The background of the cover is a solid blue color. On the left side, there is a complex graphic of white lines that form a grid-like pattern. The lines are curved and radiate from the left edge towards the center, creating a sense of depth and movement. The lines are more densely packed on the left and become more sparse as they move towards the right.

Sustainable economic development of regions

Volume 3

**Austria, Vienna
2014**

Sustainable economic development of regions

Monograph

Volume 3



«East West» Association for Advanced Studies and Higher Education GmbH

**Vienna
2014**

Sustainable economic development of regions: Monograph, Volume 3/ ed. by L. Shlossman. – Vienna: “East West” Association for Advanced Studies and Higher Education GmbH, 2014. – 261 p.

ISBN-13 978-3-902986-72-6

ISBN-10 3-902986-72-7

The monograph presents various approaches for better understanding of successful implementation and elaboration of sustainable economic development on regional level.

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Typeset in Berling by Ziegler Buchdruckerei, Linz, Austria.

Printed by

“East West” Association for Advanced Studies and Higher Education GmbH
Vienna, Austria on acid-free paper. Circulation of 1000 copies

Am Gestade 1, 1010 Vienna, Austria

info@ew-a.org, www.ew-a.org

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Problems of sustainable development of the banking system of Ukraine in modern conditions

Проблемы устойчивого развития банковской системы Украины в современных условиях

1. The influence of banking system on the stable development of economy

Modern problems of Ukrainian economy development are accentuated with necessity of overcoming of the world and national financial crises negative influence in the conditions of financial resources limitedness. The economy development perspective depends on the credit resources volumes, which are formed and redistributed with the banking system. The financial system must operate without breaks in order to have ability to effectively distribution of resources for their efficient use with accounting the features of separate branches of economy. And the banking system is the important part of the state financial system and plays an important role in this process, actively influencing the state economic processes. It is the center of economic mechanism and co-operates with all branches of economy and population. The effectiveness of all industries development in the country and, as a result, of national economy development depends on the reliable and effective operating of banking system.

The separate problems of the banking systems functioning are reflected in works of such foreign scientists, as: O. Lavrushin, P.Rose, J. Sinki, J. Soros, and in labors of such Ukrainian scientists, as: O. Baranovskuy, I. Britchenko, O. Vasurenko, O. Vovchak, O. Dzubluk, M. Mogilnitska, A. Moroz, V. Kovalenko, L. Kuznetsova, M. Savluk.

Critical analysis of economic idea concerning interpretation of the concept "banking system" allowed the author by the realization of scientific generalization to form the next determination of definition "banking system": it is a part of the financial system, that consists of bank institutions, the specific of cooperation between which creates an independent economic

structure (levels) aiming to provide and regulate financial resources forming and use, that are necessary for the economy development demands.

Thus, to provide the stable functioning and development of the banking system, it is necessary to carry out its research, first of all, concerning the state economic system, then, considering its structure that determines the internal condition and organization of the banking system.

The interaction of the banking system with an outdoor environment represents figure 1.

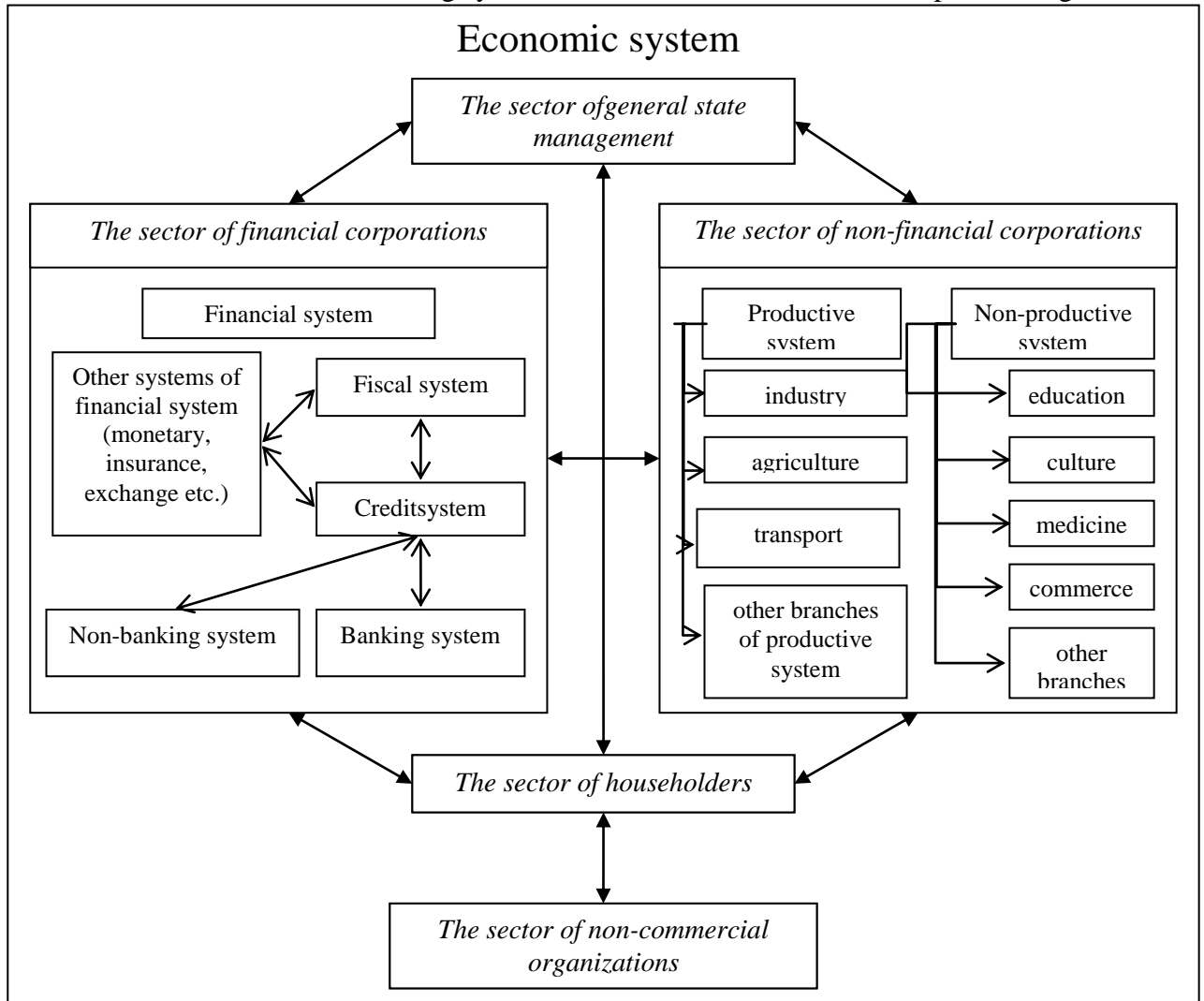


Figure1. The diagram of different level sectors interaction of economic system

So the banking system closely co-operates with an outdoor environment and is a part of greater formations such as credit, financial and economic systems of the country, that determines the necessity of its functioning in the accepted legislation framework. Budget system, tax system, system of pricing are organically linked with the banking system and they together influence the price determination in internal turnover and foreign economic activity. The banking system development must not conflict with general strategies, programs and public life principles. The banking system activity as a part of national economy is subordinated to the aims of the state economic policy and is in economic development optimal tempo stimulation. Between the financial corporation sector and the non-financial corporation sector it is important to have rational proportion: the financial corporation sector development must fulfill and be supported by the non-financial corporation sector development. So the banking system influences the processes that take place in all segments of economy. Banks at organization of its activity closely co-operate with other branches of economy, public authorities and population.

Structuring banking system first of all you have to determinate the levels that are the result of specific interrelation between central banks (regulators) and other bank institutions. It is known, that the modern banking systems depending on their organizational structure are single-level, double-level or three-level.

However, except banking system organizational structure, to our mind, making analysis it is necessary to take into consideration the second level bank structuring on the different characteristic, such as: by activity scale, by capital size, by ownership form, by law organizational form, by state belonging, by activity form.

The structural characteristic presence in the world banking systems was analyzed by the author (table 1).

Table 1

The structural characteristics in the world banking systems¹

Country	Banks by:				
	activity nature	law organizational form	ownership form	activity scale	state belonging
England	+	+	-	-	+
Byelorussia	-	+	+	+	+
Brazil	+	+	+	-	+
Italy	+	+	+	-	+
Kazakstan	-	+	-	-	+
China	+	+	+	+	+
Germany	+	+	+	+	+
Russia	-	+	+	+	+
USA	-	+	-	-	+
Ukraine	+	+	+	+	+
France	-	+	+	+	+

The analysis results of banking system structural characteristics prove that a large importance at banking system structure forming have the features of the national financial system structure, banking system historical development and their part at the financial market.

The research of the Ukrainian banking system position and tendency analysis of its development point out that during Ukrainian independence years it was formed as two-level, and in general meets the transitional period requirements. It became the important part of the financial system and actively influenced the economic processes in the state. The fast development of Ukrainian banks became the foundation of full value market relations and base elements forming, relating financial resources motion which lack made the market economy functioning impossible.

Aiming to determinate the features of the Ukrainian banking system development it is necessary to analyze basic structural characteristics that were formed in the process of the Ukrainian banking system development:

- 1) bank structuring by ownership form and state belonging;

¹ www.bankofengland.co.uk – офіційний сайт Національного банку Англії; www.nbrb.by – офіційний сайт Національного банку Республіки Білорусь; www.bcb.gov.br – офіційний сайт Національного банку Бразилії; www.bancaditalia.it – офіційний сайт Національного банку Італії; www.nationalbank.kz – офіційний сайт Національного банку Республіки Казахстан; www.pbc.gov.cn – офіційний сайт Національного банку Китаю; www.bundesbank.de – офіційний сайт Національного банку Німеччини; www.cbr.ru – офіційний сайт Центрального банку Російської Федерації; www.federalreserve.gov – офіційний сайт Федеральної резервної системи США; www.bank.gov.ua – офіційний сайт Національного банку України; www.banque-france.fr – офіційний сайт Національного банку Франції

- 2) bank structuring by activity form;
- 3) bank structuring by law organizational form;
- 4) bank structuring by activity scale.

However, to our mind, the dynamics of banks amount tell about the banking system development (figure 2).

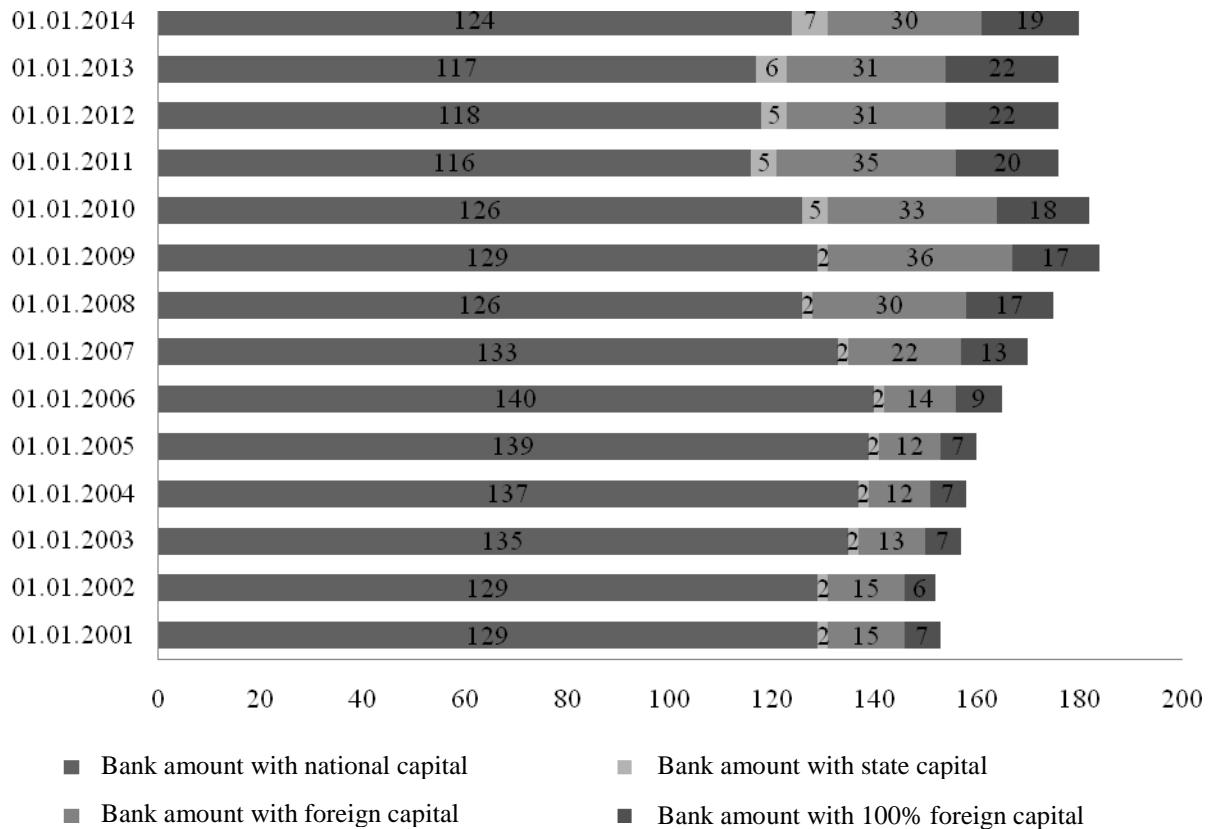


Figure 2. Dynamics of Ukrainian bank amount structure for the period 2000-2013¹

During 2000-2008 the banks amount increased constantly, and only the last five years it practically didn't change staying on the level of approximately 180 banks (see figure 2). It tells about the bank amount relative stabilizing on the determined level. It can be considered as positive tendency on this Ukrainian banking system development stage, although the bank amount is large enough compared with other Eastern Europe countries.

According to the figure, during the last thirteen years the bank amount with foreign capital grew more than twice (from 22 to 49 bank institutions) that testifies the bank service Ukrainian market attractiveness to the foreign investors at least before financial crises.

In Ukraine beginning with the banking system creation moment and up to 2009 there were two state banks: Ukreximbank and Oschadbank. All other banks of the second level were private. However, for the banking system functioning stabilizing in the financial crisis conditions the state began bank recapitalization policy and on the first of September, 2009 5 banks had been already controlled by the public management institutions. During 2012-2013 there were organized two state banks: the State agrarian bank and Ukrainian bank of reconstruction and development.

¹ Дані фінансової звітності банків України [Електронний ресурс]. – Режим доступу: http://www.bank.gov.ua/Bank_supervision/dynamics.htm

The important banking system structural characteristic is a bank structuring by ownership form and state belonging, that represents the authorized capital distribution of the banking system between state, foreign and national investors (figure 3).

