THE GLOBAL FINANCIAL CRISIS AND ITS EFFECTS ON THE FINANCIAL SYSTEM OF SERBIA

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Abstract. The causes of the global financial crisis and the influence of the crisis to the USA financial system with the special reference to the financial system of Serbia are going to be analyzed in this work.

The genesis of the global financial crisis is presented from the aspect of financial innovations as one of the causes of crisis in the USA. Problematical application of the securitization model is the most responsible for turning the economics crisis into financial one. Thanks to securitization, bad mortgage loans are converted into mortgage securities, which could be found on the stock market. In advance, inadequate ranking of securities as low risk assets and big confidence in the work of rating agencies encouraged risky investments and contributed to the appearance of enormous losses. In addition, regulatory institutions did not react on time in order to avoid spreading of the crisis.

The global financial crisis has contributed to the escalation of economic crisis in Serbia. However, much bigger contribution to that crisis was given by social crisis and bad model of economic reforms that had been implemented for several years. In order to prevent negative effects of the crises to the financial system of Serbia, National bank of Serbia and Serbian Government have taken additional measures pointed to mitigation the consequences of the crisis and making the economic activity more healthier with encouraging the loan activity and keeping the stability of financial system.

Key words: Global Financial Crisis, Serbian economy.

INTRODUCTION

The USA economy is facing the first big financial crisis in the 21st century. It is important to point out that this crisis is much different from the previous crises by its characteristics, causes and consequences that it produced on the world economy and international financial system in particular. Through this paper, a flow of events and actions that have contributed to creating and expanding mortgage credit crisis into global financial crisis were presented. As the increasing number of countries is facing with direct or indirect effects of this crisis it is in the interest of all to undertake the actions to stop further negative effect on their national economies. In addition, some relevant effects on developed countries and Serbian economy have been demonstrated through this paper with set of measurements that have been done and that should be done if we want to step out of this on-going slow and negative growth – in other words recession.

CAUSES OF THE GLOBAL FINANCIAL CRISIS AND ITS INFLUENCE TO THE USA FINANCIAL SYSTEM

During the 80’s of the last century, in the USA was the theory in force, claiming that the state intervention impeded the rapid economic development and, because of that reason, deregulation was something that should be done. The consequence of that was seen in weaken control of the market and financial institutions. Therefore, the crisis was unavoidable. Favorable loans, granted by banks to their clients, led to creating the great demand for real estates that made a pressure on increasing of prices. American Federal Reserves contributed to increasing the real estates prices because of their expansive monetary policy that had been led. The policy of low interest rates that was led in the period of 2001 to the middle of 2005 made the cheep capital to be disbursed into long-term and capital-intensive projects such as real estates.

Debt standard liberalization contributed to disruptions in the USA credit market and in that process the USA went much further than other developed countries. Low level of standard was to be noticed in different dimensions, both in documentation standards while marking credit standing of the debtor and in the way of credit insurance.

Easy obtaining a favorable loan in the USA with an insufficient insurance standard, raised the demand for real estates which was contributing to the increasing the real estates prices, made in that way the mortgage hostages and similar securities to be more attractive, encouraging even a greater investors demand for them which then contributed to the expansion of credits for buying the real estates. Federal Reserve failed to regulate the praxis of crediting the debtors with poor credit potentials and it seems that everybody could have borrowed money from the bank. Greater demand for the real estates increased their price that made banks to be secure in further crediting the clients of poor credit standing bearing in mind that, if the debtor were not capable to repay the loan, the bank would be an owner of the real estate that had big value.

The fact that maybe is not the credit crisis generator but for sure is the most responsible for its turning into the financial crisis relates to the initial problems of the securitization model (Jovin, Račić, Vindžanović, 2009). During the last ten years, loans were largely securitized. Securitization is a process that provides collecting the "fresh" money, reduces the exposure to risk and provides the approach to the capital with lower costs. It considers repacking of loans and emergence of new securities. Since the banking loans represent the inactive part of bank assets until the credit maturity, it is profitable for banks to turn one part of long-term placements into securities that can be quickly cashed. Mortgage loans are to be transposed into so-called pull assets and, allied in that way, they serve as a base for emitting of securities.

The sense of the new securities creating is to provide the banks the secondary liquidity of mortgage loans, further distributing the risk of loan collection, finding some fresh and liquid money and to make risky placements less risky. Selling those securities, on the one-side banks supplied themselves with money that was used for granting new loans and on the other side the investors preferred these securities because they estimated them as relatively reliable investments (almost secure like the state securities). The users of loans mostly did not have any information about securitization, their obligation was to settle obligations according to loan taken. The most often and the most known shape of those securities are mortgage hostages, but there was some other more complex securities with structure of paying in several tranches (Vunjak, 1999).

