

Non-bank financial institutions activity in the context of economic growth: cross-country comparisons

Ahmad Rizwan Ch

Ph.D., University of Education Lahore, Pakistan

Andrii Semenog

Ph.D., Associate Professor, Sumy State University, Ukraine

Abstract

The article deals with the analysis of non-bank financial institutions activity on the financial market of Ukraine, their basic progress and co-operating trends with the real sector of economy. The degree of development of non-bank financial institutions is presented through the context of their influence on the economic growth of Ukraine, and is based on appropriate foreign experience. Moreover, it is presented a methodical approach of determining the integration of non-bank financial services market into the world financial space on the basis of analysis of the level of openness and development of the domestic economy as a whole and the market of non-bank financial services in comparison with other countries of the world.

It is made a comparison of the Ukrainian non-bank financial services market general level with indicators of development of this sector in other countries of the world. Furthermore, it is determined the share of foreign capital in the domestic market of non-bank financial services of Ukraine that allows to determine the effectiveness of the changes that it brings to the domestic financial services market. Finally, it is compared volumes of mutual use of foreign capital in the activities of the Ukrainian non-bank financial services market and domestic capital in the activities of foreign non-bank financial institutions.

Keywords: non-bank financial institutions, economic growth, integration on financial services market.

JEL Classification: G20, G22, G23, F36, O40.

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1. Introduction

The growth of national economy on a market principle depends both on an effective activity of bank and non-bank financial institutions. The bank sector with its protracted history of functioning continues to play major role in providing economy with financial resources. At the same time the role of non-bank financial institutions, which appeared in a period of transformation of national economy remains limited enough. In the 90-th of last century such a situation could be explained by the conditions of complete vagueness with the capitalization of enterprises and large risks of investments. So first of all banks could fill the real sector with money resources.

However nowadays, when privatization processes in the real sector are completed and national economy requires long-term and cheap capital for providing innovative processes, the role of non-bank financial institutions is rising essentially. Accumulated financial resources, as we can see on example of transitional economies of Central Europe (Hungary, Czech Republic, Poland), become additional effective source of economic growth. In this regard it is important to investigate the features of activity of non-bank financial institutions, in particular their influence on the economic growth in Ukraine.

2. Literature review

In the context of research, the noted problem has certain theoretical pre-conditions. In particular, aspects of activity of non-bank financial institutions as financial mediators and their influence on an economic growth were reflected in works of foreign (A. Akkelroff, F. Allen, T. Beck, G. Gabbart, J. Gurley, R. Goldsmith, D. Daimond, K. Jalan, E. Sandojan, R. Rajan, R. Levine) as well as national researchers (V. Bazulevuch, T. Vasylieva, I. Lutuy, M. Savluk and others). For instance, R. Goldsmith (1969) stated on the position that NFI with banks promote economic growth through the channel of mobilizing saving for investment. M. A.

Islam and J. B. Osman (2011) tested the long-run relationship between real GDP and the NFIs activity on Malaysian financial market, according to their ability to deal with the diverse financial requirements of real companies. Taking into account empirical results researches revealed that NFIs are the vitally essential component of the financial sector which promote long-run sustainable economic growth. Creating new assets in spheres of leasing, factoring and venture capital format long-term financial resources and can boost to the development of capital market (D. Vittas, 1997). The experience of creation and functioning of non-bank financial institutions in the market infrastructure of the developed countries and the complex of competitive advantages of functioning of non-bank financial institutions in the system of financial mediation of Ukraine are presented in works of I. Karakulova (2008). Also the noted problem is partly examined in the context of analysis of structure of financial sector of Ukraine and the formation of the Ukrainian financial market development strategy (I. Shkolnik, 2008).

At the same time in the conditions of further transformation of national financial market there is a necessity of systemic researches in activity of non-bank financial institutions and their role in forming pre-conditions of economic growth.