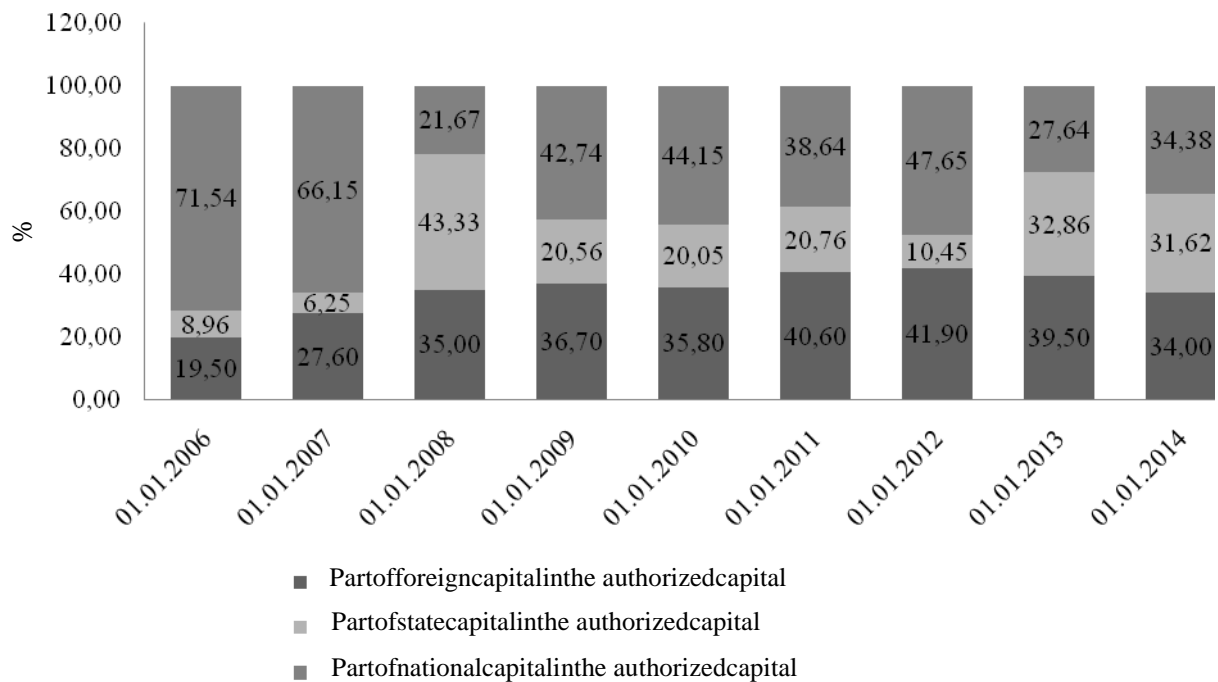


Figure 3. Property structure on money payments in the authorized capitals of banks in 2005-2013, in %¹

As we can see from the figure 3, up to 2007 in the property structure on money payments in the authorized capitals of banks national authorized capital dominates. But since 2008 the situation changed: the parts of state authorized capital (due to bank recapitalization) and foreign authorized capital increased. We have to underline, that today in the Ukrainian banking system the amount of banks with a national capital is practically 2,5 times more than with a foreign capital, but their parts in the authorized capital are practically equal.

The next criterion of the banking system structuring is existence of second level bank institution division by their activity for to universal and specialized. But, in fact before 2012 bank structuring by this characteristic was reduced to existence of only one specialized bank – Saving bank of Ukraine (Oschadbank), which obligations consisted of more than 50% of householders' deposits.

However, during the last years two specialized banks were organized in the Ukrainian banking system. In July, 2012 the State agrarian bank was created with authorized capital in 120 000 000 hryvnias, which belong to the state. Its main strategic purposes are: effective management of the state land of agricultural nomination; sponsorship of small and middle farmer development; support of Government program of agriculture branch development on the basis of the turning financing. And in August, 2013 Ministry of finance became the owner of the Ukrainian reconstruction and development bank that is planed to be used as a development bank for investment projects realization in priority industries of economy.

The next structural characteristic is the law organizational form. According to Ukrainian legislation, banks can be organized as a public joint-stock company or cooperative bank¹. We

¹ Дані фінансової звітності банків України [Електронний ресурс]. – Режим доступу: http://www.bank.gov.ua/Bank_supervision/dynamics.htm

want to underline that the bank institutions created as cooperative banks in the Ukrainian banking system today are not registered. To our mind, the absence of cooperative banks in Ukraine can be explained with high requirements to the minimal size of bank authorized capital on the level of 10 million Euro. However, paying attention to the aim of cooperative bank creation and their participants' features, it is necessary to recommend the National bank of Ukraine to review requirements of such banks creating. In this case the main object of control and regulation will be banking activity risks, and the capital level must be established according to risks and their operation amounts.

According to the National bank of Ukraine classification, bank institutions in size of assets are divided into four groups: I group – the biggest banks; II group – large banks; III group – middle banks; IV group – small banks. It is necessary to mark that requirements to bank institutions' attributing to one or other group don't have a constant value. It is explained by general bank activity development and as a result by the growth of bank asset volumes.

The comparative analysis of structural changes on the activity scale in the banking system of Ukraine is given in table 2.

Table2

The comparative analysis of structural changes in the banking system of Ukraine for 8 years (2005-2013 pp.), in %²

Indexes	Group of banks							
	I		II		III		IV	
	By the state on beginning of year:							
	2006	2014	2006	2014	2006	2014	2006	2014
Bank amount	7,36	8,33	9,20	11,11	17,18	12,78	66,26	67,78
Assets	57,74	64,31	17,58	17,36	13,00	8,09	11,67	10,23
Capital	47,58	58,41	15,50	21,96	13,78	6,74	23,14	12,90
Loans:	59,52	64,33	16,18	18,29	13,03	7,86	11,25	9,52
juridical person	55,72	63,11	13,56	19,47	6,54	7,53	12,12	9,89
individual	72,05	69,87	14,18	12,97	5,04	9,34	8,38	7,82
Deposits of clients	60,52	62,88	17,32	17,15	12,09	9,12	10,07	10,85
Deposits of bamnks	53,77	68,22	20,36	16,51	16,43	6,38	9,43	8,89

According to the table we can see, that for the last eight years a structure hasn't changed a lot. By January, 1, 2014 the largest par in the banking system structure by the bank amount belongs to the fourth group of banks (68%), other three groups make 32% bank amount, parts of what are divided as follows: first - 8%, second - 11% and the third group - 13%.

In 2000 the banking system structure was substantially different from modern. By that time middle bank institutions (108 banks) prevailed in a structure, that made 66% from general amount, the group of large banks had 45 institutions (27%) and small – only 11 (7%). Majority of banks, mainly with a national capital that belonged to II and III groups by 2000 couldn't increase considerably their assets for ten years, and with increasing of NBU requirements practically all these bank institutions passed to the fourth group.

As a result of active bank market development for analysed period the redistribution of bank institution groups participation took place in the basic indicators of the banking system

¹ Про внесення змін до деяких законодавчих актів України щодо форми створення банків та розміру статутного капіталу: Закон України від 14 вересня 2009 р. № 133-V [Електронний ресурс]. – Режим доступу: www.rada.gov.ua

² Дані фінансової звітності банків України [Електронний ресурс]. – Режим доступу: http://www.bank.gov.ua/Bank_supervision/dynamics.htm

functioning. As it was already marked, basic part of bank assets is concentrated in the first and second bank groups: for nine years on the first group it grew from 57,74% in 2005 to 64,31% in 2013, and on the second group practically it didn't change and is about 17,5%. A substantial decline, we can see, took place on the third bank group – from 13,00% to 8,09% and fourth bank group – from 11,67% to 10,23%.

It is necessary to mark structural changes that took place in redistribution of bank credit resources by groups. Share of the loans given to the first group bank clients grew: from 59,52% in 2005 to 64,33% in 2013, and the second group - from 16,18% to 18,29%, while its reduction took place in other groups of banks. If you compare the structural indicators on assets and given loans, then only on the first group banks the meaning of loans share exceeds their assets share in the banking system. This suggests that the main source of country economy providing by credit resources are the first group banks. First of all the value of this group of banks grows at the decision of the economy real sector crediting task.

However, in this situation there is a necessity of bank competition strategies research on active and passive operations: retail, corporate and sent to the interbank market for the purpose of banking system functioning positive influence providing on state economic development. To our mind, the use of cluster analysis allows to solve this problem and identify the groups of banks (clusters) depending on their competition strategies on the markets of attraction and placing resources.

Cluster analysis is the task of grouping a set of objects in such a way that objects in the same group (called a cluster) are more similar (in some sense or another) to each other than to those in other groups (clusters). Cluster analysis itself is not one specific algorithm, but the general task to be solved. It can be achieved by various algorithms that differ significantly in their notion of what constitutes a cluster and how to efficiently find them. Popular notions of clusters include groups with small distances among the cluster members, dense areas of the data space, intervals or particular statistical distributions¹.

Among the methods of cluster analysis the most distribution got the method of k-means clustering. In centroid-based clustering, clusters are represented by a central vector, which may not necessarily be a member of the data set. When the number of clusters is fixed to k, k-means clustering gives a formal definition as an optimization problem: find the k-cluster centers and assign the objects to the nearest cluster center, such that the squared distances from the cluster are minimized. Most k-means-type algorithms require the number of clusters - k - to be specified in advance, which is considered to be one of the biggest drawbacks of these algorithms.

The quantitative measuring for the bank institution strategies estimation will serve the next indicators:

- active operations: shares of loans to juridical person, individual and other banks in the general volume of credit portfolio;
- passive operations: shares of deposits of juridical person, individual and other banks in the general volume of the attracted funds.

The procedure of objects clustering on the base of k-means method is realized in a calculable application package "STATISTICA" in the module "Cluster analysis". Cluster analysis was carried out on the base of activity indicators of 180 Ukrainian banks on January, 1, 2014².

As a result of cluster analysis realization five groups of banks (clusters) are distinguished depending on their competition strategies on the markets of attraction and placing resources. Cluster analysis results by k-means method are given in table 3.

¹Yip A. Dynamic Cluster Formation Using Level Set Methods / Andy M. Yip, Chris Ding, Tony F.Chan. // IEEE Trans. on Pattern Analysis and Machine Intelligence. – June, 2006. – vol. 28, № 6. - P. 877–889.

² Дані фінансової звітності банків України [Електронний ресурс]. – Режим доступу: http://www.bank.gov.ua/Bank_supervision/dynamics.htm

According to the table, most Ukrainian banks attract funds at the retail market, but there is the determined amount of banks that mainly attracts funds at the corporate and interbank market. But banks are in a greater extent oriented to the retail market at fund placing. Thus, domestic banks mainly attract funds from population and place them at the retail market, that shows that banks fail the task of householders savings transformation in credit resources for the economy growth that doesn't provide state economy structural development.

Table3

Clusters of banks depending on activity directions in 2013

	Clus- ters	On the passive operations:			
		Retails	Corporates	Direct to the interbank market	
On the active operations	Retails	Privatbank, Oschadbank, Ukreximbank, Delta bank, Raiffeisen bank Aval, Ukrsotsbank (20)	Credit Agricol Bank	—	
		Fidobank, Pivdennyj, Imexbank, ING bank Ukraine, Chreschatik, Bank KievskayaRus, Zlatobank (35)	Rodovid bank, Cliringovuj dim, Finbank	—	
		Bank Vostock, Fortuna bank, Bank Pershij, Ideya bank, Taskombank, Bank of investments and savings (16)	Industrialbank, Bank of Cyprus, Pireus Bank MKB, Procreditbank, Vies Bank, Actsent Bank, "Kuiv" (31)	Radicalbank, Mistibank, Avtorhfzbank, Globus, Bank Unison, Ukgazprombank, Porto-Franko bank, Evrobank (54)	
	Corporates	—	—	—	
		—	—	—	
		—	Dojche bank DBY, SEB corporate bank, Omega bank, "Rozrahynkovijcentr", Bank Avangard (10)	—	
	Direct to the interbank market	—	—	—	
		"FinansovaInitsiativa"			
			Express bank, Pershijinvestutsijnun bank, Ukrcomunbank, Bank Soaijskij, Bank Mihajlivskij, Mellior bank, Motor bank, Fineksbank, "Concord"		

Note: in brackets the general amount of banks in group is indicated

On our mind, cluster analysis results concerning banks competitive strategies on the markets of attraction and placing resources, determine the necessity to realize the structural analysis of banks' credit portfolio for period 2000-2013 (figure 4).

According to figure 4, before 2009 the volumes of individual crediting increased gradually compared with volumes of juridical person credits, in other words there was the funds diversion from economy crediting and their directing to the retail bank market. Thus, the banking system of Ukraine doesn't practically play one of its primary roles – supporting and providing of economic branches development. The activity of the Ukrainian banking system must be directed

to development of the economically meaningful industries for the Ukrainian economy, such as agriculture and industry.

However since 2009 a situation changed. Thus, during 2009-2013 share of individual crediting reduced from 36,3% to 19,4%. To our mind, this tendency is explained by increasing of state role in the banking system of Ukraine.

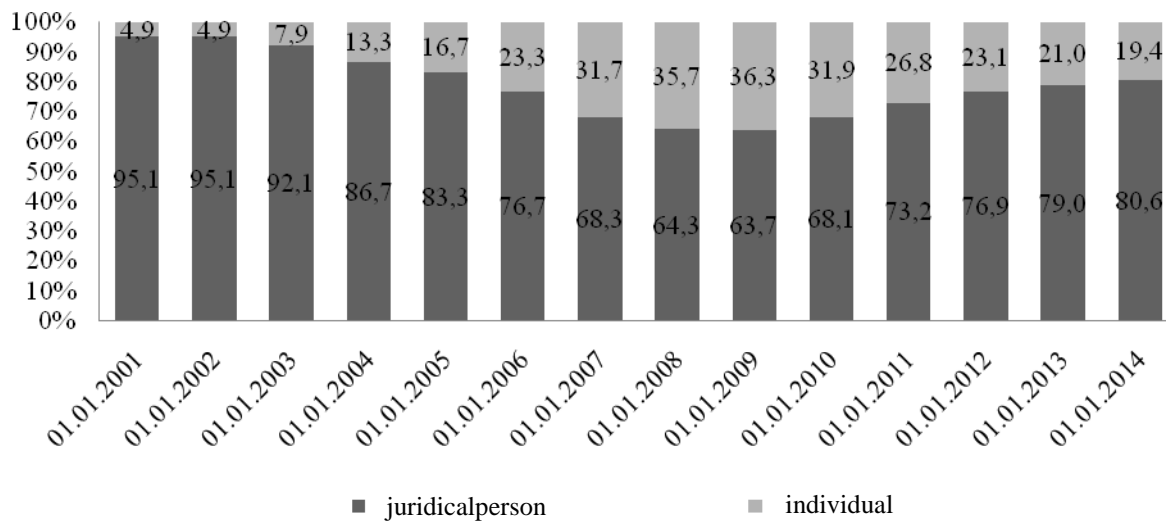


Figure 4 Dynamics of credit portfolio structure of the Ukrainian banking system for 2000-2013¹

Since our country gained independence scientists assert that it is necessary to reform Ukrainian economy, overcoming its inefficient development problems and low efficiency. Reformation of the banking system is one of the most important factors of the permanent economy growth and formation of investment-innovative development considering the objective processes of financial globalization.

The results of the research make it possible to conclude, that the Ukrainian banking system structure is unable to provide the necessary accumulation of credit resources, serve an investment process, and assist creation of innovative model of Ukrainian economy. A situation is complicated by the fact that the considerable part of second level banks isn't interested in priority industries crediting for economic development. Until recently, most banks invested resources in the retail crediting development that did not cooperate with the state economy growth and was related to the row of macro- and microeconomic risks (assistance to the import, increase of credit and currency risks, etc.).