The securitized securities market was the most developed in the USA and 2/3 of mortgage loans were securitized. In the development of mortgage market and in affirmation of the securitization in the USA, agencies "Freddie Mac", "Fannie Mae" and "Ginnie Mae" were emitting mortgage securities. On the mortgage market in the USA the most significant importance has three state agencies for insurance and mortgage loans granting:

- Government National Mortgage Association or "Ginnie Mae",
- Federal Home Loan Mortgage Corporation or "Freddie Mac" and
- FNMA - Federal National Mortgage Association or "Fannie Mae".

When the real estate prices came to their pick and started to go down, conditions for getting the loan became more tightened and banks had in possession real estates that could not cover the level of the debt. Since the banks clients did not have more money for servicing their obligations, they started to declare bankrupt and the number of real estates that become the property of banks were growing up. Banks in their portfolio had mortgages that were only appearing secure. The real estates, as the object of mortgages, could not be sold or valorized on the market for the amount expected. Thanks to the securitization process that helped mortgage loans to be turned into mortgage securities, bad mortgage loans affected the exchange market.

To decrease the risk of securities emitting, the mortgage securities eminent guaranteed their emission in Insurance Company such as "Fannie Mae" or "Freddie Mac" so that provided the mortgage securities that had bad loans in their bases to get high ratings. As the crisis became wider, the rating of mortgage securities gradually decreased. At the same time, the value of institutional investor's portfolio decreased too, because it contained mentioned securities. For this failure, the most responsible were the rating agencies whose bad estimations contributed this crisis to be transposed from the real estate market to the financial sector. Agencies for those instruments solvency assessment could not have made any realistic estimation of risks contained within complex derivates, based on the real estate and on other shapes of physical assets.

Uncontrolled emitting of securities, based on poor pull quality caused big consequences on the USA financial market. The crisis was at its beginning when it became clear that there existed the big amount of

American banks collectible debts. The loan crisis caused more than 500 billions of the USA dollars of bad loans writing off. Agencies “Fanny Mae” and “Freddie Mac” made a loss estimated to tens of billions of dollars. The financial crisis has been transposed to the rest of the world because financial institutions from the whole globe were buying American securitized securities.

The IMF experts estimate that losses of banks on the global level will be increased up to 2,5 billions of dollars in the period of 2007 to 2010. During the mentioned period of time, the loss of only American banks is recorded in amount of 1,6 billion of dollars while the European Banking Industry negative balance is lower and according to IMF over 737 million of dollars. The analysts predict the total fall of the housing prices in the USA up to 40%. Since the Big Depression, the USA has not recorded such significant decrease of the real estate value (World Economic Outlook, 2009).

It is the fact that inadvertence, discretion rights and big confidence in the work of rating agencies encouraged risky investments and contributed to creating enormous losses without any reaction of regulatory bodies that could stop further spreading of crisis. Stock exchange panic became replaced by banking panic with rapid withdrawal of deposits and with increasing of interest rates. The problem appeared in one part of one country financial sector, has turned to the global problem. The first markets affected by the crisis were in Europe and Asia and that is because a great number of investors from those parts of the world participate on the USA money and capital market.

Although there are some attitudes in the USA that economic activity in other developed countries, firstly in the countries of the West Europe, isn’t slowed by using transmission channels from the USA, that activity in the West Europe is also decreased by the growth of the oil price, tightening loans conditions, crisis in the USA and appreciation of the euro. Japanese economy has showed initially more flexibility but it is also affected by decreasing of export and by the influence of aggravated relations of exchange on the domestic market. Developed countries put an effort to mitigate the load of the crisis by an expansive monetary and fiscal policy with buying the properties of banks and other financial institutions in order to keep the liquidity of the financial market, as well by direct financial support for solving problems of individual institutions insolvency.

THE INFLUENCE OF GLOBAL FINANCIAL CRISIS ON THE FINANCIAL SYSTEM OF SERBIA AND NECESSARY MEASURES IN ORDER TO MITIGATE THE CRISIS

Those countries that mostly participated in the international capital flows and international trade have felt direct and deep consequences of the global financial crisis. Unlike these countries, the developing countries and countries that are passing through the transition process, including Serbia, are exposed to indirect effects of crisis that are manifested through the decrease in solvency, difficulties in building and reforming financial institutions, as well as through slowdown of economic activity. The following table 1 shows example of international capital participation in the banks ownership structure for certain countries.

