Central bank in managing financial stability and economy in Bosnia and Herzegovina

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Received: 10 Aug 2009 **Accept: 5 Sep 2009**

Abstract

Financial system of B&H is "bank dominated", which means that banks (credit institution) is dominated financial institutions in the financial system. Banks have major role in financial intermediation process between deficit and surplus money unites. Having on mind specific features of financial systems in Bosnia and Herzegovina it's important to analyses characteristics each segment of financial system, specially banking sector, and identify which elements can have impact on stability and safety of financial sector. Only stabile financial system can ensure real economy stability. Indirect role in stabilisation national economy have central bank through managing financial stability and cooperating with national government.

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Currency board system put some barriers on central bank role in managing financial stability. So author in this paper will be analyses structure of BH financial system, to identified internal and external risk in banking sector, role of CBBH in managing financial stability, and analyses possible solutions in field of monetary policy and supervision for that purpose.

Keyword: Financial system, currency board, central bank, monetary policy.

JEL: G18, G21; G32; E58

1. Introduction

Banks in undeveloped financial systems, like as the financial system in Bosnia and Herzegovina (BH), have an important role in financial intermediation between creditors and debtors, implementation of monetary policy and improvement and growth of financial market. Financial system of Bosnia and Herzegovina is “bank dominated” system. Level of financial market development is one of the key presumptions of economic growth, but in changing environment for small, undeveloped financial system open to foreign capital can have negative effect on national economy. Especially problems in banks can have impact on all other segment in financial system (managing financial stability) and indirectly on real economy. Financial stability is defined as ability of financial system to absorb shocks with significant negative impact on financial system current and future operating and upon economy. Managing financial stability in financial system of BH is hard. There are two reasons that confirms this statement: currency board and role of central bank in that monetary regime and territorial organization of BH. Table 1 shows banking and non-banking financial institutions assets in total assets financial sector in Bosnia and Herzegovina.

Table (1): Financial institutions asset in Bosnia and Herzegovina (in %)

	2004	**2005**	**2006**	**2007**
Banks	75.0	81.0	79.6	79.9
Insurance company	4.9	4.7	3.7	3.3
Privatisation investment fund	18.0	12.0	8.5	7.2
Micro credit organisation	1.7	4.9	2.6	3.9
Total assets of financial sector	100.0	100.0	100.0	100.0

Source: Central Bank Bosnia and Herzegovina, Annual Report 2007, Sarajevo

In 2007, 83 percent of total capital in banking sector was foreign-owned. All ten banks in Republika Srpska in B&H (RS) are privately-owned. In entity Federation Bosnia and Herzegovina (F BiH) 78% of banks was in private ownership (table 3.). Banks in foreign capital ownership had share in total assets of banking sectors 93%. More than 50% foreign capital in B&H comes from Austrian banks.

Table (2): Basic indicators of banking sector Bosnia and Herzegovina (in %)

Indicators	**2003**	**2004**	**2005**	**2006**	**2007**
Banking intermediation	48.2	58.7	69.3	76.8	93.8
Foreign capital in total capital	66.4	69.6	67.0	73.0	83.0
ROAA	0.7	0.7	0.7	0.9	0.9
ROAE	6.4	5.8	6.4	8.5	8.9
CR3	40.1	56.6	46.3	43.5	40.8
CR5	51.2	61.7	59.3	59.3	56.7
HHI	655	808	919	926	890

Source: Banking Agency Federation of Bosnia and Herzegovina, 2007: 11; Banking Agency Republika Srpska, 2007: 3

If we know that intermediation of complete financial sector in 2007 was 117% of GDP than is obviously how banking sector dominate in financial system of Bosnia and Herzegovina. According to data from table 2 we can conclude how banking sector in B&H record:

- Increasing foreign capital in ownership structure of banks
- High profitability measured with ROAA and ROAE
- Reasonable concentration of assets (concentration ratio – share three and five the biggest banks in banking sector assets), while in loans sector increasing to boarder of high concentrate market.

