

## ESTIMATION OF BANKING SYSTEM REGULATION EFFICIENCY

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### Abstract

There was discovered the essence of the banking system regulation efficiency, the quantitative and the qualitative criteria of its estimation by the systemic approach being formed due to integral, theoretical-essential, standard, target and stakeholder approaches concerning the interpretation of “the efficiency” category in this article. There was explained the necessity to distinguish full, partial, economic, social, external and internal estimation of the banking system regulation efficiency. The main factors influencing on the banking system regulation efficiency and their classification were also defined.

**Keywords:** Banking System, Regulation, Efficiency, Efficiency of the Banking System Regulation

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### Introduction

The banking system regulation takes one of the leading place in our scientists' researches in the period of increased international economic integration and globalization because the banking sphere is a strong economic sector the leading role of which is bound with the financial resources accumulation of the country to meet the economy needs and the formation of favorable macroeconomic climate. The activity of the banks is constantly under the influence of internal and external environment factors that causes the need of the country to apply the different influence means to ensure their stable functioning. The formation of the current regulation mechanism is not only the guarantee of the effective banking system functioning but the important background of the social-economic country growth taking into account the actual banks significance.

The formation of the criteria and the factors influencing on the criteria results is important to ensure the effective banking system regulation. The banking system regulation efficiency is achieved by the growth of the whole system regulation efficiency, the adequacy of the principles, ways, methods, and a means of achieving the regulation aims, the available resources and the terms of the banking system functioning.

It is necessary to note that the banking system regulation efficiency is a complicated process and determined by the requirements of the society to the banking system functioning which stipulate making appropriate decisions in regard to its regulation; by the society trust level to the banking system regulation and decisions being made; by the resources

belonging to the entity of the banking system regulation for decisions realization regarding the regulation to achieve the aims.

### The analysis of the last researches and publications

Fundamental researches of the banks efficiency and the banking system functioning are reported in the scientific works of many foreign and native scientists: F. Aleskerov, P. Bauer, S. Berg, A. Berger, A. Buriak, F. Forsund, S. Golovan, N. Halajko, D. Humphrey, E. Jansen, D. Kruglov, N. Maslak, A. Mertens, L. Mester, S. Moiseyev, V. Sarkisyan, V. Volokhov, etc. Conditions and factors making economy and its structural elements stable are studied significantly in the economic literature, in particular these aspects are considered in the works of such researchers as O. Chub, I. D'yakonova, O. Kolodizyev, Yu. Korneyev, A. Kostyuk, M. Kotlyarov, H. Lubinda, A. Miroshnichenko, O. Primerova, I. Salo, A. Zakharov, V. Zinchenko, etc.

Summing up the researches on this subject it was determined that the majority of the scientific works are dedicated to the analysis of the essence of such categories as “the efficiency”, “the efficiency of the banking activity” and “the efficiency of the banking system functioning”; to the different methods of the banking activity and the banking system efficiency estimation; to the factors and conditions under which the banks or the whole banking system is getting financially stable. Nevertheless, the matter of the banking system efficiency estimation, the criteria and the factors of its efficient regulation are not substantially analyzed and need to be completely

studied that has stipulated the urgency of the topic choice.

**The topic of the research** is to define the banking system regulation efficiency and to set the criteria of its estimation on the basis of the systematization of scientific approaches to “the efficiency” understanding, also to form and systematize the factors influencing on the banking system regulation efficiency.

### Fundamental researches results

Activity efficiency is very complicated and multiplex and one of the basic elements in the economic theory, their fundamental features are directly connected with the banking system regulation. It's necessary to notice that the banking system regulation is implemented by means of the special bodies of the public administration (central bank and bank supervision bodies) which are to ensure achieving the fundamental aims of the society in the banking system functioning. Accordingly a conceptual meaning of “the banking system efficiency” and its estimation criteria change.

According to the results of our research it was defined that the notion “efficiency” is interpreted by theoretical-essential, standard, target stakeholder and systematic approaches.

According to the first approach determined by the scientists as theoretical-essential the efficiency is considered as the results rating of activity (ratio of the activity results to the expenses or the utilized resources or “entries” and “exits” in the systems theory) [1].

