CHAPTER 35.

INFLUENCE OF BANK CENTRIC FINANCIAL SYSTEM ON TRANSITION COUNTRY

Mladenka BALABAN

Abstract:
Large number of facts and data during previous decades are bringing to conclusion that level of financial system development is very important for economic growth of one national economy. Subject of this chapter is development level of financial system of transition countries, as well as its influence on economy development. All transition countries banking systems had accelerated growth of credit offer until global financial crisis. Main disorders, which are caused by first crisis wave, are in most of transition countries, especially in Serbia, manifested trough currency and credit risk increase. Goal of this chapter is to point out on all effects which bank centric system had, before and after, crisis on economy of these countries.

Key words: financial system, economy, currency risk, credit risk

INTRODUCTION

Financial system reorganization in transition countries with regard to other economy sections advanced the most. Basic characteristics of all transition countries financial systems are:
- Bank centric system
- Dominant role of indirect financing
- Relatively undeveloped non-bank financial institutions
- Minimum role of financial market

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Privatization, domestic bank ownership integration in to foreign banking groups, from one side, affected the deposit potential growth in these countries, and from another side, affected the banks borrowing abroad. All that brought to increase of foreign ownership in banking sector in all transition countries. This chapter will look into these financial systems in two phases: growth phase from year 2002 to 2008 and financial crisis phase from year 2008 to present day, trough changes which happened in economic system of these countries.

**HOW TO MEASURE FINANCIAL SYSTEM BANK CENTRICITY AND ITS INFLUENCE ON ECONOMIC GROWTH?**

In bank centric systems domination of banks is emphasized in entire financial system. One of the important characteristics of all bank centric financial systems of transition countries is that banks are co-owners of large number of companies, so they control directly use of financial resources. In this case bank is creditor and owner. Bank centric financial systems are characteristic for economies which have large number of small and medium enterprises and companies with large debts, as well as population medium class. If we are looking in to period of then years, we can say that this is what is brought to two important problems (which are going to be considered in following part of this chapter):
- first is that companies in these countries became indebted and
- second is that credit potential cannot be base of economy financing.

<table>
<thead>
<tr>
<th>Savers/borrowers</th>
<th>Characteristic</th>
<th>Why banks?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>Big company (big financial liabilities)</td>
<td>high cost of the security issue</td>
</tr>
<tr>
<td>Householders</td>
<td>small income, middle income</td>
<td>small saving</td>
</tr>
<tr>
<td>State</td>
<td>small public debt</td>
<td>undeveloped financial market</td>
</tr>
</tbody>
</table>

However, in developed countries bank centric systems gave very positive results, example for that are Germany, Japan, Switzerland and Austria. For example in Germany three banks are dominant in banking sector: Deutchebank, Commerzbank and Drezdnerbank. These three large banks have significant share in large companies’ ownership, over 65%, which enables them to control the recourses use and companies so that there isn’t inadequate financial resources use. Very interesting system is in Japan as well, where large industrial companies...
members of “Kievetsu” group in which part main bank is operating, which has key role in financing of these companies, so that as well as in this case financial resources are adequately used in direction of industry development and growth.

Numerous studies show how large influence of banks is on economy development, and one of the most significant is study which is conducted by King and Levin 1993. In this study they analysed factors which influence on economic growth for period 1968-1989, and singled out 4 factors:

- Level of debt measured as ratio of short term obligations and GDP
- Commercial bank deposits regarding deposits
- Relation of approved credit to corporate sector from commercial banks
- Relation of approved credit to non-financial companies.

Based on these factors they looked into economic growth through growth of accumulation and productivity of capital. They concluded that growth rate of analysed countries is in direct correlation with level of financial system development. Countries with developed financial market have 20% larger growth than undeveloped countries, which economy financing is based through credit.