Total banking sector asset in Bosnia and Herzegovina amounted 9.9 billion euros at the end 2007 what present increasing for 32.8% in comparison with previous year (CBBH, 2007: 67). In the structure of banks assets dominate credits and in structure of liabilities deposits. Such a structure shows that banks in Bosnia and Herzegovina are still "credit-deposit" financial institutions, without developed investment function. Total loans amounted 6.2 billions euro at the end of 2007, while total deposits reached 6.2 billions euro. In the structure of deposits dominate short-term deposit (61% of total deposits). However, they developed some new activities (e.g. leasing, custody, bankassurance).

Non-banking sector is relatively undeveloped. In Bosnia and Herzegovina few resent years we record development other sub-sector of financial system. In first place we talk about financial markets, investment funds, and leasing, insurance and micro-credit organizations.

In 2007 there were 26 insurance companies that are 9 insurers more than in 2005, with the share in the financial market gradually declining, totalling 3.3 percent of GDP in 2007. The leasing market experienced significant growth in the last few years. On BH territory operate in 2007 10 leasing companies. In 2007 they negotiate 7.031 leasing contracts, and realized total value of leasing about 388 millions euro, it's 62% more comprised with previous year. On credit market significant role has micro credit organizations. Micro credit organizations supply with micro credit legal entities which can't satisfy criteria for getting bank's credit. On the end 2007 in B&H were 24 licensed micro credit organizations. Assets in these institutions were 485 millions euro. The major part of outstanding loans was retail credits.

Two capital markets in Bosnia and Herzegovina Sarajevo Stock Exchanges (SASE) in Federation Bosnia and Herzegovina and Banja Luka Stock Exchanges (BLSE) in Republika Srpska began to operate in 2002. Over the three last years both capital markets experienced significant increase in number of trading companies, turnover, market capitalization, and main markets indexes. At end 2007 market capitalization on Sarajevo Stock Exchange (SASE) increased for 36.07%, while on Banja Luka Stock Exchange (BLSE) increased for 3.87%. In

2007 come to transformation privatization investment funds in investment funds and opening possibilities for creating common equity funds. Future of investment fund is determinate with process of pension fund reform. In 2007 in B&H operate 34 brokers' houses. Begin 2008 two entities capital markets subscribe agreement about regional cooperation with capital markets in other countries of ex-Yugoslavia.

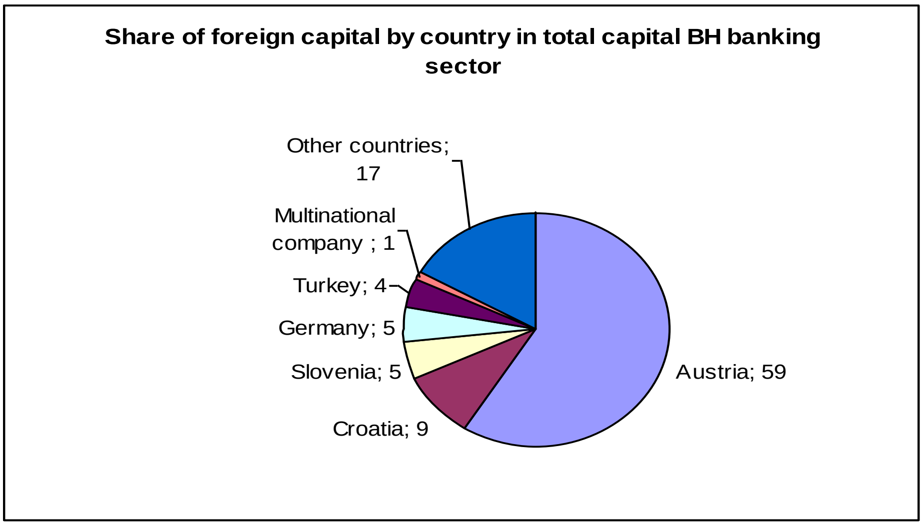
According data above presented it's obvious that financial stability in BH is determinate by stability and safety in banking sector. This situation is common to all transition countries request identification and managing problems in baking sector. That is way to ensure financial stability for all financial system.