Table 1: Foreign ownership of financial institutions (% of total banking sector)

Slovakia	97.4
Czech Republic	96.2
Croatia	90.4
Bosnia and Herzegovina	83.3
Bulgaria	80.0
Poland	79.6
Montenegro	78.1
Romania	70.0
Latvia	67.5
Serbia	**60.0**
Hungary	58.9
Macedonia	54.0

Source: Stratford, 2008.

Besides Hungary and Macedonia, Serbia is placed among the three least vulnerable countries, with 60% and less of foreign capital share. Since the less developed countries do not have financial systems that were developed enough, they haven't invested so much in mortgage-based securities and as a result they are facing with indirect influence of crisis.

Reduced world solvency caused reduced capital flows, detracted cross-border borrowing and foreign direct investments, which additionally weakened RSD and decreased foreign exchange reserves. Decreasing of demand should be added to the list of consequences. Because of investment decreasing and smaller export revenues it is realistic to expect further work places reduction.

An initial advantage compared to the other countries in transition were a high level of foreign exchange reserves and restrictive monetary policy which the Central Bank guided in the past period due to bad experience with monetary crisis and hyperinflation in 1990's. Relatively stable and satisfactory rates of economic growth in previous years (rates of economic growth in 2007. was 6.9%, in 2008. was 5.5%) as well as the flow of foreign funds through foreign direct investments, privatization revenues and commercial banks lending have contributed to the improvement of stability in Serbian economy although essentially, sources of economic growth in Serbia weren't really grounded on the export growth and savings but on the flows of foreign capital, consumption of imported goods, privatization income and crediting. However, in 2009 was registered negative growth rate of 3%, while in 2010 was recorded growth of 1.5%.

Domestic product growth of 1.5% in 2010, was based to the greatest extent on foreign demand recovery and lower foreign trade deficit, with positive contribution based on investment growth. It is expected that in this year, Serbia will reach the growth of gross domestic product of approximately 3% based on domestic demand recovery, i.e. on investments primarily. In addition, it is expected lower but still positive contribution of net exports to the growth of economic activity.

Serbia is a country whose banking system operates in accordance with the provisions of Basel Agreement from 2004. Respecting the regular capital requires, supervision and transparency of informing and business, in combination with the restrictive monetary policy of National Bank of Serbia, have led the banking system of Serbia to surviving and subsisting in newly conditions. That influenced return of real sector confidence into banking system, which has triggered the process of savings rehabilitation and relatively renewal of deposit base. In Serbian banking sector, the structure of fund sources is stable and resistant to external influences. Because banking sector in Serbia were less depended on foreign fund sources compared to some other banking systems in Europe, banking stability were significantly depended from domestic funding sources, over 75% of total banks liabilities come from domestic sources, (Izveštaj o stanju u finansijskom sistemu Republike Srbije, 2009). Despite this fact, reduced global solvency and sharp changes at global money markets were reflecting on the domestic banks solvency, primarily because of significant amounts of withdrawals in private foreign exchange savings, which influenced significantly on the foreign exchange solvency.

Despite the fact that cash deposits of citizens are covered by liable reserves due to restrictive monetary policy of NBS, the confidence of citizens was endangered with immediate effect on savings withdrawal from banks. In order to influence the financial crisis effects mitigation, Serbian Government has brought the set of measures with the main goal in encouraging the savings and trading on the stock exchange. The first measure that, in the biggest amount, marked the restoration of confidence in banking system is increasing of the guaranteed level of savings deposits from 3.000 to 50.000 EUR per one stake, in the case of banks bankruptcy. To encourage the savings from the January 01st 2009, there is a temporary cancellation for the tax on income from the interest on foreign currency that is 20%. Also, the tax on capital gains is temporary cancelled, as well as the tax on the transfer of absolute rights in securities. The tax on capital income is 20% and it should otherwise be paid on the difference between buying and selling price of the shares. The tax on the transfer of absolute rights should regularly be paid while selling shares and there is 0.35% to be calculated.

New regulations, which would include all investment funds into the deposit insurance system, certainly would contribute to the further financing sector stability protection, and they would be in accordance with the European Directive. During the global economic crisis, confidence in domestic banking sector was shaken and today has been returned again with total deposits in the banks of approximately around 7.3 billions of EUR, which is above the limit of savings before the crisis. Big role in returning the confidence in the banking system of the country have National Bank of Serbia, Agency for Deposit Insurance and Government of the Republic of Serbia, which after a sudden withdrawal of the part of deposit from the banks during 2009 applied a number of measures that had purpose to return shaken confidence in banks. Also, authorities performed revision of lending conditions, which have to be rigorous in order to decrease risks of placements and revision of the amounts of regular capital, which banks had to provide according to the first pillar of Basel agreement.

