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DIAGNOSTICS OF THE BANKING SYSTEM BASED ON PERFORMANCE EVALUATION OF THE BANKING SECTOR

Abstract. This article provided an assessment of the banking sector through the analysis of the main indicators of the balance-sheet of the banks of Ukraine for 2006-2015 yy. In addition, it is made the integral index – an evaluation function of activities of Ukrainian banks on the basis of information about the fact values of prudential regulations for the banking system.

Keywords: banking sector, performance assessment, diagnosis, financial condition

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JEL Classification: G11, G21, G24, G31

Introduction. The banking system of Ukraine is an inseparable part of the national economy and directly interacts with different sectors of the economy as a whole. Diagnosis of problematic situations of the banking sector must be considered as a compulsory stage of research problems that characterize its activity.

Analyzing the different kinds of settings - indicators of the banking sector, the reasons and place of problem situations occurrence are determined, and as a result timely carried out diagnosis provides the necessary analytical basis to justify the management measures.

Literature review and the problem statement. Today in Ukraine banking sector only strengthens the economic imbalances in the national economy and is not able to meet the challenges of economic growth. To ensure the sustainability of the national economy, the implementation of structural changes in the national economy, national manufacturers support by addressing the problem of financing innovative industries of economy, fiscal and monetary policy, diagnostics of the financial condition of the banking sector on a regular basis, which should be accessible to all interested parties, is needed.

The research issues of assessment and analysis of the domestic banking sector as a whole and individual banks in particular, the development of methodological approaches to the evaluation of banks and relevant analytical research in this area involved: O. Baranovsky, A. Vozhzhov, I. Ivasiv, M. Kizim, V. Mishchenko, B. Samorodov, T. Smovzhenko, O. Trydid and other banking experts.

The purpose of research is to analyze the activities of Ukrainian banks, assess their overall financial condition, i.e. the diagnosis of the banking system.

Objectives of the study may be formulated as follows: to study the dynamics of Ukrainian banks' balance basic indicators; determine the dynamic compliance of the National Bank of Ukraine norms by banks, by calculating the integral index.

Research results. Evaluation of effectiveness functioning and stability of the domestic banking system and diagnostics of modern condition should begin

from the analysis of the major integrated financial performance of banks in Ukraine. The National Bank of Ukraine groups the statistics of the domestic banks in four global rates [Derzhavnii komitet statistiki Ukraini, Natsionalnii bank Ukraini]. Therefore, the aforementioned analysis conducted in the direction of the equity, assets, liabilities and financial results that characterize the status of specific groups of domestic banks and the entire banking system of Ukraine.

Fig. 1 data shows that as a result of the global financial crisis on the domestic banking system equity rate growth slowed, and to the end of the crisis in 2009 negative dynamics of this indicator was generally observed.