Beside this study, it is important to mention study of Back Levin and Loyaz, which indicates to connection of banking sector and macroeconomic variables growth. In this study which encompasses 63 countries for period 1960-1995, is analysed banks capability to recognize profitable projects, manage risks, conducts manager control. As important indicator of banking sector influence on economic growth is approved credit to private sector to GDP ratio. Analysis showed significant variations between different countries. For example we have the largest share of credit in GDP in Switzerland 141%, while in Zaire this rate is only 4%, in this way study indicated that there is correlation between level of banking sector development and economy development.

International community for last twenty years directed its attention on strengthen of safety and creation of strong financial systems. Goal is to establish best tools for strength evaluation and vulnerability of financial system. International Monetary Fund (IMF) through forming of group composed of 22 financial ministers and central bank governors provided recommendations for better financial system analysis. During year 1999 IMF and World Bank began pilot project FSAP (Financial Sector Assessment Program), which is conducted in 135 countries of the world. Program is launched to identify key advantages and weaknesses of financial system, as well as its compliance with international

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principles. Goal of this program was to help creators of economic policies. Besides, this program indicated that not only quantitative indicators are important, but qualitative indicators as well, for analysis of one financial system. According to numerous studies of International Monetary Fund, bank centricity can be measured in two ways:
- Through influence of banking sector on economy
- Through social expenses which are causing banking crisis

BANK CENTRICITY OF COUNTRIES IN TRANSITION

Banking systems of transition countries can be divided in two periods:
- 2002-2008 period of growth and expansion
- from 2008 to present day, as a period with financial crisis effects

In this chapter a subject of consideration besides Serbia will be Croatia, Bosnia and Herzegovina, Macedonia and Albania, because there is similarity in financial system structure.

Loan expansion and growth during from 2002-2008

Due to crisis during nineties banking sector of some transition countries had slower loan expansion growth, Serbia was one of those countries. Basic banking system characteristics of transition countries were: undeveloped banking system, the largest loans in previous period were in corporate sector, privatization of domestic banks, liquidations of domestic banks, which brought to decrease of balance mass by 65%, as well as banking market reconstruction and deregulation. All this was prerequisite for loan expansion in first phase of reconstruction of banking sector of transition countries in period 2001 – 2003.

Table 2: Expansion of credit activities from 2002-2005

<table>
<thead>
<tr>
<th></th>
<th>Albania</th>
<th>Montenegro</th>
<th>Croatia</th>
<th>Macedonia</th>
<th>Romania</th>
<th>Serbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real growth of credit to private sector (in %)</td>
<td>43,7</td>
<td>36,2</td>
<td>18,1</td>
<td>19,1</td>
<td>34,1</td>
<td>33,4</td>
</tr>
<tr>
<td>Real growth of NLP (in %)</td>
<td>-3,3</td>
<td>0</td>
<td>-5,4</td>
<td>-5</td>
<td>-0,2</td>
<td>0</td>
</tr>
<tr>
<td>Real growth of GDP (in %)</td>
<td>5,6</td>
<td>3,4</td>
<td>4,7</td>
<td>3,6</td>
<td>5,7</td>
<td>7,8</td>
</tr>
</tbody>
</table>

Source: Evan Creft, Introduction in credit growth, Kvartal monitor 4, 2006
In previous table it can be notice that the strongest loan expansion, transition countries expansion was during period 2002-2005. In begging phase the largest loan expansion regarded to retail sector loans. If we take Serbia as example, loans offer to retail sector is multiple bigger than in other parts of economy. However, deposit potential growth wasn’t enough for financing loans demand. Considering that privatization process and banking sector reform itself, brought large number of foreign banks to transition countries (Unicredit, Raiffeisen bank, Erste bank), significant source of loans demand financing was borrowing of these banks at its headquarters abroad. Advantage of this kind of creating of loan potential was more than positive for these banks profitability, because interest margin was very positive. However this kind of loans demand financing latter will have negative effects on retail sector, as well as on total economy.

