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Работни езици: български, руски и английски

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Рабочие языки: болгарский, русский и английский

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Working languages: Bulgarian, Russian and English

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Адрес на редакцията:

Варна-9010, ул. Студентска 1, ТУ – Варна
НУК-ЕООС, стая 301, 302

Издателство:

Евро-Експерт ЕООД

Печат:

ТУ - Варна

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За фактологическата и документалната истинност
на публикациите отговорността е на авторите

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PROBLEMS OF THE BANKS' FINANCIAL STABILITY CONTROL IN THE BANK'S SUPERVISION SYSTEM OF UKRAINE

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The financial analysis of banks and risk management systems' effectiveness takes significant place in the system of banking supervision. To ensure an adequate remote control it is necessary to use the set of instruments adapted to the structure and profile of risks at certain stages of system developing and separate structural and functional banks' groups.

The aim is suggested to use differentiated approach to individual structural and functional bank groups and dynamic modeling of banks' financial condition with the help of Kohonen's self-organizing map. Financial indicators of a certain bank obtain a new qualitative assessment, taking into account his place in a variable system of banking system indicators.

The main tasks: Banking supervision approaches must be formed by the risks profile of the banks, for the evaluation of which we need the analysis of the balance structure, correlation of assets and liabilities, incomes and expenses. Such structure characteristics simultaneously determine the functional peculiarities of each bank, its place in the banking service market. Unification of the banks into the homogeneous structural and functional groups with the help of the Kohonen maps makes it possible to transit to the differential methods of the bank supervision. These methods ensure formalization of the grouping of banks with the homogeneous risks profile. Methods: to realize this approach it is useful to use the modern economic-mathematical methods of the clustering analysis, in particular, neural networks and Kohonen Maps. Given device allows to group the close objects – stable structural and functional groups of banks, research their peculiarities and risks, evaluate the role and place of each group in the whole system development. Actuality: The analysis of the last financial-economic crisis causes showed the insufficient level of the capital and liquidity of the most of banks, imperfection of the risk protection methods, their discrepancy to real menaces. The methodology's problem of the financial stability analysis in bank's sector needs concordance of the approaches from the macro- and microeconomic positions.

Results for the theory, methodology, practice: Differential methods of bank supervision on the risks base will allow ensuring distribution of the system into homogeneous groups, further to reveal bonds between them, the place of every group in the whole system development. Instruments of analysis and regulatory impact on the structural and functional groups of banks must be perfected and developed simultaneously with application of modern international approaches and principles.

Keywords: banking supervision, financial bank indicators, risks' profile, cluster analysis.

Introduction

Investigation of the banks' financial stability is a complicated scientific and practical problem, to the solution of which are dedicated a lot of works of the native and foreign scientists. In general form any bank's financial stability evaluation characterizes its purposeful development as an

individual element of the system. At the same time the banking system stability is its qualitative characteristics, dynamic development of the whole its elements, with the help of which its essence and purpose in economics are realized [1].

Evaluation of the general state of the banking system should be conducted using the same

financial indexes which are applied for the analysis of its individual elements stability. In this way we ensure transition from the whole to particular, connection of indexes in the main tendencies' reflection of the system development.

1. Differential approaches to the structural and functional groups of banks

According to the modern approaches of the bank supervision the main attention must be fixed on the system financial institutions and correlations of the financial sector. The aim of the supervision alters from priorities of the banks' depositors and creditors' interests' protection to lowering of the state expenses connected with the general financial instability. The new macro prudential supervision transfers from the individual banks' risks monitoring to evaluation of the stability indexes and system risks of the whole financial sector [2].

Distribution of the bank service market in Ukraine testifies about stable specialization of the greater part of the banks, each of them has the formal status «universal» bank. It is observed the same reaction on external shocks for the homogeneous groups of banks with the same structural characteristics of assets, liabilities, incomes and expenses. It means that bank supervision needs to develop differential approaches to the different structural and functional groups of banks.

Considerable quantity of the Ukrainian banks with small assets serves business of the chief shareholders. Small captive banks easily fulfill the obligatory economic standards. Structure characteristics of their balances are changing when conducting of some considerable operations, which influence the account indexes. Of course, the risk profile of small captive banks is essentially

different from the classic risks of the large banks with the branchy net of departments and developed client base. Functions and possibilities of such banks are limited, and parameters of their percentage and tariff politics can differ greatly from the market indexes. Operations' peculiarities of the great number of captive banks testify about necessity of the intensified control of their operating risks.

