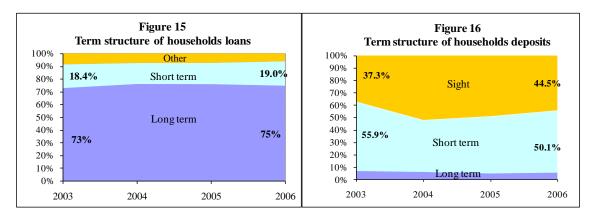
share of total loans intended for consumption purposes equals 70.8%. Having in mind the increased use of payment cards, and the fact that the furnishing of homes with durable goods is at a low level<sup>41</sup>, it is realistic to expect such movements in the total households' debt to continue also in the future. Here it should be emphasized that



consumer loans are characterized with a relatively higher risk degree, in comparison with the housing loans. Higher risk is due to the fact that consumer loans are mostly not secured, unlike the housing loans the approval of which, by the rule, is contingent upon placing a certain type of collateral.

The growing trend of the credit support for the households in the past few years also influenced the sector structure of the banks' credit exposure. At the end of 2006, the share of the credit exposure to the households accounted for 22.2% of the banks' total credit exposure, which is an increase of 3.8 percentage points relative to 2005 and 6.7 percentage points relative to 2004. Main factors that contributed to the increased lending to households were the following: favorable macroeconomic environment, need for improved furnishing of homes with durables, loosening of the banks' lending policies and reduction of the interest rates, as well as competition among banks for attracting a larger portion of this segment of the market.

From a viewpoint of the maturity and currency structure of the households' debt, two main features are evident: dominance of the long-term debt and growing trend of the debt with currency component.



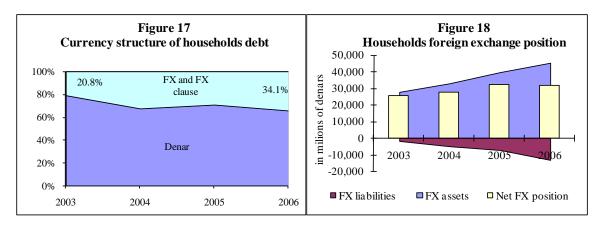
The high share of the long-term in the total loans to households is a source of potential risks for the banks and the households. The risk for the banks is in the form of a liquidity risk due to the significant maturity mismatch of the credits and deposits. On the part of the households, there is a risk of increasing the debt level, as a result of the dispersion of the debt repayment within a longer period, whereby the amount of the individual periodical repayments is reduced.<sup>42</sup> Another risk to which the households are exposed is the interest rate

<sup>&</sup>lt;sup>41</sup> Source: Statistical Yearbook of the Republic of Macedonia 2006, State Statistical Office.

<sup>&</sup>lt;sup>42</sup> If the amount of the periodical repayment is lower, also its share in the disposable income and the households' monthly wages are lower, which allows for further borrowing of the households.

risk, in circumstances when dominant part of the loans are extended with de facto variable interest rates<sup>43</sup>. The long-term character of the loans even further emphasizes the sensitivity of the households to this risk. The possible upward trend in the interest rates would imply increasing of the households' expenses for debt servicing, which could have an adverse effect on its creditworthiness.

The stability of the exchange rate of the domestic currency, as well as the relatively lower interest rates on the foreign exchange credits and Denar credits with FX clause, led to an increase in the share of the households' debt with currency component in the past few years. During 2006, the total credit exposure with currency component registered an increase of 80.8%, which primarily reflected the rise of the credit exposure with FX clause, which reached Denar 8.677 million or 77.9% in the same period. Such developments contributed the share of the credit exposure with currency component in the banks' total credit exposure to the households to reach the level of 34.1% at the end of 2006, which is a significant rise of 13.3 percentage points relative to 2003. From a viewpoint of the households, this type of credit exposure indicates increased sensitivity to a foreign exchange risk.



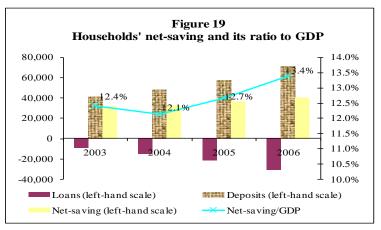
The analysis of the net foreign exchange position of the households in the banking sector<sup>44</sup> points to the conclusion that on aggregate level, households have "active" or long net foreign exchange position, which reflects the continuously higher amount of the claims (deposits) relative to the liabilities (credit exposure) with currency component. Such a position, on aggregate level, implies risk for the households from possible appreciation of the domestic currency. The lack of data on the distribution of the claims and liabilities with currency component by individual borrower or individual segments of the households sector is the main restrictive factor for a deeper analysis of this aspect of the households' debt. Due to the probability that the depositors are not simultaneously borrowers in foreign currency and in Denars with FX clause, the general conclusion prevails that the largest portion of the households - borrowers are additionally exposed to a foreign exchange risk due to the lower possibility for hedging against that risk.

As a result of the continuously higher amount of the households' deposits relative to the credits, in the past few years the households had net-claims on the banking sector on aggregate level, i.e. the households were the net-creditor of the banking sector, on aggregate level. At the end of 2006, households' net savings, calculated as a difference between the total claims (deposits) and total liabilities (credits) of the households stood at Denar 40,566 million, which is an increase of Denar 4,580 million, or 12.7% relative to 2005. This increment positively reflected also on the relative significance of the households' net-savings

<sup>&</sup>lt;sup>43</sup> Variable depending rather on the bank's policy than on the change in some key interest rate on which the risk premium would be added when setting the interest rate on the loan.

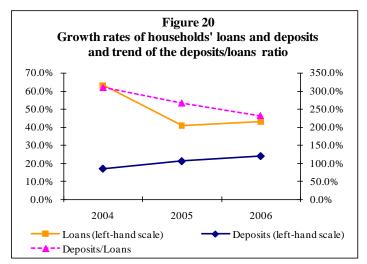
<sup>&</sup>lt;sup>44</sup> For the needs of this analysis, households' net foreign exchange position is calculated as the difference between the total claims (deposits) and liabilities (credit exposure) of the households in foreign exchange and in Denars with FX clause.

for the total economic activity in the country. Thus, at the end of 2006, the ratio the of households' net savings to GDP equaled 13.4%, which is an increase of 0.7 percentage points relative to 2005. In spite of the increase, this share is still on a relatively low level with compared other countries<sup>45</sup> and represents a potential restrictive factor of



the economic growth of the country.

The faster relative annual growth of credits relative to the deposits in the past few years reflected with a reduced level of coverage of the households' credits with deposits. Despite such a trend, at the end of 2006, the indicator of the ratio of households' deposits to households' credits equaled 231.5% and points to the conclusion that there is a room for further deepening of the banks' credit support for the households.



### 2. Corporate sector

Enterprises are the most significant business partner of the financial institutions. The exposure of the financial system to the corporate sector directly links the value of the assets and the sources of the financial institutions with the business decisions and the enterprises' operations. At the same time, there is a direct link between the corporate sector and the households. The corporate sector covers around 60% of the total number of employees, thus directly influencing households' disposable income. On the other hand, the demand for the products of the corporate sector is directly linked with the households' personal consumption.

Just as in the households' sector, the analysis of the corporate sector focuses primarily on its exposure to various risks and the ability to manage those risks.

### 2.1. Analysis of the developments in the corporate sector

The increase in the total activities, capital position, liquidity, profitability, and level of indebtedness of the corporate sector are the main elements for assessment of its financial condition.

 $<sup>^{45}</sup>$  For comparison, in the period 2002-2004 in Slovenia, the share of the households' net savings in the GDP ranged between 20% and 27.6%.

At the end of 2006, the total assets of the corporate sector stood at Denar 912,729 million, which is an annual increase of Denar 80,151 million or  $9.6\%^{46}$ .

BALANCE SHEET	Ammount ir den		Structure		Annual change		
ASSETS:	2005	2006	2005	2006	absolute ammount	in %	share in the change
Subscribed, but not paid-up capital	552	568	0.1%	0.1%	16	2.9%	0.0%
Fixed assets	453,702	487,171	54.5%	53.4%	33,469	7.4%	41.8%
Current assets	356,638	409,865	42.8%	44.9%	53,228	14.9%	66.4%
Inventories	105,443	118,134	29.6%	28.8%	12,692	12.0%	23.8%
Short-term receivables	197,114	221,345	55.3%	54.0%	24,231	12.3%	45.5%
Short-term financial investments	32,506	41,980	9.1%	10.2%	9,474	29.1%	17.8%
Cash and securities	21,575	28,406	6.0%	6.9%	6,831	31.7%	12.8%
Prepayments and accrued income	21,686	15,124	2.6%	1.7%	-6,561	-30.3%	-8.2%
TOTAL ASSETS	832,578	912,729	100.0%	100.0%	80,151	9.6%	100.0%
LIABILITIES							
Capital and reserves	438,582	457,672	52.7%	50.1%	19,089	4.4%	23.8%
Long term provisions for risks and expences	704	4,124	0.1%	0.5%	3,420	485.9%	4.3%
Long-term and short-term payables	365,392	430,128	43.9%	47.1%	64,736	17.7%	80.8%
Accrued expences and deffered revenue	27,900	20,805	3.4%	2.3%	-7,095	-25.4%	-8.9%
TOTAL LIABILITIES	832,578	912,729	100.0%	100.0%	80,151	9.6%	100.0%

### Table 6

### **Balance sheet of the corporate sector**

The analysis of the balance sheet of the corporate sector points to a relatively simple structure of its assets and liabilities. At the end of 2006, somewhat more than half of the total assets account for the fixed and around 45% for the current assets. Fixed and current assets caused the largest portion of the annual increment in the enterprises' total assets. Dominant within current assets are the short-term claims (primarily claims on buyers), with a share of 54%.

On the part of the liabilities, dominant are capital and reserves from which enterprises financed over 50% of the total assets at the end of 2006. The high share of capital and reserves in the total sources of funds provides high degree of financial security of the corporate sector. Such capitalization level contributes to a relatively low sensitivity of the corporate sector to external shocks which could reduce its payment ability and profitability and reflect indirectly by deteriorating its creditworthiness. This is especially important for the financial stability, as the deteriorated creditworthiness of the corporate sector, on its part, would reflect on the level of credit risk the financial institutions, primarily banks are exposed to. On the other hand the share of the total credits in the total sources of funds and in the total liabilities of the corporate sector is relatively low and at the end of 2006 it equaled 7.3%, i.e. 14.6%, respectively. This points to the conclusion that, on aggregate level, there is a room for increasing the credit support for the corporate sector. At the same time, the increased credit support would contribute to the improvement of the structure of the liabilities of the corporate sector and will represent a possibility for better liquidity management and timely settlement of the other due claims of the companies.

	Ratio	2002	2003	2004	2005	2006	2005*	2006*
1	Equity ratio - equity and reserves/total assets	50.9%	53.1%	51.8%	51.9%	50.1%	53.8%	52.1%
2	Self-financing ratio - capital and reserves+ long-							
	term provisions/fixed assets+inventories	73.9%	77.1%	75.2%	77.5%	76.3%	86.1%	84.6%
3	Quick ratio (acid test)	0.7	0.7	0.7	0.8	0.8	0.9	0.9
4	Current ratio	1.0	1.0	1.0	1.1	1.1	1.3	1.3
5	Average collection period	157	151	128	130	122	117	107
6	Inventory period	77	75	74	70	65	63	60
7	Average payment period	258	246	227	223	214	179	175
8	Profit margin (net)	0.9%	2.9%	2.9%	6.6%	3.6%	15.3%	14.0%
9	Net profit per employee (in 000 denars)	7.4	25.1	26.9	68.6	44.3	177.0	178.0
	Return on equity (ROAE)	0.5%	1.7%	1.9%	4.2%	2.7%	9.8%	10.0%
1	Return on assets (ROAA)	0.3%	0.9%	1.0%	2.2%	1.4%	5.3%	5.2%

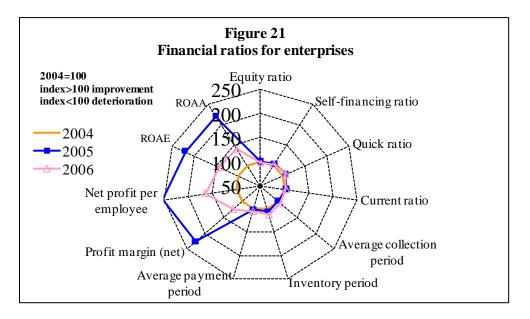
## Table 7 Indicators of the operations of the corporate sector<sup>47</sup>

\* The ratios refer only to enterprises working with profit

<sup>&</sup>lt;sup>46</sup> Source: Central Registry of the Republic of Macedonia. The analysis was made on the basis of the data from the annual statements for 2006.

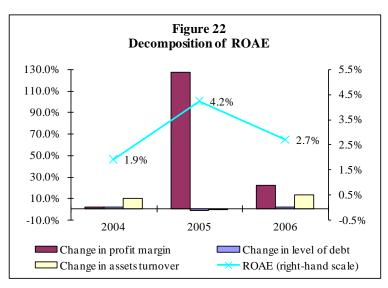
<sup>&</sup>lt;sup>47</sup> Source: Central Registry of RM and NBRM calculations.

The level of liquidity, as an indicator of the ability of the companies to settle due liabilities regularly, is still on a low level, despite the improvement in the past two years. The current liquidity ratio is 1.1, while the quick ratio (acid test) is  $0.8^{48}$ . The low liquidity position of the corporate sector has a direct influence on its debt repayment ability and creditworthiness, as well as on the degree of funds utilization, expressed through turnover indicators, i.e. through the average collection period and inventory period (claims and inventories) of the corporate sector.



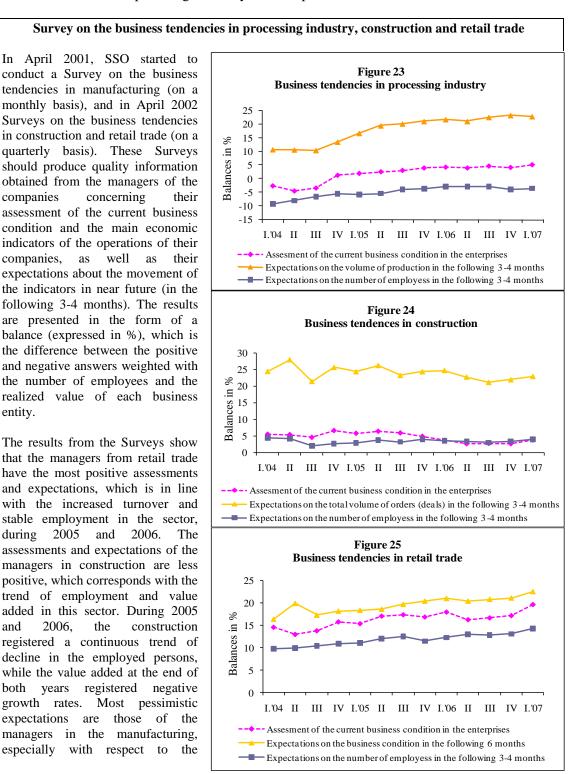
The indicators of the degree of utilization of companies' funds are on a relatively low level, despite the improvement during the past two years. Thus, at the end of 2006, the average period of collection of claims was around four months, of inventories - around two months, and the average period of settlement of the liabilities was around seven months. These unsatisfactory values of the indicators are consequence of: the low level of liquidity of the corporate sector; the low level of credit support; the absence of the use of alternative sources of financing by the corporate sector (primarily issuing debt securities); the inefficient mechanisms for protection and exercising of creditors' rights. All of this influences the manner and the deadline for settlement of the liabilities of the corporate sector to the financial institutions, primarily banks, as dominant creditors of the corporate sector.

The improvement of all previously analyzed segments of the operations reflected on the profitability of the corporate sector, which registered the greatest improvement, compared with the other indicators of success of the operations. Relatively more successful vear for the corporate sector with respect to profitability, was 2005. At the end of 2006, the indicators of the return on average assets (ROAA)



<sup>&</sup>lt;sup>48</sup> Generally accepted satisfactory level of the indicators for current i.e. quick ratio is 2, i.e. 1, respectively.

and the return on average equity (ROAE) equaled 1.4% and 2.7% respectively, which is a decline of 0.8 and 1.5 percentage points relative to 2005. The decomposition<sup>49</sup> of ROAE points to the conclusion that in 2006 and especially in 2005, the improved profitability was almost entirely a result of the improved profitability margin, which on its part was mainly a result of the increased profit registered by the enterprises.



<sup>49</sup> ROAE indicator may be presented as follows: n C A ת C

entity.

and

$$ROAE = \frac{P}{CR} * \frac{S}{S} * \frac{A}{A} = \frac{P}{S} * \frac{S}{S} * \frac{A}{CR} = PM * OA * L$$

where P=profit, CR=average capital and reserves, S=sale (income from sale), A=average assets, PM=profit margin, OA=assets turnover and L=leverage or debt.

number of employees as a result of which throughout the entire analyzed period (2004-2006), the balance of this indicator has a negative value. This is a reflection of the continuous decline in the number of employees in this sector (from around 86 thousand in the beginning of 2004 to around 76 thousand at the end of 2006).

The managers of all three analyzed sectors point to the insufficient demand as the main restrictive factor impeding the improvement of the business condition of the companies. Increased competition and lack of qualified labor are most frequently listed as additional restrictive factors.

### **2.2. Debt of the corporate sector**

The degree of indebtedness<sup>50</sup> of the corporate sector indicates the level of dependence of the corporate sector on external sources of financing, as well as its debt servicing ability. At the end of 2006, the total debt of the corporate sector stood at Denar 103,524 million which was an increase of Denar 20,806 million, or 25.2% relative to the end of 2005. From a viewpoint of the creditors, there were no significant structural movements in the total debt. Such an increase was primarily a result of the emphasized credit support<sup>51</sup> provided by the banking sector, which just as in the end of 2005, was the largest creditor of the corporate sector, with a share of over 70% in the total debt. At the same time, the increased debt to banks caused 71.3% of the increase in the total companies' debt.

	31.12.2005		31.12	31.12.2006		Change			
	Ammount in million of denars	Structure	Ammount in million of denars	Structure	In million of denars	In %	In the structure (in p.p.)	Share in the change	
Banks	57,590	69.6%	72,419	69.9%	14,829	25.7%	0.3	71.3%	
Leasing	1,613	2.0%	2,240	2.2%	628	38.9%	0.2	3.0%	
External debt	23,515	28.4%	28,865	27.9%	5,349	22.7%	-0.5	25.7%	
TOTAL	82,718	100.0%	103,524	100.0%	20,806	25.2%		100.0%	

## Table 8Total debt of the corporate sector

Non-residents were the second largest creditor with a share of 27.9% in the total companies' debt. At the end of 2006, companies' external debt went up by Denar 5,340 million or by 22.7%, thus causing 25.7% of the total increase in the corporate debt.

In spite of the increase of 38.9% in the value of the leasing agreements, at the end of 2006, the share of this type of debt in the total corporate debt was minimal and equaled 2,2%.

Debt with currency component (in foreign exchange and in Denars with FX clause) prevails in the currency structure of the total corporate debt with around 65%. At the end of 2006, this debt registered an annual increase of Denar 13,825 million or 26.2%, which caused 68.5% of the increase in the total corporate debt. This could be a signal for larger sensitivity of the corporate sector to the changes in exchange rates, i.e. its exposure to the foreign exchange risk.

<sup>&</sup>lt;sup>50</sup> For the needs of this analysis, the total debt of the corporate sector encompasses the total borrowings from domestic banks, debt on the basis of leasing contracts with domestic leasing companies and the total borrowings from abroad (from non-residents). The amount of debt on the basis of leasing, at the end of 2005, was obtained as an arithmetical mean of the values at the end of 2004 and 2006 (there are available data on the value of the active leasing contracts only for 2004 and 2006). Having in mind the relatively low share of leasing in the total debt of the corporate sector, such a manner of calculation does not significantly influence the amount and the structure of the total debt of the corporate sector.

<sup>&</sup>lt;sup>51</sup> Credit support denotes the total credit exposure of the corporate sector, including the extended credits, guarantees, letters of credit and other claims.

		2	005		2006				
	Ammount	Structure	Absolute	Change in	Ammount	Structure	Absolute	Change in	
	in millions		change	%	in millions		change	%	
Type of exposure	of denars				of denars				
Denar	28,429	35.0%	-824	-2.8%	34,782	34.3%	6,353	22.3%	
FX	45,490	56.1%	10,922	31.6%	56,940	56.2%	11,449	25.2%	
FX clause	7,186	8.9%	1,117	18.4%	9,563	9.5%	2,376	33.1%	
Total	81,105	100.0%	11,216	16.0%	101,284	100.0%	20,178	24.9%	

 Table 9

 Currency structure of the corporate debt<sup>52</sup>

From the viewpoint of the maturity of the corporate debt, long-term credits are dominant, with a share of 64% of the total debt at the end of 2006, which is an increase of 7.3 percentage points relative to the end of 2005. Long-term credits registered the highest growth rate, relative to the other credits of the corporate sector. Their annual growth rate was 40.1%, as opposed to 30.7% during 2005. Throughout the past few years the maturity of the corporate credits increased, which, inter alia, reflects the more appropriate structuring of the credit arrangements by the banks, which correspond better with the business cycles of the companies. For comparison, in the beginning of the transition period, in conditions of insufficient legal security and absence of financial discipline, banks practiced approval of credits to enterprises with shorter maturities, which due to the inappropriate maturity structuring were subject to numerous extensions.

# Table 10Term structure of the corporate debt<sup>53</sup>

		2	005		2006						
	Ammount	Structure	Absolute	Change in	Ammount	Structure	Absolute	Change in			
	in millions of denars		change	%	in millions of denars		change	%			
Type of exposure											
Short-term loans	20,277	28.9%	1,082	5.6%	21,866	25.1%	1,588	7.8%			
Long-term loans	39,806	56.7%	9,343	30.7%	55,784	64.0%	15,978	40.1%			
Other loans (due and non-performing)	10,116	14.4%	644	6.8%	9,501	10.9%	-615	-6.1%			
Total	70,199	100.0%	11,070	18.7%	87,151	100.0%	16,951	24.1%			

The high share of the long-term debt in the total debt means longer encumbrance for the corporate sector with costs for its financing, but also a possibility to distribute the liabilities over a longer period, thus enabling further borrowing of enterprises.

The long-term character of the debt is reflected also with longer exposure of the corporate sector to changes in the interest rates. The credit exposure of the corporate sector to the non-residents is an indicator primarily of the level of exposure of the corporate sector to the risk of changes in the interest rates on the foreign markets. In conditions of rising interest rates on the world markets, the burden for the corporate sector rises by increasing its costs for debt servicing, having in mind that 57.4% of the total private external debt is characterized with a variable interest rate. The exposure of the corporate sector to the interest rate risk is even more emphasized, if one takes into consideration that the largest portion of the credits from the domestic banks are extended at interest rates that vary depending on their policies. The possible upward trend in the interest rates would imply increasing of the expenses for debt servicing, which could have an adverse effect on the creditworthiness of the companies.

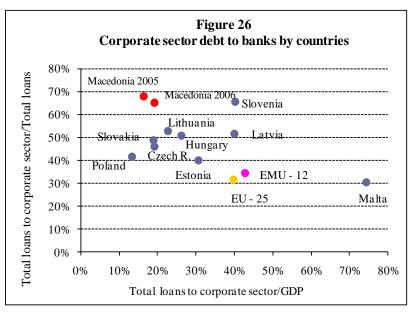
### 2.2.1. Debt to the banking sector

The credit support by the domestic banks is the most significant external source of financing the activities of the corporate sector. At the end of 2006, the total corporate debt to the banking sector equaled Denar 72,419 million, which is an annual increase of Denar 14,829 million or 25.7%.

<sup>&</sup>lt;sup>52</sup> The calculations do not include debt on the basis of leasing, as there are no data on its currency structure.

<sup>&</sup>lt;sup>53</sup> Total debt includes: borrowings from the banking sector and the total debt to non-residents.

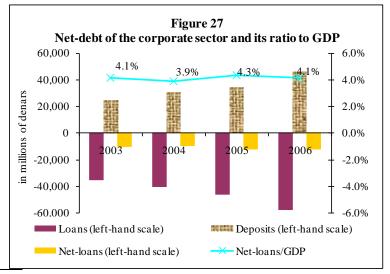
Despite the increase in the credit exposure to the corporate sector, financial intermediation, as а ratio of total corporate credits to GDP is still on a low level and represents 19.2% (2005: 16.4%). This indicator is especially low in comparison with the countries of the Euro-zone (EMU-12) and the European Union (EU-25), where at the end of 2005 it



equaled 42.6% and 39.7%, respectively. However, the comparative analysis with individual EU NMS<sup>54</sup> indicates significantly smaller differences, with an exception of Slovenia, Latvia and Malta, where this indicator equaled 40.3%, 39.9% and 74.4%, respectively.