According to this approach the efficiency is defined as: “...results rating i.e. activity result (effect) which a society, an enterprise or an individual gets per unit of utilized resources” [8]; “...the ratio of the result or the effect of any activity and expenses connected with its implementation. Herewith it can be as the ratio of the result and expenses as the correlation of expenses and activity results” [9]; “...shows the correlation between the received results and the utilized resources for them, moreover while determining the efficiency the resources can be represented as in a definite volume of expenses at their primary (overestimated) cost (utilized resources) or at their cost part as production expenses” [10].

We agree upon N. Maslak's statement that: “...the efficiency and the rating results are interrelated notions which indicate the quality of a certain activity or some object functioning but they aren't identical because they anticipate different levels of result” [7].

Within this approach the pragmatic criteria should be reasonably applied to the banking system regulation efficiency. They are determined by a real change of the banking system parameters on micro- and/ or macro levels as the result of the regulation tools application with the minimal expenses of the resources per sample “expense-profit”. In this case the

banking system regulation efficiency is measured by means of the pecuniary advantage that is comparable with the certain program expenses or regulating influence applied. For this it is necessary to convert the effects received after the measures of the banking system regulation were taken, into their pecuniary equivalent that complicates a wide spread of this method.

The second approach – standard – interprets the efficiency as a degree of the standard correspondence [1, 5]. This approach anticipates the comparison of own indices with standard ones in the similar sphere including benchmarking that enables to determine susceptible and rational sides of the banks activity [7].

One supposes it is reasonable to use this approach for the estimation of the banking system regulation efficiency first of all in the context of qualitative estimation and formation of the qualitative estimation criteria.

It is necessary to determine the standards for the comparative estimation of the banking system regulation efficiency and to form the criteria which allow determining the degree of the standard correspondence. Standard approach is in the ground of the banking supervision efficiency wherefore in 2006 the Basel Committee on Banking Supervision (Switzerland) prepared the document “Kea Principles for Effective Banking Supervision” [2]. In 2009 in partnership with The International Association of Deposit Insurers it was prepared the document “Kea Principles for Effective Insurance Systems of Deposits” [3].

The standards of the banking system regulation are the standards which must determine the desired attributes of all its elements (methodological, institutional, functional and instrumental blocks) which they should correspond to. Finally it will determine whether the aims, tasks, functions will be achieved and specific tasks of separate conceptions, strategies, and programs of banking system development will be solved.

The criteria, unlike the standard, are the instruments for the banking system regulation efficiency in the context of standards correspondence, also according to the temporal and other criteria.

In our opinion the principles of the banking system regulation must be founded while forming the standard of the banking system regulation efficiency because these principles are the regulation means of connection between the aims and results of regulation, and express the requirements of the objective regulation laws; their action is connected with the realization of regulation system functions and stimulates the activity of banking system regulators. One supposes that each principle of the banking system regulation can be a standard characteristic of its efficiency estimation.

The third approach to the efficiency estimation is target and considers it as the degree of achieving the aim [1]: “...the indicator of the system functioning

successfulness to achieve the desired aims” [4, 11]; “...the degree of achieving strategic aims and tasks” [13]; “... generally the efficiency of any process, any type of activity characterizes the degree of achieving the desired aim” [12].

While taking the target approach to the banking system efficiency it is important to note that the regulation aims have social significant character, the results are the objects and the processes connected with fundamental aims of the society (ensuring the efficiency of the resource assignment in the economy); the regulation resources are economic, social, political, ideological and informational capital restricted by the state in terms of both social expediency, possibility and legal sufficiency.

The efficiency criteria of the banking system regulation by target approach are formed on the basis of the strategic aims set by the government authorities and regulators of the banking system to achieve fundamental aims of the society.

It is explained by the fact that the target subsystem including conceptions, strategies of the banking system regulation are variable, stipulated by external and internal conditions wherein the banking system functions, is a reaction basis of the regulation entities of the banking system on the environmental and internal state of the banking system changes, and external and internal changes control system.

By the target approach the efficiency estimation of the banking system regulation is a comparison procedure of the various decisions as to the banking system regulation with criteria features which determine target parameters of the banking system functioning.

