Prudential Supervision of Banking: Interrelation between Institutional Architecture and Financial Stability

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Abstract

The article is dedicated to the research of prudential supervision of banking, as one of the key factors of ensuring financial stability. The basics of organization of prudential supervision of banking in current economic circumstances are defined. The practice of foreign counties in organization of prudential supervision of banking is considered. Particular attention in the article is paid to the question of optimal institutional organization of prudential supervision of banking with an aim to ensure financial stability in the country. This paper presents efforts of the author to find out interrelations between institutional architecture of banking supervision and financial stability in the country.

Keywords: banking risks, institutional architecture, financial stability, prudential supervision of banking, prudential supervisor

Introduction

Supervision and regulation of banking is one of the basic conditions to provide financial stability in the country. Historically, necessity in development of banking supervision appeared due to social significance and responsibility of the commercial banks toward society. Simultaneously, prudential supervision takes a special place in system of banking supervision, which is the specific means of monitoring and evaluation of banking institutions' risks.

Consequently, nowadays central importance of prudential supervision of banking in ensuring financial stability is an axiom that does not require any evidence and justification. It is proved by variety of scientific researches all over the world, devoted to the issue of banking supervision and existent practice of foreign countries. Analysis of recent researches and publications has shown that today much attention is paid to the study of nature of prudential supervision of banking. But an open question is specifics in organization of prudential supervision of banking, more generalized – the issue of institutional architecture of this system.

Thereby, taking into account complexity of this issue, we believe it is appropriate to carry out more extensive studies of both theoretical and practical aspects of prudential supervision of banking organization. Thus the purpose of this paper is to identify features of prudential supervision of banking organization in current economic circumstances and define interrelations between institutional architecture of mentioned system and financial stability in the country.

Discussion

Financial stability is a key to sustainable economic growth. Prudential supervision of banking, for its part, has to be one of such factors which can provide stability of banking system and financial sector of the country by using a number of tools and methods of prudential supervision.

Global financial crisis of 2007-2009 has pushed the global financial community to focus on the optimal organization of banking supervision and guarantee stability of banking system.

Effective system of prudential supervision of banking in its essence is a complex of measures aimed to prevent systemic risks in banking sector, and to increase transparency and efficiency of the banking system. In other words, understanding an importance of each banking institution is main condition of effective prudential supervision of banking supervisor. Within this criterion supervisor should focus on assessment of risk management strategy of a bank. Moreover, this process should be continuous and ongoing, because system of risk management of a bank is based on the use of a number of financial instruments. Their quality and appropriateness can fluctuate though.

In terms of effectiveness concept of prudential supervision of banking there could be defined two main aspects in this field.

On one hand, prudential supervision of banking should be organized so that it insured financial stability, maintained appropriate market discipline and favorable business-climate. This means total external effect of supervisory system on systems of higher hierarchical level (financial system, economy of country). All these provide effectiveness of prudential supervision of banking.

On the other hand, prudential supervision of banking should be organized to optimize supervisory process, coordinate activity among all participants of supervisory system with an aim to construct operative and efficient workflow. The idea performs efficiency of prudential supervision of banking.

Accordingly, we have mentioned two aspects of the concept of prudential supervision of banking effectiveness. They both contain result of prudential supervision of banking operation. Research question that we are interested in could be formulated as the following: "Is there any interrelation and correlation between the first and the second criterion? In other words, does internal efficiency of prudential supervision of banking - institutional architecture - influence on its external effectiveness – financial stability?"

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The most appropriate way to answer the question is to research real practice and experience of countries all over the world in organization of prudential supervision of banking systems. Thus, we have chosen twenty counties and have divided them into two groups: developed countries (Belgium, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Spain, United Kingdom, the United States of America) and developing post-Soviet countries (Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Latvia, Lithuania, Russia, Ukraine).

Foreign countries' practice shows that functions of prudential supervision of banking are allocated in central bank of a country, or specially created institutions - supervisory authority. In addition, there could be a single body of prudential supervision of all financial services sector (banking and non-banking institutions), or there could operate a number of prudential supervisors, depending on market segment of financial sector or delegated functions.

Current experience of analyzed countries in practice proves that the countries with lower levels of development and low-income usually delegate function of prudential supervision of banking to central banks. This phenomenon could be explained by the fact that central bank is one of few government agencies, which is inherent by ability to conduct efficient supervision. The presence of single prudential supervisor, represented by central bank, rejected special need for separation of powers and information between multiple supervisors, which is especially appropriate to countries with low levels of development.