From a viewpoint of the share of the credit exposure of the corporate sector in the banks' total credit activity, also there are significant differences between the Republic of Macedonia and the other countries. The share of the credit support for the corporate sector in the credit exposure of the banking systems of most NMS (except Slovenia, Lithuania and Latvia)<sup>55</sup>, is lower than 50%, while at the level of the Euro-zone and the EU, this share was 34.5% and 31.6%, respectively, at the end of 2005. On the other hand, the share of the exposure to the corporate sector in the banks' total credit exposure in the Republic of Macedonia equaled 64.9% at the end of 2006. The relatively higher share of the exposure to the corporate sector in the banks' total credit exposure is mostly explained with the restricted use of alternative ways of financing the activities by the companies in the Republic of Macedonia. However, in conditions of emphasized orientation of the banks total credit exposure to households, the share of the credit exposure to the corporate sector advector to the credit exposure to the credit exposure to the credit exposure, registered a downward trend.

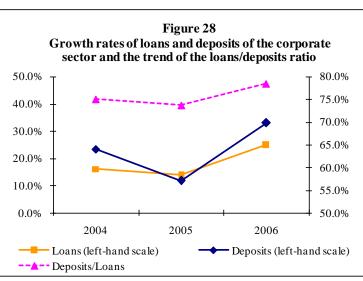
In the past few years, on aggregate level, companies are economic agents that are net-debtor against the banking sector. At the end of 2006, the net debt of the corporate sector, calculated as a difference between the total liabilities (credits) and total claims (deposits) of the corporate sector on the banks stood at Denar 12,581 million, which is an increase of



<sup>&</sup>lt;sup>54</sup> At the end of 2005, the indicator by an individual NMS equaled: 13.2% in Poland, 18.8% in Slovakia, 19.1% in the Czech Republic, 22.5% in Lithuania, 26.2% in Hungary and 30.5% in Estonia.
<sup>55</sup> At the end of 2005, the indicator by an individual NMS equaled: 30.4% in Malta, 40% in Estonia, 41.5% in Poland, 46% in the Czech Republic, 48.7% in Slovakia, 50.7% in Hungary, 51.5% in Latvia, 52.7% in Lithuania and 65.3% in Slovenia.

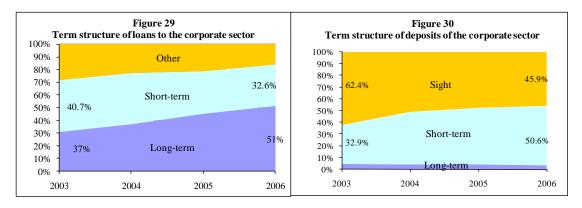
Denar 282 million, or 2.3% relative to 2005. In spite of this increase, the relative significance of the net-lending to the corporate sector for the total economic activity in the country is still on a low level and is decreasing. Thus, at the end of 2006, the ratio of the net debt of the corporate sector to the GDP was 4.1%, which is a decrease of 0.2 percentage points relative to 2005. The comparison of the indicator with the indicators of the other countries<sup>56</sup> leads to the conclusion that the net credit support for the corporate sector is on an exceptionally low level and there is room for its further increase.

The more intensive increase in the deposits relative to that in the credits in the past few years reflected also in the increase in the level of coverage of the credits with deposits of the corporate sector. At the end of 2006, the ratio of the deposits to the credits of the corporate sector was 78.4%. The comparison with the level of this indicator in other countries<sup>57</sup> leads to the conclusion that the collected potential deposit from



companies is a significant source of further increasing of their credit support from the banks.

Similar as with the households' sector, the corporate sector registers maturity mismatch between credits and deposits (longer maturity of their liabilities on the basis of credits and shorter maturity of their claims on the basis of deposits and transaction accounts). On the other hand, despite the high level of coverage of the credits with deposits of the corporate sector, the banks' exposure to liquidity risk increases. However, deposits, although with short contractual maturity, represent a source for the banks, which on aggregate level, is characterized with high level of stability.



#### Analysis of the performances of the corporate sector borrowers

The comparative analysis of the performances of the corporate sector borrowers points to a higher liquidity level of these companies, compared with the corporate sector as a whole. Especially positive indicators of the liquidity related operations are registered with the borrowers from the following activities: "wholesale and retail trade", "hotels and restaurants", "transport, storage and communication" and "real estate activities", which is directly related to the nature of the business

 $<sup>^{56}</sup>$  For comparison, in the period 2002-2004, the share of the net lending to the corporate sector in the GDP ranged between 11.7% and 20.9%.

<sup>&</sup>lt;sup>57</sup> For comparison, at the end of 2004, this indicator in Slovenia equaled 32.8%.

activities of the companies from these branches. At the same time, borrowers from "processing industry" and "wholesale and retail trade" registered improvement in their liquidity, compared with 2005.

Agriculture, Ratio hunting and forestry		ng and	Fishing		Mining and quarrying		Processing industry		Electricity, gas and water supply		Construction		Wholesale and retail		Hotels and restaurants		Transport, storage and communication		Real estate	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	20
1 Equity ratio - equity and reserves/total assets	89.7%	89.6%	40.6%	40.6%	62.2%	60.5%	52.3%	49.7%	55.6%	54.7%	28.8%	24.9%	34.1%	36.8%	57.6%	58.7%	64.5%	60.9%	41.2%	47.2
2 Self-financing ratio - capital and reserves+ long-term provisions/fixed assets+inventories	94.2%	94.1%	68.4%	69.7%	93.8%	85.8%	74.6%	74.5%	105.1%	89.5%	66.4%	66.0%	58.6%	62.2%	72.4%	75.1%	107.0%	110.4%	71.4%	83.
3 Quick ratio (acid test)	0.7	0.7			1.6	1.4	0.9	1.0	1.5	1.1	1.0	1.0	1.4	1.5	2.7	2.7	2.2	2.1	3.0	1
4 Current ratio	1.2	1.2			2.3	2.0	1.5	1.6	1.7	1.2	1.4	1.3	2.1	2.3	3.1	3.2	2.4	2.2	3.5	
5 Average collection period	139	154	270	251	337	244	116	109	547	155	395	581	141	137	112	105	101	98	278	
6 Inventory period	130	130	136	129	142	114	95	86	69	17	149	171	85	87	40	61	16	15		
7 Average payment period	239	250			291	227	166	155	392	119	443	643	125	111	108	119	92	120	136	
Profit margin (net)	0.3%	0.3%	-0.1%	0.8%	0.4%	1.0%	0.7%	0.5%	0.0%	0.0%	1.0%	0.6%	1.8%	1.9%	-1.8%	26.8%	0.8%	0.9%	6.4%	5
Return on equity (ROAE)	0.0%	0.0%	-0.2%	1.1%	0.2%	0.7%	0.9%	0.8%	0.0%	0.0%	1.5%	0.2%	4.7%	1.2%	-0.8%	3.0%	0.9%	0.3%	6.0%	5
0 Return on assets (ROAA)	0.0%	0.0%	-0.1%	0.5%	0.1%	0.4%	0.5%	0.4%	0.0%	0.0%	0.4%	0.1%	1.6%	0.4%	-0.5%	1.8%	0.6%	0.2%	2.5%	2
1 Share in the total credit exposure of banks	1.5%	1.6%	0.0%	0.0%	0.7%	0.6%	16.1%	15.5%	0.5%	1.1%	4.2%	3.9%	12.5%	12.5%	1.1%	1.2%	2.3%	2.7%	1.9%	1
2 Share in the total credit exposure of banks to enterprises	3.6%	3.9%	0.0%	0.0%	1.7%	1.4%	39.4%	38.3%	1.2%	2.7%	10.4%	9.6%	30.6%	30.8%	20.7%	3.1%	5.6%	6.6%	4.7%	3
ource: Central Securitie tatements for 2006.	s De	posit	ary	and	NBI	RM	calcu	ilatio	ons. 🛛	The o	calcı	ılatio	ons a	are o	on th	e ba	isis o	f the	ann	ua

# Table 11 Indicators of the operations of the borrowers by activity\*

Especially positive indicators of the profitability are registered with the borrowers from the following activities: "hotels and restaurants" and "real estate activities" where the profit margin and the ROAE and ROAA indicators are above the average for the whole corporate sector, at the end of 2006. In general, as well as on the level of the overall corporate sector, from the viewpoint of profit creation, 2005 was a more successful year for the borrowers from almost all activities. At the end of 2006, improvement was registered in the profitability indicators of the borrowers from the following activities: "fishing", "mining and quarrying" and "hotels and restaurants".

# **III.** Financial institutions

# 1. Structure of the financial system of the Republic of Macedonia

The financial system of the Republic of Macedonia is characterized with a relatively simple structure from a viewpoint of the type of financial institutions and the variety of products and services they offer. Within the financial architecture, banks are dominant, and therefore to a large extent cause the movements in the financial system. However, in conditions of a more significant growth of the capital market and reforms in the pension system, during the past two years increased diversification of the financial system may be noticed, both from the aspect of the type of financial institutions and from the aspect of the type and the quality of the financial services they offer. This process is accompanied with a significant increase in the size of the financial system, which brought to a continuous increase in the financial intermediation. Additionally, the presence of foreign capital and the announcements for admission of new foreign financial institutions in the various segments of the financial system, are expected to boost competition not only among those of the same type, but also among financial institutions of different types, having in mind the world trends for increasing the interconnection of the financial institutions and intertwining of the financial activities they may perform.

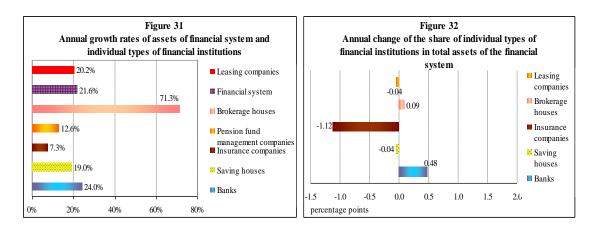
As of December 31, 2006, the total assets of the financial system of the Republic of Macedonia stood at Denar 195,840 million, which is an increase of 23.3% relative to the end of 2005. The degree of financial intermediation, measured through the share of the total assets of the financial system in the GDP equaled 63.7% at the end of 2006.

Type of financial institutions		Total assets (in millions of Denars)		Structure (in %)		Share in GDP (in %)		Number of institutions	
	2005	2006	2005	2006	2005	2006	2005	2006	
Depository financial institutions	142,391	176,444	89.7%	90.1%	50.1%	58.2%	34	31	
Banks	140,436	174,117	88.5%	88.9%	49.4%	57.4%	20	19	
Saving houses	1,955	2,327	1.2%	1.2%	0.7%	0.8%	14	12	
Nondepozitory financial institutions	16,427	19,396	10.3%	9.9%	5.8%	6.4%	23	27	
Insurance companies	13,618	14,608	8.6%	7.5%	4.8%	4.8%	10	10	
Leasing companies	2,276	2,735	1.4%	1.4%	0.8%	0.9%	2	2	
Pension funds	0	1,242	0.0%	0.6%	0.0%	0.4%	0	2	
Pension fund management companies	174	196	0.1%	0.1%	0.1%	0.1%	2	2	
Brokerage houses	359	615	0.2%	0.3%	0.1%	0.2%	9	11	
Total	158,818	195.840	100.0%	100.0%	55.9%	64.6%	57	58	

 Table 12

 Structure of the financial system of the Republic of Macedonia according to the total assets and the share in the CDP

The dominance of banks in the financial system of the Republic of Macedonia is confirmed both by the share in the total assets of the financial system (88.9%), and by the relative significance with respect to the gross domestic product (57.4%). Insurance companies are the second most significant segment, with a share of 7.5% in the total assets of the financial system, i.e. 4.8% in the gross domestic product. Given the significant increase in the capital market and the pension system reform, brokerage companies, pension funds management companies, and fully funded pension funds were promoted as important integral parts of the financial system. However, their importance for the financial system, represented through the share in the total assets at the level of the financial system, is relatively small, but it is expected to increase significantly in the forthcoming years. This especially pertains to the pension funds, which due to the regular inflows from the pension insurance contributions and their role as institutional investors on the capital markets, may in a relatively short time gain grater importance within the financial system, but also for the economy as a whole.



During 2006, in parallel with the increase in the total assets, there was a decline in the level of concentration in the individual segments of the financial system. In 2006, the indicators which reflected the level of concentration in the banking system, in the insurance sector and in the brokerage industry indicate a decline relative to 2005. Only the concentration indicators in the segment of savings houses registered an increase relative to 2005, which is due to the reduced number of savings houses, but also of the fact that the largest savings house with a share of almost 50% in the total assets of all savings houses increases its dominant position. The downward trend of the concentration and increase in the competition, both in the framework of the individual segments and in the financial system as a whole, could be expected to continue in the future, especially with the expected increase in the foreign capital in the individual segments of the financial system and with the gradual liberalization of the capital flows.

# Table 13

Indicators of concentration<sup>58</sup> of the individual segments of the financial system

		hl-index*	8	R3	CR5		
Financial institutions	2005	2006	2005	2006	2005	2006	
Banks	1,607	1,595	66.1%	66.1%	75.0%	74.7%	
Saving houses	2,635	3,156	76.6%	82.8%	85.6%	89.6%	
Insurance companies	2,087	1,742	74.2%	66.4%	87.5%	81.0%	
Brokerage houses	2,634	1,780	73.3%	63.2%	91.4%	89.5%	

\* The level of concetration is considered acceptable when the value of Herfindal-index ranges between 1,000 and 1,800 index points.

## **1.2.** Ownership structure of the financial system

Except for the brokerage companies, the ownership structure of all other types of financial institutions is dominated by the share of foreign shareholders. At the end of 2006, the share of the foreign capital in the total capital of banks, insurance companies and pension funds management companies equaled 56.1%, 63.5% and 51.0%, respectively. In the same period, the average share of foreign shareholders in the ownership structure of the corporate sector<sup>59</sup> equaled 41.9%.

<sup>&</sup>lt;sup>58</sup> The following are used as concentration indicators: Herfindahl-index which is a sum of the squares of the shares of assets of each individual institution in the total assets of the sector it belongs to, the CR3 indicator, which represents the share of the assets of the three largest institutions in the total assets of the sector they belong to, and the CR5 indicator, which represents the share of the assets of the five largest institutions in the total assets of the sector they belong to. The larger value of these indicators points to a higher degree of concentration in a particular sector. Concentration indicators in the insurance sector are calculated on the basis of gross-premiums.

<sup>&</sup>lt;sup>59</sup> When determining the ownership structure of the corporate sector, only the data about the shareholding companies in the Republic of Macedonia are taken into consideration.

On the other hand, dominant in the structure of the domestic shareholders of financial institutions were the non-financial legal entities, whose share at the end of 2006 was most significant in the ownership structure of the brokerage companies with 26.9% and of the banking sector with 23.4%. In conditions of a lack of domestic institutional investors, the share of the domestic natural persons as shareholders in the individual institutions within the financial system, was relatively high and ranged between 9.3% with banks and 15.9% with the insurance companies. Cross-sector ownership<sup>60</sup> among the individual institutions that make the financial system of the Republic of Macedonia is on a relatively low level. Banks directly own 49% of the capital of the pension funds management companies and 48.2% of the capital of the brokerage companies. During 2006, one insurance company became a dominant owner of a brokerage company<sup>61</sup>, which is the first larger integration of the non-banking financial institutions in the Republic of Macedonia.

#### Table 14

Shareholders	Banks	Insurance companies	Brokerage houses	Pension fund management companies	Nonfinancial shareholder companies
Domestic shareholders	43.9%	36.5%	92.4%	49.0%	58.1%
Nonfinancial legal entities	23.4%	6.7%	26.9%	0.0%	18.0%
Banks	2.9%	4.1%	48.2%	49.0%	0.4%
Insurance companies	0.8%	0.8%	1.4%	0.0%	0.2%
Other financial institutions	0.6%	0.1%	2.7%	0.0%	0.1%
Natural persons	9.3%	15.9%	13.2%	0.0%	28.4%
Public sector	6.9%	8.9%	0.0%	0.0%	11.0%
Foreign shareholders	56.1%	63.5%	7.6%	51.0%	41.9%
Natural persons	3.1%	0.1%	5.3%	0.0%	0.9%
Legal entities	53.0%	63.4%	2.3%	51.0%	41.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

# **Ownership structure of the individual financial institutions**

As a result of the business strategies of the financial institutions, but also of certain regulatory restrictions, the share of the financial institutions in the ownership structure of the corporate sector is quite low (as of December 31, 2006, the share of the financial institutions in the ownership structure of the domestic non-financial shareholding companies equaled 0.7%).

With the admission of several foreign strategic investors in the financial system of the Republic of Macedonia, which occurred in the first half of 2007<sup>62</sup>, the share of foreign capital in the ownership structure of the financial system, and hence its importance, increased even further.

As of December 31, 2006, financial institutions which were in dominant ownership of foreign shareholders<sup>63</sup> prevailed in the total number of institutions in the sector "insurance", the sector of leasing companies and pension funds management companies. Insurance companies in dominant ownership of foreign shareholders had a relatively larger share in the total assets and in the total capital at the level of the sector, relative to the same indicators with banks. As of end 2006, all leasing companies and pension funds management companies were in dominant ownership of foreign shareholders.

<sup>&</sup>lt;sup>60</sup> Cross-sector ownership denotes ownership holdings of the individual types of financial institutions in other financial institutions, i.e. in the individual institutional segments of the financial system.

<sup>&</sup>lt;sup>61</sup> The insurance company "Tabak Osiguruvanje" AD Skopje became the dominant owner of the brokerage company "Brodil" AD Skopje.

<sup>&</sup>lt;sup>62</sup> In the first half of 2007, "Societe Generale" became the dominant owner of "Ohridska Banka" AD Ohrid, while the insurance companies from the Republic of Slovenia - "Sava RE" and "Zavarovalnica Triglav" became dominant owners of the domestic insurance companies "Tabak Osiguruvanje" AD Skopje and "Vardar Osiguruvanje" AD Skopje. Additionally, there were foreign greenfield investments in the sectors "insurance" and "leasing".

<sup>&</sup>lt;sup>63</sup> Financial institutions in dominant ownership of foreign shareholders are those institutions where foreign shareholders own over 50% of the shareholders' capital.

Financial institutions	Number of institutions in dominant foreign ownership		Assets of instituti foreign ownersh	ions in dominant nip /Total assets	Capital of institutions in dominant foreign ownership /Total capital		
	2005	2006	2005	2006	2005	2006	
Banks	8	8	51.3%	53.2%	49.1%	50.0%	
Insurance companies	6	6	74.2%	72.6%	58.1%	60.9%	
Leasing companies	2	2	100.0%	100.0%	100.0%	100.0%	
Pension fund management companies	1	2	100.0%	100.0%	100.0%	100.0%	
Brokerage houses	1	2	2.0%	3.5%	1.5%	5.1%	

# Table 15 Relative significance of the institutions in dominant ownership of foreign shareholders in the individual sectors of the financial system

### **1.3.** Connection of the banks with non-deposit financial institutions

The financial system of the Republic of Macedonia is characterized with a relatively low level of inter-sector connection and low level of cross-sector ownership among the various sectors. This, on its part, creates a simple market structure free of complex financial grupations which would simultaneously cover all segments of the financial system with their services. The low level of connection of the financial system sectors, on the one hand, causes a level of financial intermediation lower than the potential, absence of cross-selling of financial products from various sectors and absence of complex financial instruments which would be used for transferring and distributing the risks among the different sectors of the financial system. On the other hand, however, the low level of connection among the sectors decreases the possibility for spillover of the risks inherent to a particular sector to the other segments of the financial system, thus reducing the possibility for a systemic crisis in the financial system.

Having in mind the dominant position of the banks in the financial system, they are also the main driving force of the connection with the other segments of the financial system. Banks' capital investments are the most significant form of connection of the banking system with the other segments of the financial system. At the end of 2006, 73.4% of the total value of the banks' capital investments were in financial institutions from the Republic of Macedonia, 21.6% were in entities belonging to the corporate sector, while 5.1% of the value of the capital investments were in foreign entities. At the end of 2006, the largest portion of the value of banks' capital investments (35.9%) were in other domestic banks, but only one of those investments exceeded 50% of the capital of the bank in which the investment was made<sup>64</sup>.

	Capital investmer	nts of banks	No. of capital investments according to share in capital of the entity in which the investment was made							
Entities in which the investment was made	absolute amount (in thousands of Denars)	structure (in %)	up to 5% of the capital	5% to 25% of the capital	25% to 50% of the capital	50% to 75% of the capital	over 75% of the capital			
Domestic banks	397,663	35.9%	9	1	-	1	-			
Insurance companies	74,428	6.7%	4	-	-	-	-			
Brokerage houses	82,088	7.4%	-	-	2	-	3			
Pension fund management companies	92,027	8.3%	-	-	2	-	-			
Other financial institutions (stock				22						
exchange, securities depository, cliring houses)	165,314	14.9%	25	23	-	-	-			
Nonfinancial entities	238,752	21.6%	40	12	4	-	-			
Capital investments in foreign entities	56,018	5.1%	9	-	-	-	-			
Total - capital investments	1,106,290	100.0%	87	36	8	1	3			

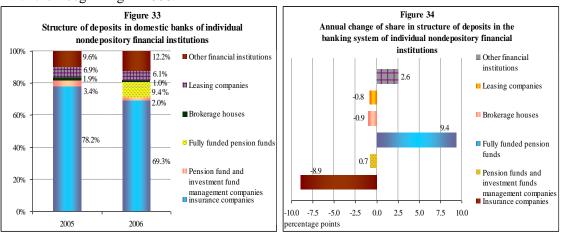
# Table 16Banks' capital investments as of December 31, 2006

According to the share of the banks' capital holding in the capital of the entity in which the investment was made, two thirds of all capital investments are below 5% of the

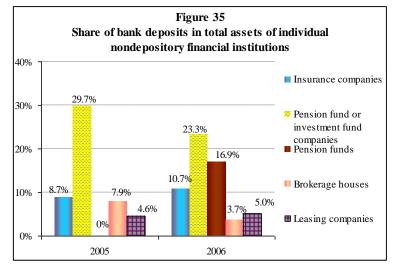
<sup>&</sup>lt;sup>64</sup> "Eurostandard Banka" AD Skopje owns 66.6% of the shares of "Postenska Banka" AD Skopje.

capital of the entities in which the investment was made. As opposed to that, only four capital investments of banks participated with over 50% in the capital of the entity in which the investment was made, which is another proof of the low inter-sector connection and low interest of banks to penetrate the other market segments of the financial system. Most of the capital investments were made in non-financial entities and are below 25% of the capital of the entity in which the investment was made. The other financial institutions which are supporting players in the process of financial intermediation (stock exchange, securities depositary, clearing house) cover 35% of the number of investments. However, the connection is strongest between the banks and the pension funds management companies (two domestic banks have a share of 49% of the capital of the two existing companies) and the brokerage companies (three brokerage companies are fully owned by the banks).

Another form of connection between the non-deposit financial institutions and banks is the business connection, in the cases when non-deposit financial institutions act as banks' customers, primarily as depositors. From the aspect of the banking system, the share of the deposited funds of the non-deposit financial institutions in the total deposit potential of the banking system is on a relatively low level. At the end of 2006, deposited funds of nondeposit financial institutions participated with 1.7% in the total deposit base at the level of the banking system. Dominant in their structure are the deposited funds of insurance companies, whose share dropped by 8.3 percentage points on annual basis, which is primarily a result of the structural changes in favor of the share of the deposits of the fully funded pension funds, with their beginning in 2006.

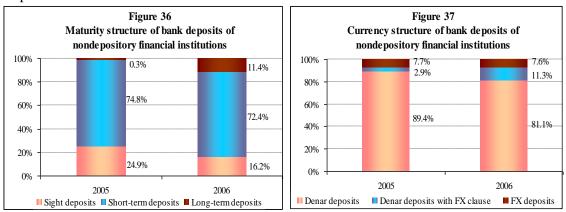


On the other hand, conditions in of low development of the financial markets, deposits represent one of the more important financial instruments in which non-deposit financial institutions allocate their funds. That is one more indicator of the importance of the banking system for the stable functioning of the overall financial system. At the end of 2006, the share of the funds deposited in the domestic banks in the total



assets of the individual non-deposit financial institutions ranged between 3.7% (with brokerage companies) and 23.3% (with pension funds management companies).