According to the research results it was defined 3 types of the efficiency while taking this approach for estimation of the banking system regulation:

- target efficiency – the result of the banking system regulation corresponds to the environmental conditions, internal state of the banking system and requirements of the persons interested in the banking system functioning;

- efficiency of the aim determination – the aim and the set tasks for achieving it correspond to the environmental conditions, internal state of the banking system and requirements of the persons interested in the banking system functioning;

- executive efficiency – the banking system regulation result corresponds to the regulation aim. One suggests that estimation criteria of the executive efficiency of the banking system regulation should be classified into value-rational and target-rational.

The value-rational criterion of the banking system regulation efficiency allows to estimate the efficiency of global, systemic decisions of the banking system regulation entities resulting in big changes of the banking system on the basis of its fundamental reforming. As a rule the aims which must be achieved are defined by the strategy of the

banking system reforming being worked out for a long period (not less than 10 years).

It is not reasonable to define estimation of the banking system regulation on such a level according to the partial, both positive and negative results in the time interval. It is possible to define positive or negative efficiency of available vast regulating influences of the regulation entities only through achieving the fundamental aims of the society from the actions of the banking system reforming.

Target-rational criterion of the banking system regulation efficiency is a general, complex criterion oriented on the estimation of the banking system regulation efficiency by definite indices which characterizes the immediate results of aims, tasks, strategies and programs realization taking into account the utilized resources.

In this case the aims which are defined by the strategy of banking system development on the medium-term basis (up to 5 years), by both quantitative and qualitative methods, have formalized character. Accordingly effectiveness of the banking system regulation is defined by the level of achieving target indices in a definite time interval.

V. Zinchenko defined that “...the most utilized criteria are the ratio of the total assets of the banking system to the GDP; the ratio of the regulatory (balance) capital to the GDP; the ratio of the credits to the GDP; the ratio of the natural persons’ deposits to the GDP; dynamics of the assets portion of the banking sector in the GDP in relation to the economy monetization; concentration level of the banking system; the ratio of foreign aggregate banking position to the aggregate capital of the banking system; the portion of the credit portfolio in assets; indices of economic freedom and competitiveness concerning banking system development” [14].

The scientists emphasize that the target approach to the efficiency estimation has some disadvantages which must be taken into account while taking it to estimate the efficiency of banking system regulation. They are the results of such reasons:

- a) the aims are not always formulated explicitly, for example as strategic aims, that makes impossible to estimate the degree of their achieving;

- b) aims formation has a subjectivity because it depends on accommodating the interests of the interested groups that leads as a rule to their multidirectionality, environmental conditions, internal state of the banking system. Finally besides the quality and “the rightness” of the aim setting, the objective factors influence on a desired result [1].