Specific approaches of the supervision are also necessary for the stable group of banks, which directed the greater part of their assets to the consumer crediting and have corresponding structure imbalance for the long time. Special conditions of the large banks with foreign shareholders, which are depended on resources support of the maternal companies, also need the adequate control instruments from the banking supervision positions. For the banks with foreign capital we need the individual politics of the regulative influence on the separate directions of their activities, ensuring protection of the state interests, agreement requirements of the foreign shareholders and the native consumers of the bank services. For the map construction we chose 20 structural characteristics of the banks which measure specific weight of the basic items of their assets, liabilities, incomes and expenses. Comparison of the Kohonen Maps for the last 5 years testifies about stable distribution of the bank services market between groups of banks.

In figure 1 you can see schematic arrangement of the most stable Ukrainian banks' groups on the Kohonen Map for the last five years. Abbreviated conditional names of the groups characterize the main peculiarities of the banks. The most balanced according to the structure indices meanings banks are situated in the central part of the Kohonen Map [3].

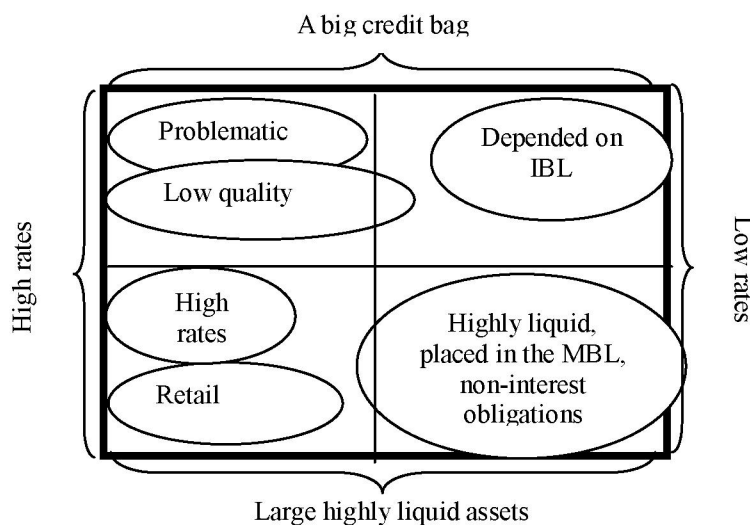


Fig. 1. Schematic arrangement of the most stable Ukrainian banks' groups on the Kohonen Map for the last five years

In the left part of the map you can see banks with abnormally high interest rates, which attract more deposits of households, give expensive credits and have worse quality of the assets. In the highest place there are the most problematic banks, which are moving to the stage of liquidation.

In the lower left corner there are clusters of banks, the specialization of which is retail crediting. For them are typical high commission incomes and administrative expenses. Next to them there are banks with abnormally high rates for credits.

The right part of the map is occupied by the banks with the low interest rate, which resources are connected with the interbank market or shareholders' means. In the upper place there are banks with the high share of the interbank resources in their obligations. Among these banks there are a lot of banks belonging to foreign investors. The quality of assets and activity effectiveness of this group of banks were the highest before the beginning of the financial-economic crisis. Then the financial indexes of the group got worse. In the lower left corner there are small banks, which take their bearings on the work with the shareholders' business. Interest rates and structure of assets and liabilities of these banks can differ from the average indexes.

2. Improving of the bank supervision functions with the help of the structure-functional analysis methods

The further development of methodology of the banks' financial stability analysis in the system of banking supervision are directed to the revealing of the risks which make the highest threat to the banks during the concrete period of system's development. Indicative indexes of the financial stability must be sufficiently sensitive and differ not only for the different structural and functional groups of banks but for concrete stages of the economic cycle, special conditions of the system's development.

For example, during the period of the accelerated development of credit operations and departments' net enlargement supervision's approaches must take into account the risks of assets increase and differ from indexes that are used during the phase of limited crediting and short-term banking operations development.

The methods of financial banks' stability analysis must be sufficiently clear and grounded. The aim of supervision is evaluation of the each bank's management system. For that it is necessary to study banks' specific structural and functional characteristics and to reveal their risk profile peculiarities.

The peculiarity of the Ukrainian banking system is the great quantity of banks, which on the 1st of January 2013 was 176, and also considerable differences of their scale characteristics and risk profiles.

