

## **SIGNIFICANCE AND ROLE OF BANKING SECTOR IN CONDITIONS OF GLOBAL FINANCIAL CRISIS**

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**Key words:** Banking system, banking sector, National Bank of Serbia, financial system, national economy, global financial crisis.

**Abstract:** Mutual connectedness between the banking sector and economic growth also exists in conditions of global financial crisis. In conditions of global financial crisis, it is beyond doubt that sustainability of economy and enterprises is easier, if a stable banking system is provided, and for that reason in this paper we analyze the measures, instruments and activities taken by National Bank of Serbia, as an independent financial institution, within its jurisdiction for preservation of the banking system. However, starting from the expressed mutual dependence of the banking sector and overall national economy, and having in mind the consequences of global financial crises on overall national economy of Serbia, the analysis includes a part of the measures of the Serbian Government, in order to mitigate the consequences and create the conditions for a sustainable economic growth. The measures taken have provided: primarily, that the effects of crisis flow onto Serbian economy more slowly and secondly, catastrophic consequences of global financial crisis on overall national economy have been avoided.

### **1. INTRODUCTION**

Banking sector in Serbia is a part of a banking system which consists of National Bank of Serbia and commercial banks. However, besides restrictive monetary policy that was led by NBS during 2008 and in the beginning of 2009, under the pressure of negative effects of global financial crisis, core inflation in 2008 exceeded the upper limit of the target range of 3-6%, so that in the end of the year it amounted 10.1%. What kind of restrictiveness we are talking about is clear from the data that referential interest rate, which was 10% in January, was increased many times, so that it would reach the level of 17.5% in the end of the year.

Having in mind the fact that Serbia, as well as other countries, has entered the recession in the beginning of 2009 and that gross domestic product has shown a significantly lower growth rate than planned, National Bank was gradually passing from restrictive monetary policy to expansive monetary policy, so that referential interest rate in June of 2009 was at the level of 12%.

With a stable banking sector, in conditions of global economic crisis, certainly the most significant is the participation of NBS in interbank foreign exchange market, when 1.284.700.000,00 Euros were sold in order to ensure smooth functioning of foreign exchange market and mitigate great daily fluctuations of dinar, which has led to the increase of foreign currency liquidity of banks, in conditions when it has come to the withdrawal of foreign currency savings of nearly a billion Euros or 17% of total savings [1]. In order to increase foreign currency liquidity of the banking sector, NBS has released the banks from paying obligatory reserves in case of borrowing abroad, by which borrowing became much cheaper.

In addition, NBS has signed an Agreement on targeting the inflation with Serbian Government, by which it has provided the preconditions for negotiating about the new arrangement with International Monetary Fund, as well as for the agreement with foreign banks to ensure that they do not reduce their exposure in Serbia.

In future work, the analysis will be aimed at efficiency and concentration of banking sector, by measures of NBS and Serbian Government, as well as the evaluation of the measures taken within banking system in order to sustain national economy.

## 2. EFFICIENCY AND CONCENTRATION OF SERBIAN BANKING SECTOR

Banking sector in Serbia has a dominant role in financial system with participation of 89.3% in the total assets and it is a key factor of stability of the financial system (Table 1).

Structure of financial system  
(in billions of dinars)

	2007			2008	
	No.	Total assets	Share	No.	Total assets
-					
Share.					
-					
Banking sector	36	1.563,75	90,2	34	1.776,95
89,3					
Financial lessors	17	95,30	5,5	17	122,60
6,2					
Insurance company	20	70,60	4,1	24	84.80
4,3					
Voluntary pension fund	7	3,05	0,2	10	4,64
0,2					
Total	80	1.732,70	100,00	85	1.988,90
100,00					

**Source:** NBS

However, the share of total assets of financial organizations, which are controlled by NBS, in GDP is 72.6% [2].

Special significance for the analysis of the role of Serbian banking sector in conditions of global financial crisis is, certainly, ownership structure of the banking sector in 2008 (Table 2.).