So, it is a need to analyze the modern situation and tendencies of activity of non-bank financial institutions in Ukraine, as well as the features of mutual relations with the bank and real sectors of economy. The purpose of the study is the improvement of theoretical ideas and scientifically-methodological approaches to the influence of non-bank financial institutions on the economic growth in Ukraine and abroad.

3. Methodology

A concept "financial intermediary" in scientific sources equates with financial institutions and financial mediators, i.e. organizations which produce financial liabilities and sell them as assets.

The analysis of scientific publications allowed to distinguish different approaches of scientists in relation to classification of financial mediators and their relation to the corresponding constituents of the financial system. In particular, in accordance with status of investor one can distinguish individual and professional investors; according to the character of realization of financial operations – deposit institutions, savings institutions of contract type, investment mediators; according to the level of specialization – specialized and integrated financial mediators.

According to the institutional structure of financial market the participants of financial market are subdivided into three groups: issuers – legal entities, local government, state; investors – institutional investors, which include the institutions of the aggregate investing, investment funds, aggregate funds of investment companies, non-state pension funds, insurance companies, other financial institutions; professional participants of fund market, which provide trading in securities, management of assets of institutional investors, organize fund market trade and depositary activity.

In the context of the noted problem it would be in place to consider the features of formation and functioning of non-bank financial institutions in Ukraine (NFI): insurance companies, credit unions, institutions of the aggregate investing, non-state pension funds.

The only non-bank financial institutions which appeared together with banks during the period of administratively-command economy and successfully transformed in the period of independence are insurance companies. Created under the Law "About co-operation" (1988) co-operative insurance companies though did not attain even 1 % from insurance agreements, in a period of transformation of economy took the main place on the non-bank market of financial services. Normative certificates (decree of Cabinet of Ministers of Ukraine "About insurance" (1993), Law of Ukraine "About insurance" (1996)) defined directions of activity of insurance companies and basis of the insurance market as a whole.

It is important to distinguish, that among the first non-bank financial institutions which began their activity after proclamation of independence of Ukraine, were credit unions. Appeared in 1992, actively this type of financial mediation began to function after adoption the Decree of President "About the Temporal provision about credit unions in Ukraine" (1993). According to the Law of Ukraine "About credit unions" (2001) these organizations were acknowledged by public; their primary objective of activity became financial and social defense of their members by bringing their personal savings for the mutual crediting.

During the period of privatization processes which overcame country in a middle 90-th, there were appeared the first investment organizations: trust companies, investment funds and investment companies. Operating

on the basis of the Decree of Cabinet of Ministers of Ukraine "About trust companies" and Decree of President "About investment funds and investment companies", these organizations took active role in the "certificate" privatization. During 1994-1998 investment mediators formed the pocket of stocks of privatized enterprises in sizes from 5 % up to 25 %. The part of institutions of the general investing reached 42,6 % of all accumulated privatization property certificates. The modern stage of development of IGI is related to the adoption of the Law "About the institutions of the aggregate investing". The real normative certificate laid the formation of the modern functioning of financial mediators on the financial market of Ukraine.

Important non-bank financial institutions from both social and economic point of view are non-state pension funds (NPF). First NPF appeared at the beginning of 90-th of past century and operated on the charts of trust funds (in accordance with the Edict of President "About trust funds and trust companies"). Such funds collected voucher certificates and money, which were invested in privatized companies, bank deposits and were used for financing various investment projects. But bankruptcy of the biggest trust funds like "The Ukrainian house Selenga" (losses of 100 thousand of depositors accounted for 55 million of the u.s. dollars) and non-state pension fund "Oberig" shook people's faith in these financial institutions and gradually stopped their development [8].

The restart of activity of NPF took place in 2004 as a result of adoption of the Law of Ukraine "About the non-state pension provision" (2003). Taking into account unsuccessful previous experience, the document clearly presented new mechanisms that guarantee people's deposits preservation through determination maximum directions of fund assets investment. The Law determined such assets of pension funds as: money, deposits, securities, objects of the real estate and bank metals which can serve as the additional source of financial resources for a national economy.