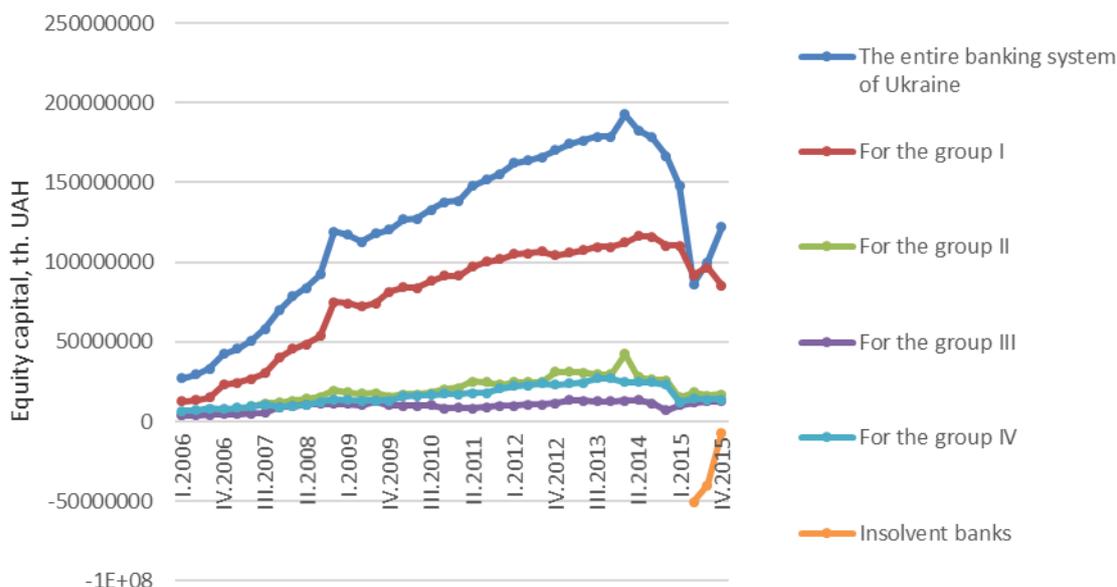


Figure 1 – Changes in equity capital by groups of banks and the entire banking system of Ukraine

Source: author's own calculations according to the data [Natsionalnii bank Ukraini]

A similar situation is unfolding since the beginning of 2014. The worst situation in 2014 formed in the third group of banks - reduction of the amount of equity on 10.1.2014 is approximately -45.85%, in the fourth bank group experienced decline of -14.19%, in the second bank group - to -11.95% in compared with the previous third quarter of 2013. However, since the third quarter of 2014, no group of banks had a positive dynamics of change in this indicator.

In 2015, the situation regarding changes in equity worsens, in the reports of the National Bank insolvent banks are allocated in a separate group, and their performance is dramatically reducing the overall rate of "equity" throughout the banking system, but in the third quarter of 2015, we are seeing improving this situation. The main reason for such dynamics can be permanent withdrawal from the market of insolvent banks.

Analyzing liabilities of Ukrainian banks, it should be noted that the most important component in the structure of attracted funds of the banking system of Ukraine are the accounts of individuals.

Dynamics of changes in total liabilities of all banks in Ukraine are presented in Fig. 2.