The share of foreign-owned banks in total assets is 75.3% and it is more than three times higher in relation to the share of banks with majority domestic capital, which is 24.7% (share of banks with state capital is 16% and share of banks with private capital is 8.7%), while the share of foreign-owned banks in total capital of banking sector is 73.7% and the share of banks with majority domestic capital in total assets of banking sector is 26.3% (14.2% is the share of banks with state capital and 12.1% is the share of banks with private capital).

The process of enlargement is continued, so that the biggest five banks have a share of 46% in total assets and credits and 50% share in total deposits (Table 3).

Increase of the share of the first five banks in total assets is the result of redistribution of deposits in overall banking system, so that an increase of total assets was recorded in these five banks.

An indicator of the concentration degree in one market is ratio of concentrations and it expressed market participation of a particular number of banks that operate in the market (Table 4).

Ownership structure of the banking sector in 2008  
(in billions of dinars)

Share(%)	Total assets	Share (%)	Capital
-			
Banks with majority domestic capital: 26,3	438.275	24,7	110.514
- state 14,2	284.333	16,0	59.621
- private 12,1	153.942	8.7	50.892
Banks with majority foreign capital 73,7	1.338.644	75,3	309.373
total 100,00	1.776.919	100,00	419.887

**Source:** NBS

Order of banks by values of total assets in 2007-2008  
(in billions of dinars)

Total assets	31 <sup>st</sup> December 2007.	31 <sup>st</sup> December 2008
--		
Total assets	Numb. of banks	Total assets Numb.of banks
Over 100.000 820.385	4	632.560 5
From 50.000 to 100.000 516.903	8	525.822 7
From 10.000 to 50.000 404.170	15	327.301 15
Up to 10.000 35.461	8	46.139 7
Total 1.776.919	35	1.561.822 34

**Source:** NBS

Market concentration: Shares of banks in total assets of banking system  
(in %)

	31 <sup>st</sup> December 2007.	31 <sup>st</sup> December 2008.
<b>Share in total assets</b>		
The first bank	11,3	14,1
First five banks	44,6	46,2
First ten banks	66,3	68,5
<b>Share in credit assets</b>		
The first bank	10,3	15,3
First five banks	44,2	65,7
First ten banks	66,4	68,3
<b>Share in deposit potential</b>		
The first bank	12,9	13,9
First five banks	48,1	49,8
First ten banks	68,7	71,7

**Source:** NBS

The first five banks in Serbia have a share of only 46.2%. In countries such as Belgium, the Netherlands, France, that share is bigger, while the leading five banks in Croatia cover 80% of the market. By analyzing our banking system, it can be concluded that the value of this ratio is constantly increasing. If this trend continues in the future period, the first ten banks in our system will take the monopolistic position in the market. However, there is competition between banks in the banking market. One of the most prominent indicators of competition is Herfindal Hirschman (HH) index, which can be defined as the sum of squares of individual share of banks in total assets of the bank. If the value of HH is smaller than 1,000, it is about perfect competition in the market, if the value of HH index is between 1,000 and 1,800, we are talking about markets with the characteristics of oligopolies and if the value of HH index exceeds 1,800, it is about monopolistic markets.

Movement of the value (HH) of market concentration of total assets, credit and deposits is shown in Table 5.

Concentration degree (HH)

	Total assets	credit activity	deposit potential
31 <sup>st</sup> December 2007.	578	587	659
31 <sup>st</sup> December 2008.	629	644	696

**Source:** NBS

A complete image about the concentration of Serbian banking sector will be obtained if it is compared with the data on the concentration of banking systems of 25 selected countries from Europe, America, Asia and Australia. The analysis was done on the basis of indicators that are most frequently used in these analyses: number of banks in

a system, market share of the three largest banks and the market share of the ten largest banks and the value of Herfindahl-Hirschman's concentration index (HH index) [3].

Measured by HH concentration index, the banking sector of Serbia is in a group of low concentrated banking sectors, with more unfavorable values than USA, Luxemburg, Germany, Italy and France, and it is on par with Japan and Great Britain.