So, up to 2004 in Ukraine appeared all conditions for the development of non-bank financial market as a sector of financial market that through the allocation and distribution of financial resources can boost economic growth in the country. In order to determine the role of non-bank financial institutions in the economic growth of the country we'll carry out the analysis of their activity. During the last years there was a considerable dynamic of non-bank financial institutions assets growth in Ukraine (see Figure 1).

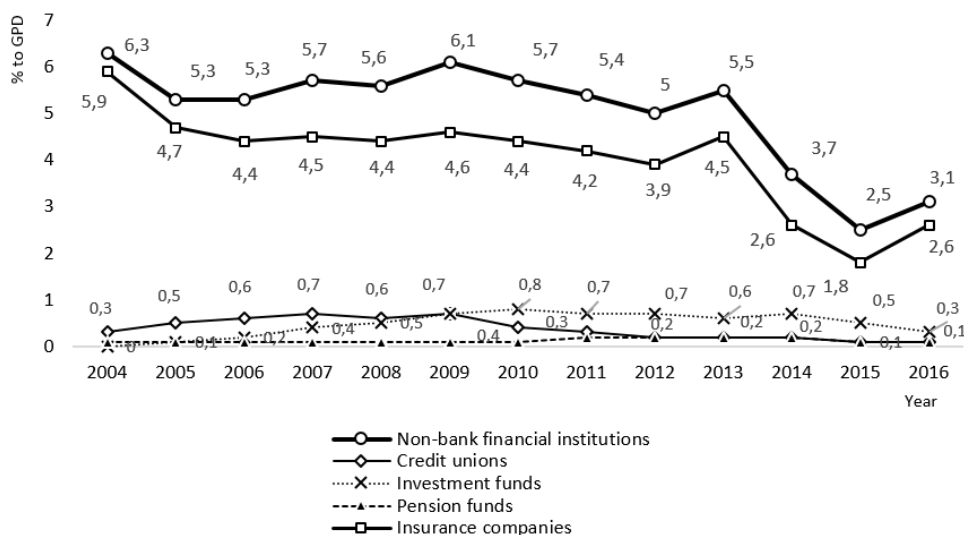


Figure 1. The dynamic of non-bank financial institutions assets in GDP of Ukraine in 2004-2016 %

Source: compiled by the authors on the basis of data (Ukrainian association of investment business, League of insurance companies of Ukraine) [2, 3].

The analysis of data certified quite contradictory situation: in total values of assets there was a rapid growth, but comparing to the dynamic of Ukraine's GDP the role of NFI remained stably low. Moreover, since 2013 it was a great decline of this sector, which might be the result both of general economic crises in Ukraine and internal problems of market. So, the first place according to the size of assets on the market of non-bank financial services is occupied by insurance companies. However, without regard to the growth of the accumulated assets from 9 to 63,9 bln. of hrn., part of insurance sector in relation to GDP during the analyzed period went down to 4,6 %, and the level of insurance payments laid down to 2,5 % of GDP. In spite of the growth of part of insurance payments in relation to bonuses from 14,6 % to 41 % and growth of part of life-insurance

to 3,1 %, though the world average indexes 78 % and 59 % accordingly demonstrate the weakness of Ukrainian insurance sector.

Despite the fact that the total assets value of other NFI remained below 1% of GDP during 2004-2008 was observed active development of credit unions. Their assets grew up in 720 %. Result in 0,68 % of GDP at the end of 2009 brought them to the second place among the non-bank financial institutions. The active growth of number of credit unions (825) and their members (over 2,6 million persons) in a period from 2004 to 2008 contributed to the growth of popularity of credit unions among the population. For this reason, consumer credits comprise over 48 % in the structure of credit portfolio. However, after the series of credit union bankruptcies the people's trust disappeared that led to dramatic decrease of union's assets. Quite stable growth was demonstrated by investment funds, that reached 0,8 % of GDP in 2010, but also declined to 0,3 % in 2016. The last place at the market of non-bank financial services is occupied by non-state pension funds. With the size of assets in a 2415 mln. hrn. (0,06 % of GDP) by the end of 2016 its investment potential and influence on an economic situation in the country substantially yielded to other financial institutions. However, in view of the short history of functioning of NPF and high growth rates of their assets, the participation of these mediators tends to grow.