2. Internal and external risks in financial system

Bosnia and Herzegovina has a complex social order. Dayton Peace Agreement from 1995 has organized this country in two entities and in one district. In Bosnia and Herzegovina regulation and supervision of financial system has been divided between entities, implemented by the Banking Agencies, Offices for insurer's supervision and Ministry of Finance, the one in the Federation BiH and the other in the Republika Srpska. They conduct financial regulation and supervision in the name of the entities and they are independent in the conduct of financial supervision. Practically Bosnia and Herzegovina has got a dual and a separate system of regulation and supervision on entities level. It is possible, that in this situation, two separate and independent agencies can bring different roles for the regulation and procedures for supervision. Impossibility to provide the unique regulation for banks on whole territory of the state is first internal risk in financial system. On the other side major part of financial intermediaries (majority of large banks are doing business over the entire territory of country through networks of branches work) on complete state territory doesn't supervise unique supervisor because supervision has been divide between entities agency that present second internal risk. High degree of foreign capital in banking and non-baking sector in financial system of Bosnia and Herzegovina make extremely high vulnerability and it is necessary for BH to continue the adoption of the international standards in the supervision domain that is third internal risk.

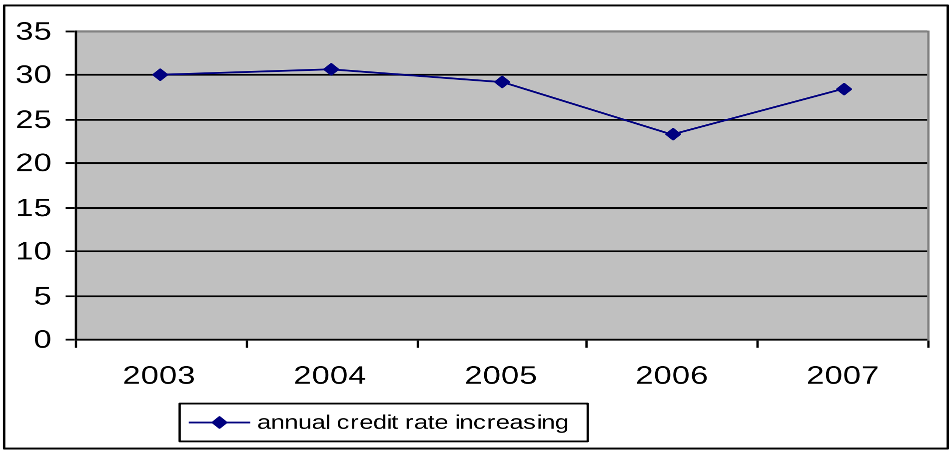
Domination of foreign capital (major from west European countries) in the banking system raised the question of supervision of domestic banks in international banking group (graph 1). Right and obligation for supervision has country in which bank is established «home country». In this situation authorities of BH must develop cooperation and exchanges of information, staff and provide common on site examination and adjusting to standards in bank regulation and supervision in European Union.

Graph (1): Foreign capital in BH banking sector



Credit activities are increasing in last few years, with high share of credit to household in total structure of loans is four internal risks (graph 2). Having in mind currency board limitation in using instruments for monetary policy as a solution for credit expansion, it is necessary to use combination of required reserve and prudential regulation that is five internal risks.

Graph (2): Growth credit portfolio in BH banking sector



Credit expansion and high expose in retail banking, dominance of European capital in banking system, development of non-banking financial institutions, increasing trades on capital markets request improvement supervision framework financial sector transition countries. How these countries can response on currant situation and changes in financial sector? Improve legal and institutional framework? Adopt new organisation structure in supervision?

Risk environment for banks in BH has next internal characteristic:

- dual regulation and supervision
- domination of foreign capital - financial conglomeration and home-host supervision
- increasing credit activities

and external risk for BH banking sector:

- macroeconomic stability

- currency board system – no existing function of “lender of last resort”
- risk contagion.