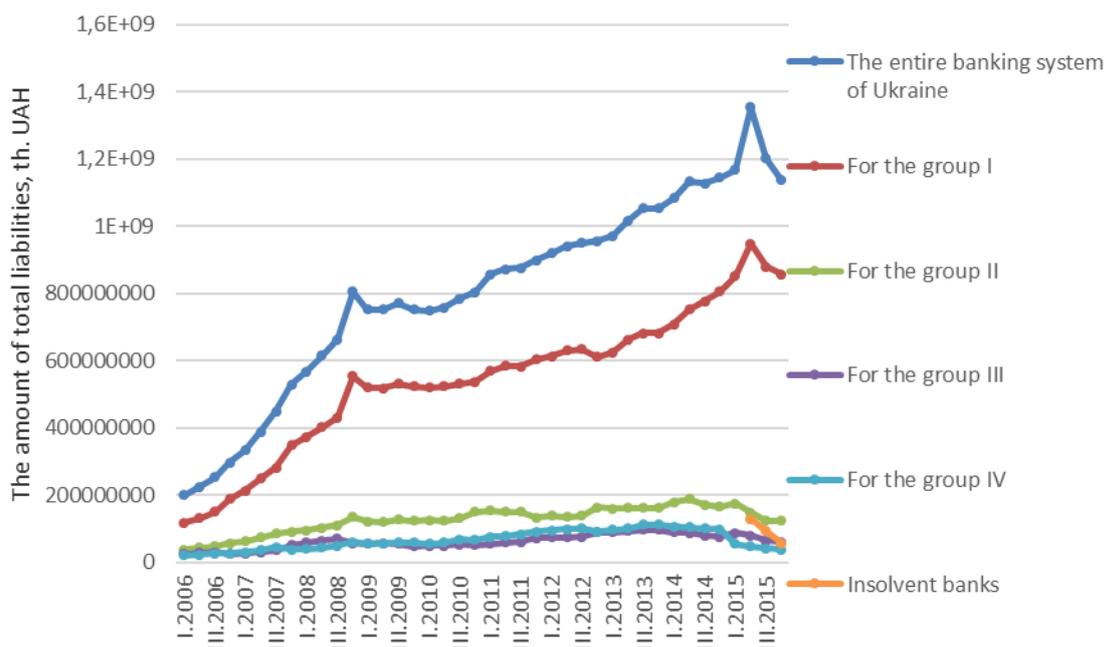


Figure 2 – Changes in liabilities on groups of banks and the entire banking system of Ukraine

Source: author's own calculations according to the data [Natsionalnii bank Ukraini]

Changes in this index in the whole Ukraine is positive, only in the second bank group total liabilities in the last two years are decreased, and in the third group of banks for the first 9 months of 2014.

Clearly, this was a result of the outflow of deposits of legal and physical persons of the banks in this group. The volume and structure of active operations of domestic banks show that at the beginning of 2015 in Ukraine set certain conditions for the further strengthening of the banking system and restore its investment function has found expression in their total capacity in connection with, albeit restrained, recovery of credit activity, improvement of foreign exchange transactions, increasing the volume of securities transactions, non-cash and cash payments [Goykhman, Samorodov 2013].

The dynamics of change in the total assets of all banks in Ukraine is presented in Fig. 3. Analysis of the total assets of banks in Ukraine shows that the market active operations of domestic banks are in a similar situation as in the passive market operations.

Changes in this index in the whole Ukraine is generally positive. However, the rapid pace observed outflow of total assets II and III bank group (relative change as at 10.01.2015 to the corresponding period in 2013 was 14% and -18.58% respectively). Share in the assets occupy loans to clients.

Another important factor that should be considered in the analysis of the status and prospects of the banking system of Ukraine is the financial performance of the domestic banks (fig. 4).

The presence of the past two years nearly 40% of problem loans of the total amount [Goykhman, Samorodov 2013], limited lending to corporate customers and households need to increase the cost of retail deposits in the face of deteriorating confidence in the banking system by the public - these and other problems directly affected financial performance of the banking system of Ukraine.