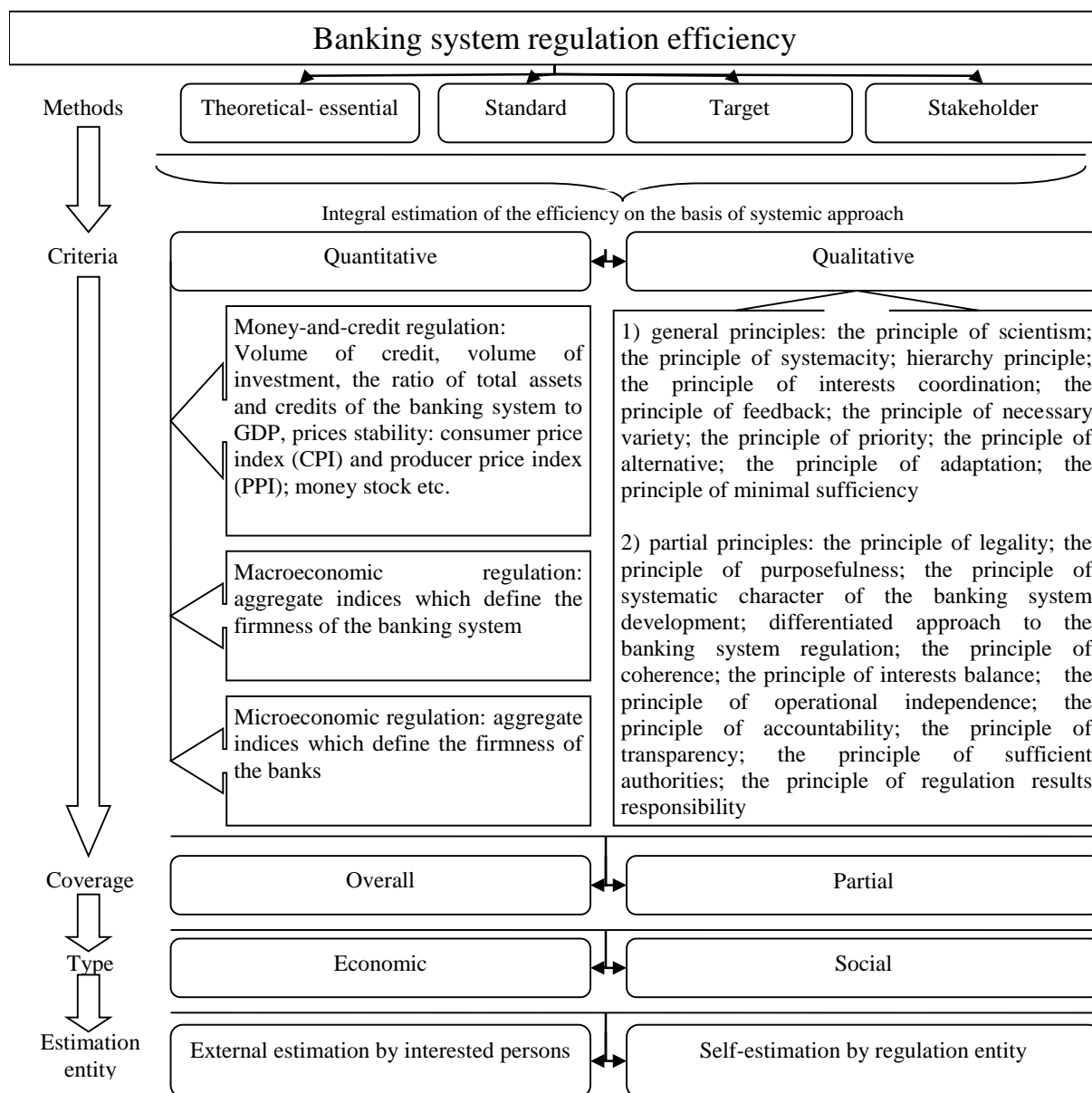
Taking into account all reasons mentioned above to avoid their negative results the target approach ensures getting the qualitative information about the regulation results.

The fourth approach – stakeholder – determines the efficiency as a degree of the satisfaction in the results of institution activity of the interested parties that depends on their interests realization.

While taking this approach to the estimation of the banking system regulation efficiency one should select the groups of the interested parties each of which has own interests in the results of banking system regulation on the ground of which the regulation aims and the efficiency criteria can be formulated in the context of a definite group. As far as the interests of the interested groups are different the

criterion of the regulation efficiency by this approach is the efficiency as the ability of the banking system regulator to ensure the optimal choice of the regulation variant in the context of the profits and the expenses of social groups including banks, banking services consumers, state and society totally.

**Figure 1.** The estimation of the banking system regulation efficiency



In this context at least it is necessary to form the criteria system of the banking system regulation efficiency as a sign or the signs in total on the ground of which it is estimated both by the regulation entities of the banking system (it allows to control the efficiency of regulation tools) and society in general (allows to control the activity of the regulation entities of the banking system).

In the scientific researches it is anticipated a systemic approach on the basis of approaches integration to the estimation of the banking system regulation efficiency which were characterized above. Nothing but the systemic approach must be taken to estimate the banking system regulation efficiency taking into account the complication of the banking system as a regulation object.

Summing up the author suggests to mean by the banking system regulation efficiency the results rating of the banking system activity which is ensured by means of the aims achieving, expressed by the ability to adapt itself to the environmental conditions of functioning keeping itself as an integral formation.

In the context of the banking system regulation efficiency it is reasonable to distinguish such notions as “a partial efficiency” (characterized by the indices which define achieving intermediate or partial aims and tasks of the banking system regulation) and “an overall efficiency” (characterized by the indices which define achieving the ultimate aim of the banking system regulation). Commitment to ensure the overall efficiency of the banking system regulation is predominant.