Activities of financial sector depend from economic activities. Financial institutions are significantly impact by changing in macroeconomic environment. Between major macroeconomic indicators we can chose: growth rate of gross domestic products, balance of payment, inflation, interest rates, foreign exchange rate, credit expansion, increasing/decreasing financial assets price, effect of contingent (Evens, Leone, Gill, Hilbers, 2000, 10-12). Table 3 present mactoeconomic indicator for BH in period 2000-2007

Table (3): Macroeconomic indicators for BH, 2000-2007

Indicators	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
GDP rate (in %)	4,5	4,5	5,5	3,0	6,3	3,9	6,7	6,0
GDP per capita (u USA $)	1.337	1.397	1.614	2.184	2.607	2.800	3.181	3.802
Inflation (u%)	4,8	3,1	0,4	0,6	0,4	3,7	7,4	1,5
Budget deficit (u %GDP)	-6,5	-3,3	-0,2	0,8	-1,1	-0,09	2,9	
Deficit balance of payment (u %GDP)	-7,8	-14,1	-19,1	-19,4	-16,0	-18,0	-8,4	-13,1

Source: Central bank of Bosnia and Herzegovina, Annual report, 2007, Sarajevo, pp.134

Through macroeconomic analyses we can determinate problems, risks or benefits and possibilities for financial sector operating. Decreasing rate of growth GDP can means decreasing credit standing bank’s clients or increasing credit risks in bank’s balance sheet. Same effect had failure problems in individual industrial sector. Domestic risk for financial stability also is identified in BH fiscal position, significant rise of budgetary beneficiaries and a current account deficit financing. In BH as result of financial crises we identified problems in metal industry, industry of lather and etc. Increasing deficit in balance of payment indicate foreign capital inflows and indirectly credit booms. Financial stability in country can be determinate by structure and maturity of direct foreign investments. With inflation in country we have volatility of financial assets prices, credit standings borrowers and volatility of collateral value. These entire events can result with problems in financial institutions liquidity and solvent position.

The BH banking sector is mostly capitaly relate to banks from Austria and Italy, which increases risk of transmission of shock from abord. The debit to the mother-banks' deposit make two thirds of the banks' total foriegn debit which again indicates the high exposure of the banking sector to change of banks' business policy primarly from Austria.

3. Role of central bank in managing financial stability in Bosnia and Herzegovina

Parliament of Bosnia and Herzegovina 1997 established Central bank of Bosnia and Herzegovina (CBBH). The main goals and tasks of the Central Bank are defined by the Law and in accordance with the General Peace Agreement in Bosnia and Herzegovina. CBBH maintains monetary stability by issuing domestic currency according to the Currency Board Arrangement with full coverage in freely convertible foreign exchange funds under fixed exchange rate 1 KM: 0.51129 euro. CBBH have must achieve the stability of domestic currency. The basic tasks of CBBH are (Low, 1997):

- Formulate, adopt, and control the monetary policy of Bosnia and Herzegovina
- Hold and manage the official foreign exchange reserves of the central bank in a safe and profitable way

- Support and maintains appropriate payment and settlement systems
- Co-ordinate the activities of the BH Entity Banking Agencies which are in charge of bank licensing and supervision.

With aim to formulating and implementing monetary policy CBBH don't have possibility to manage with monetary policy instruments in relation to other central banks. Reason for that position of CBBH is pure (orthodox) currency board system. A currency board is a monetary institution that issues notes and coins fully backed by a foreign "reserve" currency and fully convertible into the reserve currency at a fixed rate and on demand. The reserve currency is a convertible foreign currency or a commodity chosen for its expected stability. The country that issues the reserve currency is called the reserve country. Table 4 lists differences between currency board and a typical central bank.