In contrast, mentioned practice of organization of prudential supervision of banking is not proper to countries with an experience of recent crisis shocks. In these countries, taking into account unsuccessful experience of central bank to realize its supervisory functions is likely to be carried by the delegation of prudential supervisory functions to independent public institution.

Furthermore, results received by analysis of foreign countries' experience enable us to distinguish a number of general trends of organization of prudential supervision of banking:

- Delegating of prudential banking supervisory functions to dependent state authority is relevant to the countries that have positive experience of good governance and existing quality of controlling mechanisms. Moreover, under these conditions it is possible to distribute supervisory functions between several institutions, such as central bank and other state agency.
- It is appropriate to delegate prudential banking supervisory function to independent state authority if the system of prudential supervision of banking meets criteria of independence, accountability and transparency.
- Prudential supervision of banking led by the central bank is more reasonable to implement in countries with high legal culture, strong legal framework and political stability. Under other conditions, the main criteria of the system of prudential supervision of banking such as independence, accountability and transparency, will not comply fully.

It should be mentioned that it is impossible and meaningless to analyze banking supervision apart from financial supervision in general. Main reason of this point of view is that banking sector is important part of financial system.

In this case it has raised an issue how financial supervision should be constructed. As an answer for this question there is determined specific economic term – institutional architecture of financial supervision. We intend to explain the following: how is constructed financial supervision system, who are main supervisors and how is differentiation of financial regulation done?

In any case the key note is that effective regulation should be designed to promote the safety and soundness of individual financial institutions. In practice there could be defined different models of financial supervision's organization, thus institutional architecture differs according to each of models (Kremers, J.J.M., D. Schoenmaker and P.J. Wierts , 2003). Consequently, European Central Bank identified the same three main supervisory models in its review published in 2010 (European Central Bank, 2010).

Model of single supervisor is the first type of financial supervisory organization. We can also face another term, which is synonym to the above-mentioned one – model of mega regulator or another formulation as centralized model. In this case, all supervisory functions are allocated to the single authority, which covers both prudential supervision and investor protection. Main advantage of this model is ability to centralize all power and supervisory resources in order to maintain appropriate market discipline and favorable business-climate. But at the same time, a single integrated regulator has potential to become a classic monopolistic bureaucracy with all related inefficiencies. In terms of definition this model lacks regulatory competition. Some commentators advocate competition among regulators to ensure that they are challenged to outperform their competitors.

Twin peaks model is the second type of financial supervisory organization. Also it is identified as functional model. Twin peaks model has been referred to regulation by objective, where one agency's regulatory objective is prudential supervision with a primary goal of safety and soundness. The second agency's goal is to focus primarily on business conduct and consumer protection issues. Twin Peaks model may also be an optimal means of ensuring that issues of transparency, market integrity, and consumer protection receives sufficient priority.

The last type of financial supervisory organization is a sectoral or a vertical model. According to this type each sector, such as banking, securities and insurance, is supervised by one separate authority. Advantage of the model is high level of specialization. Disadvantage is diversification of information and necessity to coordinate activity between all supervisors.

Thus, in order to answer the research question we have already deepened into efficiency concept and have defined features of internal financial supervisory organization. But we have found it appropriate to analyze some financial stability indexes and compare results with type of supervisory organization. Accordingly, we have chosen a list of countries and divided them into two groups: developed countries and developing post-soviet countries.

The main characteristics of developed countries in case of organization of financial supervision and their financial stability indexes are presented in *Table1*.

The data in table is based on rating agencies' information. Thus, total S&P rating presents credit rating for sovereign governments by Standard and Poor's. Credit rating is Standard & Poor's opinion on the general creditworthiness of an obligor, or the creditworthiness of an obligor with respect to a particular debt security or other financial obligation. Over the years credit ratings have achieved wide investor acceptance as convenient tools for differentiating credit quality. The agency rates borrowers on a scale from AAA, investment grades are from AAA to BBB, below that (BB to D) are non-investment grades

Table 1. Organization of financial supervision and financial stability indexes of developed countries in 2012