The funds of non-deposit financial institutions deposited in the domestic banking system are with relatively favorable maturity and currency structure, in which short-term deposits, i.e. Denar deposits, are dominant. The large share of short-term deposits in the maturity structure of the deposits of non-deposit financial institutions points to their relatively good liquidity position. During 2006, the maturity of the assets of non-deposit financial institutions increased, which was mostly a result of the deposits of the fully funded pension funds (which account for 63% of the total amount of the long-term deposits of non-deposit financial institutions). On the other hand, the significant difference between the interest rates on Denar deposits and the interest rates on foreign currency deposits is one of the deposits of non-deposits financial institutions. However, during 2006, increase in the share of the Denar deposits with FX clause is evident.

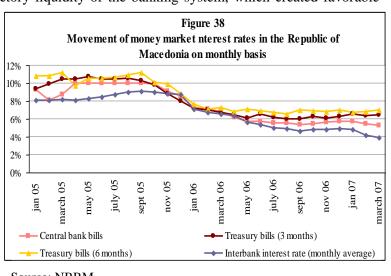


# 2. Domestic financial markets

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

During 2006, the interest rates on the money and short-term securities market continued to decline, although with far lower intensity in comparison with the decline which occurred in the last quarter of 2005 and in the first quarter of 2006. The main driving force behind the downward trends of interest rates, were the positive balance of payments developments and the satisfactory liquidity of the banking system, which created favorable

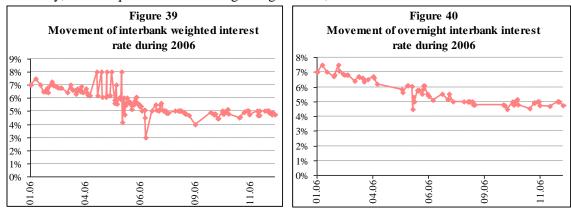
framework for maintaining the exchange rate stability intermediary as an monetary policy target. During 2006, the CB bills were issued through market auctions of the "interest rate tender" type. Lower frequency of the CB bills auctions and the smaller amount offered. in conditions of high liquidity of the banking system, contributed to an increased demand for Treasury bills. This caused a slight downward trend in the



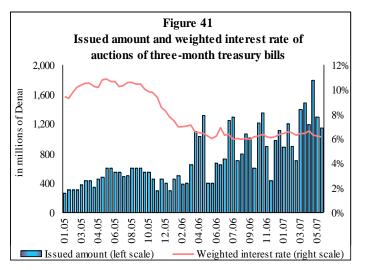
#### Source: NBRM

interest rates on Treasury bills during 2006. The decline in the short-term interest rates is a process that is expected to continue in the future, inter alia, also as a reflection of the pace and the dynamics of the integration of the Republic of Macedonia with the European Union.

During 2006, the movements on the interbank deposits market were, to a large extent, under the influence of the change in the institutional framework of the interbank market. In May 2006, with a decision of the shareholders, the institutionalized Money Market ceased to exist, whereby all interbank transactions started to be executed through direct bilateral trading, by using an electronic trading system. During 2006, the interest rates on the interbank deposit market continuously followed the trend of the interest rates on CB bills. The largest decline was registered in the interbank interest rate on the traded funds with maturity of up to one day, which equaled 7% in the beginning of 2006, and 4.7% at the end of 2006.



In the Republic of Macedonia, except for the Ministry of Finance and the National Bank (which issue Treasury bills and CB bills), there is no other entity which issues short-term securities. The Ministry of Finance, as the largest issuer of short-term securities, in 2006 issued Treasury bills in the total cumulative amount of Denar 26,323 million, which is by Denar 13,207 million more compared with the total amount of Treasury bills issued during 2005. This increase is mainly a



Source: NBRM and Ministry of finance

result of the issuing of Treasury bills for monetary policy purposes, which commenced in March 2006. Dominant in the structure of the Treasury bills issued during 2006 were the Treasury bills with maturity of three months, with a share of 81.3% (Denar 21,405 million), followed by the six-month and twelve-month Treasury bills with shares of 14.0% and 4.7%, respectively. At the end of 2006, the outstanding amount of issued Treasury bills was Denar 9,370 million. During 2006, the average interest rates at the auctions of three-month Treasury bills on the primary market were more stable relative to 2005. The greatest reduction in the interest rates on the primary market of Treasury bills was registered in the last quarter of 2005 and in the first quarter of 2006.

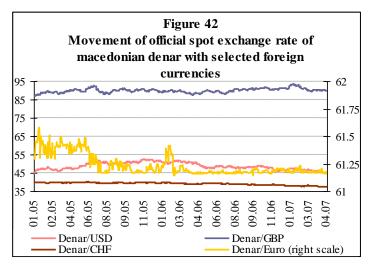
The secondary trading with the issued Treasury bills is conducted on the over-thecounter market<sup>65</sup>. During 2006, the total traded amount of Treasury bills stood at Denar 70.1 million and, in comparison with 2005, registered a decline of Denar 125.1 million. The relatively small number of transactions and the small turnover on the over-the-counter market

<sup>&</sup>lt;sup>65</sup> The over-the-counter market for Tresury bills was established and commenced its operations in April 2005, while for the continuous government bonds it commenced its operations with the change of the Rules for its operations, from July 2006.

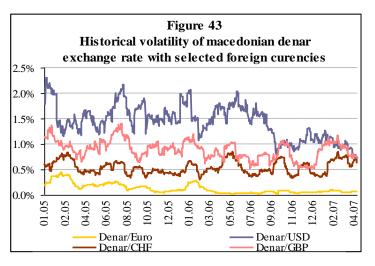
with Treasury bills, is mostly due to the high level of banks' liquidity, primarily of the high amount of the foreign exchange component of liquid assets. The banks' inert attitude towards undertaking market risks in their operations had its influence on the insignificant secondary trading with government securities. Banks prefer to hold the purchased Treasury bills to maturity, thus hedging against the risk of change in the interest rates. On the other hand, however, in conditions of reduced interest rates and short maturity of the Treasury bills, banks face with reinvestment risk. Besides, the low liquidity on the Treasury bills market prevents the banks from using the yield achieved in the trading with government securities, as a basis for setting the interest rates. This, on its part, leads to almost complete absence of the credits with variable interest rate, set according to the movement of the interest rate on the government securities.

The development of the money and short-term securities market, accompanied with its increased depth and emergence of new financial instruments by which the trading on this market is conducted, is a significant factor for the future development of the financial system of the Republic of Macedonia and for improvement of its efficiency. The money market should provide basis for determining the conditions under which the non-financial sectors will be financed. This market should provide efficient allocation of the excess liquidity among the various market participants. At the same time, this market should provide mitigation of the possible more serious liquidity problems in the banking system. Unfortunately, the money and short-term securities market in the Republic of Macedonia only partially fulfills these objectives.

Favorable movements of the short-term interest rates had positive effects also on the foreign exchange market during 2006, where implementation of the strategy of targeting the nominal exchange rate of the Denar against the Euro. continued. During 2006, the netpurchase of foreign exchange on the foreign exchange market by the NBRM stood at Euro 241 million (in 2005 the net-purchase was Euro 156.9 million), which is 82.1% of the annual increase in the official foreign reserves (in 2006 gross foreign reserves went up by Euro 293.7 million). The reasons behind the increased netpurchase relative to 2005, were the private transfers in the amount higher than expected in 2006 (mainly accomplished through the currency exchange market), then the foreign exchange inflow from the the privatization of energy sector, but also the increased amount of portfolio investments. Such movements on the foreign exchange market contributed the Denar exchange rate to be







characterized with an extremely low and stable historical volatility<sup>66</sup>, which is a consequence of the de facto fixed exchange rate of the Denar against the Euro. The exchange rates of the Denar against the US Dollar, Swiss Frank and British Pound mostly changed depending on the changes in the exchange rate of the Euro against these currencies. As a result of the depreciation of the US Dollar during 2006, the exchange rate of the Denar against the US Dollar was characterized with the greatest and most unstable volatility, compared with the historical volatility of the exchange rates of the Denar against the other currencies.

#### 2.2. Capital market

Table 17

#### 2.2.1. Primary capital market

The primary capital market in the Republic of Macedonia is characterized with a relatively small number of public offers of securities. In the past few years, the largest issuer of long-term securities was the government, primarily on the basis of the issued structural bonds (bonds for old foreign currency saving and denationalization bonds) and of the continuous government bonds, which started to be issued in 2005. Other debt securities, including corporate bonds, are not present on the capital market in the Republic of Macedonia. Only one non-financial legal entity has issued bonds, but by their nature they are not transferable and cannot be subject to trading<sup>67</sup>.

In 2006, the total amount of the new issues of long-term securities in the Republic of Macedonia was Denar 3,880 million, of which Denar 2,931.8 million are new issues of bonds<sup>68</sup>, and Denar 948.2 million are new issues of shares. Comparison with Bulgaria and Croatia may be used as an illustration of the minor importance of the primary capital market in the Republic of Macedonia, where the total value of the long-term bonds issued during 2006, stood at US Dollars 401 and 192 million<sup>69</sup>.

Year	2002	2003	2004	2005	2006
No. of issuers registered at CSD	744	766	786	801	n.a.
No. of issued securities registred at CSD	1,121	1,152	1,169	1,216	n.a.
Shares	1,118	1,148	1,163	1,208	n.a.
Debt securities	3	4	6	8	n.a.
No. of quoted companies on official market of Macedonian Stock Exchange	45	98	68	57	43
Approved issues of nongovernment securities	24	25	17	14	16
Shares	24	25	16	13	16
Bonds	0	0	1	1	0
Structure of approved issues of nongovermental securities according to issue	r				
Banks	11	11	7	4	7
Other financial institutions	6	6	2	1	5
Nonfinancial companies	7	8	8	9	4
Structure of approved issues of nongovernment securities according to manne	er of issua	ance			
Public offer	10	6	3	0	3
Private offering	14	19	14	14	13

#### Number of issuers, issued long-term securities and number of issues of securities

\*Source: Central Securities Depository and Securities and Exchange Commission

<sup>&</sup>lt;sup>66</sup> Historical volatility is a standard deviation of the daily changes of the exchange rate for the values of one calendar month, reduced to an annual level. It is used to show the maximum possible change of the exchange rate in one day of trading, but also the possibility of occurrence of an extreme market shock, which is larger in conditions of larger volatility.

<sup>&</sup>lt;sup>67</sup> These are bonds issued by a domestic legal entity through a private offer intended for its founder from abroad. With the Decision on approval of the issuance of these bonds, the Securities and Exchange Commission restricted their free transfer and they cannot be traded.

<sup>&</sup>lt;sup>68</sup> In the amount of bonds issued during 2006, dominant is the fifth issue of the denationalization bonds, realized in March 2006, in the amount of Denar 2,091 million (Euro 34 million).

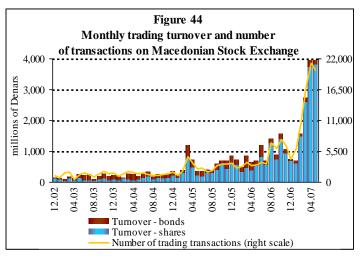
<sup>&</sup>lt;sup>69</sup> Source: ECB, Financial Stability Review, December 2006.

In the past two years and in the first quarter of 2007, on behalf of the Republic of Macedonia, the Ministry of Finance issued six continuous government bonds, four of which, in the total amount of Denar 900 million, were with contractual maturity of two years, while two bonds, in the total amount of Denar 507 million, were with contractual maturity of three years. Besides the continuous bonds, the Ministry of Finance went on with issuing the denationalization bonds. These bonds are issued once a year, in line with the Law on Issuing of Denationalization Bonds of the Republic of Macedonia<sup>70</sup>, and they are denominated in Euros. During 2005 and 2006, and in the first quarter of 2007, there were three new issues of denationalization bonds in the total amount of Euro 110 million. These bonds are quoted on the official market of the Macedonian Stock Exchange and are among the most traded securities. In the absence of corporate bonds and other debt securities, their regular issuing in the past two years was an important impetus for the development of the domestic financial market and for intensification of the stock exchange trading.

Although there is a relatively large number of shareholding companies in the Republic of Macedonia, in general they are not oriented toward financing their operations through the capital market and their acting as issuers of securities is mostly of irregular character. Confirmation of this is the fact that around 7% of the total number of shareholding companies are quoted on the official market of the Macedonian Stock Exchange. When the shareholding companies appear as issuers of securities it is mostly conducted through private offers in the event of scrip-dividend or recapitalization, generally when the company has a dominant foreign owner. Additionally, it was often the case that the shareholding companies, especially banks, would purchase own shares and sell them later by way of private offer. During 2006, there were 16 issues of shares in the total amount of Denar 942.9 million, of which shares in the amount of Denar 372.6 million were issued through a public offer.

#### 2.2.2. Secondary capital market

The basic features of the secondary capital market in the Republic of Macedonia are few available investment opportunities<sup>71</sup> and moderate liquidity, which has register permanent upward trend in the last two years. According to the Securities Law<sup>72</sup>, the secondary trade in long-term securities is made through stock exchange, except for the continuous government securities, which besides on stock exchange could also be traded on over the



counter market. The new Securities Law was adopted in November 2005 at the same time with the beginning of the gradual increase in the trade on the Macedonian Stock Exchange AD Skopje. Major force driving the increase in the Stock Exchange trade was the trade in shares, unlike the trade in listed bonds<sup>73</sup> that has registered steadier trend. Also, particularly in 2006 and early 2007 witnessed significant increase in the number of concluded transactions, due to the higher demand of the domestic natural persons for trade in shares. In 2006, the

<sup>&</sup>lt;sup>70</sup> "Official Gazette of RM" No. 37/02.

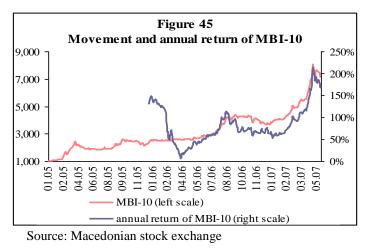
<sup>&</sup>lt;sup>71</sup> Of the total number of registered joint stock companies in Macedonia, at the end of 2006, approximately 7% were listed on the official Macedonian Stock Exchange.

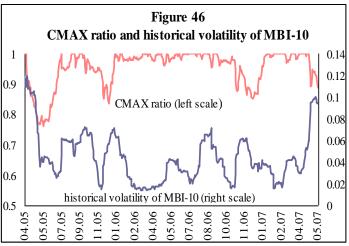
<sup>&</sup>lt;sup>72</sup> "Official Gazette of the Republic of Macedonia" no.95/2005 and 25/2007.

<sup>&</sup>lt;sup>73</sup> The so called structural government bonds - the bond for the old foreign currency savings and six issued denationalization bonds were traded on the official Macedonian Stock Exchange AD Skopje.

number of transactions concluded on the Macedonian Stock Exchange went up by 64.8%, compared to 2005. In the transaction number structure, 82.7% are transactions in shares, and the remaining are transactions in bonds. The most traded shares in 2006 were the shares issued by banks, concluding 22.1% of the total number of transactions.

The growth in the volume of trade and in the market capitalization had a positive effect on the development of the Stock MBI-10<sup>74</sup>, Exchange Index which in the last two years registered remarkable uptrend. At the end of 2006, its annual increase equaled 61.5%, and since March 2007, the annual return of the MBI-10 has 100%. exceeded The development of the CMAX<sup>75</sup> indicator is yet another illustration for the presence of "bull market" on the Macedonian Stock Exchange, particularly in mid-2006 and the first half of 2007, which in the past period registered high values close to the maximum. This was the most evident in the first half of 2006 and in the first quarter of 2007, when its value constantly shifted around the maximum, also corresponding with the periods when the index registered the fastest growth. In





the periods of stagnation or downtrend of the MBI-10 (November and December 2006, largely due to the announcement of the failure of the sale procedure of Komercijalna Banka AD Skopje to strategic investor), the value of the CMAX indicator did not drop below 0.8 points. On the other hand, the historic volatility of MBI-10<sup>76</sup> seemed to follow the oscillations of the index value with high degree of symmetry over the last two years. In other words, the historic volatility of the MBI-10 was decreasing when the index registered a stagnation or downtrend, and was relatively increasing when the index registered a growth. However, in May 2007, the value of MBI-10 was below the historic for the first time ever, and the historic volatility was increasing and reached the highest value for the last one-year period, implying higher likelihood for larger fluctuations in the index value and the share market prices.

<sup>&</sup>lt;sup>74</sup> MBI-10 is a price Stock Exchange index, introduced in January 2005, comprised of the ten most liquid shares listed on the official Macedonian Stock Exchange. In early 2007, the index consisted of common shares of Komercijalna Banka AD Skopje, Alkaloid AD Skopje, Stopanska Banka AD Bitola, Ohridska Banka AD Ohrid, Makstil AD Skopje, Toplifikacija AD Skopje, Beton AD Skopje, Granit AD Skopje, ZK Pelagonija AD Bitola and Makpetrol AD Skopje.

<sup>&</sup>lt;sup>75</sup> The CMAX indicator is a ratio of the current Stock Exchange index value to its maximal value in the preceding 40 trading days. The maximum value of this indicator is 1, indicating that on the current date, the index is at its highest level for the previous 40 trading days.

<sup>&</sup>lt;sup>76</sup> Historic volatility is a standard deviation of the daily returns of MBI-10 for the values of 20 trading days (period that approximately corresponds to one calendar month), on average level. This indicator is used to illustrate the maximum change in the index value for one trading day.

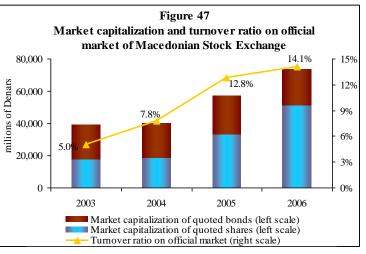
Along with the growth in the secondary capital market trade in the last period, the share prices also registered a permanent growth, and consequently, the total market capitalization<sup>77</sup> of the Macedonian Stock Exchange. In 2006, the average market capitalization of the shares listed on the official Macedonian Stock Exchange went up by 53.8%, and the average market capitalization of bonds surged annually by 7.4%. The increase in the market capitalization of the shares on the Macedonian Stock Exchange carried on in the first four months of 2007, when compared to the end of 2006 it rose by 107.3%. At the end of 2006, the average market capitalization of the official Macedonian Stock Exchange equaled 24.2% of GDP, which is by 4.1 percentage points more compared to the end of 2005.

#### Table 18

Average market capitalization and turnover on the official market of the Macedonian Stock Exchange to GDP

Year	Year Market capitalization as % of GDP				Turnover as % of GDP			
	Shares	Bonds	Total	Shares	Bonds	Total		
2003	7.1%	8.4%	15.5%	0.3%	0.5%	0.8%		
2004	7.0%	8.0%	15.0%	0.5%	0.5%	1.0%		
2005	11.7%	8.4%	20.1%	1.6%	0.8%	2.4%		
2006	16.8%	7.4%	24.2%	2.8%	0.8%	3.6%		

Besides the higher interest in the trade in securities listed on the Macedonian Stock Exchange, the capital market Republic in the of Macedonia still characterizes with underliauidity and restricted market depth. At the end of 2006, the turnover ratio<sup>78</sup> of the Macedonian Stock Exchange was just above 14%, indicating significantly restricted liquidity, although



in the last several years it has been registering steep uptrend. Illustratively, the turnover ratio for 2006 of the Ljubljana Stock Exchange equaled roughly 18%, it exceeded 45% on the Warsaw Stock Exchange, 88% on the Budapest Stock Exchange, Euronext - above 117%, 174% on the Frankfurt Stock Exchange<sup>79</sup>. The under-liquidity on the stock market is a potential threat of hypothetical situation of individual large investors manipulating, deliberately or unintentionally, the stock prices, trading in relatively insignificant quantity.

The higher trade resulted in lower stock exchange turnover degree. The turnover in the ten most traded shares in 2006 accounted for 79.7% of the total annual turnover in shares listed on the official market, which is by 7.8 percentage points less compared to 2005. The further development of the financial markets in the Republic of Macedonia, accompanied by higher trade volume could be expected to continue the downtrend of the turnover concentration rate. On the other hand, the rise in the stock prices in 2006 brought about higher concentration of market capitalization of the shares listed on the official market. The average

<sup>&</sup>lt;sup>77</sup> The market capitalization of certain securities portfolio is a sum of the products of the number of issued securities and the average daily price of each of them.

 <sup>&</sup>lt;sup>78</sup> The turnover ratio of the securities is a quotient of the turnover in securities over a certain time period and the average market capitalization in the same time period.
 <sup>79</sup> Source of data on the turnover ratios on the exchanges in Europe is the World Federation of

<sup>&</sup>lt;sup>79</sup> Source of data on the turnover ratios on the exchanges in Europe is the World Federation of Exchange.

market capitalization of the ten companies with highest average market capitalization made up 78.5% of the total market capitalization of the shares listed on the official market, which is by 6.9 percentage points more compared to 2005.

# Table 19

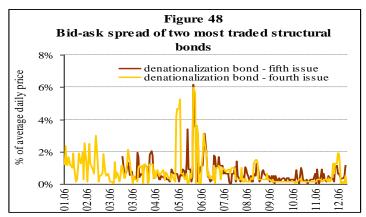
Comparison of the turnover concentration rate and the market capitalization of selected
European stock exchanges

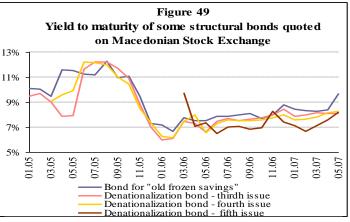
Stock exchange	Turnover of ten traded securities/Total turnover		Market capitalization of ten securities with biggest capitalization/Total marcet capitalization		Market capitalization/ GDP
	2005	2006	2005	2006	2005
Macedonian SE	87.5%	79.7%	71.8%	78.5%	20.1%
Warsaw SE	67.9%	57.5%	65.1%	56.2%	31.2%
Athens Exchange	65.7%	56.5%	57.6%	55.9%	67.9%
Ljubljana SE	30.6%	46.2%	64.1%	78.4%	24.4%
Wiener Börse	79.3%	76.4%	71.3%	71.6%	43.7%
London SE	29.6%	28.1%	40.9%	37.1%	145.5%
Deutsche Börse	49.6%	46.5%	45.0%	40.9%	46.1%
Euronext	29.2%	25.5%	31.7%	29.0%	86.4%

Source of data: Macedonian Stock Exchange AD Skopje and WFE (World Federation of Exchanges)

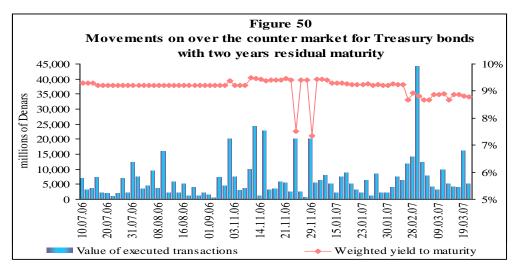
2006, In the secondary bond market in the Republic of Macedonia registered lower turnover compared to the stock market. The exchange turnover in bonds constituted only 7.2% of the total exchange turnover in 2006. Most traded bonds the official exchange on market in 2006 were the denationalization bonds of the

fourth and the fifth issue, accounting for two thirds of the total exchange bond turnover. Notwithstanding the lower turnover compared to the stock market, the liquidity of the bond market improved considerably, particularly in the second half of 2006. It could also be demonstrated through the reduction in the bid-ask spread of the most traded bonds, indicating that there is enough market





participants that secure the required liquidity. This is partially due to the features of the structural bonds traded on the exchange (issued to numerous natural persons). In 2006, the yield to maturity of the most traded structural government bonds registered a mild uptrend, yet being by roughly 2 percentage points lower compared to the end of 2005. Having a mild decrease in the interest rates in 2006, the development of the return on structural bonds opposes the expected decrease. This is due to the volatility of their demand caused by the various preferences of the market participants with respect to liquidity, risk and yield.



Source: NBRM

Although the exchange allows for trading in continuous government bonds, the trade in these bonds on the official secondary market was minimal. Once the over the counter market started operating, the overall trade in continuous government bonds took place on this market. In 2006, the total value of concluded transactions in continuous government bonds on the over the counter market amounted to Denar 507.7 million, and Denar 34.9 million of these transactions were concluded on the exchange. The trade on the market of continuous bonds with two-year residual maturity was more intensive, and the average weighted yield to maturity was relatively stable in 2006.

The further issuance of continuous government bonds and the increase in their maturity spectrum, is expected to increase the volume of their secondary trade. This, in turn, is a prerequisite for constructing yield curve of government securities, particularly those with longer maturities.