So, in spite of some developments of NFI sector in comparison with bank sector its role remained quite small (Figure 2).

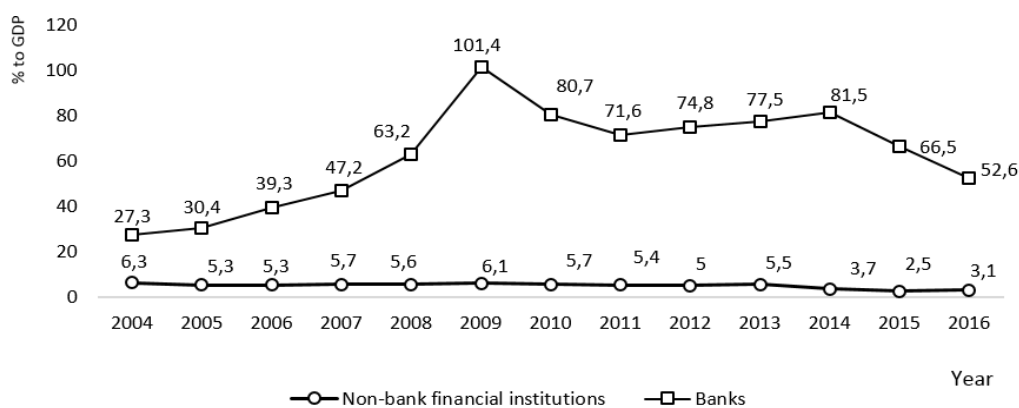


Figure 2. The comparison of assets dynamic of non-bank financial institutions and banks according to GDP of Ukraine in 2004-2016, %

Source: compiled by the authors on the basis of data (Ukrainian association of investment business, League of insurance companies of Ukraine, National bank of Ukraine) [2, 3].

The comparison showed that during the period 2004-2009 the role of banks in accordance to GDP grew dramatically, whereas the role of NFI remained stable and slightly decreased. For instance, in 2004 the share of banks assets on financial market was 81.3%, in 2009 – it was 94.5 %. And in spite of “a big fall” during 2014-2016, when the bank assets cost only 52.6% of GDP, anyway they occupied 91% of financial market share. In this context we should distinguish the factor that contributed such low development of Ukraine's NFI sector. We consider that among the variety of factors the major role belongs to the level of Ukraine's NFI sector integration into the world financial market and relations. It is proved with the analysis international indexes and Ukraine's place in them. In context of the use of international indexes as a factor for potential integration, an important place is occupied by specific financial indices. One of them is the “Financial Development Index” [14], which is being prepared by analysts of the World Economic Forum. It is calculated on the basis of such indicators as:

- Institutional environment in the country;
- Development of business climate in the country;
- Level of financial stability in the country;
- Development of banking financial services in the country;
- Development of non-bank financial services in the country;
- Development of the stock market in the country;
- The level of financial openness in the country.

The position of Ukraine in comparison with other countries in terms of financial development is presented in Table 1.

Table 1. Comparison of components of the Financial Development Index of Ukraine and the world in 2015 (place / rating)

Index components	Country						
	Ukraine	Russia	Poland	Czech Republic	Germany	UK	USA
The institutional environment in the country	60 / 2.93	59 / 3,06	36 / 4.10	38 / 4.04	10 / 5.75	2 / 6.0	13 / 5.65
Development of the business climate in the country	52 / 3.57	32 / 4.50	36 / 4.40	35 / 4.42	11 / 5.61	8 / 5.75	13.558
The level of financial stability in the country	60 / 3.14	41 / 4.19	40 / 4.31	11 / 5,19	18 / 4.93	43 / 4,12	38 / 4.36
Development of banking financial services in the country	59 / 2.30	58 / 2.37	44 / 3.17	23 / 4.24	12 / 4.69	2 / 5.80	21 / 4.28
Development of non-banking financial services in the country	34 / 1.95	8 / 4.09	20 / 2.68	50 / 1.56	16 / 3,06	3 / 4.85	1 / 6.11
Development of the stock market in the country	53 / 1.40	35 / 2.05	43 / 1.75	52 / 1.41	13 / 3.80	2 / 5.44	1 / 5.86
The level of financial transparency in the country	56 / 2.66	50 / 2.83	34 / 3.43	31 / 3.51	16 / 4.40	12 / 4.51	5 / 5.06
General index	59 / 2.37	39 / 3.30	37 / 3.41	35 / 3.49	11 / 4.61	3 / 5.21	2 / 5.27