Therefore, to achieve sustainable economic growth of the state and social problems decision, first of all, it is necessary to create agrarian banks, that will help to activate the agricultural enterprises crediting. They should be middle in sizes, because only these banks can, on the one hand, take into consideration a local specific of operations, on the other – conduct the sufficient volume of operations to have the opportunity to attract resources for formed mortgage pools. Secondly, for the financial providing of innovative model of economy development it is necessary to create institutes that are able to provide with credit resources the processes of creation and realization of innovation development, and implementation of these tasks should be laid on the specialized innovative banks. The activity of specialized banks must be directed to the creation of favorable conditions for the Ukrainian economy development across the Ukrainian village life upgrading by a state lend effective management and assistance to development of innovative and investment activity.

Thus, for the change of bank competitive strategies at the market of placing resources in the side of corporate crediting it is necessary to combine efforts of banking system, under the

¹ Основні показники діяльності банків України [Електронний ресурс]. – Режим доступу: http://www.bank.gov.ua/Bank_supervision/dynamics.htm

control of the National bank, government, parliament and President, that must be sent to realization of general task.

2. Development of consolidation processes of bank capital in Ukraine

One of the most important problems of banking system activity in Ukraine in terms of financial globalization is ensuring the competitiveness of banks. Based on the fact that in modern conditions of world financial system globalization multinational companies demand suitable for them by the scale bank structures and also require banks to provide a wide range of banking services, the research of consolidation processes as one of the priorities ways of the effective Ukrainian banking system development becomes actual.

The banking sector consolidation is the complex concept which is implemented in such forms: temporary associations of banks based on the contracts and legislatively fixed bank associations based on processes of mergers and acquisitions in order to obtain a synergistic effect. Considering that definition, structural elements of bank's consolidation are: forms of joining, types of synergy effects and mechanisms of joining (figure 5).

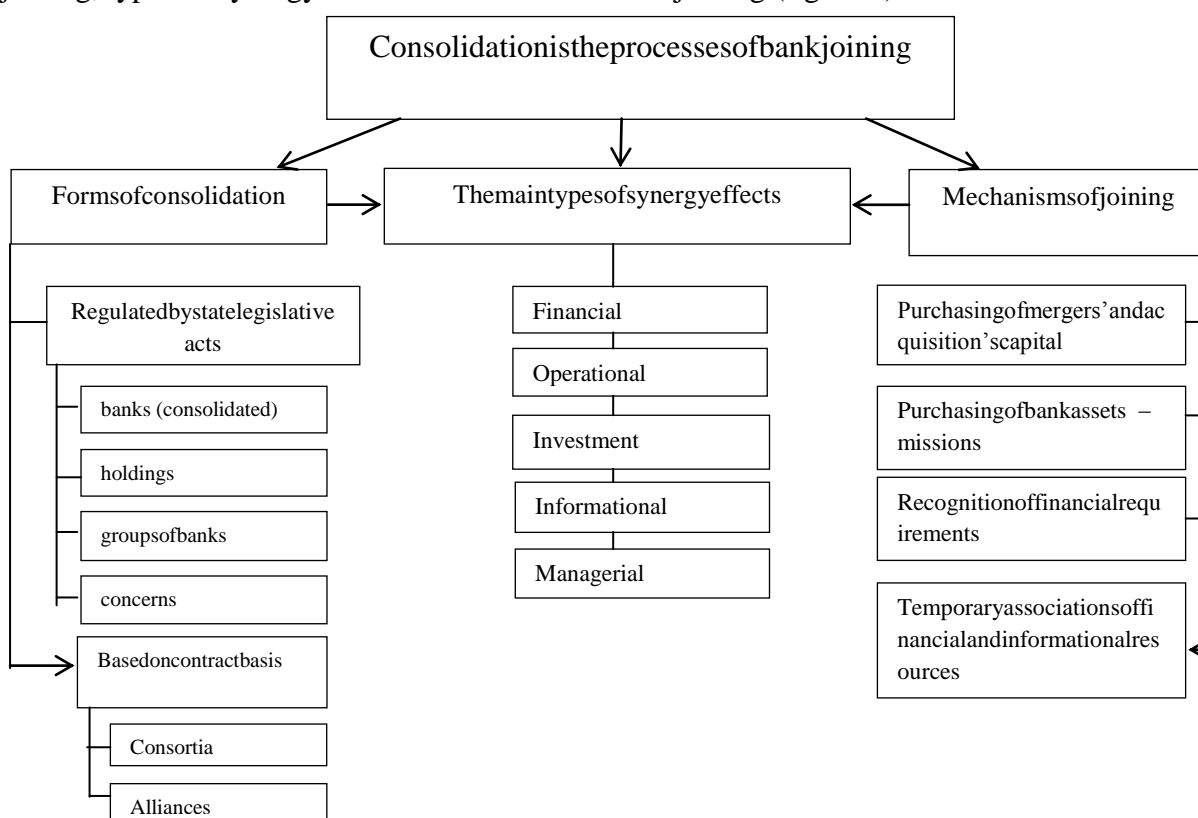


Figure 5. Components of bank consolidation

According to figure 5 we can see, that consolidation is a wide definition, that includes as well processes of mergers and acquisitions of banks and also temporary associations of banks for funding for individual programs (how to solve the problems of development of different sectors of economy, as well for banking sector, for example purchasing of bad assets). Synergy effects are results of the consolidation processes.

We are talking about the synergy effect in the realization of consolidation processes when joining of two banks gives next results: value of their assets is higher than the sum of their assets; economy on scales of banking business- processes is achieved or there is the promotion of banking products and services.

Synergy can also take place due to the elimination of duplicate costs in management, investment, use of information technology and communications. That means that value of bank

capitals increase due to the fact that using of all resources in the consolidated bank will be organized more effectively.

Temporal association of banks for financing specific programs (as for deciding tasks of the different economy sectors development, so for the banking sector as well) can be created in the form of alliances. According to international experience, one of the most perspective sectors for the strategic alliance formation are considered the banking and insurance sectors. The main reasons for the interest of insurance companies and banks in cooperation are following: the ability to expand its customer base; diversification of capital; increasing the rate of investment resources return; accumulation of cash flows in the one system; providing customers with a full range of banking and insurance services.

The analysis of consolidation processes that was done allowed to select five stages of consolidation during the all history of banking system existing in Ukraine (Table 4).

Table 4

Stages of bank consolidation processes development in Ukraine

Stages of consolidation processes development	Characteristics
I stage (1996-first half of 1999) – forming of background for the bank consolidation process development	Background for the bank capital consolidation development is formed: norms and procedures of interbank relation are put into practice; Regulations “On the procedure of consortium crediting” are approved, the concentration on the bank market are intensified.
II stage (second half of 1999-2005) – domestic banks consolidation	Formation of strategies for big banks penetration into regional banks markets which include extension as of the own network of the bank offices, so reorganization by mergers and acquisitions; consortium crediting develops actively; domestic bank joining prevails, is started
III stage (2006-2008) – consolidation of national banks with foreign capital	Under influence of integration and globalization processes, consolidation processes of national banks with foreign capital are activated, price for acquisition of domestic banks increases; consortium crediting develops actively and strategic alliances and financial-industrial groups with banks begin to establish.
IV stage (2009-2010 p.) – consolidation processes suspense because of the crisis	Quantity of bank joining agreements are decreased considerably, all consolidation processes are slowed down because of foreign capital outflow from the financial market, sharp deterioration in the quality of loan portfolios and unprofitable activities most banks are characteristic.
V stage (2011-tillnow) – revival of consolidation after the world economic crisis	Foreign banks sell their affiliates for minimal price, and domestic banks buy them; capital cost multiplier falls down; consortium crediting activates, Alliances and financial-industrial groups are functioning with participation of banks.

First stage of bank capital consolidation processes in Ukraine is the period from 1996 till the first half of 1999. At this time we observe tendency of bank quantity decrease (mainly puppets), which become clearly apparent after crisis of 1998, when a lot of Ukrainian banks suffered because of rate exchange drop for hryvnya and correspondent devaluation of bank capitals. At the beginning of this period big systemically important banks are formed, network of their affiliates and variety of services are enlarged, i.e. concentration at the bank services market strengthens, but low competitive level in the bank area does not encourage the merger processes.

At this period National Bank of Ukraine (NBU) forms legislation basis for the bank consolidation processes development on the contractual basis. So, it approves Regulations “On

the procedure of consortium crediting” No 37 dated 21.02.1996, where bank consortium are defined as temporary association, which is established for coordination of actions for making different bank operations or for crediting one but big contract and established by banks on equal basis. At that time inter-bank crediting was just started to be regulated by NBU norms.

Therefore, the feature of this period is forming of the background for the bank capital consolidation development.

Second stage – years 1999 -2005 –is the period of stabilization of Ukrainian bank system. At this period formation of strategies for penetration in to regional banks markets and their implementation takes place. This includes extension of bank net, and also reorganization by merger.

It has to be mentioned that the integration processes in the banking system of Ukraine, started from year 2000, are actively developed and characterize two contradictory tendency: the first one – internationalization of national banks, their integration into the world banking system, the second one – wish to maintain independence, internal integrity and economic potential of domestic banks for independent financing of the national economy development. The mentioned above has influenced the consolidation processes in the bank area.

The feature of the consolidation processes at this stage is merger agreements, namely, between middle and small banks of Ukraine. For example, in 1999 some region banks were merged by bigger banks, they were made affiliates (Commercial Bank (CB) Ukruniversalbank – into the affiliate of Joint Stock Commercial Bank (JSCB) Avtokrazban, Joint Stock Bank (JSB) Victoria – into the affiliate of JSB Evrotsentr; JSB Armand – into the affiliate of the JSB Stolichny) and in 2000 (JSCB Ukrnaftogasbank – into the affiliate of the JSCB Ukrgasbank; JSB Invest-bank Ukraine – into the affiliate of the JSCB Tavrika.

Therefore, merger processes in the bank capital consolidation system in Ukraine started in 1999 – from the domestic banks merger. The result of such mergers was increase in capital volume, strengthening of the position in a region by the bank that made a merger.

As for other form of consolidation – joining at the contractual basis –we have to mention active development of consortium crediting at this period. So, in 2005 consortium of Ukreksimbank and Oshchadbank was created.

Thus, the conducted analysis of the consolidation processes at the period from 1999 to 2005 shows that the feature of this stage is joining of domestic bank by merger and establishing consortium.

The third stage of consolidation (2006-2008pp.), in contrast to the second one, is characterized by quick increase of merger processes between domestic and foreign banks, development of consortium crediting and establishing of strategic alliances, this was the result of globalization in the financial sector of Ukraine.

The period of analysis is characterized by high speed growth of foreign bank amount and increase of foreign capital importance in the total capital of Ukrainian banks. The involvement of foreign banks in the Ukrainian banking system has positive results and stimulates increasing of active operations, introducing of new informational technologies and new bank products, that promote augmentation of banking system capitalization. But, apart from positive results, foreign banks activity, their existence began to create conditions for decrease liquidity and paying capacity of domestic banks because of the abrupt outflow of the foreign capital in 2008 and change the direction of loans to the areas what are profitable to the foreign investors but not strategically important for the development of national economy.

In 2006 – 2007 foreign investors bought several dozen banks, which were sold with price equal to the cost of banks capital multiplied by 4 – 6 (when in world practice even multiplier equal to 3 is astonishing). Demand for Ukrainian banks among foreign investors in 2006-2008 confirms high level of the factor P/BV (ratio of market cost to the balance cost), which reflects cost of company’s assets formed with their own capital on the basis of one share.

According to our estimation, an average value of P/BV for public agreements in the bank sector of Ukraine in 2004 was 1.4, in 2005 – 3.14 already, getting to the maximum in 2006 – 5.2.

During 2007- 2008, coefficient P/BV decreases to 3.0 due to the practice of bank merger without branching of territory net (figure 6).

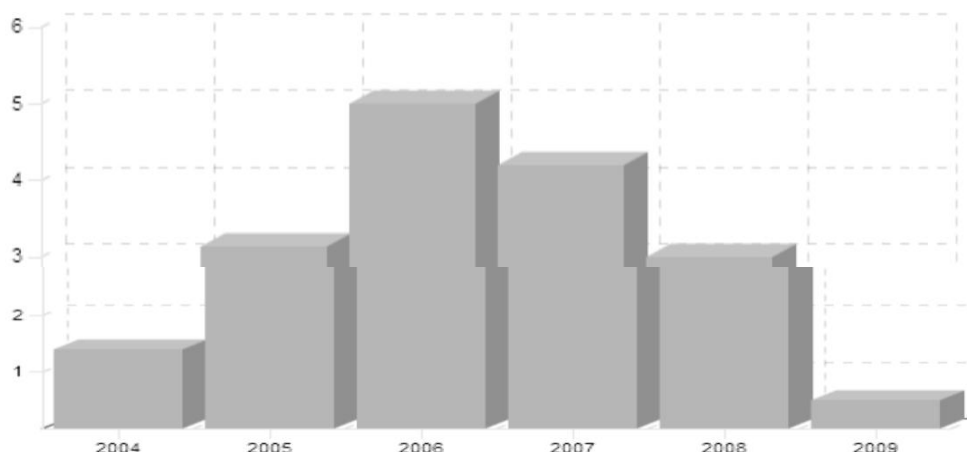


Figure 6..Dynamics of P/BV value of merger agreements in the bank sector of Ukraine in 2004-2009

From 2004 till 2006 included cost of domestic bank acquisition increases almost in twice, that is the result of globalization influence to the Ukrainian banking system development.

Interest to the Ukrainian banks before crisis is explained by high speed of the domestic banking system development: assets and credit portfolio of banks of Ukraine have been increasing for 60 - 70 % annually. Also Ukraine has quite big client market, which has potential of grow thin all segments much bigger than European or American one.

At this period Russian banks showed great interest to our domestic market of bank services, the biggest banks with state capital were among them: VTB, Vnyesheconombank, Sberbank of Russia (in 2008 it bought Ukrainian bank NRB) and bank of Moscow, also private bank Alfa-bank. As a result, for the beginning of 2009 specifically Russia was the leader by the capital volume (almost quarter in the total amount of foreign investments in to the Ukrainian bank sector) invested into the Ukrainian banks. Russia had control over 11 banks of Ukraine, three of them are in TOP-10 of our domestic market.

Specific feature of the Ukrainian banking service market was absorption of Ukrainian bank by the foreign investor and its further selling to another investor, because many of those, who announced their coming to Ukraine, were in lists "assets for sale", they bought bank assets only to enlarge international structure of their business. They didn't develop their activity in Ukraine and made preparations for selling assets (e.g. in 2006 Austrian Raiffeisen Bank sold its "daughter" to the Hungarian OTP Bank for 650 mln euro (attempt to amalgamate it with "Aval" didn't succeed).

At the end of 2008 at the domestic market of bank services began absolutely new campaign of mergers, determined by financial crisis, which made some bank almost bankrupts.

The owners of two banks from the top 10 had to give away their business almost for nothing. Thus, "Nadra Bank", which felt outflow of deposits as a result of financial difficulties, was purchased in November by holding company DF Group (by 86.7% of stakes in the former owners received only 60 million U.S. dollars, while in September 2006 the President of "Nadra Bank " estimated at over 1.5 billion dollars. U.S.).

It should be noted that in this (third) period consortium loans processes are activated and alliances and PPG begin to set up, that is also a manifestation of consolidation.

Consolidation develop of syndicated loan market is characterized by appeal to other banks with the proposal of forming a consortium, when they have problems with liquidity. For example, when the group "Kontynium" implemented the project of trade-office center construction near the sq. Victory in Kiev, there was necessary to use large amounts of credit

resources. The project cost was a little over 30 million, so the problem was solved by a consortium, whose members were Ukrsocbank and the bank "Nadra".