Country	Type of supervisory models			Currency Rating		T&C Assessment	Total S&P Rating
	Sectoral model	"Twin peaks" model	Single authority model	Local	Foreign		
Belgium		+		AA	AA	AAA	**AA**
Finland		+		AAA	AAA	AAA	**AAA**
France		+		AA+	AA+	AAA	**AA+**
Germany			+	AAA	AAA	AAA	**AAA**
Greece	+			B-	B-	AAA	**CCC**
Italy		+		BBB+	BBB+	AAA	**BBB+**
Netherlands		+		AAA	AAA	AAA	**AAA**
Portugal		+		BB	BB	AAA	**BB**
Spain	+			BBB-	BBB-	AAA	**BBB+**
United Kingdom		+		AAA	AAA	AAA	**AAA**
USA		+		AA+	AA+	AAA	**AA+**

Source: (Bank of England, n.d.) (Central Bank of France, n.d.) (Central Bank of Germany, n.d.) (Central Bank of Greece , n.d.) (Central Bank of Italy, n.d.) (Central Bank of Netherlands , n.d.) (Central Bank of Portugal, n.d.) (Central Bank of Spain , n.d.) (Financial Supervisory Authority of Finland , n.d.) (National bank of Belgium , n.d.) (Standard & Poor's, 2012) (One World Nations Online, 2012).

(also known as junk bonds) (One World Nations Online, 2012). Standard & Poor's Ratings Services currently rates 126 sovereign governments and has established transfer and convertibility (T&C) assessments for each country with a rated sovereign, as shown in the Table 1 and 2. A T&C assessment is the rating associated with the likelihood of the sovereign restricting non-sovereign access to foreign exchange needed for debt service. For most countries, Standard & Poor's analysis concludes that this risk is less than the risk of sovereign default on foreign-currency obligations; thus, most T&C assessments exceed the sovereign foreign currency rating. Non-sovereign entity can be rated as high as the T&C assessment if its stress-tested operating and financial characteristics support the higher rating (Standard & Poor's, 2012).

According to the *Table 1* we can see, that current practice of developed countries confirms implementation of all three types of supervisory models. But it is obvious that majority of analyzed countries gives preference to twin peaks model while dividing supervisory functions between two supervisors (Belgium, Finland, France, Italy, Netherlands, Portugal, and United Kingdom). Such functional diversification of supervisory competence could ensure transparency, market integrity and consumer protection. The minority of the sample –Germany – is representative of single-authority model while Greece and Spain have implemented sectoral model.

While talking about developing countries of post-soviet area the data is presented in *Table 2*. In this case we have taken under investigation such post-Soviet representatives as: Azerbaijan, Belarus, Georgia, Estonia, Kazakhstan, Latvia, Lithuania, Russia and Ukraine.

As we can see, minority of the analyzed countries has implemented functional model and majority has given its prefer-

Table 2. Organization of financial supervision and financial stability indexes of post-soviet countries in 2012

Country	Type of supervisory models			Currency Rating		T&C Assessment	Total S&P Rating
	Sectoral model	"Twin peaks" model	Single authority model	Local	Foreign		
Azerbaijan	+			BBB-	BBB-	BBB-	**BBB-**
Belarus	+			B-	B-	B-	**B-**
Estonia		+		AA-	AA-	AAA	**AA-**
Georgia			+	BB-	BB-	BB	**BB-**
Kazakhstan			+	BBB+	BBB+	BBB+	**BBB+**
Latvia		+		BBB	BBB	A	**BBB-**
Lithuania			+	BBB	BBB	A	**BBB**
Russia	+			BBB+	BBB	BBB	**BBB+/BBB**
Ukraine	+			B	B	B	**B+**

Source: (Central bank of Azerbaijan, n.d.) (Central Bank of Estonia, n.d.) (Central Bank of Lithuania, n.d.) (Central Bank of Russian Federation, n.d.) (Financial and Capital Market Commission of Latvia , n.d.) (Financial Supervision Authority of Estonia , n.d.) (National bank of Belarus, n.d.) (National bank of Georgia, n.d.) (National bank of Kazakhstan, n.d.) (National bank of Ukraine, n.d.) (Standard & Poor's, 2012) (One World Nations Online, 2012) ence to the sectoral model (Azerbaijan, Belarus, Russia, and Ukraine). Thus, practice of post-Soviet countries differs from the developed one. But still there are some representatives of single authority model, such as Georgia, Kazakhstan and Lithuania. Talking about Estonia and Latvia, these Baltic States are representatives of twin peaks model and follow preferential European practice.

According to conducted research, post-soviet countries within criterion of institutional supervisory architecture could be divided into two groups: those where the functions of prudential supervision of banking are delegated to the central bank and countries where this competence is transferred to specially created institutions. In addition, there may be a single body of prudential supervision of all financial services sector (banking and non-banking institutions), or there could operate a number of prudential supervisors, depending on the market segment of financial services.