Table 3: Credit on Private Sector (percent of GDP)

<table>
<thead>
<tr>
<th>Country</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>9.5</td>
<td>15.2</td>
<td>22.1</td>
<td>29.9</td>
<td>35.1</td>
<td>36.6</td>
<td>37.4</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>36.9</td>
<td>43.7</td>
<td>47.9</td>
<td>54.3</td>
<td>57.8</td>
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<td>57.8</td>
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<tr>
<td>Croatia</td>
<td>48.8</td>
<td>53</td>
<td>60.1</td>
<td>63.1</td>
<td>64.4</td>
<td>65.9</td>
<td>70.1</td>
</tr>
<tr>
<td>FYR Macedonia</td>
<td>21.5</td>
<td>24</td>
<td>29</td>
<td>35.3</td>
<td>42.1</td>
<td>43.5</td>
<td>45.3</td>
</tr>
<tr>
<td>Montenegro</td>
<td>14.6</td>
<td>17.9</td>
<td>36.3</td>
<td>80.2</td>
<td>86.9</td>
<td>76.4</td>
<td>68.6</td>
</tr>
<tr>
<td>Serbia</td>
<td>22.9</td>
<td>29</td>
<td>29.1</td>
<td>35.2</td>
<td>40.2</td>
<td>45.1</td>
<td>51.4</td>
</tr>
</tbody>
</table>


Figure 1: Growth Credit to Private Sector 2005-2010.

Source: IMF Working Paper WP/11/300
Based on IMF data it can be noticed in table with what swiftness are grown loans to retail sector. The largest expansion of loans were registered in Montenegro, were increase of share in GDP of loans to private sector from 14,6% in 2004 to 68,8% in 2010, then in Croatia from 48% in 2004 to 70,1% in 2010, Serbia from 22,95 in 2004 to 51,4% in 2010. Albania from 9.5% in 2004 to 37.4% in 2010. We can conclude that loan expansion had two effects: growth of private sector borrowing and interest rate decrease regarding previous period, but its level isn’t yet low comparing to the European Union countries.

Table 4: Private Credit/growth rate (percent)

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>60,4</td>
<td>45,5</td>
<td>35,3</td>
<td>17,4</td>
<td>4,3</td>
<td>2,4</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>18,4</td>
<td>9,8</td>
<td>13,2</td>
<td>6,5</td>
<td>-0,9</td>
<td>1</td>
</tr>
<tr>
<td>Croatia</td>
<td>8,5</td>
<td>13,4</td>
<td>4,9</td>
<td>2,1</td>
<td>2,3</td>
<td>6,4</td>
</tr>
<tr>
<td>FYR Macedonia</td>
<td>11,7</td>
<td>20,5</td>
<td>22</td>
<td>19</td>
<td>3,5</td>
<td>4,1</td>
</tr>
<tr>
<td>Montenegro</td>
<td>22,8</td>
<td>102,2</td>
<td>121,2</td>
<td>8,3</td>
<td>-12,1</td>
<td>-10,2</td>
</tr>
<tr>
<td>Serbia</td>
<td>26,2</td>
<td>0,6</td>
<td>20,8</td>
<td>14,2</td>
<td>12,1</td>
<td>14</td>
</tr>
</tbody>
</table>


Banking sector growth can be seen best in following table which indicates average growth rate of indicators of banking sector depth (ratio of total amount of given loans and GDP). The largest amount of this indicator had Montenegro which in 2005 was 22.8%, so that it would then have large growth in 2006 of 102.2% in 2007 even 121.2%. It is important to mention that this growth is mostly based on foreign savings, but after financial crisis comes to rapid decline of indicator to -10,2% in 2010. Similar situation was as well in other regional countries, in Albania loans share in economy financing was 60,4% in 2005, so that it would in 2010 reached only 2,4%. Only in Serbia it can be noticed somewhat more moderate movement of this indicator because of NBS measures, but in Bosnia and Herzegovina as well because Currency Board politics. Off course sudden decline of bank centric sector influence on overall economy which also indicates banking sector depth indicator lays in: interest rates increase and currency oscillation, due to financial crisis. Basic loan expansion effects in period 2002-2008 were:
- Large loans share in GDP
- Bank borrowing abroad with goal settlement of demand
- Loans increase faster than GDP because of indebted companies needs for investment and working capital
- Growth of capital inflow which regards to foreign banks, because they are close to cheaper loans source
- High differentiation interests regarding European Union countries.