Strategic alliances play a leading role in financial markets. They are the main component of global competition, allow to achieve the strategic goals and synergy quickly and with low operating costs, less needs for financial resources and high potential for success.

Fourth stage of consolidation includes the period of 2009-2010. The feature of this period is the sharp decline of the processes of consolidation and outflow of foreign capital from the financial market.

The global financial crisis, what was provoked by the securitization of mortgage loans in the USA, which had their inherent risk and has sold almost all over the world, has influenced on the banking system of Ukraine as well. Quantity and size of the deals in 2009 sharply decreased on the mergers and acquisitions market. If in 2007 there was fixed 13 deals of bank purchasing for the amount 4.3 billion USD, then in 2009 EBRR and the German Development Bank KFW bought a 30% of stakes in Kharkov "Megabank" and Ukrainian businessman Andrew Onistrat - 95% of shares in the bank "National credit".

Among the factors that complicated the agreements of 2009, experts called excessive demands by sellers and in the same time real low market value of the sold asset. The main reason for the narrowness of the themergers and acquisitions market in Ukraine, experts mentioned the lack of funds for transactions.

Imperfections of credit risk regulation have reduced financial support for the processes of consolidation of banks, that led to losses as in the global banking system and also in the national systems, as evidenced the negative income (loss). Considering this it is necessary to conclude: financial globalization can lead to the motive process, since advanced information technologies cause the instant transition of crisis from one country to the large regions of the world and may even have a negative impact on the entire global economy. Often the main term of the agreement performed even not by price but buyer readiness to repay debts which "hang" on credit.

Since 2010 the tendency to leave the banking sector in Ukraine by foreign investors has growed. The first foreign group that left the Ukrainian banking market with the advent of the crisis was the ING Group. This is the first time that a foreign bank went out of business, recognizing that the strategy by which they were trying to win the market, not justified. Then German Dresdner Bank has liquidated its representative office, and the British HSBC and Polish Pekao have done the same.

During the analyzed period a consortium of banks almost stopped to create: in the conditions of large losses on credit operations and a significant level of personal risk of the client, each bank determines the possibility of granting loans singly and did not cooperate with others.

Thus, the consolidation processes of the fourth stage are characterized by a significant decrease in the number of deals, the reason for this change is the negative impact of financial globalization on the development of bank combining processes in Ukraine.

The last, fifth stage (2011 – middle 2014) is the modern stage of the development of bank consolidation processes.

Since the beginning 2011 four foreign groups have leaved the Ukrainian banking sector. So, in the beginning of 2011 Home Credit Group, which had Agrobank (Home Credit Bank), has leaved the market due to selling of 100% of shares to Platinum Bank. The next one who want to leave the banking sector of Ukraine was announced the Holland company TBIF Financial Services, which is the part of group Kardan N.V., it has signed an agreement to sell 84% of shares of VAB Bank in connection with the revision of its development strategyю

In 2013, the most active player on the consolidation market was Delta Bank, which bought five foreign banks. Possible reasons for selling by foreign investors are given in Table 2.

Thus, summing up, we note that tendencies process of consolidation in the banking sector of Ukraine changed in recent years due to the global economic crisis.

Table 5.

The reasons of foreign banks leaving of Ukraine

Inside factors:	Outside factors:
<p><i>a) economic:</i></p> <ul style="list-style-type: none"> - significant decrease of real income of people - low ability to pay of corporate borrowers - high proportion of defaults by loans, high cost of collectors' operation <p><i>b) regulatory:</i></p> <ul style="list-style-type: none"> - prohibition to provide loans to individuals in foreign currency - restrictive monetary policy of the NBU to contain the liquidity 	<p><i>a) economic:</i></p> <ul style="list-style-type: none"> - increase the value of foreign borrowings on the background of the crisis of sovereign debt in the EU - some disappointment of Western investors in Ukraine <p><i>b) regulatory:</i></p> <ul style="list-style-type: none"> - stricter requirements "Basel III" to the main capital adequacy, which has negatively affects from the share of risky assets in the countries, in which foreign banks are represented

Current condition of the Ukrainian banking system development require the new approaches to monitoring and operational analyzing of the banking institutions activities that should be focused on identifying potentially dangerous tendencies, to be guided to strategic perspectives and operational tracking of current parameters of activity, that can signal the occurrence of negative trends, which is very important for further development of consolidation processes and increasing of their efficiency.

In our opinion, activation of processes of banks' consolidation will contribute to the implementation of a systematic approach, which has such feature as a different approaches to bank, depending on mentioned groups (market leaders, small and medium banks) in which it entered. Thus, consolidation among leading banks must be limited, that needs improvement of methodology for assessing the processes of concentration and competition. For medium-sized banks there is a necessity to develop a series of measures to stimulate the creation of banking organizations (corporations, holding companies, etc.). In order to limit the number of small banks, which are mostly captive, it is necessary to increase capital requirements of banks, which have market share less than the average size of the bank, but in the same time does not exceed 1%.

Consideration of proposed recommendations, we believe, will help create efficient and effective banking system structure of Ukraine, which can provide a long-term competitive advantages for banks, will increase the stability of the banking sector and promote sustainable economic development of Ukraine.

3. Risk assessment of banking system of Ukraine at current development stage

The most vigorous world economic crisis of 2007-2008 seriously sharpened social and economic disproportions in development of national economy. Within the period when economy of the most of the countries has already demonstrated positive dynamics our country still has the first priority issue to increase real GDP comparatively to high rate of inflation. It is necessary to outline that the above-mentioned problem solution can be achieved via reinforcement of bank system stability so that it would be able to accumulate citizens' savings with their further transformation to investments of national economy development. Therefore, the issue of the risks assessment and their impact upon financial stability and constant development of banking system is of high interest nowadays.

The issue of constant development and risks assessment in banking is widely highlighted in works of national and international economists like: Alexeenko M., Vojjov A., Klimenko O., Prymostka L., Smirnov A. The issues of credit activity of banks are considered in

works of many academic economists, in particular, like V.V. Vitlinsky, A.P. Kovalyov, S.N. Kabushkin, A.B. Kaminskyetc. Scientists consider the content of bank risks, their components, methods of assessment and forecasting. At the same time scientific research results devoted to identification and evaluation of quantitative relation between bank risks, financial stability and establishment of bank institutions are not available. Therefore, the aim of the given research is to substantiate scientific and methodological grounds of bank risks quantitative assessment, their relation and impact upon the processes of systematic risk formation and constant development of bank system of Ukraine.

To make the risk assessment it is necessary to identify available classifications that are based on legal provisions of national and international evaluation practice (Table 6.).

Table 6

The classification of banking risks according to *International Financial Reporting Standards*¹, *Basel Accords*² and decree of National Bank of Ukraine³

Risk Types	NBU	Basel	IFRS
1. Credit	+	+	+
2. Market	+	+	+
2.1. Foreign exchange risk	+	+	+
2.2. Interest rate risk	+	+	+
2.2.1. Specific and General	-	+	-
2.3. Equity position risk (Specific and General)	-	+	-
2.4. Other price risks	-	-	+
2.5. Commodities	-	+	--+
3. Operational	+	+	-
4. Liquidity	+	+	+

According to the data in Table 1., credit, market and liquidity risks are set out in the most important international classifications and accordingly in legal instruments of the National Bank of Ukraine. It is necessary to point out that if to speak on the economic content and credit risk classification there are no discrepancies in the above-mentioned documents related to methods of its quantitative assessment only. Credit risk is the risk that one party to a financial instrument will cause a loss for the other party by failing to pay for its obligation. Liquidity risk – Liquidity risk is the risk that an entity will have difficulties in paying its financial liabilities¹. The necessity to assess the liquidity risk for identification of own business efficiency became clear right after crisis events of 2007 and its quantitative assessment was foreseen only for the calculation of assets under risk and simultaneously expected losses resulted from liquidity losses were not considered. Emergence of operational risk can be due to mistakes in management or fraud. Assessment exigency and its consideration while evaluating the business efficiency appeared

¹Mizhnarodni standart finansovoy zvitnosti 7. "Finansoviy instrumenty: rozkrytyyainformatsiy" [International Financial Reporting Standard 7. Financial Instruments: Disclosures] http://zakon3.rada.gov.ua/laws/show/929_007

²Krotyuk V., Kutsenko O. Basel II: rozrahunok minimalnoy obhidnoy velichyny kapitaluzgidno z Pershoyu komponentoyu. [Basel II: calculation of the minimum capital required value according to the first component] In Visnyk Natsionalnogobanku Ukrainy. 16-22. №5. 2006.

³Postanova Pravlinnya Natsionalnogobanku Ukrainy Pro shvalennya Metodichnyh rekomendatsiy shchodo organizatsiy ta funktsionuvannya system rysyk-menedzhmentu v bankah Ukrainy 361 vid 02.08.2004 zizminami ta dopovnenniyami [Decree of the National Bank of Ukraine "On approval of the Methodological Recommendations on the organization and functioning of risk management in banks of Ukraine" 02/08/2004 № 361] <http://zakon4.rada.gov.ua/laws/show/v0361500-04>

when Basel Agreement was under improvement and its 2nd version was approved in 2004¹. Anyway, still there are not methodological tools for assessment of expected losses due to this risk in the national legislation.

It is necessary to highlight that the most significant discrepancies are found in classification of market risk, it requires additional clarification and more researches are to be carried out in this direction.

There should be also mentioned that quantitative assessment of credit risk is held firstly from the point of efficiency evaluation and secondly from the point of expected losses. Nevertheless, the research² proved the connection of all these directions into the system of expected losses assessment (reserves for the credit operations).

Classification of risks shown in Table 7 complies with recommendations of Basel Agreement on the Capital¹. Having used the data of official statistical reporting we can evaluate the credit risk with high expectancy and we can partially assess share and percentage risk. Calculation of available provisions and use of basic indicator allows us to widen risks variety that can be given quantitative assessment.

Table7

Methodology of expected losses estimation with the account of international requirements and available information database

Provisions shown in balance sheet	Types of risks	Expected losses (requirements to capital)
1	2	3
Loan's provisions	1. Credit	Loan's provisions
2. Market		
2.1. Foreign exchange risk		
Not assessed	<i>Special</i>	Not assessed
Not assessed	<i>General</i>	8% of the higher of either the net long currency positions or the net short currency positions
2.2. Interestraterisk		
Provisions according to the portfolio of securities to be sold	<i>Special</i>	Provisions according to the portfolio of securities to be sold
Not assessed	<i>General</i>	Open positions for securities * 8%
2.3. Equity position risk		
Provisions according to the portfolio of securities for the amortization and sale	<i>Special</i>	Provisions according to the portfolio of securities for the amortization and sale
Not assessed	<i>General</i>	Open positions for securities * 8%
Not assessed	2.4. Commodities	Not assessed
Not assessed	3. Operational	Basis indicator $[\sum ((NII + NNII \times \alpha)) / n, \text{ where } \alpha - 15\%, n - \text{number of years with positive } (NII + NNII)$ (NII + NNII) = Profit before income tax expenses

¹Krotyuk V., Kutsenko O. Basel II: rozrahunok minimalno neobhidnoi velychyny kapitalu zgidno z Pershoju komponentoyu. [Basel II: calculation of the minimum capital required value according to the first component] In VisnykNatsionalnogobankuUkrayny.16-22. №5. 2006.

²Zherdetska L.V. Obruntuvannya metodychnyh zasad otsinky dostatnosti vlasnogo kapitalu dlya pokryttya ryzykiv bankivskoi diyalnosti [Methodic basics rationalization of the capital adequacy evaluation for the banking risks coverage] In Nauka i Economica. Naukovo-teoretichnyi zhurnal Khmelnytskogo ekonomichnogo universytetu. 19-29, № 1 (33). 2014.

Methodological approach together with index of 8% for the assessment of risks is based on recommendations of Basel Agreement and national legislation¹. It has to be noted that the calculation of indexes shown in the third column cannot be treated as assets and in a way are provisional so they do not allow to assess adequately the own fund of a bank, anyway, for our research this figure gives us the possibility to illustrate the existence of sufficient number of bank institutions that lead their activity in compliance with the requirements of the National Bank of Ukraine for the funds norms but they do not have enough funds for their own to cover possible losses.

To assess quantitative impact upon the indexes of sufficiency of the very credit risk we consider it necessary to evaluate the structure of expected losses due to acceptance of outlined risks (figure 7).

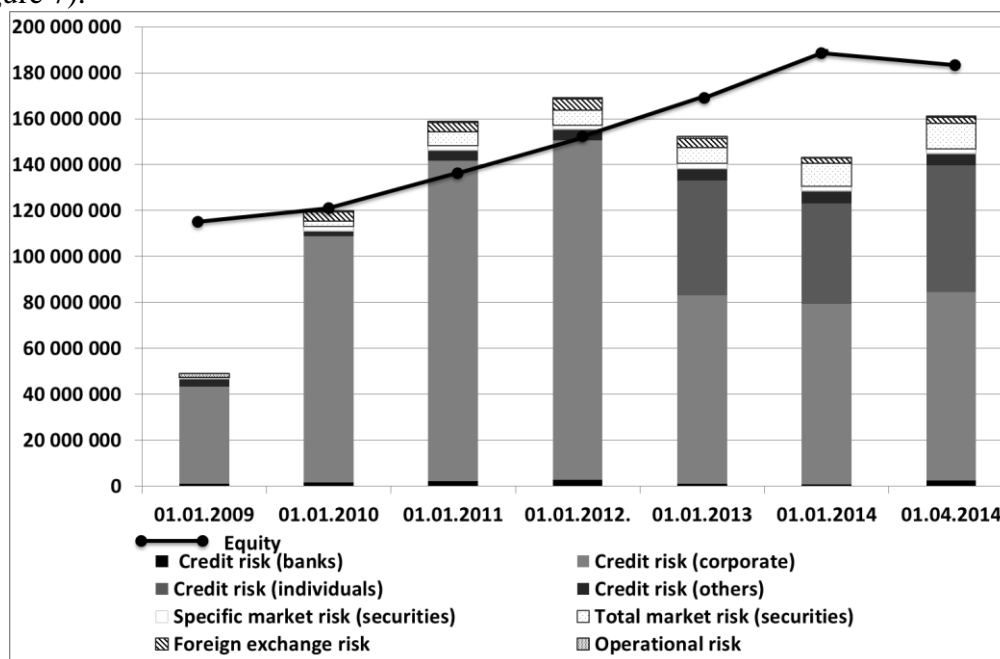


Figure7. Dynamics and Structure of Expected Losses and Equity of Ukrainian Banks for the period of 01.01.2009-01.04.2013., in thousand UAH²

Note: before 2013 indexes «Credit Risks (corporate)» include loan's provisions provided to the clients (corporate and private entities)

It is necessary to point out some issues on groups of chosen risks and their quantitative assessment. In research on the basis of data taken from public financial reporting on special assets there were formed such components of expected losses: credit risk due to counteragents and market special risk (risk related to issuer). The rest of risks shown in Pic. 2.1. are evaluated by the author as those balanced to the coefficient 0,08 of open provisions due to securities and currency; operational risk was estimated as gross income balanced to the coefficient 0,15. The coefficients used in this research were taken from the recommendations of Basel Agreement on the Capital³.

Therefore, due to the information shown in the Pic. 2.1. it becomes evident that the most crucial risk the acceptance of which leads to considerable losses is the credit one. It is also clear that market risks connected with securities deals are not considerable as nowadays such deals are not that numerous.