It should be noted that according to the research field the common feature of post-Soviet countries was complete or fractional diligence of supervisory functions to central banks.

Thus, central bank acts as the main body and single prudential banking supervisor in Azerbaijan, Belarus, Georgia, Kazakhstan, Lithuania, Russia and Ukraine.

Prudential supervision of banking in Ukraine is conducted by the National Bank of Ukraine. Particularly, General Department of Banking Supervision implements the main goal - effective banking supervision over banking institutions. In addition, Department of normative methodology of banking regulation and supervision is directly responsible for development and improvement of methodological framework of banking regulation and banking supervision, planning, development and improvement of the mentioned aspects. (National bank of Ukraine, n.d.).

In Georgia, the National Bank of Georgia is the only body of prudential supervision, which includes two main components - prudential banking and non-banking supervision. In turn, banking supervision involves implementation of supervisory functions over banking institutions, while non-banking supervision - over insurance companies, pension and investment funds, credit unions, microfinance agencies, etc. (National bank of Georgia, n.d.).

In contrast to the experience of Georgia, the system of prudential supervision of banking of Azerbaijan is closed to Ukrainian one. Thus, the main and the only prudential banking supervisory authority is the central bank of the country, in particular Department of prudential policies and methodologies. In addition, the central bank has only the function of prudential supervision of banking institutions, and does not reflect its activity to non-banking financial and credit institutions (Central bank of Azerbaijan, n.d.).

While sharing the experience of Ukraine and Azerbaijan, Republic of Belarus also delegates the role of a single body of prudential supervision of banking to the National Bank of Belarus. In the structure of the central bank prudential supervision is conducted by Department of banking supervision, including Administration of remote supervision over system-forming banks, Administration of remote supervision over non-system-forming banks and Administration of macro-prudential supervision (National bank of Belarus, n.d.).

In the Republic of Kazakhstan its National Bank carries out supervision over the financial market as a single mega regulator. In particular, the function of prudential supervision counts on the Committee on financial control and supervision of financial market and financial organizations of the National Bank of Kazakhstan (National bank of Kazakhstan, n.d.).

Russian practice performs a model where all the functions of banking supervision are delegated to the central bank of the country. Particularly, prudential supervision relies on Department of prudential supervision of the Central Bank of Russian Federation (Central Bank of Russian Federation, n.d.).

Simultaneously, Latvia follows the experience of a number of European countries, delegating the function of prudential supervision of banking to authorized institution that is part of the country's central bank under its jurisdiction. Thus, Commission for Financial and Capital Market is an autonomous agency that supervises, including prudential supervision all the participants of the financial sector of the economy (Financial and Capital Market Commission of Latvia , n.d.).

Estonia, in turn, follows Scandinavian countries and distributes prudential supervision of banking function between the central bank of the country and specifically created authorized institution which is independent from the central bank. Thus, the Central Bank of Estonia is given the function of macro-prudential supervision, which is carried out by means of analysis and assessment of systemic risks of the financial stability. Besides, micro-prudential supervising over all the financial sector participants is passed to Financial Supervision Authority (Central Bank of Estonia, n.d.) (Financial Supervision Authority of Estonia , n.d.).

Accordingly, special attention regarding prudential supervision of banking in countries of post-soviet area is paid to the Baltic States: Lithuania, Latvia and Estonia, as the institutional architectures of prudential supervision of banking are different in each of these countries. Also, according to the S&P credit rating we can set these countries into such order: Estonia (AA-), Lithuania (BBB), Latvia (BBB-). Comparing with institutional architecture: Estonia – Twin peaks model (FSA – independent of CB), Lithuania – Single authority model, Latvia - Twin peaks model (FCMC – under jurisdiction of CB).

Thus, Lithuania follows the experience of such European countries as Germany and Belgium, where central bank is concentrating function of prudential supervision over all players of the financial sector, not just banking institutions, and is single regulator of financial system. In turn, Latvia follows the practice of United Kingdom, Italy, Netherlands and France in delegating prudential supervisory functions to specifically created authorized institution subordinated to the central bank of the country, which supervises all financial institutions. The system of prudential supervision of Estonia is similar to Scandinavian countries such as Finland, where prudential supervision of banking divides between the central bank and special independent authority. However, common feature of all three Baltic countries is the fact that prudential supervision is mutual for both banking and non-banking sectors of financial sphere.