At the end of 2006, there were seventeen members of the Macedonian Stock Exchange AD Skopje, six of which were banks, and eleven were brokerage houses. The last two years have witnessed an increase in the membership of the Stock Exchange, thus reducing the concentration of the total turnover and the turnover of the classical trade. The lower concentration of the turnover by member was most evident in 2006, when the shares of the three members with highest turnover and of the five members with the highest turnover in the total exchange turnover reduced by 12.7 and 13.1 percentage points, respectively.

	2003	2004	2005	2006	Change 2006/2005	
No. of stock exchange members	14	14	15	17	2	
CR3 for stock exchange members total turnover	66.4%	70.8%	60.5%	47.8%	-12.7 p. p.	
CR5 for stock exchange members total turnover	82.3%	80.3%	75.3%	62.2%	-13.1 p.p.	
CR5 for clasical trading turnover	75.8%	67.4%	72.1%	62.4%	-9.7 p.p.	

 Table 20

 Indicators for the turnover concentration by stock exchange member

The accelerated trade in securities resulted in positive development for the brokerage industry. At the end of 2006, the total assets of the brokerage houses stood at Denar 615 million, and compared to the end of 2005, it was by 71.3% higher. In 2006, the brokerage houses significantly improved their performances. The pre-tax gain generated by the brokerage houses in 2006, totaled Denar 106.3 million, which is by Denar 65.8 million more compared to the end of 2005. However, the relevance of the brokerage houses to the overall

financial system is marginal, considering that they make up only 0.3% of the total assets of the financial system.

On the other hand, the six banks members of the exchange increased their income from brokerage fees from Denar 60.7 million in 2005, to Denar 89 million in 2006. The income from the brokerage fees of these six banks at the end of 2006 constituted 4.4% of the total fee and compensation income. Thus, 47.3% of the income from brokerage fees in 2006 resulted from providing brokerage services to natural persons.

The considerable increase in the exchange turnover resulted from several factors. The Securities Law, adopted in 2005, provided for relatively larger protection of the shareholder rights, higher transparency and requirements for the issuers for disclosing the financial statements, and also higher authorizations of the Securities and Exchange Committee as a regulator and supervisor of the capital market and securities operations. Other factor that acted towards enhanced exchange trade was the evident presence of foreign portfolio-investors, primarily investment funds, investment companies and natural persons from former Yugoslavia. The higher interest of these investors corresponded with the high annual yields registered by the exchange indices in this region in 2006<sup>80</sup>. Moreover, in 2006, the developments of the exchange indices in the countries of the Balkan region showed high correlation degree<sup>81</sup>.

#### Table 21

Correlation ratio of the developments of the major exchange indices in some SEE countries in 2006

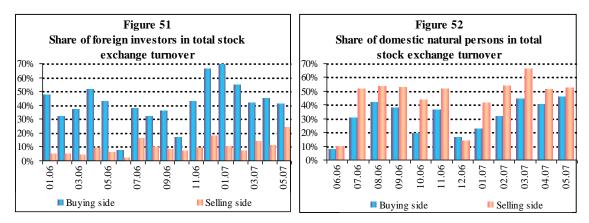
stock exchange indices	CROBEX	SBI20	SOFIX	BELEX	MBI10
CROBEX - ZAGREB	-	0.9632	0.7885	0.8650	0.8753
SBI20 - LJUBLJANA	0.9632	-	0.7655	0.8224	0.8426
SOFIX - SOFIA	0.7885	0.7655	-	0.9462	0.7051
BELEX - BELGRADE	0.8650	0.8224	0.9462	-	0.7394
MBI10 - SKOPJE	0.8753	0.8426	0.7051	0.7394	-

The high share of foreign portfolio-investors in the trade in securities in the Republic of Macedonia brings about higher correlation of the price development of the Macedonian capital market with the markets of the countries in the region, thus the domestic stock market showing similar developments and becoming more sensitive to the price changes on the other exchanges. This primarily refers to the exchanges in other countries of the Balkan region, which in the past period also registered positive developments. In 2006, the Macedonian Stock Exchange Index registered higher degree of correlation with the development of the major indices of the exchanges in Croatia and Slovenia, compared to the correlation with the indices in Bulgaria and Serbia.

Eventually, factor that made the stock turnover and prices higher in the last two years is the relatively understated value of the companies in the past. As a result of myriad of nontransparent privatization processes and the relatively low trade volume in the previous years, the stock prices of most of the companies in the last years were understated, when the increase in the trade made the secondary market play the role of so called "price discovery".

<sup>&</sup>lt;sup>80</sup> The annual increases in the exchange indices in the Balkan countries for 2006 equaled CROBEX (Zagreb) 35.8%, SBI20 (Ljubljana) 14.2%, BELEX15 (Belgrade) 58.4%, SOFIX (Sofia) 48.4%, and the annual yields of the major exchange indices in the Central European countries at the end of 2006 equaled WIG (Warsaw) 39.9%, BUX (Budapest) 8.4,% and PX (Prague) 7.9% and SAX (Bratislava) 0.5%.

<sup>&</sup>lt;sup>81</sup> The correlation ratio may range from -1 to 1. The closer the ratio value is to 1, the higher positive correlation is considered to be present in the development of the both phenomena, and the closer the ratio value is to -1, the higher negative (inverse) correlation is considered to be present between the two phenomena.



Source: Macedonian stock exchange

The higher trade in shares and the increase in their prices, besides their positive influence on the financial system development, also represent a new source of risk for the Macedonian economy. The risks would primarily come to the light in the case of creating excessively high expectations for the future performances of the companies - issuers and for the future price level of their shares, i.e. in the case of speculative "price bubbles". This risk has been present in the Republic of Macedonia, since the primary capital market failed to keep up with the higher public interest to trade in securities (absence of new issues of shares, and most of the listed companies have a high ownership concentration), as well as due to the high presence of foreign portfolio-investors on the purchase side of the exchange and the high share of domestic natural persons.

The change in the risk perceptions or the investment strategies by the foreign portfolio-investors, if any, under the influence of economic<sup>82</sup> or non-economic factors<sup>8</sup> would probably create considerable pressure on the sale side of the exchange. Having a slight depth and width of the market and due to the lack of resident institutional investors that could absorb larger stock quantities, the change in the behavior of foreign portfolio-investors could cause certain adverse changes in the exchange price level. The size of such adverse changes would be commensurate to the size of volatility of certain shares. Considering that in 2007 the MBI-10 volatility has been significantly greater, the adverse changes in the price level, if any, could register noticeable amplitudes. However, the price changes, if any, would not be a direct market risk for the banks or other institutions of the financial system, primarily due to their low propensity to trade in shares. On the other hand, the adverse changes in the price levels would cause serious consequences to the economic power of the household sector, and indirectly to the financial system, since the exposure of the banks to the household sector over the last period registered considerable increase. This becomes particularly updated with the increase in the share of the domestic natural persons in the exchange turnover over the last several months, which still registers higher share on the sale side rather than on the purchase side. In addition, the adverse price changes of the shares would also affect other financial market segments. This particularly refers to the size of trade and the price of listed bonds, which could also be a source of indirect risk to the financial system.

<sup>&</sup>lt;sup>82</sup> Most important economic factor that could change the investment strategies and reduce the investments in securities in the countries in transition, including the Balkan countries, is the increase in the interest rates on the financial markets of the developed countries.

<sup>&</sup>lt;sup>83</sup> One relevant non-economic factor that could change the behavior of the foreign portfolio-investors is the perception of the political developments, not only domestic, but rather Balkan-wide, mainly since the portfolio-investors do not perceive the small capital markets, such as the Macedonian, individually, but rather in a regional context.

# 3. Banking system of the Republic of Macedonia<sup>84</sup>

### **Regulatory framework**

The Banking Law, effective in the period this Report refers to, was adopted in 2000. It regulated the bank founding in the Republic of Macedonia, the capital requirement for performing financial activities, the type of financial activities allowed to be performed by the banks in accordance with the capital amount, the supervisory standards the banks are required to observe in their operations, the bodies of the bank and bank management, the core accounting and audit principles, the bank supervision, the corrective actions and bank's bankruptcy and liquidation. This Law underlay the bylaws of the National Bank, incorporating the contemporary Basel principles and practices of prudential bank operations, and the basic supervisory standards, such as calculation of the bank capital adequacy, credit risk assessment by prescribing a methodology for banks' assets risk classification, identification, measurement and monitoring the country risk, the exchange rate risk, the credit concentration risk, etc.

At the beginning of June 2007, the Parliament of the Republic of Macedonia adopted a new Banking Law, which is qualitative improvement and promotion of the legal framework that regulates the bank founding and operations in the Republic of Macedonia and the method of conducting the supervisory function of the National Bank. The new Law ensures significant compliance of the domestic legislation with the new Basel principles for effective bank supervision adopted in October 2006, as internationally accepted practice of bank and supervisory operations. Furthermore, within the efforts of the Republic of Macedonia for integration to the European Union, this Law shows high degree of approximation to the European directives concerning banks (32006L0048, 32006L0049 and 32001L0024), and therefore, the Republic of Macedonia equalizes with the European countries bound to apply the new bank directives.

Most important innovations in the Banking Law are the strengthening of the bank corporate management, as a particularly vital segment in the contemporary banking. Precondition for successful corporate management with the banks is a transparent shareholder structure which is to underpin the banks' safety, soundness and reputation. The new Law also specifies a range of criteria which are to be met by bank shareholder, simultaneously introducing an authorization of the National Bank to revoke an approval for a shareholder who no longer fulfills the specified requirements. This Law is expected to ensure transparent and efficient procedure for leaving the banking system of the Republic of Macedonia of shareholder who enjoy no reputation, integrity and whose work may compromise the safety and soundness of the bank or impede the performance of the supervisory function of the National Bank.

The Law also embeds a range of provisions tightening the requirements for establishing adequate risk management systems and internal control systems, depending on the volume, the nature and the complexity of the activities performed by the banks. These provisions are a solid basis for application of the New Basel Capital Accord (so called BASEL 2) in the next several years. In this context, the provisions authorizing the National Bank to set a high capital adequacy ratio, depending on the volume, the nature and the complexity of the activities performed by the bank and the adequacy of its risk management systems and the internal control system, are of a crucial importance. These provisions are a key precondition for gradual switch to risk based supervision, which at a bottom line, underlies the implementation of the second pillar (Supervisory assessment) of the New Basel Capital Accord.

<sup>&</sup>lt;sup>84</sup> More detailed data on the structure, the performances and the risk profile of the banking system are included in the Report on Banking System and Bank Supervision in 2006.

Also, the Law increased the minimum capital requirement for founding and operating a bank from Denar equivalent of Euro 3.5 million to Denar equivalent of Euro 5 million, thus applying the European practice and regulations in this area.

One significant innovation of the new Law is the market liberalization, enabling foreign banks for perform financial activities by opening branches in the Republic of Macedonia. This means facilitation of the access of foreign banks to the domestic market of financial services, which is expected to enhance the competitiveness on the domestic market.

In order to increase the transparency and the banks' market discipline, the Banking Law strengthens the role of the external auditor, increases the transparency in the performance of the financial activities and risk management by the banks, and tightens the accounting standards for the banks.

Significant progress in the Banking Law has been made in the area of corrective actions undertaken by the National Bank against a bank that showed inconsistencies and irregularities in its operations. The Law also offers greater transparency in the manner of imposing measures by the National Bank. Besides the wide range of corrective actions, the Law also specifies gradation in the imposing of the corrective actions, depending on the gravity of the irregularity and the responsiveness of the bank.

The relevant bylaws emanating from the new Banking Law will be adopted in 2007, thus completing the bank regulations required for efficient bank operations and efficient implementation of the supervisory function of the National Bank.

#### 3.1. Structure and activities of the banking system

One of the basic features of the financial system of the Republic of Macedonia is the noticeable domination of the banking sector, constituting 90.1% of the financial system assets. Hence, the developments and the stability of the financial system are primarily contingent upon the features and the performances of this sector.

#### Table 22

#### Number and size of deposit institutions

			Yea	ars		
	2001	2002	2003	2004	2005	2006
Number of deposit instutions	38	38	36	36	34	31
banks	21	21	21	21	20	19
saving houses	17	17	15	15	14	12
Total assets of depoit institutions (in million of Denars)	106,309	94,169	106,139	119,539	142,370	176,504
banks	105,633	93,213	104,875	117,985	140,436	174,177
saving houses	676	956	1,264	1,554	1,934	2,327
Structure of deposit institutions assets (as%)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
banks	99.4%	99.0%	98.8%	98.7%	98.6%	98.7%
saving houses	0.6%	1.0%	1.2%	1.3%	1.4%	1.3%
Number of mergers and aquisititons	3	0	0	0	1	2

In the last several years, typical for the banking system of the Republic of Macedonia is the steady decrease in the number of institutions, and simultaneous increase in its size. The further approximation of the Republic of Macedonia to the European Union could be expected to strengthen the process of restructuring and the market consolidation of the banking system of the Republic of Macedonia which is to bring about further deepening of the financial intermediation and improving, in particular, the type and the quality of financial services offered by the banks.

The structural analysis shows that the banks dominate in the banking system. Except for one bank<sup>85</sup>, all remaining eighteen banks<sup>86</sup> are of universal nature. The savings houses<sup>8</sup> that represent the second segment of the deposit institutions have a marginal role in the banking system. As of December 31, 2006, they accounted for 1.3% of the total financial potential of the banking system with a trend of further reduction. The share of savings houses is still marginal in the total gross credits to non-financial entities and in the total household deposits in the banking system, which at the end of 2006 equaled 2.0% and 0.8%, respectively. Considering the marginal influence of the savings houses on the overall activities and performances of the banking system, the further analysis of the banking system has been focused only on data and indicators for the banks' operations.

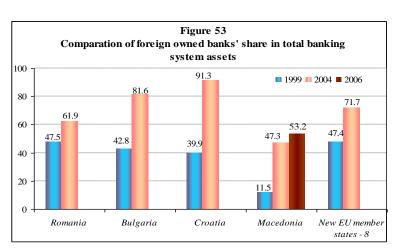
The interest of the foreign investors, primarily foreign banks to invest in the banking system of the Republic of Macedonia in the last years has registered permanent uptrend, which in 2006 and in the first half of 2007 became more evident.

#### Table 23 Structural features of the banking system

	2003	2004	2005	2006
Number of banks in which foreign capital is present	15	15	17	17
Number of banks in dominant ownership of foreign shareholders	8	8	8	8
Assets of banks in dominant foreign ownership/Total assets (as %)	44.0%	47.3%	51.3%	53.2%
Capital of banks in dominant ownership of foreign shareholders/Total capital (as %)	44.6%	47.6%	49.1%	50.0%
Assets of five banks with biggest assets/Total assets -CR5 (as %)	76.1%	76.2%	75.0%	74.7%
Herfindahl-index	1,842	1,685	1,607	1,595

At the end of 2006, the foreign capital made up 56.1% of the total equity of the banking system of the Republic of Macedonia. Compared to December 31, 2005, the share of the foreign capital surged by 3.6 percentage points, which is due to the interest of the foreign portfolio-investors to trade in banks' shares.

Of the total number of banks in the Republic of Macedonia in majority holding of foreign shareholders<sup>88</sup>, five are in majority holding of foreign financial groups. The permanent trend of increasing their market share banking in the system continued in 2006. Thus, at the end of 2006, the banks in majority holding of foreign shareholders accounted for



53.2% and 50.0%, respectively of the total assets and equity in the banking system. With the

<sup>&</sup>lt;sup>85</sup> Macedonian Bank for Development Promotion AD Skopje conducts specific financial activities as specified by the Law on Establishing a Macedonian Bank for Development Promotion.

Of the eighteen banks in the Republic of Macedonia, three have been authorized to perform only domestic financial activities (listed under Article 45 of the Banking Law), and fifteen banks are authorized to perform all financial activities (defined in Articles 45 and 46 of the Banking Law). <sup>87</sup> The savings houses primarily perform households-related banking activities.

<sup>&</sup>lt;sup>88</sup> Banks in majority holding of foreign shareholders are banks where foreign shareholders hold over 50% of the total number of issued shares.

acquisition of Ohridska Banka AD Ohrid by Societè Generale s.a. Paris, the domination of the banks in majority holding of foreign shareholder in the first half of 2007 became more evident (the share of the banks in majority foreign holding in the total assets as of April 30, 2007 increased to 58.0%). However, the relative significance of the banks in majority holding of foreign shareholders in the banking system of the Republic of Macedonia was and remains lower compared to the countries of the region and the countries that joined the European Union in 2004, due primarily to the larger inflows of foreign capital in these countries during the privatization processes of their banking systems.

Observing the countries of origin of the majority foreign shareholders. the maior investors in the banking system of the Republic of Macedonia come from the more advanced countries in the Balkan region - Greece and Slovenia. These two countries constitute half of the banks' capital in the Republic of Macedonia which is in majority holding foreign of shareholders, since two of

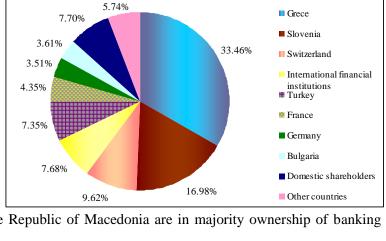


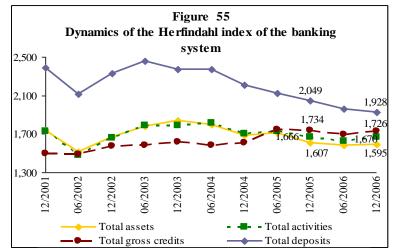
Figure 54

Structure of capital of banks in dominant ownership of foreign

shareholders according to country of shareholders origin

the three largest banks in the Republic of Macedonia are in majority ownership of banking groups of these countries.

The banking system of the Republic of Macedonia is distinguished by relatively high, but rather acceptable concentration rate, which has registered a permanent downtrend in the last years. The highest concentration rate was registered in the deposit activity of the banks which on December 31, 2006, measured by the Herfindahl-index equaled 1.928. However, in 2006.

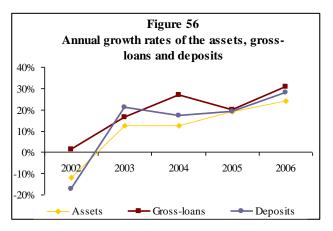


this index registered the fastest decrease of 121 index point.

The downtrend of the concentration rate and the increase in the market share of the banks in majority foreign ownership is expected to be a generator for additional strengthening of the competitiveness in the banking system and for its further market consolidation. These developments are also expected to encourage the change in the business strategies of the smaller banks in order to provide foreign strategic investors, their interconnection or possibly, acquisition by other domestic banks. Of course, other possible alternative for these banks is to keep their role in the banking market in the Republic of Macedonia through their specialization for certain type of activity or targeted client group.

In 2006, one of the basic features of the banking system of the Republic of Macedonia was the major increase in its size. The total banks' assets on December 31, 2006,

reached Denar 174,117 million, which is by 24.0% more compared to December 31, 2005. The increase in the deposit base of the banks, and the further process of transformation of their low interest-bearing assets to high interest bearing assets were the core postulates underlying the financing of the higher volume of activities by the banks. Compared to December 31, 2005, the deposits of non-financial entities surged by 27.9%. The degree of financing the

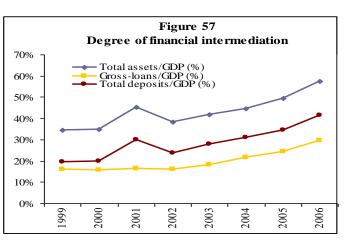


banks' activities by sources of funds from foreign banks remained almost unchanged compared to the preceding year. The higher deposit potential had an effect on the assets side through the faster pace of increase in the credit support of the non-financial entities and through the noticeable demand of the banks for securities (primarily treasury bills). On annual level, the credits to non-financial entities went up by 35.2%, and the securities portfolio rose by 36.0%. The constant downtrend of the low interest-bearing at the expense of the increase in the interest-bearing component of the assets was primarily demonstrated through the high share of credits, at the expense of the further decrease in the share of the banks' deposits in foreign banks.

# Table 24 Assets and liabilities structure

Balance sheet	Stru	cture	Annual change	Change of structural share	Contribution in growth (as %)	
	31.12.2006	31.12.2005	(as %)	(as procentage points)		
Cash and balances at NBRM	6.4%	5.7%	39.9%	0.7	9.4%	
Securities portfolio	13.9%	12.7%	36.0%	1.2	19.1%	
Placements to other banks	27.1%	30.7%	9.4%	-3.6	12.0%	
Loans to clients (net)	45.7%	41.9%	35.2%	3.8	61.5%	
Accrued interest and other assets	2.9%	4.4%	-18.1%	-1.5	-3.3%	
Fixed assets	4.0%	4.6%	6.2%	-0.6	1.2%	
Nonallocated provisions for potentital losses	0.0%	-0.1%	-34.7%	0.1	0.1%	
Total assets	100.0%	100.0%	24.0%		100.0%	
Bank deposits	2.2%	1.9%	43.6%	0.3	3.5%	
Deposits of non-financial enteties	71.9%	69.7%	27.9%	2.2	81.2%	
Borrowings (shorterm and longterm)	9.0%	94%	19.4%	-0.4	7.6%	
Other liabilities	3.1%	2.6%	47.5%	0.5	5.2%	
Provisions for off-balance sheet items	0.4%	0.5%	-9.1%	-0.1	-0.2%	
Own funds	13.3%	15.9%	4.2%	-2.6	2.7%	
Total liabilities and equity	100.0%	100.0%	24.0%		100,0%	

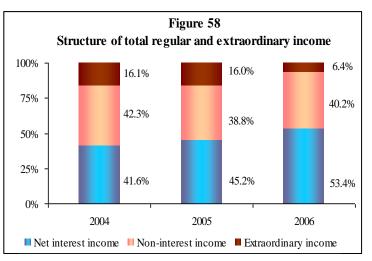
The higher volume of activities of the banks at the same time implied further deepening of the degree of financial intermediation. The degree of financial intermediation, as a basic indicator for the relative significance of the banks' activities in the total economic activity in the country preserved its uptrend, typical for the past several years. At the end of 2006, the level of financial intermediation in the banking



system, measured as a ratio of the total assets, the gross credits and the total deposits of the non-financial entities - to - GDP equaled 57.4%, 29.6% and 41.3%, respectively.

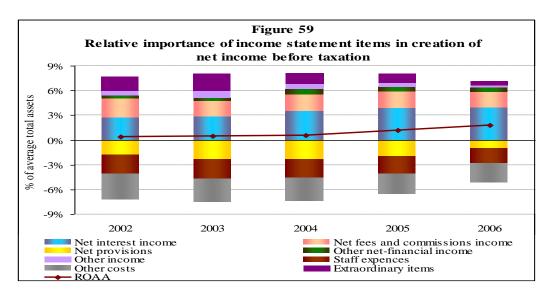
#### **3.2. Profitability of banking system**

The last year was exceptionally favorable for the banks in the Republic of Macedonia with respect to strengthening of their profit potential and operating efficiency. In 2006, the banks showed record amount of profit, after the monetary independence of the Republic of Macedonia, in the amount Denar 2.800of million, which is by 76% more compared to 2005. Only two banks showed loss, and their



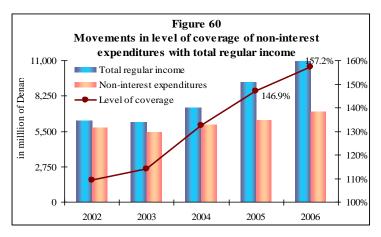
share in the total assets of the banking system at the end of 2006, equaled 1.4%. Taking into account the central role of the banks in the financial system, the positive developments in the profitability are particularly important to the financial stability. On the one hand, the relevant profit capacity contributes to enhancing the banks' capacity to absorb the consequences from the operating risk materialization, if any, but on the other hand, the profitable business of the banks is a prerequisite and driving force behind the further growth in their activities.

The uptrend of the development of the rate of return on assets (ROAA) and the rate of return on equity (ROAE), continued in 2006 in the overall banking system. On December 31, 2006, they equaled 1.8% and 12.3%, respectively, which is an increase of 0.6 and 4.8 percentage points, compared to the end of 2005.



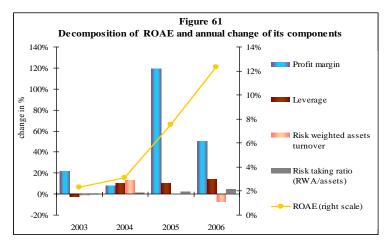
The decomposition of the rate of return on assets (ROAA) shows that the profit in 2006 primarily stems from the growth in the regular income. The net interest income made up 53.4% of the total generated income of the banks in 2006, thus being a key component in the formation of the banks' profit. The second significant source of regular income was the non-interest income, constituting 40.2%. Within this income, the fee and compensation income for bank services accounted for 73.3%. On the other hand, at the end of 2006, the extraordinary income, which has played an important role in the creation of the income potential of the banks over the recent years, constituted 6.4% of the total generated income, which is by 9.6 percentage points less compared to 2005.