The dynamics of expected losses due to acceptance of credit risk shows the following:

¹International Convergence of Capital Measurement and Capital Standards // www.bis.org/publ/bcbs128.pdf

²DanifinansovoizvitnostibankivUkrainy. [Data from financial statements of Ukrainian banks] http://www.bank.gov.ua/control/uk/publish/category?cat_id=64097

³International Convergence of Capital Measurement and Capital Standards // www.bis.org/publ/bcbs128.pdf

- approximately 90 % of expected losses are the provisions on credit operations and this evidences the significant impact of credit risk acceptance upon financial results and stability of bank institutions;

- in 2013 there was a positive tendency of previous periods to reduce provisions of loans, possible reasons of this tendency might be: reduction of credit volumes, successful operation with problematic debts, changes in methodology of loan's provisions calculation;

- during the 1st quarter of 2014 the level of risks increases again against the decrease of owner's equity, though these assets are enough to cover risks; at the same time the continuance of negative dynamics of these indexes can lead to exceeding of expected losses over the equity, as it was in 2009-2011.

Risks are inherent for any kind of economic activity connected with operations that involve foreign currency transactions. Probability of their emergence, depth and exquisiteness of economic consequences are hardened with the development of market relationships, frequency of integration processes in the society, widening of activity spheres for the players of the exchange market, globalization of financial markets. Under these circumstances there is a necessity to predict and reduce monetary risks for the banks and their clients. Most of researchers and economists define foreign exchange risk as probability of monetary losses in the result of currency exchange fluctuations. Foreign exchange risk accompany the following bank transactions in foreign currency:- credit, deposit and settlement operations related to clients servicing;- currency exchange and conversional operations;- currency (arbitrage) transactions those carried out for the bank's account. Banks of Ukraine perform most of the above-mentioned operations and accordingly face the probability of monetary losses in the result of exchange rate fluctuations. We need to note that the probability of monetary losses in the result of currency exchange rate change within the credit and deposit operations abruptly increased in the period of economic crisis 2008–2012 which became of global significance. Its exercitation in currency sphere of Ukraine became evident via sudden depreciation on national currency against international currency (in the fourth quarter of 2008 Ghryvna depreciated against US dollar more than twice – from 4,60 to 10,0 UAH per 1 US dollar). Such lap of the exchange rate lead to sudden increase of loan debts in foreign currency from 231,0 billion UAH to 442,5 billion UAH in 2008 and equivalent increase in losses resulted from the currency exchange rate change (Table 8).

Table 8

Percentage of loans and deposits in foreign currency in bank system of Ukraine in the period of 2005-2013¹

Year	Loans			Deposits		
	Total, bln. UAH	Including foreign currency		Total, bln. UAH	Including foreign currency	
		Sum, bln. UAH	Percentage,%		Sum, bln. UAH	Percentage,%
2005	155,9	62,1	39,9	141,8	50,6	35,7
2006	267,3	131,9	49,4	200,6	80,0	39,9
2007	480,6	231,0	48,1	308,6	108,2	35,1
2008	776,7	442,5	57,0	421,0	210,4	50,0
2009	760,8	375,0	49,3	391,9	206,6	52,7
2010	774,2	347,8	44,9	457,9	206,3	45,1
2011	847,1	351,0	41,4	553,0	247,1	44,7
2012	815,1	299,6	38,8	572,3	252,1	44,1
2013	910,8	308,0	33,8	670,0	248,2	37,0

¹Official web-site of National Bank of Ukraine [electronic source]. - Access: <http://www.bank.gov.ua>

According to the data in Table 1 percentage of loans in foreign currency for the period from 2005 to 2008 was increasing from 39,9 % to 57 %, and from 2009 this index in total amount of credit portfolio was decreasing. Percentage of deposits in foreign currency in the period of 2005-2007 increased insignificantly, though, depreciation of Ghryvna at the end of 2008 and 2013 resulted to sudden increase of this index in the stipulated periods.

Suggested structure of loans and deposits in foreign currency in banks of Ukraine evidences the underestimation of foreign exchange risk before 2008 that lead to huge losses in the result of Ghryvna depreciation.

The analysis of loans and deposits in banks of Ukraine in foreign currency shows misbalances that would increase probability of losses from exchange rate fluctuations (Table.9).

Table 9

**Analysis of deposits and loans of private households according to redemption time,
mln. UAH**

Indexes	Total	Due to redemption time:	
		Current and up to one year	Exceeding one year
Private households deposits d/d:			
01.01.2009	14 006	5 794	8 212
01.01.2010	14 154	10 245	3 909
01.01.2011	16 601	9 769	6 832
01.01.2012	18 756	10 181	8 575
01.01.2013	22 832	10 432	12 400
01.01.2014	23 035	7 621	15 415
Private households loans d/d:			
01.01.2009	36 427	3 611	32 816
01.01.2010	30 213	2 821	27 392
01.01.2011	26 318	3 336	22 982
01.01.2012	25 185	4 489	20 696
01.01.2013	23 474	4 826	18 649
01.01.2014	24 212	6 903	17 309
Misbalances between deposits and loans:			
01.01.2009	-22 422	2 183	-24 605
01.01.2010	-16 059	7 424	-23 483
01.01.2011	-9 718	6 433	-16 151
01.01.2012	-6 429	5 692	-12 120
01.01.2013	-643	5 607	-6 249
01.01.2014	-1 177	718	-1 894

The data in Table 2 evidences the fact that banks use short-term deposits in foreign currency to finance long-term loans. Within the whole period that is under consideration misbalance was negative and there was a tendency to shorten the disjuncture (from 22 422 mln. UAH to 1177 mln. UAH), this shows that banks have taken measures to minimize losses incurred due to the exchange rate fluctuations.

It is an important point to be made that financial crisis of 2008 and political unsteadiness of 2013 brought negative influence upon currency exchange transactions carried out by banks (buying and selling of foreign currency in cash, issuance and servicing of bank cards) due to currency exchange rate. Foreign exchange transactions like “spot”, “forward” and “swap” were terminated by the regulator to avoid jobbing on interbank foreign exchange market of Ukraine.

Ukrainian banks almost stopped to carry arbitrage operations due to their high foreign exchange risk on the one hand and insufficient development of foreign exchange market on the other hand.

Above-mentioned disadvantages of Ukrainian banks management toward foreign

exchange risk can be abrogated via implementation of foreign exchange risk management system. The given system shall secure adoption of optimal management decisions towards decrease of influence of the foreign exchange risk taken by the bank; it will also allow to avoid unforeseen loss (Table 10).

Table 10

Elements of foreign exchange risk management system for bank transactions

Foreign exchange risk management system in modern bank		
Fundamental block	Organizational block	Regulatory block
<p>Block elements: <i>subjects</i> (parties) of the system – highest management body of the bank and collegiate authority.</p> <p><i>Subjects</i> – risks of separate currency transactions (import and export of currency, credit, deposit, switching and hedging operations etc.)</p> <p><i>Currency policy</i> – a document containing principles, methods of foreign exchange risk management, methods of risk assessment.</p> <p><i>Management system principles</i> – integrity; urgency and timeliness; minimization of foreign exchange risks; implementation of management standards; continuance and diversification of activity; responsibilities distribution; informational sufficiency; priority of content over form; comparability.</p>	<p>Block elements: <i>identification of external</i> foreign exchange risk-analysis of macroeconomic indexes of country economic growth.</p> <p><i>Assessment of foreign exchange risk and forecasting</i> – use of risk level evaluation methods: analysis of absolute and relative value of provisions; analysis of exchange rate changes (in form of changes of bank profit (expenditure)).</p> <p><i>Control</i> of central bank, internal and external auditors.</p> <p><i>Personnel and organizational structure</i> – management body with precise functional responsibilities and resources.</p>	<p>Block elements: <i>state regulation and control</i> of currency transactions carried out by the banks.</p> <p><i>Requirements to the foreign exchange risk risks management</i> – availability of methodological basis in the banks, presence on relevant internal documents (ones that stipulate both the current risk policy on the whole and each particular type; provisions on organization of joint foreign exchange risk management and its separate types; methods of forecasting, analysis and evaluation of cumulative foreign exchange risk or its separate kinds; instructions on the actions in emergency situations; standards and procedures of currency transactions).</p>

Having analyzed the data given in the table we can assume that the foreign exchange risk management system is a set of methods, approaches and actions used to forecast in some extension currency rate fluctuation and take measures for minimization of foreign exchange risk.

Bank foreign exchange risk management system is composed of three important blocks: fundamental, organizational and regulatory.

Fundamental and organizational blocks are elaborated by the banks grounding on their strategic objectives and aims. Regulatory block can be performed exclusively due to the requirements of the central bank of the country.

Let's point out also that the foreign exchange risk managerial process is influenced by the accumulation of factors both external and internal in relation to the bank.

The external factors include environment, those in turn can be divided into five basic groups: economic, political, legal, social and force-majeure.

Internal factors include assembly of factors formed by the central bank and commercial banks i.e. level of interbank competition, financial capabilities of credit organization, established bank rules and procedures. While developing the foreign exchange risk management system it is necessary to consider the impact of the above-mentioned factors.

Economic and political unsteadiness makes central banks, in particular, National Bank of Ukraine, increase variety of administrative and legal instruments to regulate currency

transactions of banks and their clients via introduction of restrictions to reduce the level of foreign exchange risk.

The liquidity risk, in general, defines the problem of scarcity of the available funds and borrowings in order to provide the return of deposits, issue of credits etc. During the implementation of liquidity risk bank profit might lower due to the inevitability of the fund borrowing with a current market rate, which may occur to be higher than the liability rate which was used in the bank previously.

Otherwise, obtaining of profit is also connected with temporary loss of certain liquidity. Problems with liquidity appear in a bank if they are experienced by clients; specifically, clients' liquidity problems are transferred to the bank, which is obliged to solve them, since the bank has already received the pay for problem-solving by the fact of clients' funds being placed at the bank accounts.

Habitually, in the practice for the regulation and analysis of bank liquidity, several liquidity coefficients (ratio) are used by central banks (in Ukraine – quick, current and short-term liquidity). However, it is the simplest approach to the evaluation of bank liquidity, the main disadvantage of which is the static liquidity evaluation (at a certain period of time); it fails to provide the possibility of taking the nature of both liquidity and liquidity risk into account (figure 8).

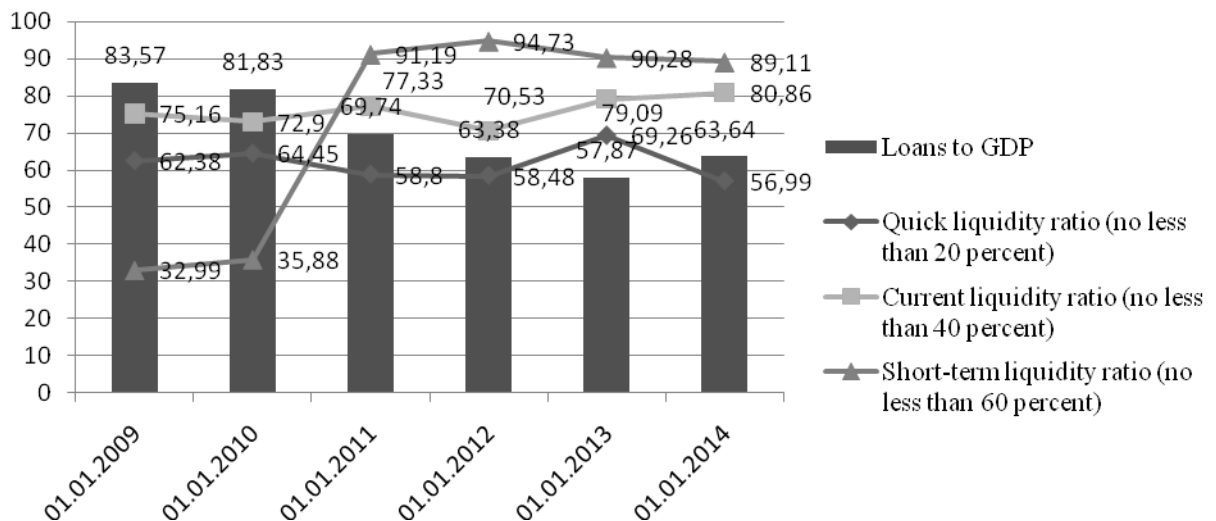


Figure 8. The evaluation of the influence of the bank crediting development on the liquidity ratios for the period of 01.01.2009 – 01.01.2014 years¹

As demonstrated by the figure, fluctuations of the standards' values occur in the range of 10%; the rise of the short-term liquidity standard is connected to the changes in legislation, according to which the marginal value of the indicator has risen up to 60%. The comparison of the liquidity ratios with the dynamics of the credits provided by banks to GDP ratio allows to conclude that there is no dependence between these indicators. The credits provided by banks to GDP ratio indicators not only testifies the development of bank crediting but indicates the possible escalation of financial crisis. Therefore, the calculation of liquidity standards does not anticipate the possibility of the high-risk actions and their consequences evaluation.

Therefore, in the countries with the high level of banking development, banks measure their liquidity through the analysis of the cash flows, which allows to identify the time and volume of the potential financial needs. One of the basic indicators of the liquidity risk is the borrowed funds to total assets ratio. While analyzing this indicator dynamically (table 1, point 1), it could be concluded that, from the side of liquidity risk, the year 2013 had the deterioration tendency for Ukrainian banks. Namely, the rise of its value this year compared to the previous

¹ http://www.bank.gov.ua/control/uk/publish/article?art_id=4919415&cat_id=36800
<http://www.ukrstat.gov.ua>

years indicates the increase of the volume of the borrowed funds in the liabilities structure, which enhances the possibility of the liquidity crisis appearance in case of the increase in the deposits outflow or the deterioration of the credits quality. In the year 2013, the risk of insufficient liquidity has risen significantly, which is testified by the fall of the part of highly liquid assets in the assets structure (of 2,66 %) and the fall in the coverage of unstable funds (of 4,36%), as well as the deterioration of the values of other liquidity risks indicators.

Table 11.

The analysis of the liquidity risks indicators of the Ukrainian banks' balances in the years 2008–2013, %¹

The name of the index	At the beginning of the year					
	2009	2010	2011	2012	2013	2014
1. Liabilities to total assets ratio	82,89	76,35	73,78	74,19	75,48	77,06
2. Highly liquid assets as a percentage of the total net assets	14,01	15,92	18,07	18,64	16,98	14,32
3. Current liabilities (Demand deposits and amounts due to banks) as a percentage of total liabilities	-	52,77	50,74	48,68	42,54	39,52
4. Coverage of current liabilities (highly liquid assets as a percentage of current liabilities)	-	34,99	41,70	44,91	47,03	42,67
5. Risk of deposits withdrawal (highly liquid assets as a percentage of all of the clients' deposits)	29,72	39,77	38,73	37,43	32,03	26,03
6. Loans to deposits ratio	169,86	207,73	170,79	155,05	116,19	113,70
7. Interbank loans given to received ratio (including banks' correspondent accounts)	28,31	13,26	15,44	21,93	12,49	15,99
8. Credit, investment deposits to bank's deposit liabilities	194,53	229,16	198,61	182,11	136,38	137,64
9. Demand deposits to the total deposit investments of bank's clients	-	35,22	36,09	35,68	32,36	31,28

Similar conclusion is confirmed by the results of the resource base analysis of Ukrainian banks. Calculations show the rise from 84,9 % in 2012 to 86,9% in 2013 of the part of liabilities in the structure of the liabilities of Ukrainian banks with the corresponding lowering of a part of equity. This means that, while the volume of bank's general assets grow, the proportion of equity significantly falls, even if it grows in the absolute terms. Such tendency is conforming to the laws of nature, since in the developed countries the proportion of equity in the general liabilities of banks stands in the range of 8 to 10 %. From the position of liquidity risk, such structural movements demonstrate the problems of analysis and effective control over liquidity risk become of current interest for Ukrainian banks with the time flow.