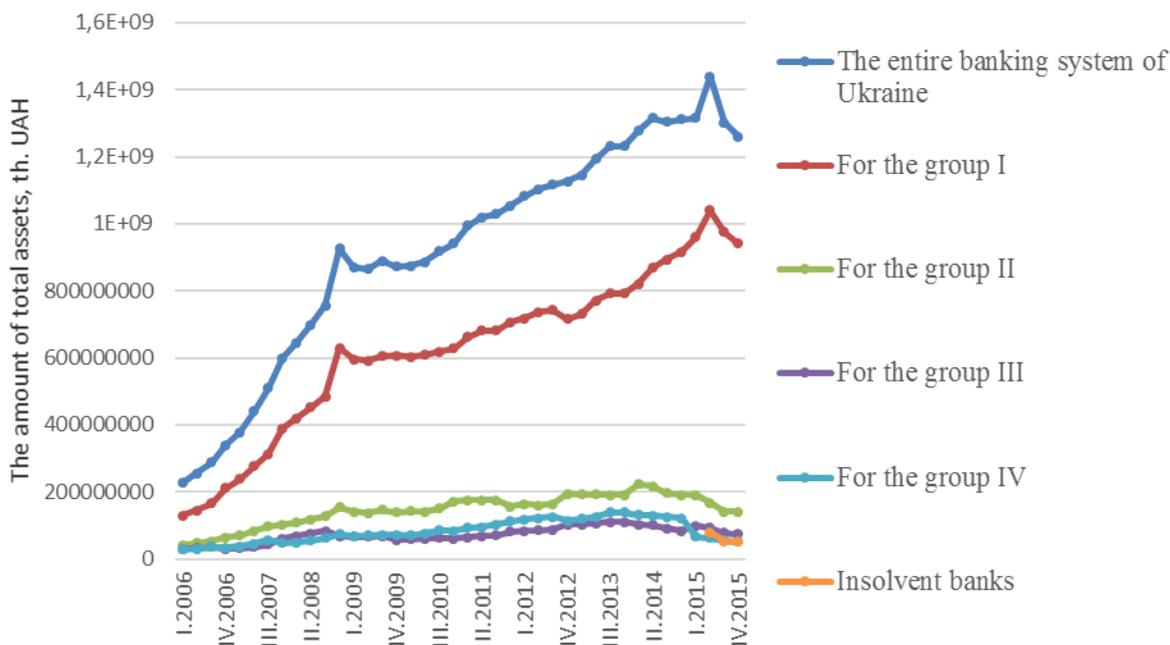


Figure 3 – Changes in assets on groups of banks and the entire banking system of Ukraine

Source: authors own calculations according to the data [Natsionalnii bank Ukraini]

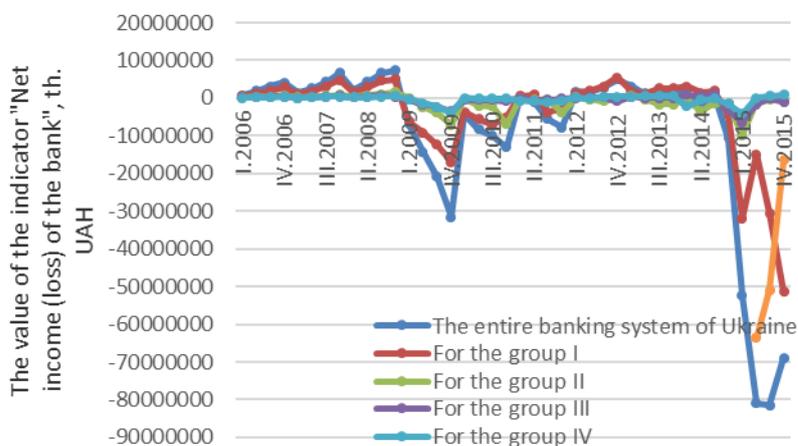


Figure 4 – Components of the financial result of Ukrainian banks

Source: authors own calculations according to the data [Natsionalnii bank Ukraini]

From the calculations made, again raises the obvious fact that the share in the formation of integrated indicators occupies the performance of banks and groups according to the NBU classification.

If we construct a function that describes the dynamics of the values specified net loss for different groups of banks and the entire banking system in Ukraine by year retrospective, since 2006, we will have the following results (Fig. 5).