Summarizing all the information above, an effective system of banking supervision should have clear responsibilities and objectives for each authority involved in supervision of banks independently from the model of financial supervision and other specifics of institutional architecture. Each such authority should possess operational independence, transparent processes, sound governance and adequate resources, and be accountable for the discharge of its duties (Basel Committee on Banking Supervision, 2006, p. 2).

Conclusions and Propositions

Our research of current global trends has proved the fact that it is totally impossible to build universal institutional structure of prudential supervision of banking in order to provide the highest level of financial stability in a country. The main reason is availability of a number of features due to historical, economic, social and political factors which influence on banking system of each country. Therefore, taking into account given peculiarities, system of prudential supervision of banking should be arranged considering both international standards and national characteristics of financial system of a country.

The main point is that regardless of the type of institutional structure, an efficient system of prudential supervision of banking requires proper understanding by supervisor of operations of individual banks and banking groups, and banking system as a whole. Such activity must be focused on safety, reliability and stability. In other words, the main condition to efficient prudential supervision system's organization is consciousness by supervisor of each banking institution's importance. Moreover, this process should be prolonged and continuous, because system of risk management is based on usage of a range of financial instruments. It quality and appropriateness may fluctuate from time to time.

That is why system of prudential supervision of banking should consider all mentioned features by implementing prudential supervision of banking in order to insure financial stability in the country.

References:

Basel Committee on Banking Supervision. (2006). *Core Principles for Effective Banking Supervision. Basel:* Bank for International Settlements.

European Central Bank. (2010). *Recent developments in supervisory structures in the EU member states* (2007-2010). Retrieved February 2013, from http://www.ecb.europa.eu/pub/pdf/other/report_on_supervisory_structures2010en.pdf.

Kremers, J.J.M., D. Schoenmaker and P.J. Wierts . (2003). *Financial Supervision in Europe*. Cheltenham, UK and Northampton, MA, USA: Edward Elgar.

Bank of England. (n.d.). Retrieved March 2013, from http://www.bankofengland.co.uk.

Central bank of Azerbaijan. (n.d.). Retrieved March 2013, from http://www.cbar.az.

Central Bank of Estonia. (n.d.). Retrieved March 2013, from http://www.eestipank.ee.

Central Bank of France. (n.d.). Retrieved March 2013, from http://www.banque-france.fr.

Central Bank of Germany. (n.d.). Retrieved March 2013, from http://www.bundesbank.de.

Central Bank of Greece . (n.d.). Retrieved March 2013, from http://www.bankofgreece.gr.

Central Bank of Italy. (n.d.). Retrieved March 2013, from http://www.bancaditalia.it.

Central Bank of Lithuania. (n.d.). Retrieved March 2013, from http://www.lb.lt.

Central Bank of Netherlands . (n.d.). Retrieved March 2013, from http://www.dnb.nl.

Central Bank of Portugal. (n.d.). Retrieved March 2013, from http://www.bportugal.pt.

Central Bank of Russian Federation. (n.d.). Retrieved March 2013, from http://www.cbr.ru.

Central Bank of Spain . (n.d.). Retrieved March 2013, from http://www.bde.es.

Financial and Capital Market Commission of Latvia . (n.d.). Retrieved March 2013, from http://www.fktk.lv.

Financial Supervision Authority of Estonia . (n.d.). Retrieved March 2013, from http://www.fi.ee.

Financial Supervisory Authority of Finland . (n.d.). Retrieved March 2013, from http://www.finanssivalvonta.fi.

National bank of Belarus. (n.d.). Retrieved March 2013, from http://www.nbrb.by.

National bank of Belgium . (n.d.). Retrieved March 2013, from http://www.nbb.be.

National bank of Georgia. (n.d.). Retrieved March 2013, from http://www.nbg.gov.ge.

National bank of Kazakhstan. (n.d.). Retrieved March 2013, from http://www.nationalbank.kz.

National bank of Ukraine. (n.d.). Retrieved March 2013, from http://www.bank.gov.ua.

One World Nations Online. (2012). *Sovereign Debt and Credit Rating of Countries*. Retrieved April 2013, from http://www.nationsonline.org/oneworld/country-government-gross-debt.htm.

Standard & Poor's. (2012). *S&P Sovereigns Rating List*. Retrieved April 2013, from http://www.standardandpoors.com/ratings/sovereigns/ratings-list/en/us/?subSectorCode=39&start=0&range=50.