Calculations of the other indicators of liquidity risk also indicate the deterioration of the control over liquidity by Ukrainian banks in the year 2013. Moreover, as stated previously, this is indicated by the lowering of the unstable funds coverage by highly liquid assets (table 1, point 4) and the increase of the funds withdrawal risk (table 1, point 5). Such negative changes have occurred due to the increase in the proportion of credit and investment portfolio along with the deterioration of a part of highly liquid assets in the structure of total assets (figure 2), even though the loans to deposits ratio has been lowering (table 1, p. 6, 7, 8).

¹ http://www.bank.gov.ua/control/uk/publish/article?art_id=4919415&cat_id=36800

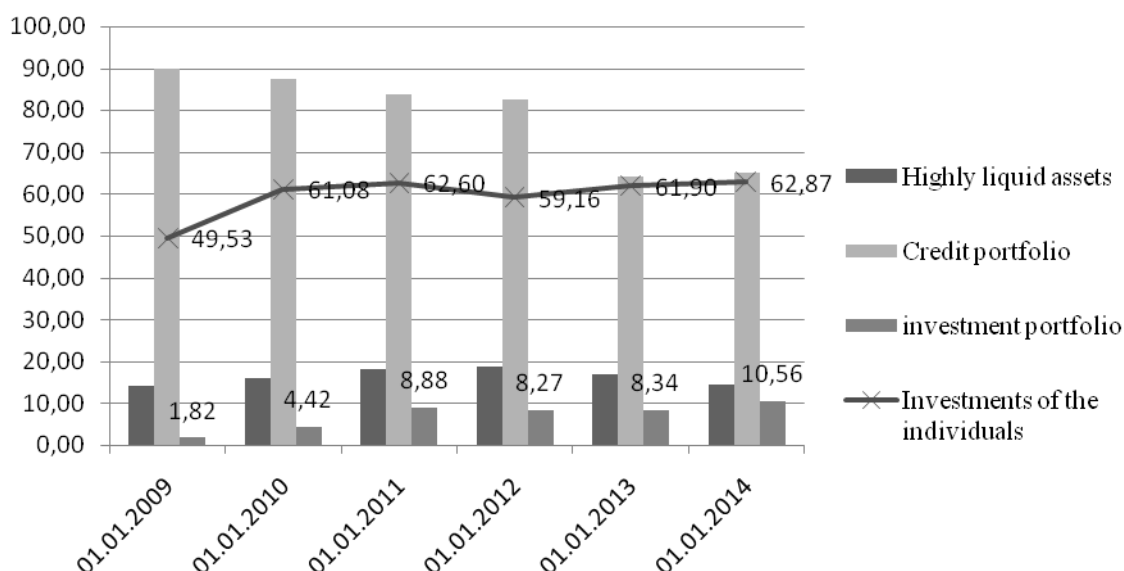


Figure 9. Structural analysis of the asset quality of Ukrainian banks from the liquidity risk perspective in years 2008-2013, %

By contrast, results of the analysis indicate the increasing stability of client's base of Ukrainian banks during this period, since the proportion of current liabilities, demand deposits firstly, in the structure of total liabilities and deposit investments, is gradually lowering (table 1, p. 3,9). However, such lowering mainly results from the increase of the term deposits of individuals (figure 9).

Taking existing domestic conditions into account, it is obvious that, in the conditions of political and economic instability and the possibility of the appearance of political and economic crisis, banks may be forced to the massive funds withdrawals from the clients' accounts anytime, as could be observed lately. While this is true, the volume of such withdrawal may be a few times bigger than the possible size of means, by which it would be possible to prevent or compensate such withdrawal, meaning the compensation of liquidity risk.

Moreover, for the liquidity risk compensation, banks may either accumulate the liquidity in their balances (manage assets) or obtain it at the money market (manage liabilities), or use both methods simultaneously (assets and liabilities). Additionally, banks may retail the liquidity to obtain additional profit.

It could be considered that the bank has a sufficient liquidity stock if it is able to get a necessary amount of liquid resources (by increasing the liabilities or converting the assets) on time and at an affordable price. Herewith time is a determinant in the liquidity administration as the bank has to have precise information about how, where and how the necessary liquidity could be obtained. In turn, the liquidity cost depends on the market conditions and other risks' impact on both credit and percentage balance.

In addition, it is worth to consider an impact on liquidity risk of domestic banks of such a specific aspects: low development level of financial markets that is able to make both borrowing additional money for replacing a resource base and an organisation of assets selling and mortgages impossible at any time; a high speed of national currency exchange rates, interest rates and inflation, transiency of bank operations.

For that reason, successful management of the liquidity risk is defined by the ability of bank to control the expected fund flows, commit financial planning and the liquidity planning, with the different possible scenarios taken into account.

It worth mentioning that the financial crisis of 2008 resulted in the re-evaluation of funding of the long-term deposits policy using the short-term resources by banks (figure 10). As indicated on the figure, starting from 2010, banks gradually reduce long-term liquidity gap, which is thought to contribute to the more effective management of liquidity risk.

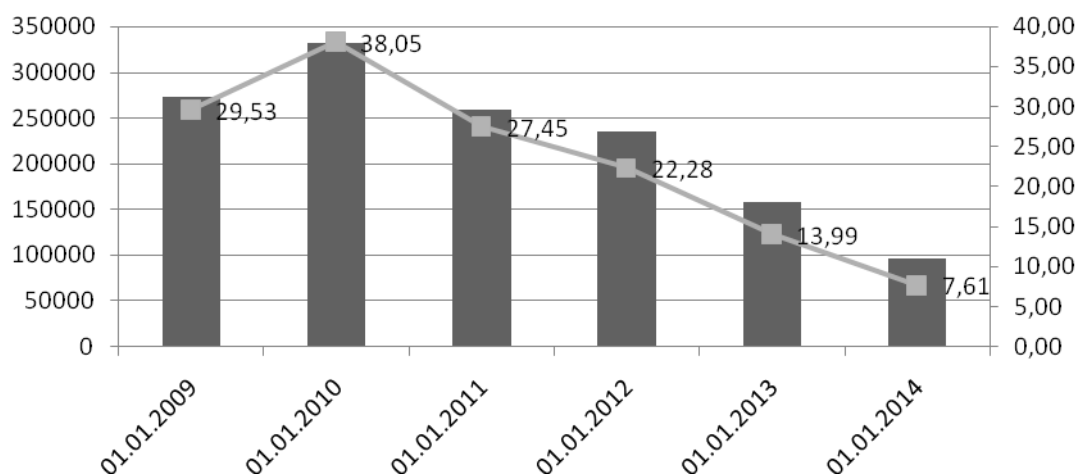


Figure 10. Dynamics of the long-term liquidity gap of Ukrainian banks for the period of 01.01.2009 – 01.01.2014 years¹

Therefore, the liquidity risks problems' administration, which arose during the period of the last world economic crisis, have proved that the methods of administration and an increase of liquidity risk' control level have to be improved. The Basel Committee on Banking Supervision of the Bank for International Settlements in September 2008 has developed "Principles for Sound Liquidity Risk Management and Supervision" where basic elements of improved liquidity risk system's administration in any banking institution were stated. They include: liquidity supervision by the board of directors and management board; politics formation of the liquidity administration and permissible risk boundaries' affirmation, such as: complex forecast of cash flows, limits and stress-testing using certain scenario regarding liquidity changes; the development of reliable comprehensive financing plan; an essential maintenance of the sufficient amount of highly liquid assets in case situations involving liquidity deficit occur.

On 16th of December 2010 the Basel Committee on Banking Supervision promulgated new liquidity standards that officially will be used by all of the Basel Committee members from 2015. The new standards of liquidity administration are based on the principle of liquidity flow evaluation and provide for continuous liquidity analysis (not from date to date). In addition, during the liquidity evaluation it is recommended to take into account the bank ability to draw credit resources and provide an income from current operating activities. Under such conditions, if the total number of available liquid assets and resources, which bank is able to mobilize from other sources if needed, can pay off its current financial liabilities on time, it is considered liquid.

The new standards of Basel Committee have to unify the approaches for liquidity regulation. The main focus is on misbalance in duration between assets and liabilities and concentration of funding sources; availability of unburdened assets; market-oriented methods of monitoring. Furthermore, the Basel Committee has offered two formalized standards for liquidity regulation: Liquidity coverage ratio (LCR), which comes into force on 1st of January 2015; Net stable funding ratio, which comes into force in 2018.

An application of the aforementioned recommendations is likely to create favourable conditions for banks to keep the transformational features of its financial resources and constantly remain solvent leading to reliability and stability.

For Ukrainian bank system, which during the financial crisis and in present-day conditions has substantially lost its profitability, the development and implementation of the new liquidity administration methods, is particularly important on the basis of the Basel Committee recommendations that involves an adoption of macroprudential supervision by the National Bank

¹ http://www.bank.gov.ua/control/uk/publish/article?art_id=4919415&cat_id=36800

of Ukraine with an important component of systemic liquidity risk administration for potential menace detection to be financially stable during the early stages of its formation.

It is necessary to note that simultaneous implementation of the above-mentioned risks, first of all credit, monetary and liquidity gives grounds to speak on the actuality of systemic risk issue. Though, nowadays the definition of systemic risk does not exist. The analysis of existing approaches to define the term “systemic risk” allows to segregate three basic mutually connected approaches: micro-, macroeconomic and combined. Within the first approach the definition of systemic risk content is concentrated on the level of individual financial institutions and the mechanism of its dissemination and appearance – chain reaction or “domino effect”¹. The second – macroeconomic approach concentrates its attention on the effect of the systemic risk implementation, specifically: destabilization of not only the financial system but a real economic sector². In further research we consider it reasonable to employ the third - combined approach to determine systemic risk; it includes both horizontal and vertical interconnections between participants of financial and monetary relationships³. Therefore, on the one hand the source of the systemic risk emergence in financial system can be both separate institutional element (e.g. bank) and on the other hand the whole market (event of macroeconomic character, macroeconomic shock).

The forms of systemic risk implementation are the powerful crises in bank and financial spheres that bear fundamental character, have a negative impact and change financial systems. The example of profound systemic risk implementation is the credit crisis in the USA in 2007 that emerged in credit segment of bank market and spread over investment banks, insurance companies, non-governmental pension funds, hedge-funds, market of securities and influenced not only the USA but many other countries of the world. The above-mentioned financial shocks had considerable impact upon the development on bank sector of Ukrainian economy. (Table. 12).

Therefore, grounding on the data shown in Table 1 the following basic reasons of negative impact of world financial crisis upon bank market of Ukraine can be identified. Deregulation of national financial market provoked effluence of foreign equities, this increased dependence of national bank system on external markets (index 1). Aggressive credit policy of domestic banks and structure of crediting (consumer lending and trading) did not promote economy development and strengthened banks’ dependence on credit risk (indexes 3-5), besides, before the beginning of 2011 reinforcement of monetary risks could be observed (index 6). Significant part of currency crediting against Ghryvna exchange rate decrease and negative tendencies in development of national economy resulted to deterioration of loan debtors’ financial state. The above-mentioned provisions in practice meant the implementation of credit risks and sudden increase of expenditures for inventory formation and consequently increase of asset-related transactions and losses (indexes 7 and 10 accordingly). It is necessary to highlight that crisis occurrences resulted to increase of stature funds of the most of the banks to improve sufficiency of banks’ own equity (index 8). At the same time, if to take into consideration the economic norms H1-H3, banks of Ukraine had minimum acceptable level of financial stability due to the reports of 2008, meaning in pre-crisis period (index 8), and in the crisis period till nowadays they have much higher level of financial stability; at the same time dynamics of index for ratio of bank equity and reserves (expected losses) shows the sufficiency of home equity before the beginning of 2009 to cover bank risks, though, in the period of financial crisis till nowadays due to speeding in increase of potential losses over rate of gain of owner’s equity - on insufficient level of own capital in significant number of bank institutions (index 9).

¹Kupiec, P. *Assessing Systemic Risk Exposure from Banks and GSEs Under Alternative Approaches to Capital Regulation*. The Journal of Real Estate Finance and Economics. Vol. 28., 2004.

² Cerutti, E. *Systemic risk in global banking: what can available data tell us and what more data are needed?* Bank for international settlements. Working Papers No 376. April, 2012.

³ Kaufman, G. *What is Systemic Risk, and do Bank Regulators Retard or Contribute to it?* Independent Review. No7. 2003. 371-391.

Table 12

Dynamics of particular indexes that allow to estimate the main reasons and consequences of financial crisis in 2007-2008 for the bank system of Ukraine in 2008-2013¹

№	Indexes	d/d 01.01.:						
		2008	2009	2010	2011	2012	2013	2014
1	Due from banks/ Net Assets, %	28,13	34,64	31,16	26,49	23,86	18,96	16,34
2	Loans to the banks/ Net Assets, %	13,51	9,70	4,13	4,09	5,21	2,37	2,61
3	Loans (noninterbank) in % to net assets	71,71	80,06	79,24	73,75	71,67	68,40	67,80
4	Retail loans to total loans, %	35,74	36,26	31,90	26,85	23,12	20,98	19,36
5	Total (noninterbank) loans to customer deposits ratio, coefficient	1,56	2,08	2,14	1,68	1,53	1,36	1,30
6	Net open position in foreign exchange to capital ratio, %	13,38	33,10	28,51	21,61	8,41	2,50	6,94
7	Loan's provisions, in % to the total assets	3,26	4,97	12,22	13,65	13,03	11,15	9,32
8	Regulatory capital to risk-weighted assets, %	13,92	14,01	18,08	20,83	18,90	18,06	18,26
9	Equity to provisions ratio, coefficient	3,45	2,46	0,94	0,93	0,98	1,20	1,47
10	Return on assets, %	1,50	1,03	-4,38	-1,45	-0,76	0,45	0,12
11	Interest spread between rates for loans and deposits (basic provisions)	546	816	586	721	567	485	383

Therefore, modern economic norms of sufficiency of own capital depict the activeness/aggressiveness of the bank policy in relation to spreading of activities; and the ratio of capital and estimated losses considerably corresponds theoretical provisions and meets the requirements to regulate the sufficiency of bank own capital to cover possible losses. Special attention should be paid to dynamics of percentage point spread. In the period of the clients' funds runoff (2008-2009) banks tried to involve new clients via increase of deposit rates, at that time new loans were hardly offered, and in our point of view this fact resulted to shortening of percentage point spread (index 11). Taking into consideration substantive level of percentage rates in economy and quite high expenditures for the formation of inventory for asset-related transactions and such point spread index proves the actualization of the percentage risk management issue. Therefore, there can be stated the decrease of credit risk and increase of response towards the risk of percentage rate change.

Therefore, to the date of 01.01.2014 dynamics of the most indexes except percentage point spread can be characterized as positive but unstable. Due to this as we believe the issue of further assessment, forecasting and elaboration on preventive instruments for regulation of systemic risks in banking system of Ukraine is still of high priority.