In addition to the above the scientists distinguish economic, social or social-economic efficiency of the banking system regulation [4, 5, 6]. Economic efficiency is meant by achieving as high as possible aims of the banking system regulation at the minimal

recourses spending in the regulation process; social efficiency is meant by the highest social tasks solution in the banking system regulation process at the minimal resources spending in the regulation process.

General conclusion of the above mentioned approaches is shown on the figure 1.

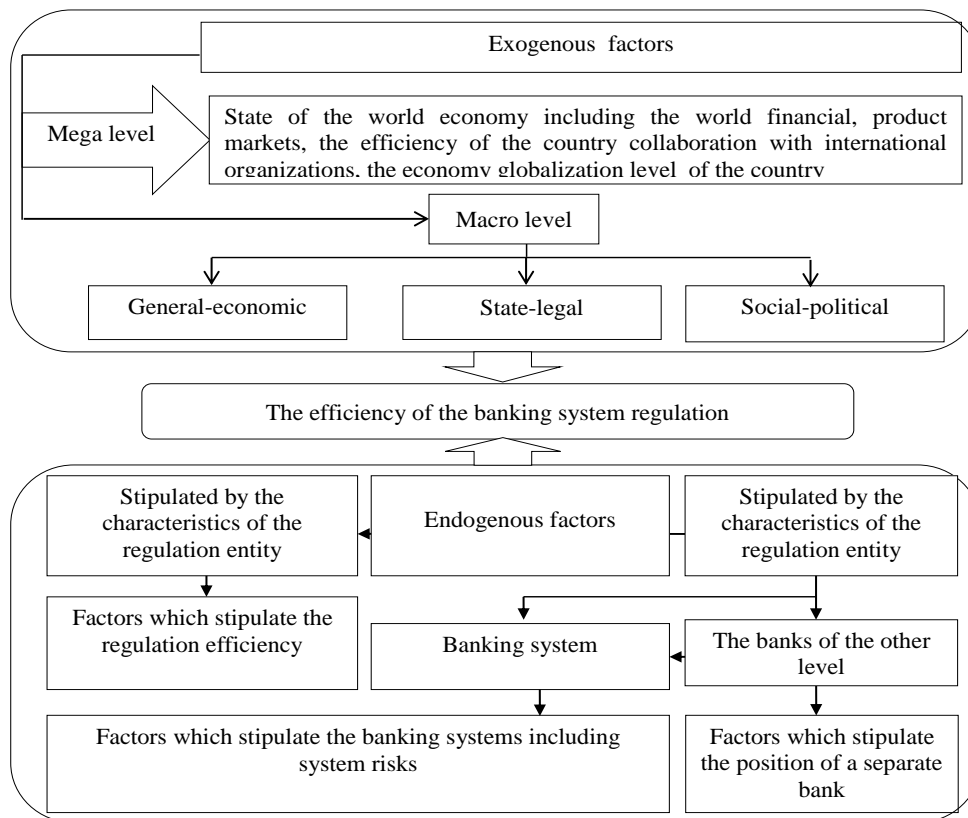
The efficiency of the banking system regulation is significantly influenced by the range of factors which must be taken into consideration while forming regulation system and regulating influences.

According to the research results it was defined that there is not the only one approach to determine the structure and the factors systematization which influence on the banking system regulation efficiency.

According to all researches the environmental conditions influence on the efficiency of the banking system regulation which is realized in them.

Summing up the main approaches to the classification of factors influencing on the banking system and its regulation efficiency let's show its complex classification (figure 2):

**Figure 2.** Structurization of the factors influencing on the efficiency of the banking system regulation



The exogenous factors of the influence on the banking system regulation efficiency are those factors which are out of the bounds of the banking system. The factors of this group have a complex, multi-aspect influence on the efficiency of the banking system regulation: through the influence on the banks and other regulation subjects functioning and the

possibilities of the entities to set the aims of the banking system regulation and apply the tools which ensure their achieving. These factors structure is very significant and heterogeneous, and the influence is big and not enough forecasted. It is reasonable to consider exogenous factors on the mega and macro levels.

The endogenous factors of the influence on the banking system regulation efficiency are those factors which are formed within the banking system, determine the peculiarities of its functioning and can be corrected according to the set aims. The endogenous factors are worth to be considered separately on the level of entity and object of regulation.