### **3. BANKING SECTOR AND ECONOMIC ACTIVITY**

A stable banking sector implies the accomplishment of monopolistic profit, which is protected by restrictive norm for entering the banking market, so there is an increasing number of the supporters of economic policy with the attitude that a stable banking system raises the efficiency of the financial system and the performance of economic system, simultaneously [4].

Macroeconomic significance of the stable banking sector comes from the fact that a higher interest range influences the economic activity in a similar way as the increase of tax burden to depositors or credit clients of the banks [5].

High interest margins in Serbian banking have influenced the insufficient investments in other sectors of economy. Interest margin was the main motive of foreign banks in decision-making and all the other motives, such as: unused credit potential, high competition in home market, need for new clients, were at the second place [6].

In conditions of global financial crisis, NBS has determined a minimum of standard conditions that will be applied from the 1<sup>st</sup> September 2009, which the banks will apply in relation to clients. According to those regulations, the bank will be obliged to determine the following for each loan:

- Currency in which the loan is indexed, as well as the rate at which granting and collection of loans will be calculated,
- Height and type of interest rate (fixed or variable),
- The way of calculating interests, deadlines, terms, and the way of changing the components of the variable interest rate during the use of loan,
- Terms of early repayment and the way in which fees will be charged

However, in order for our banking sector to be able for its new role in the control and allocation of resources, the problem of credit rationing that burdens our credit market needs to be solved [7].

## **4. MESURES OF GOVERNMENT AND NATIONAL BANK OF SERBIA FOR CRISIS MITIGATION**

### **4.1. GLOBAL FINANCIAL CRISIS AND SPILLOVER OF EFFECTS ONTO SERBIAN ECONOMY**

In case of the crisis, the fall of prices in financial market is conditioned by a decline in demand for securities. In such a situation, the investors want to find an exit from their positions as soon as possible so that they could preserve the invested and by that, this process transfers to the economy and companies whose securities are listed on exchanges, and thus they lose the possibility of further financing, their growth is slower and, very frequently, there is a reduction of production. And having in mind that the easiest is to fire the employees or cut their wages, it results in the reduction of already meager demand for products, thus leading the economy to recession [8].

The crisis of the mortgage marker in the USA has occurred in the same way.

Great indebtedness of USA citizens, as well as noticeably lowered criteria for granting credits to citizens for the purchase of real estates, have led to a noticeable and accelerated growth of the prices of real estate in the American market. Transforming the non-quality mortgage loans into securities, which they have offered in the market, the previously indestructible financial giants have endangered the stability of entire financial system [9, 10].

IMF has presented a bleak evaluation of negative effects of global economic crisis in 2009. They predict that the consequences of serious economic crisis will also be a mass escape of investors from developing countries, that there will be a dramatic increase of unemployment and that the world trade will be reduced by 11% [11].

The external debt of Serbia was 21.7 billion of Euros in November 2008, which is a growth of about 3.9 billion of Euros since the beginning of the year. According to the data of NBS, in Serbia in 2009, there were 56,158 economic entities that were illiquid out of the total number of 320,000 [12].

The inflow of foreign currencies from selling the companies to foreigners and the inflow of Greenfield investments are also noticeably reduced, which is a consequence of global economic crisis, as well as very low credit rating if Serbia. The inflow of foreign currencies from current transfers is also reduced (by about 6.6%) and it was particularly reduced in the field of export of goods and services – by about 21.2%; it is difficult to prove, but there is a number of indicators that show that a significant amount of speculative foreign capital was withdrawn from Serbia.

If it weren't for the global economic crisis in the last quarter of the previous year, deficit of foreign trade balance and deficit of the current account of balance of payments in that year would be even greater [13]. All of that has largely, directly or indirectly, contributed to the reduction of industrial production by almost 20% in the first three months, in relation to the same period of the last year [14].