Table (4): Differences between typical currency board and central bank

Typical currency board	Typical central bank
Fixed exchange rate with reserve currency	Pegged or floating exchange rate
Foreign reserves of 100 per cent	Variable foreign reserves
Full convertibility	Limited convertibility
Rule-bound monetary policy	Discretionary monetary policy
Not a lender of last resort	Lender of last resort
Does not regulate commercial banks	Often regulates commercial banks

Source: Adopted from Hanke, S., Schuler, K., Currency Board for Developing Countries-A Handbook, Institute for Contemporary Studies, San Francisco, USA, 1994, Access from http://www.users.erols.com/ currency/icegrev.html

CBBH has limited possibility to use monetary policy instruments. CBBH can’t provide function of “lender of last resort”. Only reserve requirement is instrument of CBBH available for managing bank’s liquidity and restrict its credit activities. Through reserve requirement rate manipulation and changing requirement base in process of calculate reserve requirements CBBH manage with financial stability in banking sector of BH. Increasing in reserve requirements can be use in useful in one-off sterilisation of excess or otherwise inject liquidity. In table 5 we show changing in reserve requirement rate in BH in period 2000-2005.

Table (5): Manipulation of reserve requirement rate in BH 2000-2005

month, year of change	Reserve requirement rate - % change Reserve requirement base
1. January 2000.	5
1. January 2001.	5
1. January 2002.	10↑
1. June 2003.	5↓ expanding base on deposits in foreign currency
1. September 2004.	7,5↑
1. December 2004.	10↑
30. November 2005.	15↑
28. November 2006.	18↑
18. October 2008.	14↓
1. January 2009.	differential reserve requirement 14 - for deposits with maturity to 1 year 10 – for deposit with maturity from 1 year

Credit activities are increasing in last few years, with high share of credit to household in total structure of loans. From table 5 we can see activities CBBH in period 2004-2008 in purpose to restrict credit expansion in BH through increasing reserve requirements rate. Having in mind currency board limitation in using instruments for monetary policy as a solution for credit expansion, it is necessary to use combination of required reserve and prudential regulation:

- Expression of concern in official letters to commercial bank
- Informal contact with bank management
- Thin cooperation with other supervisors
- To grow sharp roles about providing «bad» loans
- Prescribe or decreasing loan to household to total loan ratio
- Prescribe implicit credit limits (condition for hypothecs, loans in foreign currency etc.)

Also, with financial crises developing CBBH start to decreasing reserve requirement rate and on that way make easy to commercial bank to deal with increasing need in liquidity. Last change of reserve rate is result of attempt to ensure through banks cheaper money to real economy.

In this situation and with undeveloped money market, banks must ensure adequate liquidity and involve best practise in managing liquidity risk. CBBH must supervise situation with significant reduction of foreign exchange reserves which can negatively impact bank solvency. Developed capital markets can protect the economy from some global financial shocks by providing them stable and secure sources of liquidity. Specially, central bank in cooperation with the Ministry of Finance and public agencies has important role in developing the domestic money market (Treasury bill market) and domestic debit market - government securities market (Živko, Slijepčević, 2006). CBBH with Banking Agency on entity level must continuously supervise expose domestic banking system to condition on home banking markets “contingent risk” and calculate stress test.

Conclusion

Banking industry a resent years in Bosnia and Herzegovina has experienced change. Financial system is banks dominate system with weak non-banking sector. Banking sector is mostly foreign-owned pass through phase of liberalisation, deregulation, and involving of the new technology in it operating. Being the most important monetary institution within national economy, central bank has obligation to create and implement national monetary policy using different tools, instruments and measures.

Functions and operation of central bank are primary determined with existing monetary regime in these countries. But CBBH has different role in banking system than other central banks in South-eastern European region. CBBH operate in system of currency board and has limits in yours discretion monetary policy. Reserve requirement is only instrument in monetary policy in BH. Reserve requirements present channel for managing liquidity of commercial banks and financial stability.

Paper content data about financial system structure, major indicator for banking and non-banking sector, list of internal and external risk in banks operating environment with macroeconomic environment at the end historical review of manipulation reserve requirement rate. Managing financial stability in BH is limited. National authorities must work on improvement existing monetary regime or creating additional channels for helping banking sector. Also for problem in regulation and supervision must find solution. Commercial banks in such environment must careful supervise their liquidity position and kept excess liquidity on own or central bank accounts.

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