Source: compiled by the authors.

The comparison of Ukraine's financial development indicators with countries in transition economies, as well as developed economies, showed a significant lag behind the development of them. According to the general level of financial development Ukraine took the 59th place. At the same time positively we can admit rather good level of non-bank segment of the financial services market development, which took 34th place, although its level is 2 times worse than Russia's position. Due to the analysis of Ukrainian financial intermediaries' possibilities to run economic growth we consider it might be appropriate to submit detailed estimation of financial intermediaries' activity in Ukraine (Table 2).

Table 2. Components of the Index according to the performance of financial intermediaries in Ukraine in 2015

Indicator	Rating	Place
1. Development of banking financial services in the country	2.3	59
➤ Size	2.3	37
➤ Efficiency	2.7	60
➤ Availability of financial information	1.5	48
2. Development of non-bank financial services in the country	1.9	34
➤ Key initial offering (IPO)	1.3	34
➤ Key mergers and acquisitions (M & A)	2.1	29
➤ Insurance	2.4	44
➤ Securitization	2.0	26
3. Development of the stock market in the country	1.4	53
➤ Stock market development	1.2	58
➤ Development of the bond market	1.6	46

Source: compiled by the authors.

Thus, the best level of efficiency is observed in the sphere of securitization and M & A activity in the non-banking sector (26th and 29th place). The worst is the efficiency of the banking sector (60th place).

Within our research, we made a comparison of the overall level of development of the Ukrainian non-bank financial services market and indicators of development of this sector in other countries. For comparison, we took the value of financial intermediaries' assets in GDP for a more objective analysis (Table 3).

Table 3. Growth of assets of non-bank financial institutions in foreign countries, %.