The trend of increasing the cost efficiency of the banks in the Republic of Macedonia kept on in 2006. The integral parts of the cost structure (wages costs, banks' net-provisions, other recognized costs), as а percentage of the total assets of the banking system over the last three years has gone down. In 2006, the parallel positive developments on income both the and



expenditure side of the income statement brought about higher ratio between banks' noninterest expenditures and their total regular income coverage. Thus, at the end of 2006, the banks' non-interest expenditures - total regular income coverage ratio equaled 157.2% and compared to the end of 2005, it surged by 10.3 percentage points. Also, this is the highest level in the last several years, which is yet another illustration of the improved operating efficiency of the banks in the Republic of Macedonia.

The decomposition of the rate of return on equity (ROAE) shows that the fastest growth in the last several years, and consequently, the contributor to maior the profitability improvement was the banks' profit margin. This is a result of the lending environment of boost, in relatively high interest spreads. The increase in the profitability in the last couple of years was additionally



induced by the greater appetite of the banks to take risk, which resulted in constant reduction of their capitalization and increase in the leverage, and therefore, their higher contribution to the creation of the rate of return on equity.

The future perspectives for the profit-making capacity of the banking system could be seen as positive. In the future, it is realistic to expect further increase in the relevance of the regular income, mainly the interest income and fee income, as major sources of income for the banks. Yet, there are several threats and restrictions that alarm for precaution. One of the most significant risks the banks face with is the credit risk, the materialization of which could have serious adverse effects on the banks' profitability. In 2006, the improvement of the credit portfolio quality, i.e. the reduction of its average risk is also illustrated by reduction in the net loan loss provisions. Nevertheless, the relatively fast rise of the credit portfolio, the relatively short credit history of the banks' customers and the lack of more sophisticated management tools, monitoring and hedging of the credit risk in the banking sector increase the uncertainty regarding the banks' capacity to demonstrate a sustainable growth in their own profitability. Moreover, the higher interest in trade on the capital market, the expected capital flow liberalization, the increase in the role of the non-banking financial institutions are challenge for preserving the banks' profitable potential. The banks are expected to make greater efforts to narrow the interest spread and to increase their capacity for control and lowering the operating costs.

#### 3.3. Credit risk

#### 3.3.1. Credit exposure - development and structure

On December 31, 2006, the total credit exposure<sup>89</sup> of the banking system stood at Denar 179,188 million, which is by Denar 38,492 million, or by 27.4% more compared to December 31, 2005. The exposure to legal entities engaged in various economic activities dominate in the credit exposure with 77.8%, while 22.2% is exposure to the household sector.

In the several recent years, the banks' credit activity has been distinguished by faster pace of lending to households, and faster increase in the lending in currency component.

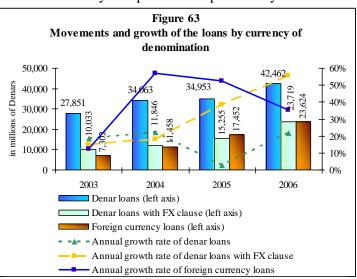
Taking into account the low level of financial intermediation (which enables further increasing in the credit exposure to the household), and particularly the low starting point of lending to households, it was expected the credit exposure to the households to increase.

In the 2000-2006 period, the household lending surged by almost eight times. In the last five years, the annual growth rate of the credits to the households ranged from 40% to 63% (on December 31, 2000 the credits to households accounted for 10% of the total credits, and their share at the end of 2006 equaled approximately 35% of the total credits).

Figure 62 Movements and growth of the loans to house holds 30.85 35,000 70% 63.2% 60.5% 30,000 60% 25.000 50% of Denar 42.5% 15.333 46.7% 20,000 40% 15,000 30% millio 10,000 20% 5.000 10% 0 0% 2001 2002 2003 2004 2006 2000 2005 loans to households (left axis) annual growth rate of loans to households

The banks' propensity to lend in currency component was particularly noticeable in

when the foreign 2006. currency indexed credits in Denars registered a growth rate of 55.5%, and the foreign currency credits grew by 35.4%. The intensive increase in the lending with currency component in the 2003-2006 period. contributed to 4.2 percentage points higher share of the foreign currency indexed loans in Denars in the total gross credits, i.e. increase in the share of foreign currency credits in the gross credits by 10.1 percentage points in the



same period. On the other hand, the share of Denar credits in the total gross credits went down by 14.3 percentage points.

Fast increase in the credit exposure with currency component denotes higher exposure to the banking sector to indirect credit risk. Credit denomination in foreign currency

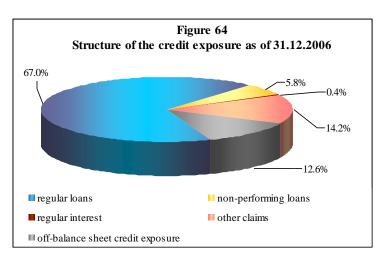
<sup>&</sup>lt;sup>89</sup> The banks credit exposures, besides credits, include claims on other basis (interests, fees, advances, investments in equities), and non-backed guarantees, L/Cs, and other potential claims of the banks that show certain level of credit risk.

means hedging of possible exchange rate risk. However, this risk is also transferred to the borrowers who mostly cannot anticipate and hedge it. In such environment, the exchange rate risk, the borrowers are exposed to, is demonstrated in a form of indirect credit risk of the banks, considering that the possible downtrend of the Denar exchange rate could adversely affect the creditworthiness of the debtors.

#### 3.3.2. Credit exposure quality

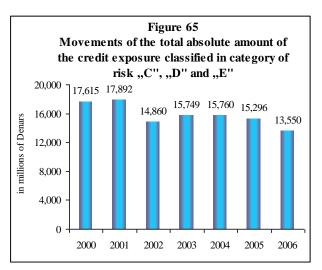
The progressive growth in the total credit exposure of the banks in the recent years undoubtedly means overtaking larger credit risk. Basic feature of the credit portfolio growth is that most of the new debtors are households and small- and medium-size enterprises (most of which showing poor credit background). The basic risk for the banks, in such situation, is the potential deterioration of the financial position of the customer, and consequently, the capability to repay the credit. Also, the process of credit growth could be accompanied by loosening the banks' credit policies, which could indirectly mean taking high credit risk by the banks. Notwithstanding the accelerated lending activity of the banks in 2006, no considerable loosening of the banks' credit practices has been registered.

The banks' credit exposure quality shows signs of deterioration. The structure of credit exposure dominated by regular is credits (67.0%) which rose at annual rate of 25.2%. accounting for 62.8% of the total growth in the credit exposure. In 2006, the nonperforming credits went down by 1.9%, leading to their lower share in the total credit exposure of the banking system (from 7.5%



on December 31, 2005 to 5.8% on December 31, 2006). Of course, one should not ignore the fact that in 2006, the banks wrote off considerable amount of credits in total of Denar 2.1 billion. One bank accounts for approximately 78% of the total amount of write offs in 2006. Such write offs do not undermine the conclusion for the improved trends in the banks' credit exposure quality in environment of credit growth, because most of the write offs of this bank are credit exposure from the preceding years, prior to the accelerated credit growth, i.e. in the early years of the transitional period.

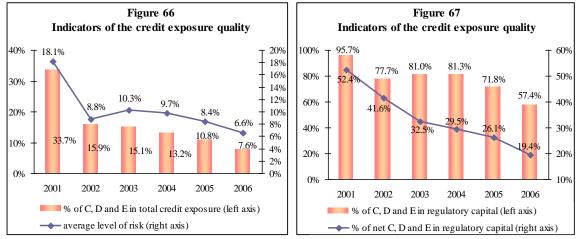
Credit exposure classified in A and B risk categories went up by Denar 40,238 million annually, (the credit exposure in A risk category makes up 86.5% of this growth), so that their share in the total credit exposure surged by 3.3 percentage points, and on December 31, 2006 it equaled 92.4%. On the other hand, in the same period, the credit exposure classified in C, D and E risk categories went down by Denar 1,746 million, and its share in the total credit exposure dropped from 10.9% (on December 31, 2005) to 7.6% na December 31, 2006.



	Credit exposure			Change 31.12.2006/31.12.2005			
Risk	31.12.	2005	31.12	.2006	Amount (in	Rate of	Share in the change (in %)
category	Amount (in millions of Denars)	Structure (in %)	Amount (in millions of Denars)	Structure (in %)	millions of Denars)	change (in %)	
А	108,913	77.4%	143,707	80.2%	34,794	31.9%	90.4%
В	16,488	11.7%	21,931	12.2%	5,443	33.0%	14.1%
С	4,473	3.2%	3,807	2.1%	-666	-14.9%	-1.7%
D	4,420	3.1%	3,435	1.9%	-985	-22.3%	-2.6%
Е	6,403	4.6%	6,308	3.5%	-95	-1.5%	-0.2%
Total:	140,697	100.0%	179,188	100.0%	38,491	27.4%	100.0%

Table 25Credit exposure structure by risk category

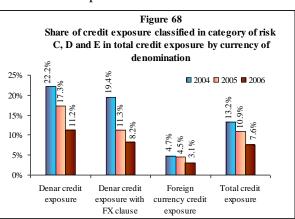
As a result of these developments, on December 31, 2006, the average risk level of the credit exposure in the banking system equaled 6.6% (corresponds to B risk category) and compared to December 31, 2005, it is by 1.8 percentage points lower.



\* Note: The lower value of the indicators as at the end of 2002, compared to the end of 2001, primarily results from the change in the methodology for classification of on-balance sheet and off-balance sheet asset items, which extended the term "banks total credit exposure".

The improvement of the banks' credit exposure quality is also demonstrated through the lower share of non-provisioned amount of credit exposure classified in C, D and E risk categories (risk exposure reduced by the adequate amount of allocated special reserve) in the guarantee capital from 26.1% (December 31, 2005) to 19.4% (December 31, 2006). This means that under assumption of full non-recoverability of the credit exposure classified in C, D and E risk categories, loss coverage would require less than one fifth of the banks' guarantee capital. Accordingly, the capital adequacy would reduce from 18.3% to 14.8%, showing that the solvency of the banking system of the Republic of Macedonia remains stable even under such extreme scenario.

Along with the improvement of the aggregate level, the credit exposure quality improved with respect to its currency structure demonstrated through the permanent uptrend of the indicators for the share of the credit exposure classified in C, D and E risk categories in the total credit exposure by currency (domestic and foreign). Lowest risk is registered in the foreign currency credit exposure, partly

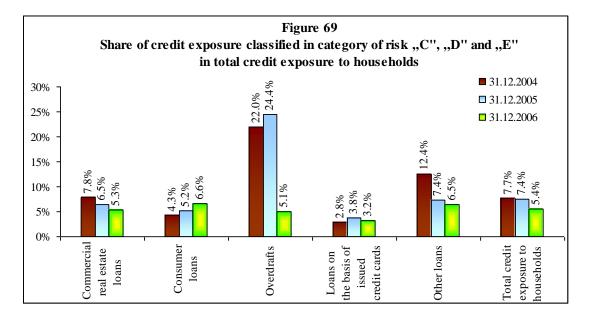


resulting from the fact that the foreign currency lending to residents was liberalized in 2003, so it is relatively "young" credit portfolio. It is particularly important to emphasize that in environment of expected growth in the lending in currency component, the National Bank would tighten the regulatory framework concerning the approval of foreign currency indexed credits in foreign currency and in Denars.

The credit exposure quality also registered an improvement from the aspect of its sector structure (to households and to legal entities).

#### **3.3.2.1.** Quality of credit exposure to households

The general trend of improving the banks' credit exposure quality also applies to the credit exposure to households. On December 31, 2006, the share of credit exposure to the households, classified in risk categories C, D and E, in the total credit exposure to this sector is 5.4%, which is by 2 percentage points lower compared to December 31, 2005.



At the end of 2006, the average credit exposure classification, measured as a ratio between the potential losses and the credit exposure to the household sector equaled 4.6%, which corresponds to the A risk category, and it improved relative to December 31, 2005 (reduction of 0.8 percentage points). The credit exposure quality analysis<sup>90</sup>, (measured as a share of credit exposure classified in C, D and E risk categories in the total credit exposure) as of December 31, 2005 and December 31, 2006, excluding the effect of the newly extended credits in 2006, shows that in 2006, the existing credit exposure to natural persons deteriorated at a faster pace relative to the deterioration of the existing credit exposure to the non-financial legal entities.

Relatively high concentration rate in the banking system is also manifested in the banks' lending to households. With respect to the type of banking products offered to the household sector, there is high concentration of several banks. Even though the Herfindahl-index dropped in 2006, it is above the acceptable level of all bank products offered to the

 $<sup>^{90}</sup>$  The analysis has been made by using adequate transitional matrices for natural persons and customers - non-financial legal entities (companies). The compilation of the transitional matrix for natural persons takes into account only natural persons - residents whose exposure exceeds Denar 150,000, and the compilation of the transitional matrix for clients - non-financial legal entities (enterprises) does not take into account the credit exposure of the banks to other domestic banks, to the legal entities - non-residents (including foreign banks) and to legal entities with total credit exposure below Denar 500,000).

household sector. Only in the consumer credits, extended by almost all banks, the Herfindahlindex is within the acceptable level (1,721 index points on December 31, 2006), which could be perceived as favorable, considering the largest share of the consumer credits in the structure of credit exposure to the household sector. The CR-indicators of all analyzed bank products range above 63% (three, i.e. five banks constitute above 63% of bank products offered to the household sector). The concentration rate of credits based on issued credit cards is particularly high, primarily due to the lower number of banks that offer this product (six banks as of December 31, 2005, i.e. nine banks as of December 31, 2006).

	31.12.2005			31.12.2006				
Type of credit exposure to households	Herfindahl index	CR3	CR5	Number of banks which provide the service	Herfindahl	CR3	CR5	Number of banks which provide the service
Residential real estate loans	3,183	89.2%	94.1%	13	2,954	84.2%	96.3%	14
Consumer loans	2,171	68.5%	79.7%	18	1,721	63.2%	76.4%	17
Overdrafts	3,300	85.9%	94.1%	15	2,613	83.6%	93.5%	14
Loans on the basis of issued credit cards	5,178	92.9%	100.0%	6	5,485	92.6%	99.1%	9

 Table 26

 Concentration rate by bank product offered to the household sector

The high concentration rate of bank products offered to the household sector also indicates a high concentration rate of the taken credit risk (at this type of lending) in only several banks, i.e. its under-dispersion within the banking system.

# 3.3.2.2. Quality of credit exposure to legal entities

The constant trend of improving the quality of the credit exposure of the banking system over the past period, also brought about reducing the average risk level of the exposure to non-financial legal entities and reducing the share of credit exposure classified in C, D and E risk categories in the total exposure. The average risk level of credit exposure to non-financial legal entities reduced by 4 percentage points, and on December 31, 2006, it equaled 10.7%, whereas the credit exposure classified in C, D and E risk categories made up 12.3% of the total credit exposure, which is by 6.8 percentage points less compared to 2005. Compared to the end of 2005, the industry sector and the agriculture, hunting and forestry sector registered a decrease in the average risk level by 6.4 and 5.9 percentage points, respectively, and on December 31, 2006, the average risk level for these sectors equaled 15.1% and 19.3%, respectively. In addition, the share of credit exposure classified in C, D and E risk categories in the total credit exposure to the agriculture, hunting and forestry sector also registered a inconsiderable decline of 15.8 percentage points (on December 31, 2006 this indicator equaled 20.7%). The lowest risk level was registered in the credit exposure to the transport, storage and communications sector, where the average risk level equaled 8.2%, and the share of credit exposure classified in C, D and E risk categories in the total credit exposure to this sector equaled 6.9%. Deterioration of the average risk level was registered at the end of 2006, only in three sectors (activities related to real estate, leasing and business activities, other communal, cultural, general and personal service activities and exterritorial organizations and bodies), constituting 2.4% of the total credit exposure to legal entities.

The lending to legal entities is also characterized by a high concentration rate. Although the Herfindahl-index, calculated for credits to enterprises shows acceptable (and yet high) concentration rate, however, the index deteriorated by 29 index points in the last year. The CR-indicators are also high and exceed 70% (three, i.e. five banks approved above 70% of the credits to enterprises).

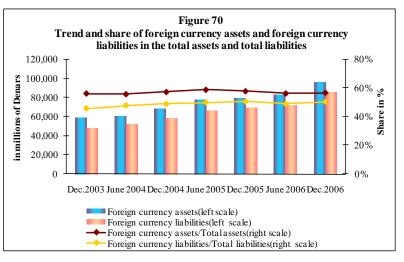
Level of concentration	31.12.2005	31.12.2006
Herfindahl- index	1,750	1,779
CR3	70.4%	79.8%
CR5	79.9%	79.3%
Number of banks which perform credit activities to legal entities	20	19

Table 27Concentration rate in the lending to enterprises

The high concentration rate of lending to legal entities in only several banks points out a high concentration rate of credit risk, i.e. its under-dispersion within the banking system.

# 3.4. Exchange rate risk

One of the specifics of the banking system of the Republic of Macedonia is the noticeable presence of foreign currencv component in the banks' balance sheets. On December 31, 2006, the share of foreign currency assets. i.e. foreign currency liabilities in the total assets and liabilities of the banking system equaled 56.7% and



50.6%, respectively. The annual growth in foreign currency assets and foreign currency liabilities for 2006 equaled 21.3% and 23.6%, respectively. The major driver of the growth in the foreign currency component in the balance sheet of the banking system was the increase in the foreign currency indexed credits in foreign currency and in Denars, and the increase in the foreign currency deposits, the foreign currency assets of foreign persons and foreign currency indexed deposits in Denar. Such share of foreign currency component implies exposure of the banks to exchange rate risk.

In 2006, same as in the previous years, the Euro dominated the currency structure of the assets and liabilities, and the open currency position<sup>91</sup> in Euro made up 82.4% of the total amount of open currency position in the banking system. This is a result of the relatively high degree of currency substitution in the Macedonian economy and of the foreign trade structure dominated by the Eurozone countries. The US Dollar, even though the second most used currency in the banks operations accounts for only 0.7% of the open currency position of the banking system.

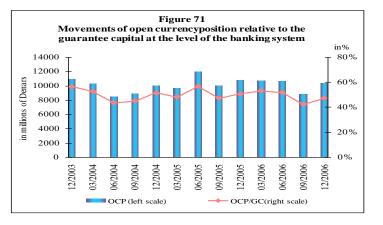
<sup>&</sup>lt;sup>91</sup> In the analysis of the exchange rate risk, since December 2005, two banks have been excluded from the banking system. According to the Law on Amending the Law on Establishing Macedonian Bank for Development Support ("Official Gazette of the Republic of Macedonia" no. 109/05), this bank is not subject to regulations governing the open currency position. Also, according to the Decision on determining and calculating banks' open currency positions ("Official Gazette of the Republic of Macedonia" no. 103/01), one bank is not bound to report on the open currency position because its foreign currency assets, i.e. foreign currency liabilities are below 20% of the bank's guarantee capital.

	De	Dec.2004		2005	Dec.2006	
Currency	Foreign	Foreign Foreign		Foreign Foreign		Foreign
Currency	currenc	y currency	currency	currency	currency	currency
	assets	liabilities	assets	liabilities	assets	liabilities
Euro	84.0%	83.3%	82.9%	82.6%	84.7%	85.0%
Dollar	11.5%	13.3%	12.6%	14.2%	10.3%	11.4%
Others	4.5%	3.4%	4.5%	3.2%	5.0%	3.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 28

 Currency structure of the foreign currency assets and foreign currency liabilities

On December 31, 2006, the open currency position of the banking system totaled Denar 10,400 million or 47.1% of the guarantee capital. In 2006, the banks mainly preserved asset open currency position that exposed them to risk from the potential Denar appreciation against other currencies.

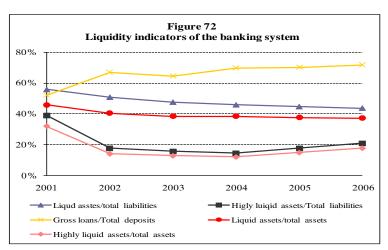


#### 3.5. Liquidity risk

The banks in the Republic of Macedonia have preserved satisfactory liquidity level observed through the level and structure of sources of funds, the availability of highly liquid and liquid assets, and the maturity match between the assets and the liabilities of the banks. Particularly positive is the increase in the maturity of the banks' deposit potential, primarily through the faster growth pace of the time deposits compared to the growth pace of the sight deposits. However, this trend is not sufficient to overcome the contractual residual maturity mismatch between the assets and the liabilities of the banks, primarily due to the longer date of maturity of the credits, as opposed to the shorter maturity of the deposit potential. On the other hand, the residual maturity of the expected banks' cash flows shows high degree of compliance, primarily resulting from the high stability of the sight deposits, determined on the basis of the experience of the banks from previous years. On December 31, 2006, the average level of stable sight deposits equaled 81.8%, across the banking sector.

#### Banks,

traditionally, maintain high amount of liquid assets. The liquid assets<sup>92</sup> still cover a relatively large part of total assets of the banking sector, although its share slightly fell ompared to 2005 (from 37.6% to 37.1%). This tendency of reducing the share of liquid assets in the total assets is due to the high growth rate of the



<sup>&</sup>lt;sup>92</sup> Liquid assets, in broader terms, include highly liquid assets (defined in the next footnote), short-term placed assets with foreign banks and placements in other short-term debt securities.

banks' total assets relative to the growth rate of the liquid assets, which is a result of the accelerated credit activity of the banks. However, the conversion process of the liquid assets to highly interest-bearing assets requires larger capacity of the banks for credit risk monitoring and management, since the potential taking of excessively high level of credit risk would have inevitable adverse effects on the banks' capability for timely servicing of their future liabilities, i.e. might compromise their liquidity position. Unlike the liquid assets, the share of the highly liquid assets<sup>93</sup> in the total assets went up relative to 2005, so that at the end of 2006 it equaled 17.7% (2.8 percentage points higher relative to 2005), primarily as a result of the propensity of the banks to invest in treasury bills.

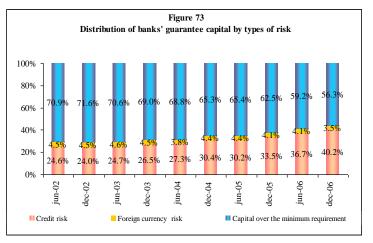
The positive liquidity position of the banking system is also illustrated through monitoring of the development of several other liquidity indicators over the past years. Thus, liabilities - liquid and highly liquid assets coverage is relatively high, and at the end of 2006 it equaled 43.7% and 20.8%, respectively. Additionally, the gross credits to non-financial entities relative to the total deposits of the non-financial entities equaled 71.1%, showing an uptrend, thus proving the banks' intention to accelerate the credit activity.

#### 3.6. Banks' solvency

In 2006, same as in the previous years, the banks in the Republic of Macedonia maintained relatively high solvent position. In the recent years, the banks' capital adequacy ratio has registered a steady downtrend, particularly due to the increased volume of activities. At the end of 2006, the capital adequacy ratio of the banking system equaled 18.3%, which is a drop of 3 percentage points compared to December 31, 2005. The lower capital adequacy ratio of the banks resulted from the faster annual growth in the risk- weighted assets (by 33.1%), relative to the growth in the banks' guarantee capital, which in 2006 equaled 10.9%. In spite of the decrease in the capital adequacy ratio, the solvent position of the banking system remained stable, illustrated by the results of the stress-test analyses of the banks' resilience to insulated shocks and combination of hypothetical shocks.

In 2006, the banks' guarantee capital structure, beside the dominant share of the core capital, registered considerable increase in the influence of the additional capital. On annual basis, the additional capital surged by 210.6%, which is almost solely a result of the occurrence of subordinated liabilities in the structure of the banks' sources of funds in 2006. On December 31, 2006, this type of sources of funds was present in three banks.

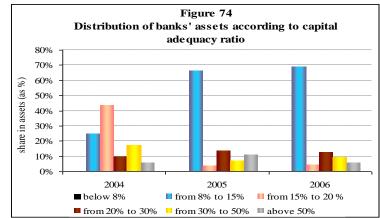
The domination of credit risk in the banks' risk profile also affected the distribution of the guarantee capital for risk coverage. In the recent years there has been an upward trend of the guarantee capital required for covering credit risk and decrease in the part of the guarantee capital over the minimum required level. Such tendency is a logical consequence of the



accelerated credit activity of the banks, i.e. the improved assets structure with respect to the financial intermediation in the same period.