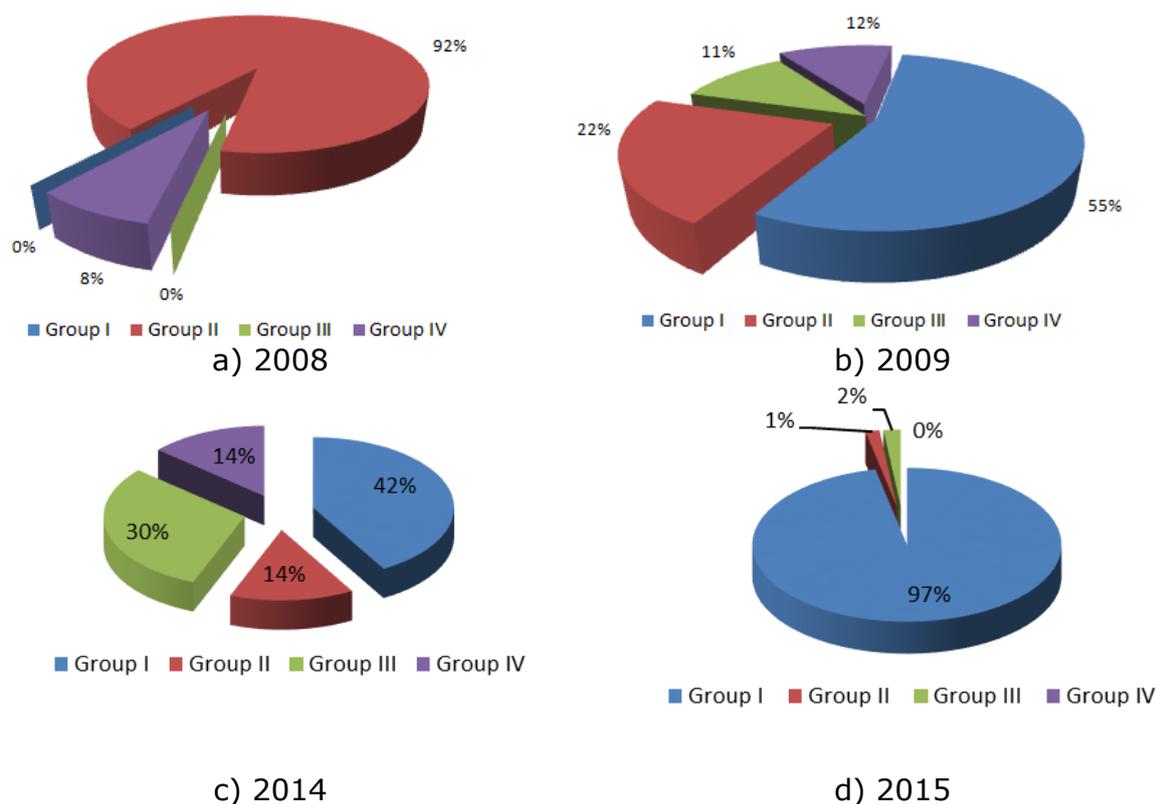


Figure 5 – The share of unprofitable groups of banks in total losses of the banking system by year retrospective

Source: authors own calculations according to the data [Goykhman, Samorodov 2013]

Comparing data of the crisis 2008-2009 and data of 2014-2015, it should be noted the high volatility and poor performance are in the first group of banks.

Additionally, conduct analysis of health (diagnostics) of the banking system of Ukraine based on of assessment and analysis of one integral index $I_1^{(t)}$ -function estimates the economic standards of the banking system [Goykhman 2014, Goykhman, Pogorelenko 2014, Trydid, Iziumtseva, Goykhman, Shvidka 2014].

As for the methods of forecasting, we propose to use for determining of the value of promising indicators (metrics) that make up a model financial stability of the banking system, is the following method proposed in [Dadashev, Kantaieva 2011, Dediaieva 2012], and the essence of which is as follows.

Let us analyze the third integral index and its components - integral indicator of economic standards of the banking system. For the set of indicators, which will assess the economic standards of the banking system in retrospect and determine its level in the future let's take twelve standards H1-H12 as defined by the National Bank of Ukraine (Table 1) [Goykhman 2014].

Table 1 – Economic standards of the banking system of Ukraine *)

| Marking | Indicator characteristic |
|---------------|--------------------------------|
| 1 | 2 |
| $Ind_1^{(t)}$ | Regulatory capital |
| $Ind_2^{(t)}$ | Adequacy of regulatory capital |

End of table 1

| 1 | 2 |
|----------------------------------|---|
| Ind ₃ ^(t) | The ratio of regulatory capital to total assets |
| Ind ₄ ^(t) | Instant liquidity ratio |
| Ind ₅ ^(t) | Current liquidity ratio |
| Ind ₆ ^(t) | Short-term liquidity ratio |
| Ind ₇ ^(t) | The maximum credit risk ratio on one contractor |
| Ind ₈ ^(t) | The ratio of large credit risks |
| Ind ₉ ^(t) | Maximum amount of loans, guarantees and warranties to one insider ratio |
| Ind ₁₀ ^(t) | Maximum total amount of loans and guarantees granted to insiders ratio |
| Ind ₁₁ ^(t) | The ratio of investment in securities by each institution |
| Ind ₁₂ ^(t) | Ratio of total investment |

Source: compiled by author according to the data [8]

Graphically changes of the integrated parameter $I_1^{(t)}$ in retrospective time period is shown in Fig. 6.