**Influence of financial crisis on transition countries bank centric sector**

Financial crisis that struck at the end of 2008, led to significant changes inside bank centric system of transition countries. Rapid credit growth, especially in private sector, led to growth of two risk group credit risk and currency risk, which affected negatively on overall banking system, increasing amounts of non-preforming loans from one side, as well as indebtedness of retail and corporate sector.

Loan expansion led to negligence of important factors of crediting, and that is adequate assessment of loan capability of large number of clients. Loan demand growth, loan sales growth, and with that accomplishment of high return rate, for its consequence had loan expansion, without taking account of one of the most important risk, and that is credit risk. All this in analysed countries, in Serbia, Croatia, Macedonia, Albania and Montenegro, form 2008 led to increase of non-preforming loans, and consequently to decline of capital return. In following table we can notice that in Serbia from 2005 to 2007 wasn’t non-preforming loans, and in period from 2008 to 2010 came to expression effects of credit risk, so that number of non-preforming loans in total assets moved in range between 11.3% in 2008 and 16.9% in 2010. Similar situation is in Albania where, during loan expansion, share of non-preforming loans amounted to 2.3% in 2005, and in 2010 13.9%. In Montenegro share of non-preforming loans in total assets reached 5.3% in 2005, and even 21% in 2010. Reason for that we can’t only find in inadequate assessment of clients credit capability, but also in unemployment rate growth, as well as due to growing debt of large number of companies.

Foreign banks reaction on these movements is certainly credit risk aversion and terms tightening of loan approval, as well as declining of debt at its centrals. Decreasing of external financing sources led to deposit interest rates growth, but also to declining of interest margin. Considering share increase of non-preforming loans in banks assets, led to growth of reserves for non-preforming loans from one side, and to higher values correction in banks’ balance sheets from the other side. Besides, due to recession pressures there was a decline in loan demand as seen in trough loans share in GDP in table 5. All this influenced on declining of capital return, which is presented in following table.
Table 5: NPL 2005-2010. (in percentage)

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<th>2005</th>
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<th>2008</th>
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<th>2010</th>
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<tbody>
<tr>
<td>Albania</td>
<td>2.3</td>
<td>3.1</td>
<td>3.4</td>
<td>6.6</td>
<td>10.5</td>
<td>13.9</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
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<td>3</td>
<td>3.1</td>
<td>5.9</td>
<td>11.4</td>
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<tr>
<td>Croatia</td>
<td>6.2</td>
<td>5.2</td>
<td>4.8</td>
<td>4.9</td>
<td>7.8</td>
<td>11.2</td>
</tr>
<tr>
<td>FYR Macedonia</td>
<td>15</td>
<td>11.2</td>
<td>7.5</td>
<td>6.7</td>
<td>8.9</td>
<td>9</td>
</tr>
<tr>
<td>Montenegro</td>
<td>5.3</td>
<td>2.9</td>
<td>3.2</td>
<td>7.2</td>
<td>13.5</td>
<td>21</td>
</tr>
<tr>
<td>Serbia</td>
<td>11.3</td>
<td>15.5</td>
<td>16.9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


It can be noticed that ROE value in 2005 in Albania was 22.2%, and during crisis it dropped to 7.6%. Significant capital return was in Croatia, so that during loan expansion (2005), reached 15.1%, and during crisis period amounted about 7%. Considering that largest loan expansion was in Montenegro, so that greatest decline in capital return was in banks in this country, from ROE of 11.6% in 2006 to -27% in 2010. There were no large oscillations in capital return in Serbia, so that from 6.5% in 2005, this indicator reached 5.4% in 2010.