## Conclusions

The author interprets the banking system regulation efficiency as the results rating of the banking system activity which is ensured by means of achieving the set aims, expressed by the ability to adjust to the environmental conditions of functioning keeping itself as an integral formation.

The criteria of the banking system regulation efficiency are suggested to be defined by the systemic approach on the ground of integration of theoretical-essential, standard, target and stakeholder approaches distinguishing the quantitative criteria within money-credit, micro-, macroprudential regulation and qualitative criteria being based on the necessity to comply with the general and partial principles.

According to the estimation of achieving the set aims the banking system regulation efficiency should be classified into overall and partial, according to the type – into economic and social, and according to the entity that estimates - into the external estimation by the interested persons and the self-estimation by the regulation entity.

The factors which influence on the banking system regulation efficiency are classified into exogenous and endogenous. In its turn exogenous factors are classified into the factors of mega and macro level, and endogenous – into the factors which are formed on the level of the object and the regulation entity.

## References

1. Avanesova, N. (2009), "Estimation of Efficiency of Retail Trade Enterprises' Functioning from the Positions of the Key Interested Parties", Thesis for Competition of Scientific Degree of Candidate of Economic Science on Specialty – Economics and Management of Enterprises, Ukraine, Kharkov, 236 p.
2. Core Principles for Effective Banking Supervision (2006), Basel Committee on Banking Supervision (BCBS), <http://www.bis.org/publ/bcbs129.htm> (accessed December 1, 2014).
3. Core Principles for Effective Deposit Insurance Systems (2009), Basel Committee on Banking Supervision, [http://www.iadi.org/docs/Russian\\_IADI\\_BCBS\\_Core\\_Principles.pdf](http://www.iadi.org/docs/Russian_IADI_BCBS_Core_Principles.pdf) (accessed December 5, 2014).
4. D'yakonova, I. (2008), "Institutional organization of banking supervision: lessons for Ukraine", *Bank and Bank System*, Volume 3, Issue 1, pp. 33–38.
5. Kostyuk, A., Lin, M., Omet, G.(2011), "Euroasian perspectives of the banking systems development", [Makarenko M., Kostyuk A., D'yakonova I. and others], *Virtus Interpress*, Ukraine, Sumy, 167 p.
6. Larionova, I. (2014), "Methodology of Efficiency Research of Model of Banking Sector Regulation in the Interests of the National Economy", *Journal of Banking Services*, Russia, Moscow, No. 1. pp. 4-9.
7. Maslak, N. (2009), "Theoretical Aspects of the Banking Activities Efficiency and its Estimation", *Bulletin of Sumy National Agrarian University*, No. 2, pp.1-6.
8. Nusynov, V., Turylo, A. and Temchenko A. (1999), "The Economic Analysis of Enterprises Activities and Associations in the Industry", *Publishing House Mineral*, Ukraine, Krivoy Rog, 172 p.
9. Orlov, P. (2000), "Economics of Enterprise", *Publishing House of Kharkiv State University of Economics*, Ukraine, Kharkiv, 401 p.
10. Sarkisyan, V. (2009), "The Essence of the Concept "Efficiency of Commercial Bank", *The Collection of Scientific Works National State Tax Service University of Ukraine*, No. 1, pp. 251-258.
11. Surmin, Y. (2003), "Systems Theory and Systems Analysis", <ftp://ftp.asu.ru/incoming/ponkina/TSA/%D1%F3%F0%EC%E8%ED.2003.pdf> (accessed December 2, 2014).
12. Vyvarets, A. (2000), "Production Efficiency: Theory, Methodology and Estimation Procedure", A Collection of Scientific Articles "Economic Efficiency: Theory, Methodology, Practice", *Publishing house of Ural State Technical University*, Russia, Ekaterinburg, 401 p.
13. Yaschenko, O. (2008), "The Economic and Social Aspects of Evaluating the Effectiveness Ukraine", *Scientific Bulletin of National Forestry University of Ukraine*, No. 18.6, pp. 237-238.
14. Zinchenko, V. (2008), "Providing of Stability of the Banking System of Ukraine", Thesis for Competition of Scientific Degree of Candidate of Economic Science on Specialty – Money, Finance and Credit, Higher Educational Establishment the "Ukrainian Academy of Banking of the National Bank of Ukraine", Sumy, 208 p.