Currently, credit activity of banks is stagnating, there are minimal increase towards business crediting and minimal decrease to households crediting. The aim of National bank of Serbia is to keep targeted level of prices and financial stability. Only 24 from 33 banks on the Serbian banking market had matched the criteria of Vienna Initiative according to which banks obligated themselves not to reduce the range of placements in Serbia.

Limit the growth of credit activity in 2010 was in macroeconomic conditions, particularly exchange rate movements, increased risk of collection of receivables and delay in settlement of obligations, the difficulties in the realization of the mortgage as well as inadequate resources for currency structure of banks, given that 95% of savings is in foreign currency.

Apart of obvious effects of granting to the entire economic growth through increased investments and spending, keeping the growth of granting activity depends from policy of funding institutions. Decreasing of credit granting influences on supply and demand on the foreign exchange market, respectively supply of foreign exchange is getting to be lower while demand for them is increasing which results in depreciation of domestic currency. The second consequence of decrease granting is rise of interest rates on credits for households and companies. The final results are reduced activity in real sector, slowing down of the economic growth as well as the higher rate of unemployment.

In order to stop negative trends, Serbian Government and National Bank of Serbia (NBS) have implemented a list of measures related to stimulating the savings, credit activity and export. Central bank has reacted very quickly by relaxing its policy of the required reserve for borrowing abroad, as well as with other measures, which have provided cheaper borrowing abroad to commercial banks. The solvency strengthening had been provided by parent banks. They were very important in timely support for solvency, due to need of providing significant amounts of short - term funding sources in subsidiary banks, although this process have been slowed down in moments when the indicators of liquidity showed signs of strengthening.

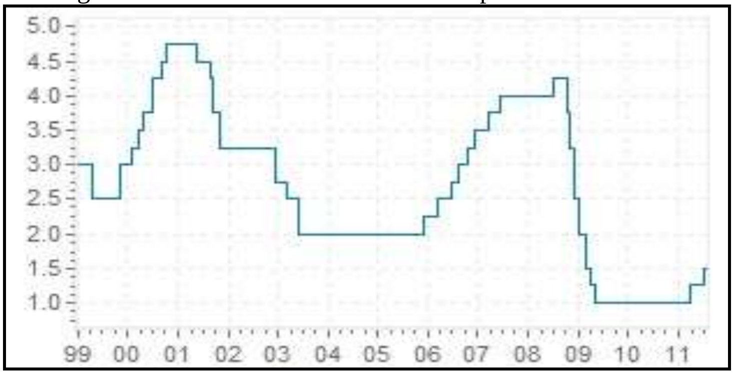
In order to keep the economic growth, apart of listed measures there are some other actions to be taken. Reducing of funding costs is possible to achieve by direct subventions of interest rates. Preserving the existing level of employment is ensured with conditioning credit users to keep at least the same number of employees during the period of credit using and prohibition of dismissal in period of time longer than one year. Demand for domestic products is initiated by state subventions of interest rates to consumer loans directed to purchase products made in Serbia.

Taking care on our private debts, especially on that debt structure toward banking sector, NBS has limited the possibility of taking loans with more regulations. The maximum repayment period of cash credits has been reduced to two years as well as maximum level of debts. That provided slowed growth of credit debts of citizens followed by gradual correction in debt structure, where now, instead of short-term credits dominate long-term and mortgage loans.

During 2010 and 2011 the banks placements growth in Serbia was continued, previously in accordance with domestic sources of financing and foreign currency savings of population in previous year increased for an additional 1.1 billion of EUR. An aim of National Bank of Serbia is in gradually reducing the scope of subsidized loans, pursuant to the agreement with the International Monetary Fund, thus the clients of the banks in the future shall predominantly borrow according to market conditions. In June 2011 National Bank of Serbia rendered a decision requiring that the clients of the banks, for the loan indexed in EUR, have to place a participation or deposit of 20% of the loan amount. The goal of this decision is to reduce the banking system risk arising from high participation of the loans granted in foreign currency or in RSD with foreign currency clause. The goal of this decision is to limit any kind of further borrowing by the citizens in that currency.

Besides significant reducing of referent interest rates of European Central Bank, immediately after the world economic crisis appeared, interest rates on Serbian banking market were rapidly and continuously growing. Next figure presents movement of the referent interest rate of European Central Bank.