Table 6: Return of equity in bank centric sector 2005-2010.

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<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<th>2010</th>
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<tbody>
<tr>
<td>Albania</td>
<td>22.2</td>
<td>20.3</td>
<td>20.7</td>
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<td>7.6</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>6.2</td>
<td>8.5</td>
<td>9</td>
<td>4.3</td>
<td>0.8</td>
<td>-5.5</td>
</tr>
<tr>
<td>Croatia</td>
<td>15.1</td>
<td>12.7</td>
<td>10.9</td>
<td>9.9</td>
<td>6.4</td>
<td>7</td>
</tr>
<tr>
<td>FYR Macedonia</td>
<td>7.5</td>
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<td>12.5</td>
<td>5.6</td>
<td>7.3</td>
</tr>
<tr>
<td>Montenegro</td>
<td>6.1</td>
<td>11.6</td>
<td>10.6</td>
<td>-6.6</td>
<td>-6.9</td>
<td>-27</td>
</tr>
<tr>
<td>Serbia</td>
<td>6.5</td>
<td>9.7</td>
<td>8.5</td>
<td>9.3</td>
<td>4.6</td>
<td>5.4</td>
</tr>
</tbody>
</table>


Besides effects regarding to loan expansion growth and decrease of banks ROE, large impact, from macroeconomic point of view is debt problem of all countries during loan expansion. Foreign debt growth represents problem for all countries liquidity, as well as impact on these countries’ currencies. Considering that recourses for loan expansion are imported in euros, banks protected them self’s from credit and currency risk, in a way that they transferred this risks on loan users. For example, in Serbia who conducts politics of flexible exchange rate, currency risks transferred to credit risks, because all loans were in foreign currency (CHF or EUR). In accordance with national currencies depreciation, central banks foreign exchange reserves decreased, currency risks increased, and
banks’ capital adequacy declined. All this influence on real sector trough problem of budget deficit financing and keeping economy liquid (Greece).

Stopping of capital inflow is actually largest risk of analysed countries banking systems. Considering that largest share of capital inflow is from abroad, domestic banking system in first phase was threatening with crisis outflow of financial assets. However to avoid banking system collapse, governments and banks which central are abroad made agreement known as Vienna initiative. This agreement for result had even additional capital inflow to avoid banking systems disturbance. This was especially significant for Serbia and Bosnia and Herzegovina.  

Precisely because of that central banks of all analysed countries took certain measures, which for goal had to preserve exchange rate of national currencies, as well as to preserve banking system liquidity. Reserve requirement rate for foreign currency significantly increased, and some of countries implemented subsidized loans. In Serbia reserve requirement rates, for certain period of time were highest in the region, for foreign currency for over two years was 25%, while up to two years was 30%. In Croatia unique reserve requirement rate is 10% and in Montenegro 14%. In Macedonia reserve requirement rate is 13%.

Second important problem which is caused by financial crisis is missing banks’ capital, which represents major problem in banking systems of all countries. Of course countries with developed financial market and deep fiscal capacity, in a simple way resolved recapitalization problem. To secure banking system stability in European Union countries, European Banking Authority – EBA made decision in October 2011, to increase, at basic capital level, capital adequacy ratio for 9% up to June 2012. Recommendation is given to banks for recapitalization to use: new emission of common shares, bonuses payment stoppage, profit reinvestment, etc. In analysed region countries there were no problems with capital adequacy which are following data indicating:

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
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<td>17,1</td>
<td>17,2</td>
<td>16,2</td>
<td>15,4</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>17,8</td>
<td>17,7</td>
<td>17,1</td>
<td>16,3</td>
<td>16,1</td>
<td>16,2</td>
</tr>
<tr>
<td>Croatia</td>
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<td>16,9</td>
<td>15,4</td>
<td>16,6</td>
<td>18,8</td>
</tr>
</tbody>
</table>


*EBA Press release, 8th December, 2011.*
It can be noticed that in most countries capital adequacy is above prescribed 9%.