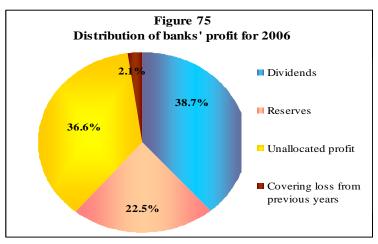
<sup>&</sup>lt;sup>93</sup> Highly liquid assets includes cash and balances with NBRM; securities with NBRM rediscount; short-term placements in securities issued by the government and correspondent accounts with foreign banks.

As of December 31, 2006, none of the banks registered capital adequacy ratio below the minimum requirement of 8%. In the last years, along with the decrease in the capital adequacy ratio of the banking system, the relative importance of assets of the banks with capital adequacy ratio below 15% increased. Thus, in 2006, 69.0% of the



total assets in the banking system were concentrated in banks with capital adequacy ratio below 15%.

Considering the sources of further increase in the capital, the banks in the Republic of Macedonia mainly rely upon the recapitalization by their parent entities, or upon internal sources of funds secured by retaining the generated gain during its distribution. The financing by issuing equity securities is of relatively restricted meaning and most often



these issues are intended for known buyers or it is due to the payment of scrip-dividends. In 2006, more than 60% of the total amount of gain generated by the banks were kept in the banks as undistributed gain, increasing the reserves or covering losses from previous years.

#### 3.7. Stress-test analysis for assessment of the banking system resilience to various shocks

The National Bank has been conducting stress-test analyses of the banking system resilience to hypothetical shocks since the second half of 2004. In the initial period, the stress-test analysis was based on FSAP<sup>94</sup> methodology and covered an assessment on the sensitivity of the banking system to insulated credit shock and to the combination of credit, foreign currency and interest rate shock (so called basic stress-test analysis) by applying the following hypothetical scenarios:

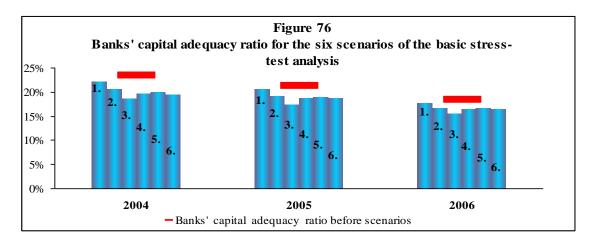
- 1. Increase<sup>95</sup> of credit exposure classified in C, D and E by 10%;
- 2. Increase of credit exposure classified in C, D and E by 30%;
- 3. Increase of credit exposure classified in C, D and E by 50%;
- 4. Combination of credit shock (increase of the credit exposure classified in C, D and E by 30%) and increase in the domestic interest rates by 5 percentage points;
- 5. Combination of credit shock (increase of credit exposure classified in C, D and E by 50%) and 20% depreciation of the exchange rate of the Denar against the Euro and the US Dollar and

<sup>&</sup>lt;sup>94</sup> Financial Sector Assessment Program.

 $<sup>^{95}</sup>$  The increase in credit exposure in C, D and E risk categories stems from the decrease (reclassification) of the credit exposure classified in the A risk category.

6. Above scenario supplemented by interest rate risk (assumption that the domestic interest rates surge by 5 percentage points).

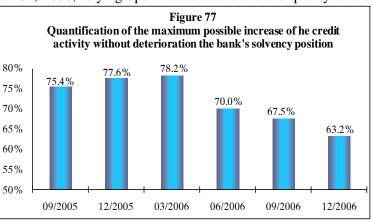
The analysis of these simulations as of December 31, 2006, indicates that the overall banking system has been significantly resilient to hypothetical shocks. By applying these scenarios, there is no evidence of larger disturbance of the banking system solvency. Most significant decrease in the capital adequacy ratio occurs in the third scenario, when the capital adequacy ratio drops from 18.3% to 15.4%.



Since September 30, 2005, the National Bank has developed and applied advanced stress-test, which is a supplement to the basic stress-test analysis. The goal of this stress-test analysis is to assess the resilience of the banking system to credit and liquidity risk, by applying five additional hypothetical scenarios. The general conclusion of these quarterly analyses is that the banking system in the Republic of Macedonia shows greater resilience to liquidity risk, rather than to the credit risk as a result of the high amount of liquid assets of the banks.

The first scenario of this stress-test analysis rests on the quantification of the maximum possible growth of credit activity, without jeopardizing the banks' solvency. The analysis conducted on December 31, 2006, relying upon the structure and the quality of the

banks' portfolio credit showed that the gross of credits the banking system may surge by 63.2%, without jeopardizing the solvent position of the banking system, i.e. without reducing the capital adequacy ratio below 8%. In the application of this scenario, the assumption showed that after the simulation, the currency



structure and the quality of the credit portfolio are identical with the currency structure before the implementation of the simulation. In spite of the decrease in the maximum possible growth of credit activity relative to 2005 (when it equaled 77.6%), the banks still have ample capacity to increase the lending volume. In 2006, the growth rate of the credit portfolio equaled 30.5%.

The next hypothetical scenario shows the maximum level of deterioration of the credit portfolio, without jeopardizing the solvency of the banks (without reducing the capital adequacy ratio below 8%). This scenario shows that not more than 10.6% of the regular

credits could be reclassified to E risk category (14.1% for 2005), without disturbing the banks' solvency. The probability for this scenario is insignificant considering that the absolute amount of credits, which would be reclassified into E risk category according to this scenario, is Denar 12.5 billion, and the total amount of non-performing credits on December 31, 2006 stood at Denar 10 billion.

The last scenario includes the effects on the capital adequacy ratio of the ten largest borrowers of the banking system in (1) C risk category (2) D risk category and (3) E risk category. On December 31, 2006, the ten largest credit users borrowed from total of ten banks (most present in two banks), accounting for 4.4% of the total credit exposure of the banking sector, i.e. 8.9% of the gross credits to non-financial entities. In the first case of this scenario (reclassification into C risk category) no considerable effect was registered on the capital adequacy ratio, observing bank-by-bank and the overall banking system. The capital adequacy ratio would reduce from 18.3% to 17.2%, which is still well above the minimum requirement of 8%. In the last two cases of this scenario (reclassification of the ten largest borrowers into D risk category, i.e. E risk category), although there is certain evident reduction, the capital adequacy ratio of the banking system still remains above the minimum requirement of 8% and equaled 15.9% (in reclassification into D risk category), i.e. 13.2% (in reclassification in E risk category).

The banking system of the Republic of Macedonia is significantly resilient to liquidity risk, illustrated by the results from the simulations to liquidity shocks and their consequences. In the simulation of one-time withdrawal of 20% of the household deposits from the banking system (or Denar 14,284 million), the banking system would preserve its stability, but it would lead to reduction of the highly liquid assets (by 47%) and the liquid assets (by 22.4%). It would simultaneously lead to reduction of the share of the highly liquid assets from 17.7% to 10.3%, and of the liquid assets in the total assets from 37.1% to 31.4%. On December 31, 2006, the coverage of the liabilities with liquid and highly liquid assets equaled 43.7% and 20.8%, respectively. This coverage ratio of the total liabilities after the application of the hypothetical deposit withdrawal would reduce to 33.3%, i.e. to 10.9%, respectively.

The following simulation lays on the withdrawal of deposits of the twenty largest deposits by bank, outside the banking system. As of December 31, 2006, the total deposits of the twenty largest deposits by bank covered 27.4% of the total average deposit base of the banking system or Denar 32,488 million. Such withdrawal would result in lack of highly liquid assets in seven banks, and in the remaining banks, the reduction of the highly liquid assets would range from 0.2% to 99.7%. However, the lack of highly liquid assets could be compensated by the amount of liquid assets, where only in one bank the liquid assets would not be enough to cover the outflow of deposits of the twenty largest depositors. The analysis of the results of this simulation should not ignore the knowledge acquired from the experience of the development of the banks' deposit base, which indicate that the likelihood of this hypothetical scenario to become a reality is minimal.

#### 4. Non-deposit financial institutions

#### **4.1. Insurance sector**

### Term and basic features of the insurance

Insurance is an agreement (insurance policy) bounding one party to indemnify the counterparty for damages, for a certain compensation (insurance premium). The insurance companies are an essential source of funds in the developed market economies through which the natural persons and non-financial legal entities accumulate their savings. As a part of the financial system of a country, the insurance sector contributes to the economic growth by

ensuring financial stability for the natural persons and other entities, absorbing the available funds from the surplus economic entities, risk dispersion within the economy, etc.

The insurance industry is composed of three segments: life insurance, non-life insurance and reinsurance.

Life insurance is insurance of persons by cumulating their funds in the form of savings, for covering the increased risks later in the insurance years. The life insurance policies may contain not only insurance, but also an investment component, which means that such policies, as well as other financial instruments are placements of the assets of surplus-making economic units.

Non-life insurance is an insurance of personal belongings and indemnifies damages resulting from accident, fire or negligence. Unlike the life insurance policies, the insurance policies on properties and accidents are of exclusively insurance nature, rather than investment.

Reinsurance is insurance of the primary insurance company from contingent or high losses.

The basic legal framework in the Republic of Macedonia that regulates the conditions and the method of performing insurance and reinsurance activities, supervision of the insurance companies and insurance - brokerage houses and the method and conditions of conducting insurance intermediation activities consists of the Law on Insurance Supervision, Law on Compulsory Transport Insurance, Law on Contracts concerning the insurance contracts and the Company Law.

# 4.1.1. Features and importance of insurance sector in the Republic of Macedonia

According to the Law on Insurance Supervision, the Ministry of Finance has been an authorized regulatory and supervisory body of the insurance industry in the Republic of Macedonia. Although the law has been applying for five years, the function of supervision of the insurance sector has not been fully conformed to the Core Insurance Principles, as defined by the International Association of Insurance Supervisors (IAIS). Weaknesses of the supervisory body (lack of full independence, understaffing compared to the insurance companies and their workload, under-transparency) is one of the basic potential risks to the insurance sector, and hence to the financial stability of the country. For overcoming such situations, and for increasing the independence of the supervision of insurance sector to be conducted by an independent Insurance Supervision Agency. The amendments to the Law include provisions directed towards implementing the risk management process by the insurance companies.

The insurance sector in the Republic of Macedonia still has a marginal relevance within the financial market of the country, from the aspect of both the range of services offered on the market and the quantitative share in the total financial system.

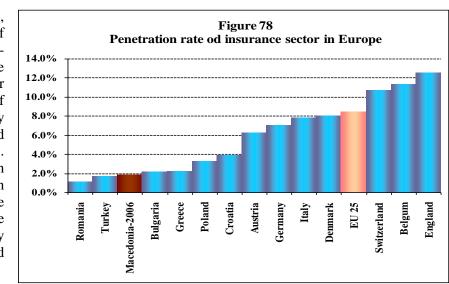
On December 31, 2006, ten insurance companies and insurance brokerage houses have been registered in the Republic of Macedonia. Compared to December 31, 2005, the number of insurance companies remained unchanged, whereas the number of insurance brokerage houses increased by one new company. Only one insurance company offers life insurance service, while all other nine insurance companies cover non-life insurance. One of these nine insurance companies ceased providing life insurance services, so that its activities in the area of life insurance consist solely of servicing the pre-concluded life insurance agreements. In early 2007, the Ministry of Finance granted two new insurance licenses, one non-life insurance license and one life insurance license. In the both cases, the only founders are the foreign insurance companies.

On December 31, 2006, the total assets of the insurance sector stood at Denar 14,608 million, making up 7.5% of the total assets of the financial system. Relative to 2005, the insurance sector assets increased by Denar 990 million, or by 7.3%, primarily a result of the growth in the insurance companies' assets in the field of non-life insurance. The share of the insurance sector in the total assets of the financial system reduced by 1.1 percentage points. Notwithstanding the marginal share in the financial system assets, the insurance sector is still important to the stability of the country, due to the nature of the insurance and its influence on the life and work security of all economic entities in the country.

The insurance sector dominates within the non-deposit financial institutions, constituting 75.3% of the total assets.

The policy premiums almost solely resulted from the sale of policies through the agency network of the insurance companies. It should be noted that the sale of automobile liability insurance policy is mostly made through the stations of technical examination of motor vehicles. The share of the insurance brokerage houses in the sale of insurance agreements was marginal, making up 0.53% of the gross policy premiums in 2006.

2006, In the total amount of policy grosspremiums by the insurance sector equaled 1.8% of GDP of the country (so called penetration rate). This rate is between the lowest rates in Europe, but before the insurance markets of Turkey (1.6%)and Romania  $(1.1\%)^{96}$ .



# Table 29 Gross policy premiums from insurance companies<sup>97</sup>

	2005	2006	Growth rate
Total gross premium (millions of Denars)	5,105	5,445	6.66%
Structure of premium			
Life insurance	2.14%	2.12%	5.88%
Non -life insurance and reinsurance	97.86%	97.88%	6.67%

In 2006, the gross premiums surged by approximately 7%, which is almost solely due to the increase in the non-life insurance policies, as a dominant category in the gross premiums. Total of 453,439 insurance policies were sold in 2006, most of which (98.4%) in the field of non-life insurance<sup>98</sup>. The increase in the total gross premiums is mostly (88.6%) due to the premiums based on motor vehicle liability insurance, as a segment of non-life

<sup>&</sup>lt;sup>96</sup>Source of data: CEA Statistics N°24 June 2006.

<sup>&</sup>lt;sup>97</sup>Source of data: Ministry of Finance of the Republic of Macedonia.

<sup>&</sup>lt;sup>98</sup> Throughout the text of this part of the Report, the premium amount and the number of policies sold in the field of non-life insurance also includes the relevant reinsurance amounts.

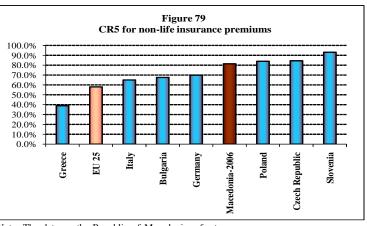
insurance. The life insurance contributes with modest 1.9% of the total increase in the gross premiums.

At the end of 2006, the private capital dominates the ownership structure of the insurance capital with 91.54%. Thus,  $63.5\%^{99}$  of the total capital of the insurance companies is owned by foreign founders (60.1% - December 31, 2005). The share of foreign capital in six of ten insurance companies was above 51%, in four of which it equaled 100%. These six companies account for 72.6% of the total assets (December 31, 2005 - 74.2%), i.e. 60.9% of the total capital of the insurance sector (December 31, 2005 - 58.1%).

The insurance sector in the Republic of Macedonia is characterized by relatively high market concentration, from the aspect of overall sector and type of insurance. The concentration rate shows a downtrend, primarily due to the sharp market competition. The CR5 indicator, calculated for the total gross premiums<sup>100</sup>, at the end of 2006 equaled 81.0% and, compared to 2005, it dropped by 6.5 percentage points.

The concentration is particularly high in the life insurance, which as of the end of 2006, was offered by only one insurance company, and in the reinsurance, which is also offered by only by one insurance company.

The CR5 indicator, calculated for the gross premiums for non-life insurance equaled 81.4%. In spite of the downtrend (reduction of 6.1 percentage points relative to the preceding year), this concentration rate ranks among the highest ones compared to other European countries.



Note: The data on the Republic of Macedonia refer to 2006, and those on all other countries refer to 2005.

In the EU member states, the CR5indicator, calculated for the non-life insurance premiums, increased by 22.4 percentage points in the last ten years, and equaled 58%.

On December 31, 2006, the Herfindahl - index rate, calculated according to the amount of gross premiums equaled 1,742 showing high, but acceptable concentration rate. According to this indicator, the concentration in the insurance sector has also decreased by 345 index points relative to 2005.

#### 4.1.2. Insurance sector performances

#### Solvency margin

At the end of 2006, the total capital of the insurance companies amounted to Denar 2,688 million<sup>101</sup>, making up 18.4% of the total assets of the insurance sector (December 31, 2005 - 18.5%). The Law on Insurance Supervision requires the insurance company's capital at all times to be at least equal to the solvency margin requirement. The insurance sector capital

<sup>&</sup>lt;sup>99</sup> Source of data: CSD.

<sup>&</sup>lt;sup>100</sup> Share of calculated gross premiums of the five largest insurance companies in the total gross premiums.

<sup>&</sup>lt;sup>101</sup> Source: Ministry of Finance - based on report on the operations of the insurance companies for the last quarter of 2006.

is considerable higher than the solvency margin. At the end of 2006, the solvency margin, as a key indicator for the assessment of the insurance sector stability, for non-life insurance equaled Denar 856 million - according to the premium rate method<sup>102</sup> (Denar 699 million - according to the damage rate method). The excess capital of the insurance sector in the field of non-life insurance, according to the premium rate method stood at Denar 1,645 million, or 192.2% over the solvency margin. On December 31, 2006, only one insurance company, of the non-life insurance class, failed to meet the solvency margin requirement.

In the life insurance, the solvency margin equals Denar 15 million, so that the capital surplus over the solvency margin amounts to Denar 172 million, or 1,127.9%. The reason behind the high surplus is the fact that the mathematical reserve and the total insurance amount (both parameters that determine the solvency margin in the insurance companies that provide life insurance services) are low. One life insurance company just launched its operations (second year), and these parameters of the other company, due to the strategy to cease providing services in this group of insurance, reduce, based on the due insurance contracts.

#### Profitability

At the end of 2006, the insurance sector generated net-gain of Denar 272 million, which is by 41.8% higher compared to 2005. The increase in the gain resulted from the higher workload, i.e. higher number of sold policies and insurance policy premiums, and from the lower damage ratio.

Analyzing the type of insurance, in 2006, the gain generated by non-life insurance (together with the reinsurance) stood at Denar 286 million, which is by 62.5% higher compared to the preceding year. The life insurance showed loss for 2006 of Denar 14 million.

The technical result<sup>103</sup> for non-life and life insurance is negative. On December 31, 2006, the negative technical result for non-life insurance totaled Denar 73 million (the technical result for 2005 was negative, equaling -214 millions of denars). This indicates that although the negative amount of the technical result decreases, there are still certain weaknesses in the risk management by the insurance companies.

Unlike 2005, when the technical result of the life insurance was positive, 2006 registered negative technical result of Denar 21 million. The negative technical result, same as the high surplus of capital over the solvency margin of the life insurance companies is due to the fact that one of the insurance companies provides servicing of already concluded life insurance agreements, without taking new activities in that area.

The claims ratio, calculated as a ratio between the paid off damages and calculated premiums in the insurance sector equaled 51.4%, and for the non-life insurance (including the reinsurance) it equaled 50.4%. These ratios dropped relative to the end of 2005, when they equaled 56.2%, i.e. 56%, respectively. This indicates that the premiums collected on the basis of the insurance as a whole, and individually, for non-life insurance, were sufficient for indemnification of damages.

<sup>&</sup>lt;sup>102</sup> The capital of non-life insurance and/or reinsurance companies should, at all times, be at least equal to the solvency margin requirement, which is calculated by applying the premium rate method or the damage rate method, depending on the method which would give higher result.

<sup>&</sup>lt;sup>103</sup> The technical result of the operations of the insurance companies is a result of the performance of the primary activity - insurance. The other operating income and expenditures represent non-technical result.

Table 30	
Claims ratio in the non-life insurance in the Republic of Macedonia	

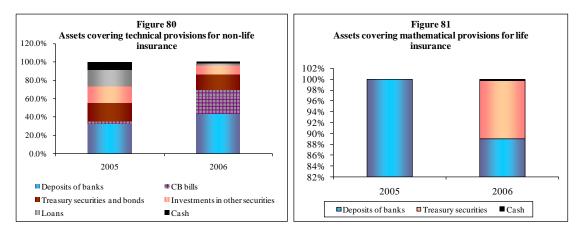
		Claims ratio						
Non-life insurnce	2006	2005	Change					
Motor-vehicle responsibility	57.9%	63.7%	-5.8%					
Property insurance against natural disasters, burglary ect.	33.4%	52.2%	-18.8%					
Air-craft insurance	0.0%	72.4%	-72.4%					
Accident insurance	62.3%	61.9%	0.3%					
Garancies	675.7%	0.0%	675.7%					
Financial losses	7.4%	4.7%	2.7%					
Travel insurance	48.2%	10.6%	37.6%					

The situation is different in the life insurance segment, where the claims ratio is considerably higher, and on December 31, 2006 it equaled 94.3% (28.3 percentage points more compared to 2005). The high rate of claims in the life insurance is also due to the fact that one of the insurance companies ceased providing life insurance services, and therefore its inflows from newly concluded life insurance agreements reduced to zero, while the inflows and payments based on previously concluded life insurance agreements are still active.

At the end of 2006, the return on assets (ROA) and equity (ROE) of the insurance sector equaled 1.9%, i.e. 10.4%, respectively. The gross income of the insurance sector investment, (and individually, for non-life and life insurance), generated in 2006, relative to the net premiums equaled 7.1% (7.0% and 10.0%, respectively), which is almost identical as in 2005, except for the generated income from the investments in the life insurance, which in 2005 was higher and equaled 26.4%. In 2006, the investments income increased relative to the investment assets, and on December 31, 2006 it equaled 21.1%, compared to 18.2% on December 31, 2005.

On December 31, 2006, the investment asset of the insurance companies constituted 11.1% of their total assets (9.7% in 2005).

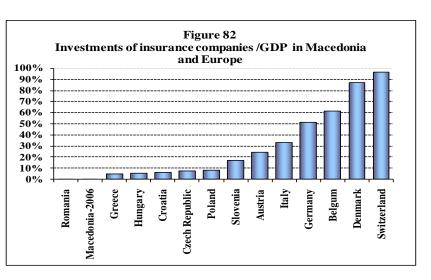
The assets investment structure that covers the technical reserves of the insurance companies that provide non-life insurance services, improved compared to 2005. Thus, the share of the deposits in banks was the largest with 43.1% (2005: 32.8%), followed by securities issued by the NBRM with 26.2% (2005: 2.7%), securities issued by the Republic of Macedonia with 17.1% (2005: 19.4%) and investments in other securities with 9.4% (2005: 18.7%).



In 2006, the asset structure, that covers the mathematical reserve for the insurance companies that provide life insurance services, is dominated by deposits in banks with 89%, followed by the securities issued by the Republic of Macedonia (treasury bills) with 10.7%

and cash with 0.3%. The total assets that cover the mathematical reserve for insurance companies that provide life insurance services in 2005, was deposited in banks.

In 2006, the investments of the insurance sector constituted 0.54% of the GDP of the Republic of Macedonia (0.46% in 2005). In spite of the uptrend compared to 2005. the contribution of the insurance sector investments to GDP marginal, was still compared to the EU member states. Of course, the insurance



sector evolution and development, particularly in the field of life insurance, underlie the further growth in the investments by the insurance sector in the Republic of Macedonia. Currently, the non-life insurance is the driving force of the insurance sector development in the Republic of Macedonia. Hence, the insurance policy structure is not favorable from the aspect of capital market development, considering the fact that, unlike the non-life insurance, the life insurance mobilizes long-term funds suitable for investments in securities.

The allocated technical reserves (including the mathematical reserve) went up by 2.95%, relative to the preceding year, due to the higher amount of technical reserves for nonlife insurance. The mathematical reserve reduced by 3.5%, since one of the insurance company gradually decreased the portfolio of earlier concluded life insurance agreements. In the life insurance, the mathematical reserves accounted for 99.9% of the technical reserves. The underdevelopment of the life insurance justifies the marginal share of the mathematical reserves in GDP.

#### Table 31

Technical reserves<sup>104</sup> and mathematical reserves<sup>105</sup> of insurance companies

Onia	Life in	surance	Non-life insurance		
Opis	2006	2005	2006	2005	
Total technical provisions (millions of Denars) *	5	2.6	3,975	3,837	
Mathematical provisions(millions of Denars)	359	372			
Assets covering technical provisions/ GDP	0.05%	0.03%	0.9%	0.7%	
Technical provisions / GDP			1.30%	1.30%	
Mathematical provisions/GDP	0.10%	0.10%			

\*Technical provisions for life insurance reflects provisions for health insurance and accident insurance

The technical reserves for non-live insurance went up by 3.60% compared to 2005, solely due to the increase in the reserves for transferable premiums and the reserves for bonuses and discounts.

<sup>&</sup>lt;sup>104</sup> For permanent settlement of the liabilities arising from the insurance agreements, the insurance company has to form technical reserves composed of: reserves for transferable premiums, reserves for bonuses and discounts, reserves for damages and other technical reserves.