Figure 1: Referent interest rates of European Central Bank



Source: http://www.euribor-rates.eu

Serbia is characterized by high referent interest rate (currently 11,5%) and it is decreased comparing 2008. when it was 18%. From 9.5% annually at the end of 2009, a reference rate was being decreased from March to May of 2010 for a total of 1.5% while from August to December was being increased for a total of 3.5%, thus, at the end of 2010 it amounted 11.5% (Izveštaj o stanju u finansijskom sistemu Republike Srbije, 2010). The reason for this is fear of the increasing inflationary pressure that could put in danger macroeconomic stability of the country. The crucial factors that influenced on costs of borrowing abroad were the growth of premiums for risks, since the increased risks of investments in certain countries were important element of entire risk it had impact on active interest rates in banks. Although it was noticed a significant decline of Euribor, banks active interest rates in developing countries that have Euribor in their ground, were not reduced because of the high degree of country risk.

If there was no new wave of the crisis, NBS would additionally decrease the reference rate, however, foreign factors bring a large dose of uncertainty that would make the NBS unserious in making an experiment with the reference rate although many indicators, such as decreasing of inflation, decline in demand and illiquidity in economy, justify its reducing. However, taking into consideration potential implications related to risks in certain developed countries and currency zones, as well as possible fiscal risks in the country, Executive Board of NBS has decided that in this moment, a level of reference rate remains unchanged.

Analyzing the balance sheet indicators of the banks, it is to conclude that the growth of capital in 2008. was slowed, while in 2009 and 2010 did not happen any significant changes. An adequacy of capital, considered as one of the most significant indicator of the banking system stability, has been reduced because of the faster growth of risky assets than the capital growth, but the level of indicators of 21.4% is still above prescribed minimum.

Recapitalization of banking sector in previous years, applied as a consequence of strict demands of NBS and their support in banking sector led to situation where existing supplies were sufficient to alleviate negative effects to portfolio quality, taking into consideration that from the end of 2006 the banking sector capital has been doubled. The banking sector in Serbia was profitable in 2008 and nominal pre-tax profit was 34.9 billions of dinars (RSD). From a total of 34 banks, 26 of them operated with profit, considering that in 2009 there were not any important differences (Izveštaj o stanju u finansijskom sistemu Republike Srbije, 2009). However, in 2009 thirteen commercial banks generated losses. As much as 20 commercial banks in 2009 achieve business results in worse compared to 2008 year. Nominal pre-tax profit was 20 billions of dinars (Izveštaj o stanju u finansijskom sistemu Republike Srbije, 2010).

The regulation of required recapitalization in banks contributed to stability on banking market in Serbia. The high rates of required reserves available to banks in case of problems (40% of the new foreign exchange savings were blocked on special-purpose account in NBS), guaranteed satisfying solvency in banks.

Despite the expressed credit growth, problematic loans are covered by special reserves for estimated looses and bearing in mind high indicator of capital adequacy it can be concluded that credit risk of wider range couldn't seriously bring to the question the stability of the entire banking sector in Serbia. What makes the uncertainty in the current year for the successful banks are the possibilities of the economy and the population that regularly repaid loans, and the willingness of major banks in the placement of funds, which will be a key factor for successful business in the current year.

In order to remove the institutional sources of crisis, it is necessary to make the funding institutions stronger, improve accounting standards for determining the credibility of certain financial instruments, complete and modernize the regular role of financial markets and National Bank of Serbia in order to make banks implement as better as they can the Basel II and to make them manage the credit risks more qualitative.

CONCLUSIONS

The global economic crisis had indirect effects on Serbian economy and had influence to an escalation of economic crisis in Serbia. Nevertheless, much bigger contribution to that crisis has been given by society crisis and bad model of economic reforms, which had been applied for years. Financial sector in Serbia remains stable, despite a number of risks caused by spreading financial crisis to real sector and finance sector. Good capitalization and proactive support measures of The National Bank of Serbia and Serbian government will be crucial points of banking sector stabilization in the future. In order to alleviate the effects of the crisis, it is necessary to continuously measure and manage the risks, especially credit and solvency risks, adequate assessments of losses and timely ensuring sufficient capital level for keeping safety of deposits.

It is evident that current financial crisis means the finish of the finance system that is out of public control and regulative boundaries. The consequences of this crisis are enormous and they go over the possibilities of individual governments, but inside of their limits. The most of countries, including Serbia, undertake some protection measures in economic policy. On the end of the paper it is evident that manhood is going through historical crisis of confidence and solvency in financial systems and their institutions.

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