#### **4.2. GOVERNMENT MEASURES AGAINST GLOBAL FINANCIAL CRISIS**

In order to mitigate the effects of global financial crisis, Serbian Government has adopted a set of measures. The first one is the increase of state guarantees for savings from 3.000 to 50.000 Euros per a deposit, in case that a bank goes bankrupt. In order to encourage the savings, from the 1<sup>st</sup> January 2009, the tax on interest income for foreign savings that amounts 20% was temporarily suspended. Temporarily, until the end of 2012, the capital gains tax and the tax on transfer of absolute rights in securities will also be abolished.

After the first set of measures for encouraging domestic savings and trading in the exchange, adopted in the end of the last year, Serbian Government has adopted additional measures for mitigating the effects of global economic crisis and reviving economic activities in January and February.

**For subsidizing interest rates for loans** for maintaining the liquidity and financing the constant working capital, two billion dinars were provided from the budget in 2009. Interest rate is 5.5% at most. Loan users cannot reduce the number of employees in relation to the average that they had in the last quarter of 2008, while they are using the loan. Development Fund will subsidize the amount of the interest 5% at annual level.

**For co-financing loans for investments** in 2009, there were 5 billion dinars provided in the Development Fund. Development Fund will participate in co-financing of each individual loan with 30%, and the bank will enable a placement of 70% from its own sources. Guarantee Fund will guarantee 75% of banks' placements. Loans are provided with the application of currency clause, with the maturity from 3 to 5 years, with grace

period from 6 to 12 months. The interest rate on the invested assets of the Fund is 1% annually. The highest interest rate for loan user is about 6% per a year.

**To subsidize interest rates for consumer loans**, i.e. financial leasing, for the procurement of certain consumer goods produced in Serbia, through Development Fund, one billion of dinars from the budget was provided. Consumer credits are granted through the banks and financial leasing of automobiles through the lessor with the application of currency clause with the maturity up to 7 years and up to 5 years for agricultural mechanization, furniture and household appliances. Development Fund will transfer the subsidized amount of interest to the bank in advance, i.e. to the lessor in the amount of 5% per year on the unpaid part of the credit, i.e. leasing, for each year.

**Our country counts on monetary assets from international institutions** in 2009. Already implemented or in the process of negotiation, the amount of financial assets, whose inflow into Serbian economy is certain and it was assessed on about 6 billion of Euros and it includes:[15]

- Stand-by arrangement with IMF in the amount of 2.94 billion of Euros
- Funds of the World Bank in the amount of 900 million of Euros, including the construction of the Corridor 10
- Funds of European Investment Bank amounting to 250 million of Euros for supporting small and medium enterprises
- EU funds amounting to 120 million of Euros for supporting the budget from pre-accession funds
- Loans from European Bank for Reconstruction and Development of particular governments and commercial banks.

#### **4.3. MEASURES OF THE NATIONAL BANK OF SERBIA IN CONDITIONS OF GLOBAL FINANCIAL CRISIS AND BANKS' ACTIVITY**

In order to mitigate the existing pressures, the national Bank of Serbia has adopted a number of measures primarily aimed at improving the foreign currency liquidity of banks, during the last quarter of 2008 and in the beginning of 2009. Firstly, by changes to the Regulation on calculation of obligatory foreign exchange reserve, the following was introduced:

- (a) possibility of choosing a more favorable date for the base of allocating foreign exchange reserves on foreign exchange savings,
- (b) banks are released from allocating obligatory reserves on new debts on the basis of deposits and loans received from abroad and
- (c) the share in dinars in case of allocating foreign exchange obligatory reserve was increased from 20% to 40%.

Secondly, in order to improve foreign currency liquidity of banks and mitigate excessive daily oscillations of dinar, the National Bank of Serbia has sold 895 million of Euros in international foreign exchange market in the last quarter of 2008.

Thirdly, in order to additionally encourage the credit activity of banks, the obligation of forming a reserve for general banking risks in case of the growth of balance sheet assets and off-balance items over the year, for more than 15%, was abolished for the next two years.