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
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<td>FYR Macedonia</td>
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<td>16,2</td>
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<tr>
<td>Montenegro</td>
<td>27,9</td>
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<td>17,1</td>
<td>15</td>
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<td>15,9</td>
</tr>
<tr>
<td>Serbia</td>
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<td>27,9</td>
<td>21,9</td>
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FINANCIAL AND BANKING SYSTEM OF SERBIA

Situation development on global market will be of significant importance for developing markets and emerging markets because of expected decline in foreign banks asset value and possible need of parent banks for international consolidation. Considering that crisis in Euro zone is still present, negative effects in Serbia could be on economic activity and financial stability, through connection with governments which are strucked hard by financial crisis, both through foreign trade channel and financial channel. Financial channel risk is regarding to fact that foreign banks participate with 78,2% in total banks assets in Serbia.

Level of banking system euroization (which reduces efficiency of monetary policy measures) and share of private foreign debt in GDP is at approximately same level as 2008. Share of public debt in GDP significantly increased.

Foreign exchange reserves represent insurance against extreme disturbance in terms of high euroization and high foreign imbalance. It can be said that foreign exchange reserves represent only insurance if support of structural reforms and fiscal policy is absent. Because of large fluctuations on forex market, National Bank of Serbia is intervening on forex market during 2012. Level of gross foreign exchange reserves, regardless of indicator or its adequacy evaluation model, indicates that it is sufficient for extreme disturbance protection.

Banking system of Serbia in terms of financial crisis.

Reform process of Serbian banking system which for aftermath had liquidation of large group of domestic banks, which led to decreasing of balance sum of banking sector for 65%. Loan expansion in Serbia begins during 2003, where share of loans in GDP were 10%. Holders of accelerated loan growth, as in all transition countries, as well as in Serbia were foreign banks. Considering that in previous period confidence in domestic banks were decreased, domestic savings wasn’t

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6 www.nbs.rs
sufficient for loan demand financing. Consequently, commercial banks obligations in Serbia towards abroad increased enormously, so growth rates in 2004 and 2005 marked growth of 257.50% and 129.65%. According with loan offer growth, banks’ capital is growing, especially in 2006 by 62.34%.

However, as it can be noticed that in line with loan expansion growth, country foreign debt grows as well. Loan expansion lasted until 2008, when financial crisis happened.

Accelerated loan expansion, led to appearance of two types of risk on banking market in Serbia: credit and currency risk. To slowdown loan growth NBS took following measures during period 2004-2007:
- Decreasing liquidity of banks and activating open market operations with interest rate increase
- Limiting of gross loans to retail in amount of 200% of banks’ capital value
- Implementation of a prohibitive reserve requirements system
- Use of prudential norms for loan expansion control

Figure 2: Growth of credit activity in Serbia 2006-2012

These measures had significant success, but they were not enough for excess liquidity withdrawal. Implementation of prohibitive reserve requirements system, excluded home loans, so interest rates remained at the same level. Restrictive monetary policy effects led to interest rates growth which negatively reflected on

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7 Živković B., Comparativ analisis of banking sistem in Srbija and country in region, Pod Lupom 1, page 64, Belgrade, 2011.
small and medium sized enterprises which were borrowing at these high interest rates. All this for consequence had increase of non-preforming loans especially in 2008, which can be noticed on following chart.