Non-bank financial institutions	Year													
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Hungary														
Insurance comp.	5.95	6.29	6.90	7.74	8.44	8.95	8.32	9.61	11.03	12.28	13.09	13.12	13.98	14.32
Pension funds	4.66	5.38	6.96	8.61	9.87	11.07	9.77	13.29	15.21	16.11	16.55	16.75	17.01	17.35
Investment funds	5.55	4.83	4.99	8.28	10.32	13.17	8.82	11.63	12.23	13.09	13.24	13.40	13.86	14.12
Poland														
Insurance comp.	6.23	6.95	7.64	8.33	9.42	9.95	9.85	9.90	10.13	11.27	12.56	13.21	14.32	15.02
Pension funds	3.93	5.40	6.83	8.78	11.13	12.04	10.96	11.23	12.05	13.33	14.99	15.09	15.89	16.98
Investment funds	2.80	3.44	4.08	6.46	9.58	11.94	6.56	8.01	10.01	10.77	13.39	13.62	14.23	15.15
Slovenia														
Insurance comp.	8.84	10.65	11.72	11.01	12.18	13.22	12.05	14.00	15.00	16.15	17.07	17.41	17.82	18.03
Pension funds	1.12	1.50	2.17	2.55	3.47	3.99	3.66	4.95	6.75	7.28	8.17	8.25	8.91	9.03
Investment funds	7.79	7.68	9.98	7.73	9.50	12.01	5.12	6.31	7.89	8.93	9.03	9.43	9.75	9.98
Czech Republic														
Insurance comp.	9.35	9.69	9.43	10.10	9.83	9.36	10.57	10.23	11.31	12.95	13.06	13.28	13.85	14.53
Pension funds	2.73	3.13	3.57	4.05	4.24	4.61	5.00	5.15	6.79	7.99	8.15	8.30	8.92	9.23
Investment funds	4.67	4.29	6.49	4.89	4.93	5.45	4.03	4.23	5.29	6.18	6.78	6.95	7.25	7.56
Estonia														
Insurance comp.	2.28	2.68	3.25	4.02	4.52	5.13	5.41	5.23	6.07	7.05	7.68	7.79	8.12	8.56
Pension funds	0.19	0.82	1.75	2.93	3.95	4.91	5.20	5.12	5.99	6.39	6.54	6.84	7.35	7.96
Investment funds	3.41	4.51	5.50	7.57	9.01	9.24	10.73	10.26	11.73	12.98	13.24	13.78	14.02	14.87
Germany														
Insurance comp.	52.56	56.04	56.89	60.49	60.76	58.73	56.14	59.62	60.28	61.12	62.02	62.25	62.15	62.45
Pension funds	8.23	9.17	9.99	10.72	11.34	11.89	12.16	13.30	14.29	15.77	15.98	16.18	16.23	16.48
Investment funds	36.41	39.99	40.47	44.97	45.65	44.54	38.36	44.72	45.81	47.98	48.07	48.27	48.53	48.78
UK														
Insurance comp.	85.42	84.73	87.04	95.40	99.85	100.49	86.64	93.81	94.20	97.66	100.24	99.77	100.2	100.8
Pension funds	54.73	60.44	64.01	74.84	79.30	75.61	62.59	68.12	68.99	74.00	78.23	77.15	79.23	78.15
Investment funds	22.18	26.93	27.54	33.79	37.03	38.68	32.15	35.15	36.12	39.04	42.35	41.23	42.32	42.26
USA														
Insurance comp.	40.35	43.57	44.80	44.50	45.16	45.24	40.58	43.64	44.45	45.92	46.23	46.37	48.37	49.56
Pension funds	61.37	70.59	72.16	72.99	77.34	77.13	56.36	66.50	67.91	68.97	70.01	70.18	72.16	73.28
Investment funds	57.74	63.37	65.94	68.59	75.71	84.13	69.11	78.75	79.08	80.05	82.11	82.35	84.56	85.16

Source: compiled by the authors on the basis of data [12,15].

The analysis of non-bank financial institutions assets structure in the transition countries of Central and Eastern Europe and developed countries made it possible to distinguish a number of characteristic features:

- The Ukrainian non-bank financial services market is significantly inferior to those markets both in developed countries and in the transition countries of Central and Eastern Europe (in Ukraine its share (average) is about 6% of GDP of the country; in Poland it is almost 41%; Estonia – 28%);

- Opposed to foreign tendency of stable growth, Ukrainian non-bank financial market was volatile and to the end of 2016 it fell down twice. We suppose that such situation was caused not only because of economic crises in Ukraine (2013-2017), but also because of small levels of openness and integration of Ukrainian financial intermediaries into the world financial market.
- According to the pace of change in the openness of the economies of Central and Eastern European countries, the value of assets of non-bank financial institutions in these countries increased significantly. For example, assets of insurance companies in Poland during the analyzed period increased 3 times, in Estonia – 6 times, in the Czech Republic – by 45%. Assets of pension and investment funds grew even more rapidly. The reason is the availability of a low base and high pace of integration of countries into the global financial space after joining the European Union.
- According to the volume, the largest assets are belonged to developed countries, which, as a rule, act as bearers of integration processes with financial intermediaries of transition countries. In most countries, the leading role in the non-bank financial services market belongs to insurance companies (Germany, Great Britain, Poland, Slovenia, Czech Republic). In the USA and Hungary, the main intermediaries are pension and investment funds.