Fourthly, when calculating and maintaining the ratio of gross placements to population/capital, the banks are released from the payment of penalties if the ration value is exceeded (150%) because dinar's depreciation, while loans meant for agriculture and entrepreneurs are excluded from the category of gross placements.

Fifthly, the indicator of foreign exchange risk was reduced from 20% to 10%, i.e. overall open foreign exchange position of the bank (ratio of foreign currency assets and liabilities) in the end of each working day can be higher than 10% of its capital. This measure was supposed to contribute to the reduction of bank's exposure to foreign currency risk, with the reduction of depreciating pressures due to the increase of the supply of foreign currencies in international foreign exchange market.

In February, a set of measures aimed at encouraging credit activities of banks was adopted.

Firstly, the indicator of gross placements granted to population, i.e. the ratio between the placements granted to population and primary capital was increased from 150% to 200%.

Secondly, as a support to the Program of measures of Serbian Government for neutralization of effects of global financial crisis, the decision was made for the loans, which were granted according to the Program by banks to companies (for investments) and population (for purchasing durable consumer goods produced in Serbia), to be excluded from the base for calculating the obligatory reserve.

Thirdly, banks have been given an opportunity to prolong the repayment of cash loans that were granted before 30<sup>th</sup> September 2008, up to 12 months from previously determined due date, with the condition that they are converted to dinars and with no additional costs for the debtor in relation to the extension of repayment, i.e. conversion of the loan to dinars.

Fourthly, the banks no longer have the need to require payment of deposits from physical entities in the amount of 30% of loan value (for claims disbursed in the beginning of 2009), having in mind that National Bank has released them from the obligation that in case that those deposits, i.e. down payments, aren't paid, such liabilities are classified as worse.

## **5. EVALUATION AND EFFECTS OF MEASURES ADOPTED**

Measures of NBS have contributed to the preservation of price and financial stability, the stability of dinar and preservation of foreign exchange reserves, but there is a danger of the spillover of crisis from the real into the financial sector. Number of enterprises that are late with loan repayment for more than 90 days was doubled in the last 6 months. By the analysis of the Committee on Banking of Serbian Chamber of Commerce, there is an increasing number of companies that are late with loan repayment, and it is estimated that each month they are by 1.1% more late.

There are a few ways in which banks sense the irregular loan repayment: 1) negative effect on their capital adequacy, which puts into doubt their ability to fulfill the obligations in the long run; 2) bank's business result, because the bank does not charge interests or fees on problematic loans, and thus the bank revenues are also reduced and 3) endangering of bank's liquidity, because the inability of charging the loans automatically implies the inability of banks to recover the money that was borrowed. According to the data of NBS, the reservations have been increased almost by 16% since the beginning of the year, from 93.1 billion of dinars to 107 billion in the end of April 2009. In relation to September 2008, reservations are increased almost three times. In the end of September, they amounted 38.1 billion of dinars.

Because of such a situation in banking sector, it is necessary: 1) to continuously measure and manage the risks, especially loan and liquidity risks; 2) frequent and conservative assessment of losses and 3) timely provision of the sufficient level of capital for preservation of deposits' security.



## 6. CONCLUSION

In order to provide the stability of the banking system and strong relations between banking sector and economic activity of Serbia, it is necessary to do the following:

- to ensure the entrance of new banks to domestic market, in order to increase the competition in banking sector,
- number of banks is not an indicator of the fact whether there are many of them or not, but it is the indicator of the capital that they dispose with. For example, our banking sector has total capital of about 5.5 billion of Euros, while the capital of the Zagreb Bank is 11 billion of Euros,
- the competition in the sphere of financial services should be strengthened by affirmation of financial market,
- enlargement processes of banking sector should be controlled and the limitation of competition in the field of financial services should be prevented by anti-monopolistic measures
- the owner cannot register a new form before he has put out the old one in a regular procedure. The claims of banking sector and other creditors will not (or it will be rather difficult) be charged from the property of the company that is blocked. By opening new companies and without respecting previous procedure about closing a company whose account is blocked, and having in mind that it is about a mass occurrence, can endanger the stability of banking system.

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