*Figure 3: Problematic loans in Serbia 2008-2011.*

Starting from 2008 it can be noticed trend of share growth of non-preforming loans (NPL) in banking sector total loans. In non-preforming loans structure in 2008 loans to retail participated with about 23%, loans to corporate sector participated with 70.9% and other with 6.1%. At the end of 2010 structure of non-preforming loans remains similar with loans to retail participate with 16%, loans to corporate with 65% and other 19%. At the end of 2011, reserve requirements level was sufficient for coverage of 129.2 gross NPL. Due to high reserves coverage for estimated losses, NPL although in substantial nominal amount, doesn’t represent a threat to financial system. Foreign exchange risk, which banks trough currency indexation clause of loans transferred to debtors, returns in banking system as foreign exchange induced credit risk.
When it is about capital to risk assets ratio, during period 2006-2011, Serbia belongs to group of countries were coverage of risk assets is on a high level, precisely because of measures which conducted central bank. Ratio of capital to risk assets in 2006 was 24.7% and in 2011 was 19.1%, so it can be noticed in table that all countries in region had similar movement of this indicator.

**Table 8: Regulatory capital relative to risk assets the countries of region**

<table>
<thead>
<tr>
<th>Country</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>13.2</td>
<td>12.0</td>
<td>11.2</td>
<td>13.3</td>
<td>13.9</td>
<td>13.1</td>
</tr>
<tr>
<td>Romania</td>
<td>18.1</td>
<td>13.8</td>
<td>13.8</td>
<td>14.7</td>
<td>15.0</td>
<td>13.4</td>
</tr>
<tr>
<td>Latvia</td>
<td>10.8</td>
<td>10.9</td>
<td>12.9</td>
<td>14.2</td>
<td>15.6</td>
<td>14.0</td>
</tr>
<tr>
<td>Hungary</td>
<td>11.0</td>
<td>10.4</td>
<td>12.3</td>
<td>13.9</td>
<td>13.9</td>
<td>14.2</td>
</tr>
<tr>
<td>Albania</td>
<td>18.1</td>
<td>17.1</td>
<td>17.2</td>
<td>16.2</td>
<td>15.4</td>
<td>15.6</td>
</tr>
<tr>
<td>Montenegro</td>
<td>21.3</td>
<td>17.1</td>
<td>15.0</td>
<td>15.8</td>
<td>15.9</td>
<td>16.5</td>
</tr>
<tr>
<td>Turkey</td>
<td>21.9</td>
<td>18.9</td>
<td>18.0</td>
<td>20.6</td>
<td>19.0</td>
<td>16.5</td>
</tr>
<tr>
<td>Macedonia</td>
<td>18.3</td>
<td>17.0</td>
<td>16.2</td>
<td>16.4</td>
<td>16.1</td>
<td>16.8</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>17.7</td>
<td>17.1</td>
<td>16.3</td>
<td>16.1</td>
<td>16.2</td>
<td>17.2</td>
</tr>
<tr>
<td>Lithuania</td>
<td>10.2</td>
<td>11.1</td>
<td>11.8</td>
<td>14.6</td>
<td>14.6</td>
<td>17.4</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>14.5</td>
<td>13.8</td>
<td>14.9</td>
<td>17.0</td>
<td>17.5</td>
<td>17.5</td>
</tr>
<tr>
<td>Serbia</td>
<td>24.7</td>
<td>27.9</td>
<td>21.9</td>
<td>21.4</td>
<td>19.9</td>
<td>19.1</td>
</tr>
<tr>
<td>Croatia</td>
<td>14.0</td>
<td>16.3</td>
<td>15.1</td>
<td>16.4</td>
<td>18.8</td>
<td>19.2</td>
</tr>
</tbody>
</table>

Banking sector in Serbia during analysed period 2007-2011 was capitalized adequately. If challenges from market are excluded, largest challenge to banking sector in previous year was transfer of banks to new regulation, in compliance with Basel 2 principles. It can be noticed that during analysed period banks’ capital in Serbia was in compliance with regulation standards, as well as Basel 2 standards.