¹Osnovnipokaznykydiyalnostibankiv[Key performance indicators of banks]
http://www.bank.gov.ua/control/uk/publish/article?art_id=36807&cat_id=36798
 Indikatoryfinansovoistiykosti[Financial Soundness Indicators (FSIs)].
http://www.bank.gov.ua/control/uk/publish/article?art_id=58001&cat_id=44444

The other direction of systemic risk assessment in banking is built up grounding on the fact that bank institutions are interconnected (so called “effect of contamination”) in case of bankruptcy the risk can be spread over the whole system. From the point of possible implementation with the consideration of available information we carried out correlative analysis to identify the level of interdependence of the biggest banks of Ukraine (figure 11).

	1	2	3
1	1		
2	0,5888	1	
3	0,1325	-0,3544	1

A) Assets runoff (pre-crisis period)

	1	2	3
1	1		
2	0,8615	1	
3	0,8793	0,7991	1

C) Assets runoff (current state)

	1	2	3
1	1		
2	0,9186	1	
3	-0,1775	-0,3544	1

B) Assets risk (pre-crisis period)

	1	2	3
1	1		
2	0,6984	1	
3	0,6538	0,8378	1

D) Assets risk (current state)

1 – Privatbank, 2 – Ukreximbank, 3 – Oschadbank

Figure. 11. Correlation matrixes of interdependence of income ratings and risk of the biggest banks of the system in pre-crisis and current periods of development¹

In the result of provided analysis there can be concluded that national banks highly depend upon each other (initially at the current stage of development), this fact can serve as a reason of systemic risk increasing in bank system and high expectation of “domino effect” implementation in case of negative shock impact upon the leaders of bank sector. The said situation proves the necessity to elaborate and use effective tools of identification, assessment and forecasting of systemic risks.

Therefore, the research identified three basic approaches in assessment of systemic risks – macroeconomic, microeconomic and combined. Macroeconomic approach was evaluated of the basis of assessment of world financial crisis upon bank market of Ukraine. Considerable negative consequences of this impact were provoked by insufficient economy development, state regulation of financial sector and ineffective bank management. Having taken into consideration available criteria in was proven that 14 biggest banks of Ukraine can be treated as system ones. In the result of correlative analysis there has been identified strong connection between the leading Ukrainian banks that became even stronger in current terms of economic ambiguity.

In the result of analysis there can be made a conclusion on high interdependence of national banks (initially at the current stage of development); this fact can serve as a reason of systemic risk increasing in bank system and high expectation of “domino effect” implementation in case of negative shock impact upon the leaders of bank sector. The said situation proves the necessity to elaborate and use effective tools of identification, assessment and forecasting of systemic risks.

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¹DanifinansovoizvitnostibankivUkrainy. [Data from financial statements of Ukrainian banks] http://www.bank.gov.ua/control/uk/publish/category?cat_id=64097

Analysis of the national and world experience of influencing the bank sector and regulation of bank risks allows to offer a number of instruments to secure stable development of bank system of Ukraine:

- Substantiate and implement indexes of banks' own capital assessment, so that they would include the possibility to cover incurred losses (ratio of own capital and reserves asset-related transactions);
- Create system of forecasting (elimination) of external shocks negative impact upon financial sector of the country, so that it would involve cyclicity of the economy development and hold excessive activity of the market players in the period of take-off;
- Introduction of methods to assess dependence of financial state of the system upon the state of separate banks, which would allow to give quantitative evaluation this dependence and "losses" of system due to default of leading market players.

4. Impact of information asymmetry upon stable development of bank system of Ukraine

Information asymmetry is unequal dissemination of information about the commodity amongst the agreement parties. In economy asymmetric information takes place when one of the parties possesses more information that the other one does. Usually seller knows more about the commodity than the buyer, though, the situation can be reversed. On bank market the presence of asymmetric information can be identified primarily in such direction as interrelation of debtors and depositors. In relations with debtors bank can possess incomplete or insufficient information about the financial status of the latter, this can result in the loss of own capital of the bank; in their turn banks do not always provide complete and comprehensive information about the cost of credits – in this direction private persons are less protected.

Therefore, the presence of information asymmetry can lead to decrease of sufficient income of the bank, so that it would not be able to secure its financial solvency and constant development, to make necessary contributions in the economy. To achieve the goals in the given monograph paragraph the research will be carried out in the following directions:

- To compare average, nominal, actual and effective credit rates;
- To analyze dependence of involved client's funds rates on financial stability of the bank;
- To identify possible reasons of deposits outflow and introduction of temporary administration on practical examples of the biggest banks of Ukraine and to evaluate the role of informational environment in these processes.

Potential impact of commission upon the credit cost for the clients are illustrated by the data in figure 12.

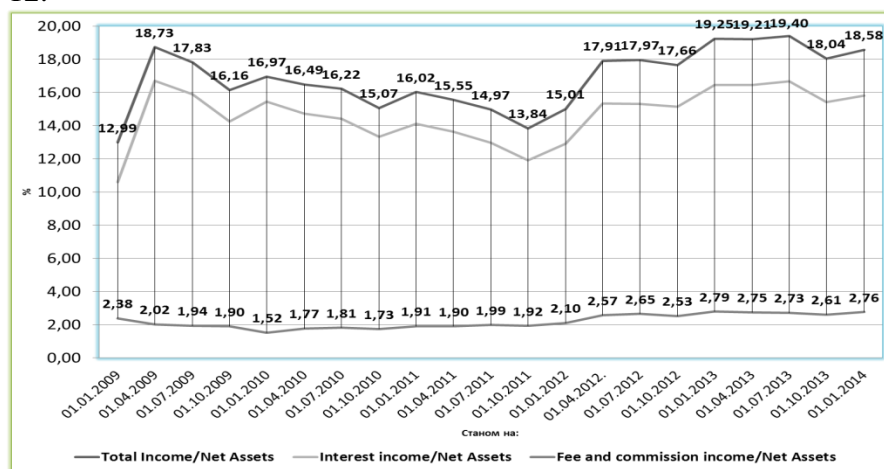


Figure 12. Dynamics and structure of assets profitability of Ukrainian banks in 2008-2013

Due to the data shown in figure at the beginning of 2009 banks considerably increased their fee incomes to overcome negative results of financial crisis, though, in 2010-2011 the profitability of commission operations was also decreasing due to limitation of credit activity.

On the one hand commission income influences considerably the yield rate and on the other hand its dynamics is connected with credit activity of Ukrainian banks at the current stage of development.

The data in the Table 13 allows to clarify the inference on the impact of bank commission income upon the real cost of credit for the debtor.

Therefore, according to the results of the Ukrainian banks crediting analysis and information available at their official web-sites we can make the following findings. Information asymmetry relates to the following: most of the banks set out minimum credit rate nor showing its fluctuation range, they do not always stipulate the percentage payment procedure (annuity or classical), this can also influence the rate amount.

Table 13
Credit rates of the biggest Ukrainian banks as of the beginning of 2014 (using the example of crediting for automobile purchase)¹

Bank institutions	Average computed interest rate, %	Actual interest rate for auto loan financing, %	Effective rate
PRIVATBANK	15,23	21-25	31,44
OSCHADBANK	20,09	від 13,5	28,83
UKREKSIMBANK	20,20	від 22	33,24
DELTA BANK	11,12	від 24	-
REIFFEIZEN BANK AVAL	21,09	48-55*	-
UKRSOTSBANK	15,68	22	33,55
PROMINVESTBANL	13,32	42-51*	-
SBERBANK OF RUSSIA	13,36	25	42,14
THE FIRST UKRAINIAN INTERNATIONAL BANK	17,62	15	30,68
"NADRA"	7,70	від 15*	-
ALFA-BANK	18,87	-	46,72
BANK FINANCE AND CREDIT	11,62	-	-
VTB BANK	19,78	-	-
UKRSIBBANK	17,50	15,8	33,56
UKRGAZBANK	21,48	17,8	33,20
BROKBUSINESSBANK	6,33	16 (+0,26)	32,78
BANK FORUM	8,15	17	33,7

* Note: Banks do not offer loans for the purchase of an automobile, therefore, the rates are taken due to overdraft of bank card.

Banks not that often propose monthly commission; therefore, taking into consideration official information such commissions do not have considerable impact upon the amount of loan. Banks are obliged to provide the loaners with the information about the amount of effective rate, though, this information is not public, and is given to those who are already clients of the bank.

Information asymmetry on the deposit market can lead the banks to the outflow of deposits due to the following reasons: panic moods on the market provoked by social, political and economic shocks; dissemination of erroneous information about the bank that influences its

¹The data from the web sites of the banks

commercial goodwill. For the bank depositors this risk firstly deals the absence of skills to evaluate financial status of the bank and secondly with the insufficient transparency of the information about bank owners, their capacities and willing to support the bank.

The following direction of the research is the analysis of clients; funds rate on the financial stability of the bank. To perform this aim the research involved assessment of relation between average rate of resources involvement to the bank and index of own capital efficiency. It has to be pointed out that to assess financial stability of the bank the index of relation between own capital and estimated loss (reserves for credit transactions) has been used¹.

The research is held due to data on 112 banks of the banking system of Ukraine. To obtain more accurate results the selection which primarily included all the banks of the system was cleared away from so-called abnormal positions, meaning that the information on the banks with the deviant indexes was not included into it. Maximum passive rate is 26,95%, average – 8,56%. The index of sufficiency should exceed 1, considerable exceeding of this norm shows substantial bank's own capital and insignificant assets. And accordingly – reserves for active bank operations. Banks with indexes of efficiency over 50 were not included onto the selection. In the research there was tested the relation between rates of deposits, indexes of assets return (the most profitable banks are the most reliable), credit riskiness (the biggest risk provokes financial instability) and financial leverage, though, the best result was achieved after modeling of rate dependence on the above-mentioned index of own capital efficiency (figure13).

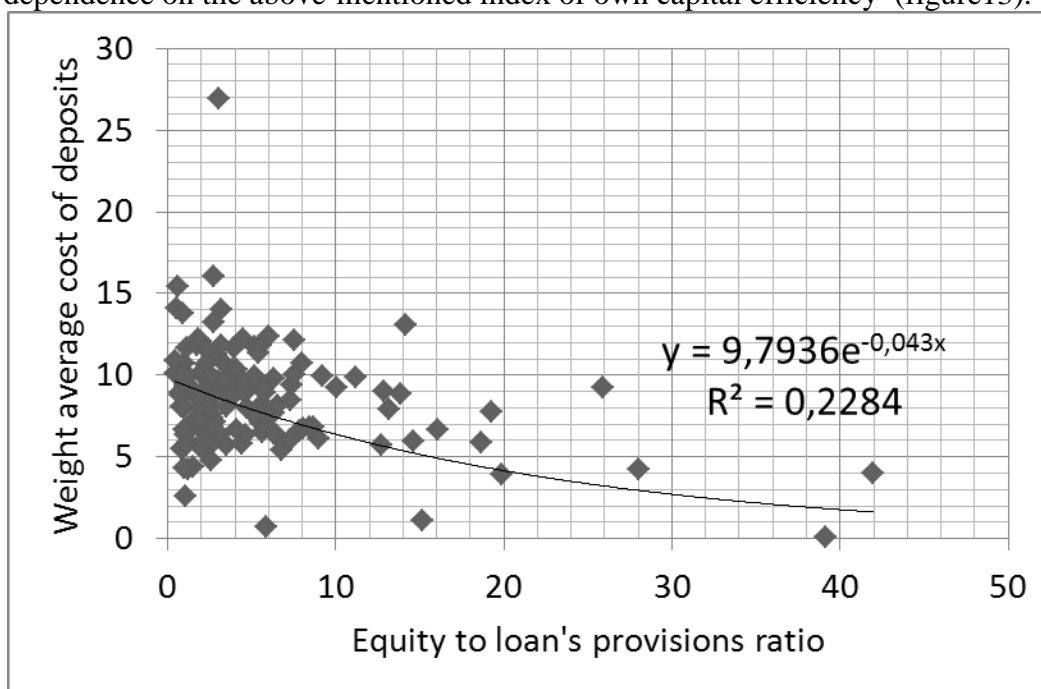


Figure13. Dependence of involvement rate upon sufficiency of own capital of the bank as of 01.01.2014²

Therefore, according to the results of economic and mathematic modeling shown in figure 13 we can make the following assumptions:

- The correlation coefficient figure proves the insignificant connection, i.e. own capital efficiency index identifies the level of passive rate for 22,84% only; including the fact that the passive rate is influenced by the other factors as well (structure of resources, bank deposit

¹ Zherdetska L.V. Obgruntuvannya metodychnyh zasad otsinky dostatnosti vlasnogo kapitalu dlya pokryttya ryzykiv bankivskoi diyalnosti [Methodic basics rationalization of the capital adequacy evaluation for the banking risks coverage] In Nauka i Economica. Naukovo-teoretichnyi zhurnal Khmelnytskogo ekonomichnogo universytetu. 19-29, № 1 (33). 2014.

² http://www.bank.gov.ua/control/uk/publish/article?art_id=4919415&cat_id=36800

policy, availability of international investments etc.), we treat such connection sufficient to prove the anticipation and form further economic implications;

- Connection between sufficiency of own capital and average deposit rate is reverse – the least stable banks offer the highest deposit rates;

- The best indexes belong to exponential model, which means that process goes with profit: quite high indexes of sufficiency evidence financial stability of the bank, considerable amounts of own assets and lack of necessity to involve substantial resources with high rates, though in any case the average passive rate cannot be less than zero (the minimum figure is 0,07%).

Therefore, theoretical assertion on increase of assets growth rate under high risk of assets and decrease of own capital efficiency can be confirmed in practice by Ukrainian banks with high integrity. At the same time we need to analyze reverse impact of informational environment on the financial state of the banks and find out if it is possible to evaluate precisely financial stability of the bank before introduction of temporary administration under circumstances of information asymmetry on financial markets.

It has to be clarified that the owners' intentions towards the bank activity can be indirectly determined basing on the dynamics of its statutory capital (figure14).

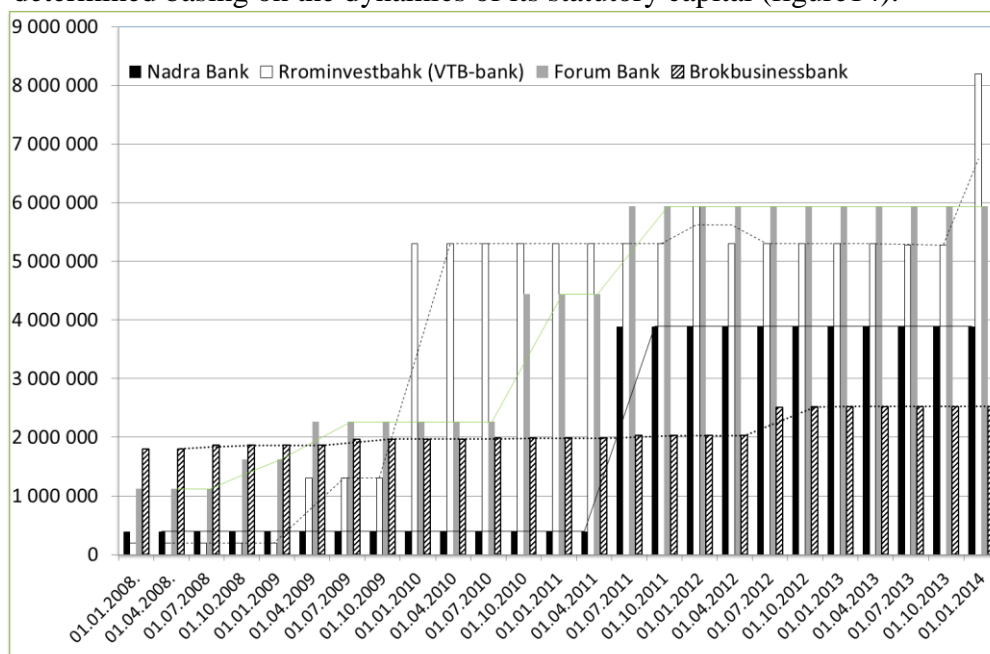


Figure14. Dynamics of statutory capital of separate bank institutions that were registered as problematic ones in different periods of their activities, from 2007 to 2013¹

Due to the data in figure 143 the owners of the Bank «Nadra» increased its statutory capital only once to renew bank's activity after extraction of temporary administration. From our point of view under the conditions of minimum profitability and high risk of credits the owners of the bank should annually increase statutory capital of the bank at least via introduction of small amounts to form positive image of the bank in the context of information asymmetry.