<sup>&</sup>lt;sup>105</sup> The mathematical reserve is allocated in the amount of the present value of the estimated future liabilities of the insurance company, which arise from the insurance agreements, reduced by the present value of the future premiums which are to be paid on the basis of such agreements. The mathematical reserve is calculated by using respective actuary appraisals.

#### 4.1.3. Primary features, size and development of each type of insurance

#### Life insurance

The life insurance in the Republic of Macedonia is considerably less covered compared to the other European countries. Thus, in 2006, the gross premiums for life insurance make up only 2.12% of the total gross premiums in the insurance sector, unlike the European countries where this percentage ranges from 16% to nearly 70%. Still, considering the growth in the gross life insurance premium (annual growth of 5.88% in 2006), and the fact that in early 2007, a license was issued for providing life insurance services, there is still a room for the expectation for further development of this insurance segment in the Republic of Macedonia. The low coverage and the minor significance of the life insurance for the financial system of the Republic of Macedonia are also illustrated by the insignificant share of gross life insurance premiums in GDP of the country of 0.04%. The above indicates that the households still do not use the life insurance as an alternative way of saving or savings investment.

#### Table 32

Total gross premiums and gross life insurance premiums in the Republic of Macedonia relative to European countries for 2005

	Macedonia-2006	Bulgaria	Germany	Denmark	Croatia	Italy	Romania	Poland	Greece	Slovenia	Czech Republic	Hungary
Total gross premium (millions of EUR)	89	457	157,800	16,774	1,023	109,901	890	7,764	3,923	1,640	3,887	2,767
per capita(EUR)	43	57	1,901	3,355	256	1,895	40	204	357	820	389	277
share in GDP	1.80%	2.13%	7.03%	8.06%	3.83%	7.75%	1.12%	3.23%	2.17%	5.99%	3.95%	3.15%
Life insurance premiums (millions of EUR)	2	75	72,597	10,736	265	73,592	235	3,812	1,935	543	1,507	1,218
: (FII)		-										
per capita(EUR)	1	9	875	2,147	66	1,269	11	100	176	272	151	122
per capita(EUR) share in total premiums		9 16.41%	875 46.01%	2,147 64.00%	66 25.90%	1,269 66.96%	11 26.40%	100 49.10%	176 49.32%	272 33.11%	151 38.77%	122 44.02%

Source: CEA Statistics Nº24 June 2006.

#### *Non-life insurance and reinsurance*

Non-life insurance is a dominant group of the insurance in the Republic of Macedonia. The gross non-life insurance premiums, including the reinsurance premiums, constitute 1.75% of GDP, a share which is higher than some of the analyzed European countries (Romania, Turkey, Poland). In 2006, Denar 2,591 per capita on average was paid based on non-life insurance premiums, which is by 5.63% more compared to 2005.

The growth in the gross non-life insurance and reinsurance premiums is mostly due to the increase in the insurance of the owners of motor vehicles from liabilities for damages caused by third parties (automobile liability insurance), contributing with 88.6% of the total market. Almost half of the gross non-life insurance premiums and the total gross premiums in the insurance sector arise from motor vehicle liability insurance (48.49%, i.e. 47.46%, respectively). The motor vehicle insurance premiums went up by 13.04%. This insurance is compulsory according to the Law on Compulsory Transport Insurance.

# Table 33Structure of gross non-life insurance premiums (including the reinsurance)

	2006	í	2005		
Non-life insurance and reinsurance	Gross premiums (thousands of Denars)	Share	Gross premiums (thousands of Denars)	Share	Rate of change
Motor-vehicle responsibility	2,584,477	48.49%	2,286,347	45.76%	13.04%
Property insurance against natural disasters, burglary ect.	1,012,225	18.99%	972,125	19.46%	4.12%
Motor-vehicle insurance (casco)	603,372	11.32%	600,466	12.02%	0.48%
Accident insurance	504,376	9.46%	541,239	10.83%	-6.81%
Insurance against fire and other natural accidents	336,506	6.31%	343,068	6.87%	-1.91%
Travel insurance	109,801	2.06%	98,714	1.98%	11.23%
Air-craft insurance (casco)	41,070	0.77%	11,728	0.23%	250.19%
Others	137,713	2.58%	154,174	3.09%	-10.68%
Total	5,329,540	100.00%	4,996,133	100.00%	6.67%

The growth in the housing credits (one of the requirements of the bank to approve such type of credit is the borrower to have a property insurance policy), and the higher need of safe and secure living, made the property insurance premiums against theft, hail, frost, etc., be the second most important category, with respect to the non-life insurance premiums, with a share of 18.99%. These premiums constitute 12.03% of the total growth in the gross non-life insurance premiums, surging by 4.12% for a period of one year.

Fast increase (of 3.5 times) was registered in the air transport Casco insurance premiums, as a result of the tightened security criteria in this type of insurance. The air transport Casco insurance premiums account for only 0.77% of the total non-life insurance premiums, with their growth contributing with 8.8% of the total growth in the non-life insurance premiums.

Compared to other European countries, the Republic of Macedonia, observing the amount of gross non-life insurance premiums per capita is at the bottom of the scale, before Romania.

#### Table 34

## Gross non-life insurance and reinsurance premiums in the Republic of Macedonia compared to European countries

	Macedonia- 2006	Bulgaria	Germany	Denmark	Croatia	Italy	Romania	Poland	Czech Republic	Hungary	Greece	Slovenia
Non-life insurance premiums (millions of EUR)	87	383	85,203	6,039	758	36,309	655	3,952	2,380	1,550	1,988	1,097
per capita (EUR)	42	48	1,027	1,208	190	626	30	104	238	155	181	549
share in total premiums	97.88%	83.81%	53.99%	36.00%	74.10%	33.04%	73.60%	50.90%	61.23%	56.02%	50.68%	66.89%
share in GDP	1.75%	1.79%	3.79%	2.90%	2.84%	2.56%	0.83%	1.64%	2.42%	1.76%	1.10%	4.01%

The reinsurance coverage is at very low level - only one company has been providing services of active reinsurance. Although the reinsurance premiums are doubled compared to 2005, yet, their share in the total policy premiums is low, and equals 1.6%.

#### 4.1.4. Connection between the insurance and the banking sector

The connection between the insurance and the banking sector in the Republic of Macedonia, based on cross ownership, credit risk transfer and sale of insurance policies is still weak.

With respect to inter-ownership connection, the insurance companies hold only 0.8% of the total issued shares of the banking sector, and the banks hold 4.1% of the total issued shares of the insurance companies.

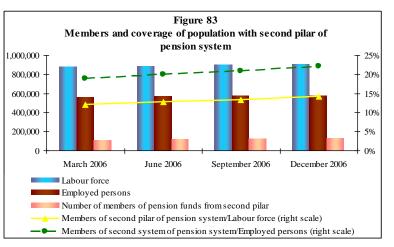
With respect to intermediation, when banks sell insurance policies, the inter-reference is also low. With banks' intermediation, only 0.2% has been charged from the total insurance premiums. The banks contribute with 4.01% in the total sale of insurance policies. The fee income generated by banks in 2006 from intermediation in the sale of insurance policies, make up only 0.06% of the total income from bank fees.

Larger interconnection should actually arise from the banks' credit insurance, i.e. from the transfer of the banks' credit risk to the insurance sector. However, the banks, in general, do not insure the approved credits. On December 31, 2006, the total amount of credit insured by the banks constitute only 0.10% of the total credits of the banking sector (0.18% in 2005). Only two banks insured their approved credits, 99.2% of which are credits of one bank.

The insignificant share of credit insurance further deepened in 2006. The amount of insured credits dropped by 31.9% within one year. The credit insurance premiums<sup>106</sup> account for only 0.10% of the total gross premiums in the insurance sector (0.07% in 2005). Credit insurance premiums cover indemnified damages on that basis. The damage ratio by credit insurance equaled 61.5%, which is an improvement compared to 2005, when it equaled 153.9%.

#### 4.2. Compulsory fully funded pension insurance

The demographic changes and the shift in the socio-cultural features of the households. accompanied by the permanent increase in the burden fiscal for functioning of the pension system, created the need of comprehensive reforms of the pension system in the Republic of Macedonia. The final epilogue of the



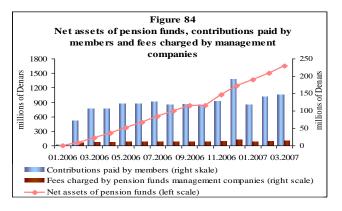
implementation of pension insurance reforms should be a switch from one-pillar pension system, which has been operating on intergeneration solidarity principle, to three-pillar pension system, which, besides the Pension and Disability Insurance Fund, would have two more pillars, which would operate in consistence with the principles of fully funded pension insurance. The pension insurance reforms the Republic of Macedonia started in 2002, with the adoption of the Law on Fully Funded Pension Insurance<sup>107</sup>. This law established the bases of the second pillar of the pension system and created a room for establishing a new type of financial institutions. In 2005, two pension fund management companies were established, and each of them manages one pension fund. The new pension funds function as open investment funds, with defined contributions paid in by their members, in the amount of 7.42% of the basis for calculating and paying contributions. Persons who have been employed for the first time or will be employed after January 1, 2003, will be required to be members of the newly formed pension funds, whereas other persons are entitled to make a choice if they want to be members of the second pillar of the pension system. The pension funds of the second pillar of the pension system launched their activities in January 2006, with the payment of the first contributions of the members of the pension funds.

<sup>&</sup>lt;sup>106</sup> Source: National Bank of the Republic of Macedonia, from reports submitted by banks.

<sup>&</sup>lt;sup>107</sup> "Official Gazette of the Republic of Macedonia" no. 29/2002, 85/2003, 40/2004 and 113/2005.

At the end of 2006, the pension funds of the second pillar of the pension system had 128,031 members, which is 14.2% of the total active population and 22.1% of the total employee number. As the employment is expected to increase, the number of pension fund members is also expected to register an uptrend in the future period. Thus, the expectations for increase in the number of employees and active population who will be included in the second pillar of the pension insurance are realistic.

At the end of 2006, the total net assets in the fully funded pension funds equaled Denar 1,241.5 million, constituting only 0.6% of the total assets in the financial system. In 2006, the members of the fully funded pension funds paid in contributions in the amount of Denar 1,325 million, whereas the total amount of fees<sup>108</sup>, charged by the pension fund management companies equaled Denar 115.7 million.

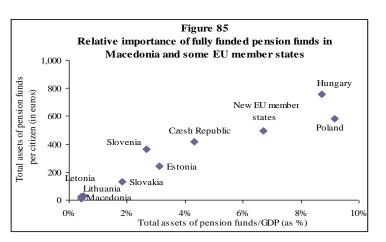


Considering the features of the pension funds, and particularly the fact that in the first several years from their functioning, no large outflows are expected from pension payment, it is realistic to expect a fast pace of increase in their assets in the forthcoming years. Consequently, these financial institutions are expected to be given growingly significant role within the financial system. It is particularly expected to increase their presence as institutional investors on the capital market, so that they would have greater influence on the development of the value of domestic securities, and particularly on the interest rates on treasury bills and government bonds.

### Table 35Fully funded pension insurance indicators

Indicator	March 2006	June 2006	September 2006	December 2006	March 2007
No. of members	105,871	113,275	119,842	128,031	136,204
Total assets of pension funds (thousands of Denars)	168,983	499,385	835,519	1,246,330	1,678,967
Total assets of pension funds as % of GDP	0.06%	0.15%	0.27%	0.41%	0.55%
Share of pension funds in Treasury bills market	0.80%	0.97%	1.86%	1.34%	1.29%
Share of pension funds in Treasury bonds market	0.45%	1.39%	2.30%	3,87%	4.97%
Share of pension funds in market capitalization of quoted shares on MSE official market	0.00%	0.03%	0.05%	0.09%	0.11%
Share of pension funds deposits in total bank deposits	0.02%	0.05%	0.11%	0.16%	0.19%

The potential for growth of the pension funds could be understood through certain structural indicators for their operations. At the end of 2006, the total assets of the pension funds make up only 0.41% of GDP, whereas the market value of shares owned by the pension funds, compared to the market capitalization of the official market of the Macedonian

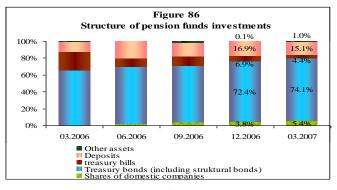


<sup>&</sup>lt;sup>108</sup> Pension fund management companies charge 8.5% fee of the paid in contributions and monthly compensation of 0.05% of the value of the net assets of the pension fund under their management.

Stock Exchange AD Skopje equaled 0.09%. As a comparison, at the end of 2005, in the European Union, the assets in the pension funds accounted for roughly 21% of the average GDP in EU, i.e. an EU citizen had roughly Euro 4,900, on average, in the fully funded pension funds. The differences in the significance of the pension funds for the financial system become more moderate, if the indicators are compared with the countries that became European Union member states in 2004 (NMS). The assets of the pension funds of these countries, at the end of 2005, were lower compared to the European average, ranging from 0.4% to 9.2% of GDP, registering considerable differences from one country to another. The reasons behind the unequal role of the pension funds in the financial system reforms, the different investment restrictions imposed by the pension funds, and the differences in the level of development of the national financial markets.

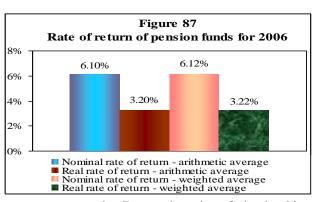
#### 4.2.1. Investment structure and yield for the pension funds

In 2006, the pension fund management companies conducted considerably conservative policy in the investment of the pension funds assets. In 2006, over three third of the pension funds assets were invested in government bonds and treasury bills issued by the Republic of Macedonia. At the end of 2006, second most important instrument in the pension funds investment



structure were the deposits in domestic banks with a share of 16.9%. The conservative investment policy mainly results from the regulatory framework, which requires higher security for the long-term pension savings of the insured, and the relative underdevelopment of the financial markets in the Republic of Macedonia, which offers drastically less investment alternatives. Thus at the end of 2006, only 3.8% of the total pension fund assets were invested in shares issued by domestic issuers. In 2006, the pension funds did not use the opportunity to invest abroad, even though the Law on Fully Funded Pension Insurance allows for up to 20% of their assets to be invested in instruments issued by foreign issuers.

Conservative investment policy bears lower risk of reduction or short-term fluctuations in the value of the pension funds assets, but, on the other hand, decreases the possibility for generation of larger returns on assets of the pension funds. Thus, in the first year of functioning of the twopillar pension system, the average weighted<sup>109</sup> nominal rate of return of the pension funds equaled 6.12%,



which is above the average weighted interest rate on the Denar deposits of the banking system, which in 2006 ranged from 4.2% to 5.4%<sup>110</sup>. In the forthcoming period, the major challenge of the pension funds is related to the achievement of larger diversification of their investments, particularly taking into account the restricted supply of investment instruments and insufficient liquidity on the financial markets in the Republic of Macedonia. The permanent diversification of the pension funds portfolio by country, by instrument and by

 <sup>&</sup>lt;sup>109</sup> Net assets of the pension funds are used as weights in the calculation of the average rate of return.
 <sup>110</sup> Source of data: NBRM - Review of the weighted interest rates on accepted deposits and approved credits to the deposit banks in 2006.

sector of origin of the instrument issuer, has an exceptionally important long-term significance, since it is likely to be aimed at higher resilience of the pension funds to possible unfavorable market developments, and consequently, lower volatility of the future return generated by the pension funds.

#### 4.2.2. Influence of the pension funds on the financial system stability

The design of the second pillar of the pension system limits the possibility for larger adverse effects on the financial stability and for hazards of systemic nature. The second pillar of the pension insurance in the Republic of Macedonia has been constructed as a system with defined contributions, which means that the size of the future pensions paid from the funds will depend only on the size and the regularity of the contributions paid in by the members, on the performances of the investment policy of the pension fund management company and the amount of the compensations, charged by the company on regular basis. This approach differs from the pension systems where pensions which will be paid in the future are of predefined size (most frequently, as a certain percentage of the last paid wage). Hence, the market risk of the funds' invested assets has been concentrated with the fund founder or manager, which, in environment of larger disruptions of the financial markets, could have exceptionally adverse effect on the members of such fund. On the other hand, the pension systems with defined contributions make the systemic risk to be distributed to all insured.

The systemic stability is additionally promoted by establishment of a principle for separation of the pension fund's assets from the fund management company's assets. In the case of failure of the pension fund management company, the members of the pension fund will not use their savings, but their management will be transferred to other company. Thus, the pension fund members are not exposed to the business risk of the pension fund management company. Additionally, the announced activities for establishing a third pillar of the pension system would have positive effects on the social security of the future users of pension and on the development of the financial system.

#### Draft-design of the third pillar of the pension system of the Republic of Macedonia

The reforms of the pension system of the Republic of Macedonia are to be completed along with the establishment of the third pension pillar, where the membership would be a choice freely made by the insured, ensuring higher income after the retirement for those insured in the first and the second pillar, i.e. would ensure pension for persons who are not included in the compulsory pension insurance. The activities, related to the design and the establishment of the third pillar of the pension system, started in the second half of 2006, and are expected to accelerate in 2007, and this pillar would start operating in 2008.

According to the draft design of the third pillar of the pension system of the Republic of Macedonia, the structure and the method of establishment of pension funds of the third pillar will be similar to the pension funds of the second pillar. The pension funds of the third pillar will have defined contributions, will function as open investment funds and established and managed by pension fund management company. The pension fund management companies would be joint stock companies, the founders of which would have to meet certain legal criteria. Each company could form an individual pension fund and one professional pension fund. The individual pension funds would be available to all persons with more than eighteen years of age, irrespective of their employment status, and each person would sign a membership agreement and pay in contributions to the fund individually. The professional pension funds would be finance by the employers by paying in contributions for the account of the employees, and the membership would be determined by a personal statement of the employee. These professional pension funds will be open, which means that one or more employers will be free to participate. The assets of the pension funds of the third pillar would be kept separately from the assets of the pension fund management company, with the banks, instead of the NBRM, playing the role of "custodian" of the assets of the pension funds of the third pillar, based on the fulfillment of predetermined criteria.

Same as for the second pillar, the third pillar will also abide by some reporting obligations (i.e. disclosure of information on the operations of the company and the managed funds, on the investment of the funds, on contributions collected, etc.), and the role of a regulatory and supervisory body would be played by MAPAS. The payment of pensions of the third pillar would be more liberal, which means that it would not have to be waited for the legal age of retirement, but the payment would start ten years prior to the legal age of retirement, at the most, of certain insured. The payment would be in the form of pension annuities, programmed withdrawal of the funds or one time payment of the funds. The restrictions to the investment of the assets of the pension funds of the third pillar would be more flexible. In the initial stage of evolution, some qualitative and quantitative restrictions are being planned, which would be further gradually abandoned, introducing the so called "prudent person principle" which is consistent with the EU directives. Thus, the pension funds of the third pillar would have the opportunity to generate higher rates of return, and would have greater influence on the financial system.

The Law on Fully Funded Pension Insurance entrusts the role of supervisor and regulator of the pension funds operations to the Fully Funded Pension Insurance Supervision Agency (MAPAS). Besides that, the Law also specifies a range of restrictions to the investment of the pension funds assets with an aim to increase the investment security, and therefore, to decrease the possibility of losses for the pension funds in the case of unfavorable market developments, if any.

### Restrictions to the investment of assets of the pension funds of the second pillar of the pension system

The Law on Fully Funded Pension Insurance and the Regulation for investing pension funds' assets, adopted on the basis of the above law, contain several restrictions concerning the pension fund assets investment, as follows:

- Up to 80% of the pension fund assets could be invested in securities issued or guaranteed by the Republic of Macedonia;
- Up to 60% of the value of the pension funds' assets could be invested as deposits in domestic banks and in debt securities issued by domestic banks, provided that the bank has a capital of at least Euro 10 million and capital adequacy ratio of over 10%;
- Up to 40% of the value of the pension funds' assets may be invested in debt securities issued by domestic trade companies, with defined criteria binding for the trade companies;
- Up to 30% of the value of pension funds' assets may be invested in shares issued by domestic joint stock companies, provided that they are listed on the official exchange market;
- The investments in foreign instruments are limited to instruments issued by companies having head offices in the EU, the USA and Japan, enjoying a rating recommendable for investing according to the international credit agencies and which are traded on regulated secondary markets;
- Up to 20% of the value of the pension funds' assets may be invested in instruments issued by foreign issuers, where up to 5% of the value of the pension funds' assets may be invested in debt securities issued by foreign non-government issuers, i.e. up to 5% of the value of the pension funds' assets may be invested in shares issued by foreign companies;
- The pension funds' assets may be invested in securities of a same issuer up to 10% of the nominal value of each security, and this restriction does not apply to government securities;
- Up to 5% of the value of the pension funds' assets may be invested in securities issued by a same non-government domestic or foreign entity;
- The pension funds' assets must not be invested in real estate, in securities which are not listed on an official secondary market, derivative financial instruments, securities issued by a shareholder of the company that manages the pension fund. The pension funds' assets must also neither be used for approving loans or guarantees, nor be invested by concluding block or cross transactions.

The connection of the fully funded pension funds with other financial institutions in the Republic of Macedonia currently lies on three bases. The pension fund management companies that determine and conduct the funds' investment policy are capital-related with the domestic banks. Also, there is a business relation with some brokerage houses or banks, based on using brokerage services, and finally, the investment in instruments issued by domestic financial institution could also be considered a form of investment connection. With respect to the investment in instruments issued by other financial institutions, the pension funds' deposits in domestic banks dominate. Hence, the stability of the banking system directly affects the safety of the pension funds' assets, particularly in the event of their minor diversification. However, these forms of connection, after the first year of operating of the pension funds of the second pillar, neither seem to be a significant factor for the stability of the financial system, nor for the functioning of the pension funds.

#### 4.3. Leasing sector

#### 4.3.1. Depth and activity on the lease market in the Republic of Macedonia

In the Republic of Macedonia, lessors can be domestic trade companies, subsidiaries of foreign trade companies and banks<sup>111</sup>. Currently, there are eleven legal entities registered to provide lease services. Five of them are active lease companies, three of which started operating in 2007. The activities of the leasing companies in the Republic of Macedonia are mainly focused on providing financial lease services, primarily for movables. Although the establishment and the operations of the lease companies have been regulated for already five years, they still have relatively minor importance in the financial system and the overall domestic economy. On December 31, 2006, the total assets of the active leasing companies accounted for 0.9% of GDP, 1.4% of the total assets of the financial system and 14.1% of the total assets of the non-deposit institutions.

Observing the ownership structure, on December 31, 2006, the two active leasing companies are 100% owned by foreign non-banking financial institutions. As of June 30, 2007, 95.6% of the total capital of the five active leasing companies was owned by foreign non-banking financial institutions, whereas the remaining 4.4% of the total capital was owned by domestic limited liability companies and domestic natural persons.

#### Meaning of the term "lease" and legislation in the Republic of Macedonia

Lessors are specialized financial institutions which offer restricted variety of financial services to targeted user group. Lease could be defined neither as a rent, nor as a credit, even though it contains the elements of both categories. The lessor purchases the subject of the agreement and leases it out to the lessee, for certain compensation and for a specific period. The lease does not require additional types of guarantees, which is the case with the lending, because the collateral of this type of service is the title of the subject of lease which belongs to the lessor.

Lease is a special form of long-term financing of the use of land, construction buildings, equipment, vehicles, etc. The greatest contribution the developed lease market could make to one economy is its ability to finance small and medium-size enterprises. Thus, the lessors play a central role in the provision of financial support to the enterprises with poor business and credit history, and the access of which to the banking sources of financing is hindered. Therefore, it could be concluded that the lease services are a kind of supplement to the banking services and are of special significance in economies which need more investments.

There are three types of lease: financial, operational and sale with buy-back lease. The financial lease is an alternative method of financing, compared to the bank credits, which, inter alia, enables larger flexibility in the negotiation of the financial lease terms; insignificant engagement of the user's own funds; opportunity for the user to choose the subject of lease and to agree upon its features; the procedure for concluding lease agreements is short and simple; once the lease agreement is executed, the title of the subject of leasing could be transferred to the service user; provides an opportunity for fast replacement of the equipment and protection against technical and technological obsolescence. In principle, the operational leasing has three features that distinguish it from the financial lease: (1) the lessor takes the obligation to maintain the subject under a lease; (2) no possibility for transfer of ownership at the end of the agreement period and (3) the lease period is usually shorter than the economic life of the subject of lease. There is a sale with recurrent lease where the owner of an asset sells such asset to a third party and concludes a lease arrangement. The concluded lease arrangement specifies that the new owner of the asset plays the role of a lessor, and the former owner still keeps the asset (for its exploitation over a certain period, under agreed terms) playing the role of lessee.