Table 9: Adequacy capital of bank in Serbia 2007-2011

<table>
<thead>
<tr>
<th></th>
<th>Regulatory capital relative to risk assets</th>
<th>Basel standard</th>
<th>Regulatory minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>24.5</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>II</td>
<td>25.9</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>III</td>
<td>24.8</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>IV</td>
<td>27.9</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>2008.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>27.4</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>II</td>
<td>28.1</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>III</td>
<td>23.3</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>IV</td>
<td>21.9</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>2009.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>20.8</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>II</td>
<td>21.2</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>III</td>
<td>21.3</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>IV</td>
<td>21.4</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>2010.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>21.5</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>II</td>
<td>20.7</td>
<td>8.0</td>
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</tr>
<tr>
<td>III</td>
<td>20.1</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>IV</td>
<td>19.9</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>2011.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>20.4</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>II</td>
<td>19.7</td>
<td>8.0</td>
<td>12.0</td>
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<tr>
<td>III</td>
<td>19.7</td>
<td>8.0</td>
<td>12.0</td>
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<tr>
<td>IV</td>
<td>19.1</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>2012.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>17.3</td>
<td>8.0</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Source: Statistic report of National Bank of Serbia for 2011

That process, with operational adjustment, contributed to recapitalization of large number of banks in 2011. Full implementation of new regulation is determined for January 2012. By ratio of regulatory capital to risk assets, banking sector of Serbia is on the second place in Central and Eastern Europe region.
Banks profitability during period of 2008-2011 in Serbia had decrease in terms of return on assets by 0.8%, while return on capital for the same period was less by 3.2%. In 2011 with return on assets of 1.3% and with return on capital of 6.1%, banking sector of Serbia belongs to the most profitable in the region. Profit structure indicates that business model of domestic banks is still oriented towards traditional banking operations.

Banking sector is highly liquid, so liquidity risk is least pronounced in the system. At the same time there comes to significant improvement of quality source for financing banks in Serbia, primarily through share growth of long term source, to
a large extent due to activities of National Bank of Serbia to implement of reserve requirements differentiation regarding obligations maturity. Long term sources currently are covering about 70% of all loans.

Financing risk is also reduced, considering that share of short term credit lines from parent banks towards subsidiaries in total banks obligations declined by 12% in 2009 and by 2% in March 2012. However, still remains high presence of financing sources which are obtained from group members, with borrowing respectively, abroad. Change of banks behaviour model which subsidiaries are operating in Serbia, because of lack of liquidity on international market, can influence negatively on capital inflow and financial system stability. Besides, attention is somewhat drawn with incompliance of term and currency sources and loans, because of dinar loans increase and absence of long term dinar sources. Currency deposit structure is mostly unchanged, so foreign exchange (euro) deposits are still dominant source of financing.

CONCLUSION

Banking system in country in transition had strong credit expansion in the period from 2002-2005, which is largely based on banks’ foreign borrowing. The global financial crisis has slowed the growth process of banking system and led to the emergence of credit and currency risk in these countries. The crisis has affected the growth of public debt, which are quite affected companies that have borrowed in the past. The banking systems hit by the crisis are in need of additional capital, because they have with the problem of debt collection. Central banks of these countries are undertaking various measures to maintain a stable financial system.

In the medium and long term development of banking in transition countries is becoming conditioned (level and quality of maturity and currency structure of domestic savings). This structural gap will be very difficult to overcome, not credit input channels of capital through foreign direct investment and remittances will be essential to finance investment and maintenance of financial stability. Structural reforms should be aimed at the development of financial markets for financing of real and public sectors. Besides the national regulations of countries in transition should increase the aggregate savings rate thru activate and development of institutional mechanisms savings through life insurance and pension insurance.

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8 Statistic Bilten of NBS for 2011, p.29
References

[7] Živković B., Comparative analysis of banking system in Serbia and country in region, Pod Lupom 1, page 64, Belgrade, 2011