Owners of Prominvestmank did not increase statutory capital, considerable growth could be observed after the owner had been replaced in 2009. After this step the increase of bank's statutory capital goes in compliance with the losses dynamics. As of the beginning of 2014 statutory capital was increased for 55,26% and index used in operation evidences that the own capital exceeded estimated losses more than twice. So we can judge here on uneven but adequate dynamics of statutory capital of Prominvestbank against losses growth.

¹ http://www.bank.gov.ua/control/uk/publish/article?art_id=4919415&cat_id=36800

After the Bank “Forum” was purchased by Kommertsbank its statutory capital increased a couple of times to secure the capital efficiency, in 2010 statutory capital of the bank increased almost twice, though it was not enough to cover losses, therefore the last time its capital was increased for 33,82 % right before the Company «Smart-Holding» was sold. It is necessary to mention that the last owner never made any contributions to be bank to increase its statutory capital at constant decrease of bank’s own capital due to increase of losses. These owners’ actions can be explained by their interest in work with problematic debts, which was not successful though. Dynamics of Bank “Forum” financial indexes shows that it had to be introduced to the category of problematic ones long before it obtained temporary administration. The mentioned processes explain constant decrease of deposits made by legal entities to the Bank “Forum” starting from January 01, 2013.

Owners of Brokbisnesbank increased own capital for 3-5% almost every year, and in 2012 - for 23,33%. This increase under the given crisis conditions cannot be treated as considerable one but on the other hand it is sufficient taking into consideration minor losses. Though, from the beginning of 2014 there was planned considerable almost 5 times increase of statutory capital, this can be explained both by the plan to widen the activity or forecast of catastrophic losses increase. We believe that the latter option wan serve as additional evidence of the bank’s tendency to conceal truthful information about potential and actual losses.

While conducting the research there were set out the following three directions that provoke emergence of information asymmetry and eventually lead to financial uncertainty of separate bank institutions:

- Lack of information about the capacities and intentions of the owners to support the bank, as due to this very factor the bank’s activity can be characterized by different level of stability having the same risk of active transaction;
- Informational attacks and panic moods can lead to serious damages of the bank liquidity and can further influence solvency of the institution;
- Insufficient transparency of the bank’s activity like concealing of losses, incomplete information about shareholders, involvement in frauds and money-laundering; therefore, before making investments one has to analyze the information about financial indexes and ratings of the bank, though, ordinary depositor is not always able to do that.

Accordingly, to secure constant economy development on the whole and bank sector in particular under the condition of information asymmetry on the bank market of Ukraine priority objectives for the country are the overcoming of financial ignorance of the population and assuring of banks activity transparency.

5. Work motivation of bank personnel as a factor of its stable development

Creation of effective and competitive on the world level bank system, that would be able to provide high level of investment and innovative activity on the finance market, is the essential prerequisite of Ukrainian economy stable development and its further integration in the world economy.

The key role in the achievement of mentioned aims is given to the system of bank personnel management.

Bank personnel management is one of the bank priority activities which require employment of organizational principles of interaction with people, formation of productive working teams and rational use of workforce capacity and the whole bank system.

The initial aim of bank personnel management system formation at the present stage is: firstly, recruitment of well-trained specialists that understand specific features of bank activities on the financial market and mobilization of labour force for active participation in creation of conditions for stable development of the banks; secondly, completion of bank business processes

and activities with proactive and skilled personnel able to take optimal decisions in terms of globalization, competitiveness and information asymmetry on the markets.

In each particular bank the system of personnel management is the impact of management system upon the managed subsystem to achieve the scheduled goals of constant development and functioning of the bank.

Due to its content the bank personnel management system has to solve problems as follows:

- purposeful and well balanced training of high-qualified bank employees and continuous improvement of their skills;
- selection and positioning of cadres with the consideration of constantly varying bank needs and personal qualities of each staff member;
- positioning and repositioning of employees due to various business processes of the bank;
- rational use of labour supply and professional skills of the bank employees;
- employment of wide variety of motivational tools for proper personnel activity; identification of risks related to personnel operation;
- development of measures for the personnel adaptation towards the varying conditions of bank activity;
- formation of economic and innovative approach towards the labour activity in the bank¹.

It is necessary to point out that the mentioned objectives are the initial ones at the first stage of formation and employment of the personnel management system in practical activity of the bank. The second stage is the formation of personnel management concept, the employment of which will allow to develop schemes of personnel development, compose organizational, economic, legal, social and psychological methods of motivation ensuring the achievement of the goals. Besides, there should not be any standards and regulations in bank personnel management but there should be outlined methods of technological support of managerial impact.

While formation of bank personnel management concept it is necessary to consider labour motivation. Motivation in the bank is the inspiration of the personnel towards purposeful activity via impact upon the needs of each employee. While formation of the bank personnel management concept one needs to consider methods of motivation. Let us set out that motivation foresees use of the methods that create motives to identify employees' behavior². These methods are based on the provisions of management and imply use of various approaches to influence the bank personnel.

Changes in functioning conditions of banks (financial globalization, development of informational technologies, transparency requirements, macro-regulation norms introduction) create additional environment for the formation of new approaches to define the essence and types of motivation methods for the bank employees.

As it is known the aim of motivation is to induce the employees to operation activity that would secure the aims achievement for the bank via the most effective approach. To achieve these goals it is necessary to solve the following tasks:

- define methods and tools for motivation of bank personnel labour activity;
- identify the way of achievement of particular bank business goal;
- provide the opportunity to use the most rational and effective way of the goal achievement.

¹ Потемкин В.К. Управление персоналом: Учебник для вузов.– СПб.:Изд-во СПбГУЭФ, 2009.– 340 с.

² Кантор В.Е. Менеджмент: учеб.пособие / В.Е. Кантор, Г.А.Маховикова. – М.: Эксмо, 2009. – 208с. – (Учебный курс: кратко и доступно).

Consequently, method of bank personnel motivation shall secure the emergence of motive, selection of the best way to achieve the goal, availability various tools of financial and non-financial motivation (Table 14).

Having analyzed the data in the Table below we can assume that none of the motivation methods can be used separately and independently. Due to this feature there is a constant necessity look for new methods of motivation effectiveness of which shall overcome the effectiveness of methods currently used.

Table 14

Methods of bank personnel motivation

Tasks performed by the bank personnel to provide	Basic methods of operation	Including:	
		Methods of financial motivation	Methods of non-financial motivation
Emergence of motive to perform the task	1. Declaration	Penalties	Public punishment, oral commendation, accusation, activity standardization
	2. Conservative	Timely salary, fees, perks	Career promotion, training for the bank's account, attestation, downgrading
Achievement of bank activity goals	Purposeful	Premiums, share package, commission fees	Reward, Moral support
Use of the most effective way to achieve the goals	Effective	Additional premiums, bonuses, share in bank interests	Перевод на болеевысокооплачиваемуюдолжность, эмоциональнаяподдержка

Altogether, we believe that effectiveness of motivation methods depend on their correct complex application. This idea is also confirmed by K. Kravchenko who recommends the managers to apply motivation methods in practice not in a shape of separate tools but as an integral system¹.

It is necessary to understand the multiplicity of personnel management system and identify the stages of its formation for the development of labour motivation concept that will include modern conditions of bank system development.

Development of theoretical concept and personnel management principles is the priority direction in solution of complex tasks under nowadays conditions.

It is necessary to point out that basic principles for organization of bank personnel management system are the following:

- succession principle. The specific feature of this principle is the necessity to form bank personnel in the way the optimal age structure is maintained. The effectiveness of the personnel considerably drops if the team includes exclusively the representatives of younger or older generation. This principle is exceptionally to be followed when recruiting top-managers of the

¹ Кравченко К.А. Особенности управления крупными промышленными компаниями //Проблемы теории и практики управления. – 2007. – № 11. – С.25–29.

banks, because its violation can negatively influence strategy and tactics development to secure financial stability of the bank;

- personnel stability principle. If banks follow this principle the succession processes are also developed in the personnel management system, as it created conditions for stability in the processes. Bank personnel stability is essential as it gives the employees opportunities to expose accumulated skills and competences, to take optimal decisions while solution of tasks. It has to be clarified that banks of Ukraine tend to employee turnover. Stability and turnover shall be considered in dialectic union, disturbance of one of the elements disorganizes the whole system of labour motivation management system.

Eventually, stability principle in personnel policy acts as organic union of tolerance and turnover of personnel that secures employees' ability to carry out their economic and social tasks for stable bank development;

- transparency principle. This principle means controllability and accountability of the personnel at all the managerial levels of the bank. In the system of personnel management transparency is implemented primarily via control over the process of recruitment, personnel training, evaluation of work and periodical reporting. Controllability and accountability in personnel management act as guarantor of legitimacy, democracy, prevention of favoritism and other negative impacts that can emerge while personnel recruitment.

All the above mentioned principles are directed to the realization of the basic problem of personnel management - ensuring optimal compliance the the employee personal qualities with the work requirements (office, workplace). This problem can be solved by selection and placement of employees, individual choice of people. The variety of business processes in the bank and jobs generates a large range of personal qualities required of the employee. At the same time, and the abilities of people are characterized by great diversity and variability in the course of practice. Some people have good physical strength, others - intelligence, third - memory, the fourth - the quick response, etc. In addition, the abilities of the person can be selectively promoted, developed in the course of study, work, etc., making them so in professional properties of personality. Accounting personal abilities for employee, his business skills - these are the main requirements underlying selection and allocation employees in the bank and it is another principle of personnel policy. Business approach to staff recruitment means identifying the employees' special education, practical experience, mastering of the work methods, enterprise, - initiative and innovation, competence and professionalism.

The second important direction is the practical organizational work concerning creation of the system of training, retraining and advanced training, management measures understanding which will be adequate to market conditions.

Mentioned principles and ways of their implementation are the main on the first stage of the personnel management system concept formation.

The second stage of the personnel management system formation in the bank is the organization of work motivation in the bank, which is based on the concept of strategically oriented motivation system and incentives of bank staff, providing a more complete implementation of motivational potential as to an individual employee of the bank, so to the banking institution as a whole, which strengthen its competitive advantage.

Analysis of bank employee practice allows us to conclude that the best tool of the staff motivation is the system based on key indicators of effectiveness for each of the business processes.

Under a system of key indicators of effectiveness of the bank managers we mean a system of financial and non-financial indicators that affect the quantitative and qualitative changes in the bank activity results in relation to the strategic objectives (or expected result).

The classic approach to the development of key indicators of effectiveness of the bank managers is decomposition of the key indicators of the top level, as a result of that each unit of the bank gets its own indicators for the achievement of which is responsible corresponding bank manager. He, in his turn, should bring this indicators to his subordinates. For each indicator the

target value is determined, which need be achieved in a given time period (month, quarter or year). From how to cope with the task bank employee will depend on the size of his individual remuneration for the reporting period.

In developing key indicators of effectiveness of the bank employees activity, you must pay attention to the following points: indicators should be grouped by functional areas or specialization depending on the types of business processes; should be allocated to measures that assess different aspects of the bank (in order to achieve an objective evaluation); at the same time the number of indicators (optimally, as practice shows, from four to seven indicators in each direction) should not be increased; for each indicator should be defined clearly the method of its calculation and source of information for this; the presence of indicators which conflict to each other needs to be monitor, and if it is necessary contradictions must be eliminated.

Adoption of the concept of bank staff motivation precedes several stages [4, c. 323]¹, as follows:

Step 1 is formation concept strategy. Clearly defined strategy describes the basic steps that should be taken to achieve the goals and desired outcomes. Employment strategy concept of the bank institution should be broken down into specific strategic initiatives, in frames of which are allocated tasks to individual business units. The most important element of this stage is to identify priorities for strategic initiatives and coordination between the activities of the various divisions of the bank. This saves a lot of time and money.

Step 2 is identification of critical factors of the bank results. In the second stage, on the basis of the requirements of the above mentioned principles of motivation, the main factors affecting the quality of banking business processes are identified, that is, the parameters of the labor and social issues, which are important for the realization of the personnel management system concept of the bank.

Step 3 is identifying key indicators of effectiveness of activity results of departments and individual employees of the bank.

At this stage, the selection of activities to implement the strategy is realized. Tool for identifying the most important factors of success are key indicators of effectiveness of bank managers activity. So you need to concentrate only on the most significant indicators, excluding all secondary, reducing their number to so-called "core", in concept formulation Number of indicators should be limited (for their implementation and quality monitoring). In addition, the selected indicators should encourage bank employees to perform appropriate actions.

It is important, that indicators must be measured easily. Once developed a set of key indicators of effectiveness of the bank employees' activity should be regularly reviewed in accordance with the results achieved and new goals. A review of key indicators of effectiveness of bank managers' activity allows entering a new record indicator corresponding to the changed goals and objectives of the bank, or deleting old when it is no longer required, increasing the weight of certain key indicator of effectiveness of the banking staff activity.

Key indicators of effectiveness for bank manager activity there are more suitable to allocate between functional departments. The personal tasks are put to employees and determined terms for implementation. In the so-called "bonus card" of the bank employee there is clearly stipulated - how deviation from the plan in one or another side affects the size of the variable part of the salary in percentage.

Should be simple and clear system: if the worker performs its functions efficiently and on time, he gets a bonus.

In addition, when you form the work motivation concept it is necessary to consider that the bank staff is differed by considerable diversity, calling the necessity of its stratification to the more full account of the work specificity of individual groups of employees in the

¹ Кузнецов А.М. Методологические основы формирования концепции мотивации персонала банка // Вестник социально-экономических исследований. – 2012. - (44) Выпуск 1. – С. 319-325

implementation of management actions aimed at the development of motivation. At the same time, in our opinion, it is advisable to define following categories of bank employees:

—bank staff (bank staff profile), directly related to the main bank activity - the implementation of banking operations and the provision of banking services;

—the wait staff (non-banking staff profile), carrying out functions on serving bank as organization, in whose activity in the less level the specificity of banking labor is exhibited . At the same time in each category the division into hierarchical levels depending on the employee's role in the labor process is implied.

Of course, the specific components of the proposed concept depend on the specialization and the volume of the bank's operations. Also we must not forget that in different banks units with one name may have different functions.

Thus, to create conditions of stable development of the Ukrainian banking system it is necessary to make the transition to a qualitatively new system of labor management motivation of bank staff. The received results make it possible to suggest perspective directions for further research, namely classify motivational tools based on a systematic approach, and develop methods for assessing the quality of motivational assessment of bank staff management, which will contribute to improving of the banking system financial stability of Ukraine.

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