In some time the concentration of the means in the largest banks is increasing, though level of the concentration doesn't exceed the lower threshold of Herfindahl-Hirschman Index 0,1. For the last 5 years the quantity of banks has increased by 5 and the index has increased from 0,037 to 0,045. The large banks are increasing their part in the market.

The concentration of the banking service market in Ukraine is not higher than in some countries of the post-soviet space. So, in Belarus banking system, which consists of 32 banks, Herfindahl-Hirschman Index is 0,227, in Kazakhstan for 39 banks the index is 0,113, in Latvia there are 29 banks and the index is 0,094. Unlike these countries, Ukraine has bigger banking system and that has an effect on the functions of supervision.

There is a great concentration of the most of banking operations in large banks of Ukraine. So, if according to the size Herfindahl-Hirschman Index is 0,045, its level increases to 0,073 according to the sums of attracted deposits of households. Large banks get the opportunity to forestall their competitors on the resource market. For the Latvia banks, for example, we can see the opposite correlation: Herfindahl-Hirschman Index is 0,094 according to the assets level and 0,088 according to the deposits of households. The same correlation we can see in Kazakhstan. Herfindahl-Hirschman Index is 0,113 by assets level and 0,095 by the quantity of attracted deposits.

In the system of Ukrainian banking supervision is used the distribution of banks to four groups according to their assets rate. Such distribution is conducted every year and is a base for the comparative analysis of the banks' financial state and distribution of supervision functions between the central staff and local administrations in the regional centers of the country.

Supervision for the largest banks of the 1st and 2nd groups is conducted by the central staff of the National Bank of Ukraine. Supervision for the banks of the 3rd and the 4th groups is a competence of the local administration, where the banks are registered. The largest quantity of banks is concentrated in Kiev (114 of 176 banks). Then go Dnepropetrovsk (14 banks), Donetsk (10), Odessa (8), Kharkov (7) and other regional centers with small quantity of banks.

In addition to the traditional banks' distribution by the assets rate the authors of the article propose to use the grouping by the structural and functional characteristics, which can be got with the help of

Kohonen Maps according to the banks' accounts statistics.

By the beginning of 2013 the National Bank of Ukraine included in the first group 15 banks, which assets exceed 20 milliard hryvnias, in the second – 20 banks with the assets more than 5 milliard hryvnias, in the third – 25 banks with the assets more than 3 milliard hryvnias. All the others were included into the fourth, the biggest group.

The scale indices of the first group banks considerably exceed the other banks, the result of

activity also testifies about concentration of the banking market in the largest banks segment. For all that large banks differ one from another by the structure of their assets, liabilities, incomes and expenses. The risk profiles of these banks bring them nearer to the corresponding structural and functional group of banks with similar characteristics. Market distribution between the structural and functional groups of banks is represented in the Table 1.

Table 1. Distribution of the Ukrainian banks between the structural and functional groups by 01.01.13 г.

Name of the group	Banks' quantity	In that number		
		1group	2 group	3 group
Central clusters	49	2	7	7
Large highly liquid assets	36		3	8
Abnormally high rates	19	2	1	2
Depending on the interbank resources	21	4	3	1
Retail	12	2	1	2
A large bag of valuable papers	22	5	4	2
Large interbank assets	6			1
Large non-interest obligations	8		1	2
Problematic and low quality	3			
Totally	176	15	20	25

By the beginning of 2013 the largest quantity of banks are in the most balanced central clusters groups of the Kohonen Map, and in the groups of banks with large assets of valuable papers, highly liquid resources. Development of the credit operations is slowed down. For the considerable part of large banks it is typical firm structural and functional deviations, which are expressed in staying in the corresponding group for the long time.

During the last five years a considerable migration of banks was observed. In the period of crisis the group of problematic and low quality banks spread to the largest part of the system.

Results

Character alteration of the banks' distribution in the Kohonen Map testifies about qualitative modifications in the banking system structure and necessity of the banks' risk profiles approaches revision. For example, in the crisis of 2009 period groups of problematic banks considerably increased in sizes. Those groups were joined by representatives of other groups. Banks' moving

trajectories in Kohonen Maps and mass transitions are important information about risks of banks belonging to different structural and functional groups.

Diversified instruments of supervision on the risks base will allow making it preventive and ensuring stability of the banking system to foreign and home shocks.

All the necessary grounds for application of the corresponding approaches in the Ukrainian banking system have been made.

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