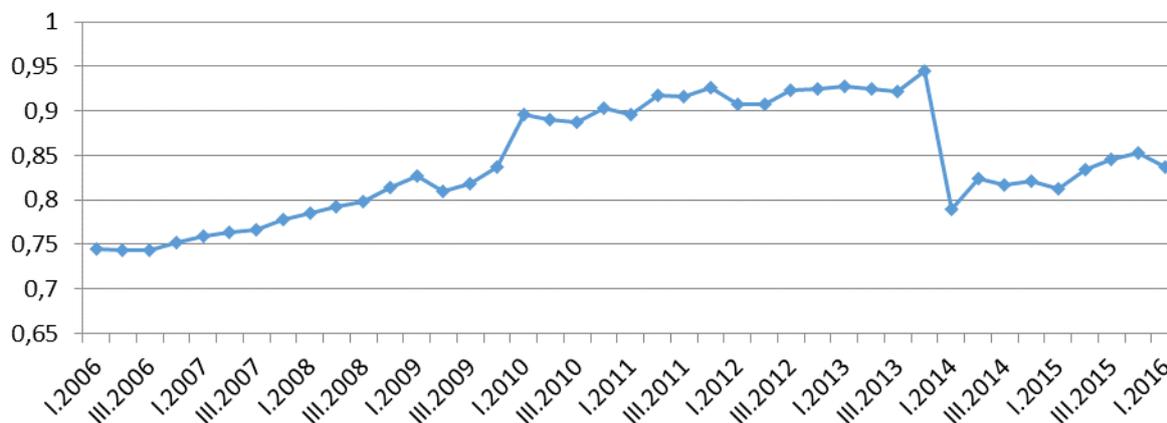


Figure 6 – Changes of the integrated parameter $I_1^{(t)}$ in retrospective time period
Source: author’s own calculations on the methodology [9]

Fig. 6 shows that during the observed period of retrospective, there is dynamics to increase the value of the integral index $I_1^{(t)}$, except for some periods. Significant growth occurred in the first quarter of 2010 (from 0.8363 to 0.8955 units.). However, during 2014 there is a decrease in the $I_1^{(t)}$ value (from 0.9441 to 0.8173 units.). However, starting from the 2nd quarter of 2011 up to the end of 2013 the value of the integral index $I_1^{(t)}$ economic standards does not cross the level of 0.9 units. This indicates stability during this period retrospectively. The sharp drop occurs in the first quarter of 2014, in relative terms it is almost -16.5%.

Analyzing details reason for the abrupt change in value of the integral index $I_1^{(t)}$, it may be mark a sharp decrease in regulatory capital value of nearly

205 bln. UAH to about 180 bln. UAH, that may be the cause of the dynamics.

Dynamics of the integral index $I_1^{(t)}$ is correlated with the relevant data given in this article confirms the fact that the banking system of Ukraine is in crisis.

Under these conditions, the diagnosis of the banking sector is very important, which can contribute to the prevention of irreversible crisis.

Conclusions. As a result of feasibility study it should be noted that the Ukrainian banking sector in 2010-2015 is unstable. Although the increased total amount of banks' equity capital, the amount of assets and liabilities and reduced the amount of damages is a significant fluctuation in the rate of development of individual groups of banks and the entire banking system. The rate of change of the main indicators characterizing the financial activities of banks in Ukraine significantly reduced.

Today the priority of the commercial banks is to further increase capital to ensure profitability and as a result, the profitability of its operations, ensuring the strengthening of trust in banks, increase profitability, expand and improve the quality of services offered to clients. This all will improve their financial condition and as a result ensure the effective development of the banks and of the banking system of Ukraine as a whole.

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