The method and terms of providing lease in the Republic of Macedonia are defined by the Lease Law\*. The Law specifies two types of lease: financial and operational.

<sup>&</sup>lt;sup>111</sup> Banks, as specified by the Banking Law, may provide financial lease services.

The Ministry of Finance is a body competent for licensing the financial lessores and for inspection of their operations, enjoying an authorization to take measures including revocation of the operating license.

\* "Official Gazette of the Republic of Macedonia" no. 4/2002, 49/2003 and 13/2006.

In the past two years, the activities of the lease companies register faster growth, which did not significantly affect the overall developments in the financial system. Thus, as of December 31, 2006, 5,034 lease agreements have been active, in the total amount of Denar 4,766 million. Compared to December 31, 2004<sup>112</sup>, the total value of the active lease agreements increased by 125.2%, whereas the number of active agreements went up almost twice. In 2006, 2,149 lease agreements were concluded (all for movables) worth Denar 1,849 million, constituting only 2.5% of the total newly extended credits by the banking sector for the same period. Compared to 2004, the number of concluded lease agreements went down by 35, whereas the value of concluded agreements increased by Denar 138 million, or 8%.

Analyzing the sector structure of the lease services, the active lease agreements with households dominate, making up 53%. On December 31, 2006, the debt of the natural persons based on 3,557 active lease agreements was valued at Denar 2,526 million, which is 7.6% of the total household debt, based on credits used from the banking sector and used lease services.

On the other hand, on December 31, 2006, the debt of the legal entities based on 1,477 active agreements, was Denar 2,240 million worth, accounting for 3.7% of the total debt of the legal entities based on credits used from banks and used lease services. In the past two years, faster growth has been registered in the debt of legal entities based on lease agreements (the value of the concluded leas agreements went up at a rate of 13.5%, whereas the value of the active lease agreements increased at a rate of 127.4%), compared to the debt of the natural persons, which increased by 3.8% based on concluded lease agreements, and went up at a rate of 123.3% based on active lease agreements.

	20	004	2006		
Description	Legal entities	Natural persons	Legal entities	Natural persons	
Amount of new leasing contracts (in millions of Denars)	754	957	856	993	
Amount of outstanding leasing contracts (in millions of Denars)	985	1,131	2,240	2,526	
Amount of outstanding leasing contracts/total indebtedness on the basis of total loans and leasing contracts	2.3%	6.9%	3.7%	7.6%	

### Table 36Structure of lease agreements

With respect to the type of subject of lease (real estate or movable), movables lease agreements dominate (as of December 31, 2006, only one real estate agreement has been active, worth Denar 4 million).

# Table 37Structure of agreements on movables

Type of leasing contract	Equip	ment	Freight tr vehi		Light v	ehicles	Other		
	2004	2006	2004	2006	2004	2006	2004	2006	
Number of new leasing contracts	34	43	348	216	1,773	1,878	29	10	
Number of outstanding leasing contracts	49	337	376	515	2,097	4,158	77	24	

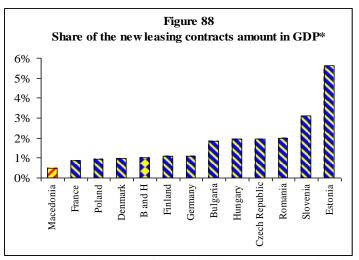
<sup>112</sup> The data as of December 31, 2004 are the only available data for comparison.

The lease agreements on movables are dominated by lease agreements of passenger vehicles, which make up 87.4% of the total number of concluded agreements on movables in 2006, i.e. 82.6% of the total number of active agreements on movables as of December 31, 2006. Of the total automobiles sold in 2006, 15.4% were sold by concluding lease agreements with the interested buyers. In the future, one could expect enhancement of the lease market for freight vehicles, because in the Republic of Macedonia there is an obsolete rolling stock of trucks, which do not even meet the minimum required standards to make transport throughout the European Union. On the other hand, there is a noticeable increase in the number of active agreements on equipment of almost seven times in the 2004-2006 period.

In 2006, only one bank provided financial leasing. Although this bank concluded only three lease agreements (on movables, only) as of December 31, 2006, yet their value of Denar 230 million constitute 12.4% of the total value of all lease agreements concluded by the lease companies in 2006.

The Republic of Macedonia belongs to the group of countries where the lease plays a marginal role in the financial system. In spite of the noticeable enhanced activity of both lease companies that operate on the financial lease market, on December 31, 2006, the indicator for the share of the value of concluded lease agreements in GDP equaled minor 0.5%. In the European Union, there are also large differences with respect to the importance and the share of the lease. In the European countries under observation, the share of concluded lease agreements in GDP ranges from 0.9% (for France) to 5.6% (for Estonia).<sup>113</sup>

Presently, the major challenge the lease companies face with, is the extension of the of subjects of lease list agreements (other than lease of light vehicles), and particularly encouragement the of the development of the secondary market for used equipment, which would act towards reducing the risk of the lease companies in the resale of equipment. In Europe, the lease registers higher growth rate compared to the total economic growth, which is primarily due to the growth in the real estate lease of 25% (in 2005 relative to 2004).



\*Note: Data on the value of concluded lease agreements for all countries refer to the first half of 2006, whereas the GDP data are as of December 31, 2005.

## **4.3.2.** Financial potential and basic indicators for the performances of the lease companies

On December 31, 2006, the total assets of the lease companies equal Denar 2,735 million, which is by 20.2% more compared to December 31, 2005. Most assets consist of claims based on concluded lease agreements, whereas the deposits in banks constitute only 5% of the total assets. On December 31, 2006, the total capital of the lease companies equaled Denar 225 million (an increase of 84.8% compared to December 31, 2005), providing 8.2% coverage of the total assets. Most of the sources of assets of the lease companies are used borrowings from foreign persons (mainly from the founders of the lease companies). The

<sup>&</sup>lt;sup>113</sup>Source: Leaseurope - European Federation of Leasing Company Associations, European Central Bank, SSO - State Statistical Office, Ministry of Finance.

credit support by the banks is seldom used as source of funding the financial lease. Thus, on December 31, 2005, one of the two lease companies is a borrower of short-term Denar bank credit in the amount of Denar 10 million, which was fully recovered in the next year. As of December 31, 2006, the lease companies do not borrow from banks.

The total amount of after taxation gain, generated in 2006 by the two active leasing companies equaled Denar 114.2 million (an increase by almost nine times compared to 2005). On December 31, 2006, the rate of return on equity of the lease sector equaled 66% (improvement of 55.1 percentage points compared to December 31, 2005), whereas the rate of return on assets equaled 4.6% (improvement of 3.9 percentage points compared to December 31, 2005).

#### **IV. Financial infrastructure**

#### 1. Payment systems

#### 1.1. Reform of the payment system in the Republic of Macedonia

The reform of the payment system in the Republic of Macedonia started in early 2001. It was primarily aimed at its modernization and harmonization with the international standards for safe, sound and efficient payments system.

The previous payment system was non-performing, from both the regulatory and the operational and institutional aspect, as a result of which the reform required full amendment to the regulations, reorganization of the institutions included in the payment system and simultaneous establishment of a new operational national payment system.

During the reform that was completed on December 31, 2001, a new Law on Payment Operations was adopted defining the responsibilities of the institutions responsible for conducting payment transactions, the Payment Operations Bureau was abolished, and the transaction accounts of legal entities were transferred to the commercial banks. Also, transaction settlement systems were established through the deposit accounts of the commercial banks with the central bank, as follows: the Macedonian Interbank Payment System (MIPS) for gross-based transaction settlement and the Clearing Interbank Systems (KIBS) net-based transaction settlement.

The effects of the reforms in the payment system and the established payment infrastructure were positively assessed by the World Bank FSAP Mission and the IMF in 2003. This Mission, inter alia, made an assessment of the MIPS compliance with the Core Principles for Systemically Important Payment Systems of the CPSS (Committee on Payment and Settlement Systems), and determined that it is highly consistent with these principles.

#### **1.2. Payment infrastructure**

MIPS is a real time gross settlement system (RTGS - Real Time Gross Settlement) of large value payments (above Denar 1 million) and of urgent interbank payments. The MIPS settlement system is based on permanent settlement and within its frameworks, it takes place on an ongoing basis, along with the conduct of the transactions. The government payments are also made through this system. Also, the transactions in securities concluded on the Macedonian Stock Exchange AD Skopje are conducted through MIPS, which is directly connected to the Central Securities Depository which enables securities settlement through the "delivery versus payment" principle, within a period of three days after the conclusion of the transaction. After the issuance of the first government short-term debt securities in 2004, and after the establishment of the market for trade in such securities in 2005, MIPS was a basis for establishment of a platform for settlement of treasury bills and government securities and CB bills. The settlement is made according to the delivery versus payment principle in real time.

KIBS (Clearing house) is a system for multilateral differed net settlements of small values payment (less than Denar 1 million), which is owned by sixteen banks of the Republic of Macedonia. Most of the payments have been made for the account of banks' clients, and the balances after being "cleared" are settled at the MIPS, making the payments final and irrevocable.

Observing the international standards, SWIFT-standard for a type of payment messages and ISO 9362 for bank identification codes is applied to the National Bank MIPS. Clearinghouse KIBS AD Skopje has its own standard in place for exchange of payment messages.

Such established payment systems and securities settlement systems helped the Republic of Macedonia to acquire payment infrastructure typical for modern market economy, which is an efficient basis for development of the financial infrastructure and increase in the level of financial intermediation.

Regulatory bodies, in the area of payment systems in the Republic of Macedonia are the National Bank, the Ministry of Finance and the Securities and Exchange Commission. In addition, the National Bank plays the role of overseer of the payment systems.

National Payment Systems Council of the Republic of Macedonia was formed in October 2004. This Council supports the safety, stability and efficiency of the payment systems and makes sure that they are promoted and developed by encouraging the cooperation between market participants and the regulatory bodies and takes initiatives for improvement of the payment infrastructure, the payment instruments and institutional framework. Also, the National Council promotes regional and international cooperation among all institutions in the payment systems and securities settlement systems.

## **1.3.** Volume and structure of the payment operations in the Republic of Macedonia in 2006

In 2006, the total payment operations in the Republic of Macedonia were valued at Denar 1,410 billion, generated through 22 million transactions. In 2006, 47% of the total payment operations in the Republic of Macedonia, i.e. 54.2% of the total number of transactions were conducted through MIPS and KIBS.

#### Table 38

Value of the payment operations and number of transactions in 2006<sup>114</sup>

Description	Amount of to turnover (in Dena	millions of	Number of transactions		Structure of the total payment turnover		Structure of the number of transactions		Trend of the total payment turnover	Trend of the number of transactions
	2006	2005	2006	2005	2006	2005	2006	2005	06/05	06/05
MIPS	514,694	421,901	1,595,081	2,071,005	36.5%	34.6%	7.2%	10.1%	22.0%	-23.0%
KIBS	147,905	135,775	10,478,451	9,324,004	10.5%	11.1%	47.0%	45.3%	8.9%	12.4%
Banks' internal payment										
turnover	747,703	661,749	10,218,589	9,180,551	53.0%	54.3%	45.8%	44.6%	13.0%	11.3%
Total	1,410,302	1,219,425	22,292,121	20,575,560	100.0%	100.0%	100.0%	100.0%	15.7%	8.3%

The total value of the payment operations registered faster growth compared to the growth in the transaction number. The annual growth rate of the value of the payment operations (2006 compared to 2005) equaled 15.7%, compared to the growth rate of the transaction number of 8.3%. This is mainly due to the lower number of transactions in MIPS, as opposed to the increase in the average value of one payment order. The average value of one order in MIPS, in 2006, equaled Denar 322.3 thousand, compared to Denar 203.7 thousand in 2005. The average value of one order in the total payment operations equaled Denar 63.3 thousand, which is by roughly Denar 4 thousand more relative to 2005.

The value of the payment operations conducted through MIPS and KIBS in 2006, was by 2.2 times higher than GDP. On average, 115 business days would be needed for the value of the payment operations conducted through MIPS and KIBS to reach the annual GDP value.

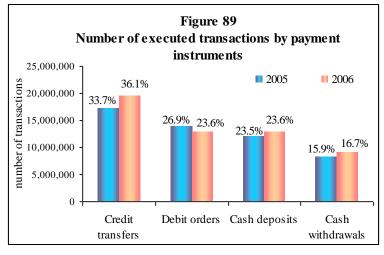
The payments made through bank accounts by payment instruments in the form of credit or debit transfers<sup>115</sup> accounted for 59.7% of the total transactions and covered around

<sup>&</sup>lt;sup>114</sup> Source: NBRM, Payment Systems Department.

<sup>&</sup>lt;sup>115</sup> Transactions in the payment system could be conducted through:

<sup>-</sup> credit transfers (transactions executed at the expense of the accounts based on submitted payment instruments on order of the accountholder),

77.8% of the value of executed payments, whereas the cash inflows and outflows from the bank accounts made up 40.3% of the total transactions and covered 22.2% of the transaction value. Accounts were used making for interbank payments, government and corporate payments, and the settlement was conducted through MIPS or KIBS, depending on the



size of transactions. The natural persons primarily made their payments through accounts by checks or other paper orders, and by payment cards. However, most of these instruments were used by the natural persons for withdrawing cash.

#### 1.4. Risks in the operations of the payment system of the Republic of Macedonia

The credit risk, the liquidity risk and the operational risk are the major risks that arise from the operations of the payment systems.

MIPS uses system where there is no credit risk (a risk arising from the inability of the counterparty to settle the liability on its due date, or later) due to the RTGS-system in place, which implies virtually simultaneous fulfillment of the liabilities of the both parties to the transaction.

With respect to minimizing the liquidity risk (risk when the counterparty cannot settle the total liability at the moment when it falls due, but later), MIPS uses option of payment management in queues. Banks can borrow on the interbank money market, as well as from the National Bank (intraday credit, Lombard credit, short-term liquidity credits of last resort). In 2006, the borrowing volume was relatively low, both on the interbank market, and from the National Bank (in 2006 the central bank made 20 intraday credits totaling Denar 1,608 million).

For minimizing the credit and liquidity risk, MIPS also encompasses an information system for support of credit and liquidity risk management instruments. MIPS supplies the participants with clear, full and timely information, and this system also permanently monitors the participants. The RTGS system enables the payments among banks, MIPS members, to be made in real time through the accounts in the National Bank, so that the banks will have timely information on the payments that arrive in its favor, after the final settlement. Also, there is a simultaneous exchange of values in the systems used for settling financial market transactions, particularly where the values included are large. Examples are the payment systems used for foreign currency transaction settlement and full sale of securities. On the foreign exchange market, this is recognized as payment versus payment - PVP, and on the securities market it is recognized as delivery versus payment – DVP, which minimizes the exposure of the participants on the foreign exchange market and the securities market.

<sup>-</sup> debit transfers (transactions executed at the expense of the accounts based on submitted payment instruments on order of the payment user),

<sup>-</sup> cash inflow (cash paid in to the accounts of the accountholders),

<sup>-</sup> cash outflow (cash paid out from the accounts of the accountholders) and

<sup>-</sup> e-money (institutions conducting the payment operations in 2006 failed to report e-money transactions. Activities for drafting a new Law on Payment Operations are underway, which will regulate the issuance of e-money as a financial activity).

Major precondition for smooth functioning of the payment system is the control and minimization of the operating risk in its functioning, which arises from hardware or software problem, human errors, malicious attack, which may cause system failure or nonperformance, i.e. losses. The system structure and organization should enable minimization of technical problems, i.e. smooth transaction settlement. The National Bank shall have opportunities to modify the form and to make the system or the surrounding operational, in order to remove, reduce or better manage the operating risk.

The growing dependence of the financial sector, including the payment system, on the information technology and the telecommunication networks increases the exposure to risk of hardware or software failure. The National Bank activities for implementing the recommendation of the FSAP mission for full compliance with the seventh core principle for systemically important payment systems, i.e. for providing conditions for continuity of the MIPS in contingent cases, through establishment of a back up system on a remote location were aimed at reducing the operating risk.

#### 2. Deposit insurance system

Efficient deposit insurance system is a basis for several basic objectives:

- **systemic risk restriction**, i.e. alleviation of the risk of disruption of the banking system stability, due to possible risk event in one or more banks at the same time,

- **bank depositor protection** (particularly natural persons), who face the problem of asymmetry and inaccessibility to information, and insufficient education for proper assessment of the financial condition of a particular bank,

- additional hedging mechanism which contributes to **strengthening of the confidence** in the banking system (minimizing the risks and damages to the banking system in the case of bank failure), along with the established prudential regulation framework for the banks.

Besides the evident qualitative advantages, the deposit insurance system incurs costs for the banks, but also creates a threat of disturbance of the market discipline, i.e. taking higher risks than usual, which might bring about so called moral hazard.

### **2.1. Legal framework and functioning of the Deposit Insurance Fund in the Republic of Macedonia**

Disturbed confidence in the banking system in the period after the disintegration of the former SFRY and "freezing" of the foreign currency savings deposits of the citizens created the need of undertaking specific measures for establishment of deposit insurance system in the Republic of Macedonia. The Deposit Insurance Fund AD Skopje was established in January 1997, followed by amendments to the regulatory framework, primarily, the adoption of the Law on Deposit Insurance Fund<sup>116</sup>, in July 2000. The Fund is in full ownership of the Republic of Macedonia. It insures deposits<sup>117</sup> of natural persons (according to the current design, the Fund does not cover deposit of legal entities) in the banks and the savings houses, which are established and operate in the Republic of Macedonia, as follows:

- 100% of the total deposits of a natural person in a bank or a savings house in the amount of up to Euro 10,000 (denar equivalent) and

<sup>&</sup>lt;sup>116</sup> Law on Deposit Insurance Fund ("Official Gazette of the Republic of Macedonia" no. 63/00, 29/02, 43/02 and 49/03).

<sup>&</sup>lt;sup>117</sup> The Law on Deposit Insurance Fund specifies the deposits of natural persons insured in the Fund.

- 90% of the total deposit of a natural person in a bank or a savings house in the amount from Euro 10,000 to 20,000 but not more than Euro 20,000 (denar equivalent).

The new Banking Law (effective since June 2007) ensured entrance of foreign banks to the Macedonian market, through branches. The deposits of these branches collected in the Republic of Macedonia will be insured in the Deposit Insurance Fund.

In the Republic of Macedonia, the Fund plays the role of a cash register that pays off the insured deposits after the revocation of the license for founding and operating a bank or a savings house. The release of the guarantee of the Fund starts within three months from the effectiveness of the decision of the Governor of the National Bank on revoking the license for founding and operating a bank or savings house.

The monthly premium paid by the banks and the savings houses equals 0.7% on annual basis of the total deposits of natural persons in a bank, i.e. savings house, irrespective of whether they are subject to insurance. The Fund may adopt a decision on termination of the premium payment obligation by the bank and the savings houses, provided that the total Fund's assets reach at least 4% of the total deposits of natural persons in the Republic of Macedonia (as of September 30, 2006, this ratio equaled 3.29%).

On December 31, 2006, eighteen banks<sup>118</sup> and twelve savings houses were members of the Fund. Considering the permanent upward trend of the household deposits, the deposit insurance premiums paid-in by the banks and the savings houses have registered constant and significant growth. The share of deposit insurance premiums in the total banks' income<sup>119</sup>, in the period December 31, 2002-December 31, 2006, ranged from 3% to 3,8%.

#### Table 39

				in millio	ns of Denars
Description	31/12/2002	31/12/2003	31/12/2004	31/12/2005	31/12/2006
Deposit insurance premium	333	320	306	360	437
Total deposits of households	34,561	40,592	47,506	57,582	71,420
Total income	8,941	8,481	9,894	11,980	14,249
Total expenses	10,206	10,053	9,949	11,549	11,890
Deposit insurance premium/total income	3.7%	3.8%	3.1%	3.0%	3.1%
Deposit insurance premium/total expenses	3.3%	3.2%	3.1%	3.1%	3.7%

# Annual dynamics of the deposit insurance premiums<sup>120</sup> and indicators for their share in the total income and expenditures

Concentration in the banking system in the Republic of Macedonia is also noticeable in the paid-in deposit insurance premium, where the three largest banks account for over 75% of the total paid-in insurance premiums.

<sup>&</sup>lt;sup>118</sup> Macedonian Bank for Development Promotion AD Skopje, which performs specific financial activities, in line with the Law on establishing the Macedonian Bank for Development Promotion, has not been a member of the Deposit Insurance Fund.

<sup>&</sup>lt;sup>119</sup> The total income has been calculated as a sum of the interest income, fee and compensation income, other net financial income (capital gains, dividends, exchange rate differentials, etc.) and other income.

 $<sup>^{120}</sup>$  The calculations of each table item take into account only banks, because of the marginal share of the savings houses in the total household deposits, which ranged from 0.6% on December 31, 2002, to 0.8% on December 31, 2006

Table 40												
Indemnifications	by	the	Fund	in	the	period	from	its	establishment	to	September 30	),
<b>2006</b> <sup>121</sup>												

Year	Number of banks and saving houses under bankruptcy or liquidation	Status of the deposits in the banks and saving houses (in thousands of Denars)	Total liabilities of the Fund (in thousands of Denars)	Realized indemnification (in thousands of Denars)	Realized indemnification as a % of GDP
1997	0	-	-	-	
1998	0	-	-	-	
1999	1	7,882	5,118	-	
2000	1	2,850	1,785	4,791	0.0020%
2001	0	-	-	12	0.0000%
2002	0	-	-	135	0.0001%
2003	2	113,017	102,378	95,633	0.0380%
2004	0	-	-	2,099	0.0008%
2005	1	86,225	76,006	70,543	0.0246%
30.09.2006*	0	-	-	578	0.0002%
Total:	5	209,974	185,287	173,791	

\*Note: There is no data on the last risk event (revocation of the operating license of one savings house).

Since the establishment of the Fund in 1997, to December 31, 2006 six risk events happened (in three banks and three savings houses), followed by the payment of insured deposits. Thus, the total liabilities of the Fund, based on payment of insured deposits, were valued at Denar 185 million, Denar 174 million of which being realized as of September 30, 2006 (93.8% of the total liabilities). On the other hand, the funds collected in favor of the Fund from the bankruptcy or liquidation estate of the banks and the savings houses for the same period, equaled only Denar 10 million.

#### 3. Liquidity facilities of last resort

Short-term liquidity credit of last resort has been defined as a discretionary approval of liquid assets to a bank (or to the market as a whole) by the central bank, for overcoming liquidity shocks that cause extraordinary increase in the demand for liquid assts, which may not be satisfied on the money market.

The legal basis for activating the short-term liquidity credit of last resort, as instrument of the National Bank, has been introduced with the amendments to the Law on the National Bank of the Republic of Macedonia and by the Decision on short-term liquidity credit of last resort adopted in the second half of 2004, specifying that the National Bank, for the purposes of maintaining the financial system stability, may approve short-term liquidity credit of last resort to banks, provided that the credit is secured by collateral instruments.

The primary purpose of the liquidity credit of last resort is maintenance of the financial system stability, i.e. minimizing the possibility for the liquidity problems of a bank (due to its size or due to the possibility to transfer the crisis to other bank or to the overall banking system) to disturb the stability of the financial system as a whole.

Liquidity credit is approved to solvent banks, facing liquidity problems, which at that time are not in a position to secure funds from the interbank market, or in order to impede the potential fast sale of their assets at unfavorable prices. The National Bank approves such liquidity credit based on adequate collateral (high quality securities portfolio and liquid assets that minimize the credit, currency and liquidity risk for the central bank). Such request, on the one hand, provides security for the placed assets of the central bank, and on the other hand it makes the banks hold high quality securities in their portfolios, thus making the risk of improper bank investments lower. If the bank does not hold assets acceptable as collateral for the liquidity credit, the National Bank sends a request for cooperation with banks that would approve liquidity credit to the bank facing liquidity problems. The liquidity credit of last

<sup>&</sup>lt;sup>121</sup> Source: Website of the Deposit Insurance Fund of the Republic of Macedonia.

resort is an expensive source of liquidity, approved at interest rate higher than that on the money market, but in the amount that should not discourage the bank to ask for liquidity support by the central bank.

The approval of the credit of last resort is usually accompanied by taking certain corrective measures to that bank, for the purposes of overcoming its situation. These measures play the role of implicit price of liquidity credit and could be stricter, depending on the bank's condition. The liquidity credit falls due in three months, with a possibility to be revolved. The short term of the credit is aimed at providing the requested liquidity support to the bank, without making the bank passive or further deteriorates its positions.

Since the adoption of this regulation, there has not been a case of approving short-term liquidity credit of last resort to bank.