An analysis of the structure of investment portfolios of foreign non-banking financial market countries showed a rather high level of bank deposits in the portfolios of financial intermediaries, especially in insurance companies in Germany and Poland, which determined the direction of integration between insurers and banks. Although the share of investments in bank deposits has been decreasing recently, the share in the stock has increased. In Slovakia, for example, deposits in the structure of assets of insurance companies decreased from 26 to 11%, in the structure of pension funds – from 78% to 24%, investment funds – from 24 to 22%.

In fact, in the structure of non-bank sector assets of Ukraine the largest proportion is occupied by investments in securities, monetary resources and also deposits. However, depending on the type of financial mediator the full filling of investment portfolio differs largely. Investments in shares as method of investing of assets is most widely spread among insurance companies (over 48 % in 2016), investing in bonds is more popular among the institutions of the aggregate investing (21,3 %). But to our mind the most conservative, are the non-state pension funds. They invest mostly in bank deposits and cash. According to analysis it is seemed that during the period of growth (2004-2008) and (2010-2013) non-bank financial intermediaries increase the level of shares and bonds in their portfolios, but during the economic crises (2009-2010) and (2013-2016) they increase investments in deposits. That is why, we consider that the reduction of NFI sector in 2013-2016 was mostly caused by the banks bankruptcies. So, non-bank financial intermediaries must correct the structure of portfolio in accordance with risks of bank sector. One of the way to do that is to become an integral part of world market of financial services.

For our point of view, the level of integration of the Ukrainian non-bank financial services market is essential to promote its activity as a source of economic growth. In this context, it is appropriate to determine the role of foreign capital in activity of Ukraine's intermediaries. According to the level of development of non-bank financial intermediaries, the highest level of integration is observed in the insurance services sector. Thus, according to the League of Insurance Organizations of Ukraine [2], the volume of foreign capital in the insurance market remains relatively unchanged. In 2015, there were 112 insurance companies with foreign capital operating in the market, accounting for 27% of all registered companies. The total volume of foreign investments amounted to 468.3 million euros. According to the country, the capital is distributed as follows: Cyprus and the offshore territories of the United Kingdom – 43.6%, Austria – 15.6%, Russia – 9.8%, Kazakhstan – 5.5%, the United States – 4.8%, the Netherlands – 3, 8%, France – 2.9%, Germany – 2.1%.

Despite the relatively large investments in non-banking sector from some countries, real financial investments that can be recognized as integration into the international financial market are implemented under the investment programs of leading international financial conglomerates (Table 4, see in Appendix).

As we can see, insurance companies are the key investment objects. Besides, four conglomerates – BNP Paribas SA (France), ING (Netherlands), RZB-UNIQA (Avstriya) and SEB (Sweden) are working in different segments of the financial services market in Ukraine. Along with the insurance direction, they actively develop the banking segment (Ukrsibbank, ING Bank Ukraine, Raiffeisen Bank Aval) and the investment management market (UCSIC "Ukrsib Asset Management", LLC "Ukrainian Leasing Company", LLC "Raiffeisen Investment"). This situation confirms the presence of signs of financial convergence as a form of integration of the Ukrainian financial services market into the global financial market.

In the analysis of integration processes, it would be necessary to determine the volume of mutual use both foreign capital in the activities of Ukrainian non-banking financial services market and role of Ukrainian capital in the activities of foreign entities of non-banking financial services market. Taking into account the leadership of the insurance segment and the highest level of its development with respect to other non-bank financial intermediaries, we focused on the analysis of active and passive operations of insurance companies, in particular, reinsurance, as forms of national and international cooperation between insurers regarding risk sharing and transferring of financial resources (Table 5).

Table 5. Key indicators of reinsurance characteristics in Ukraine in 2003-2015

Year	Indicator				
	Insurance premiums, mln. UAH	Premiums paid to Ukrainian insurance companies		Premiums paid to non-residents	
		UAH mln.	total premiums share, %	UAH mln.	total premiums share, %
2003	9 135.3	5 416.9	59.3	3175.9	58.6
2004	19 431.4	11 674.1	60.1	1907.2	16.3
2005	12 647.0	6 046.9	47.8	676.3	11.2
2006	13 829.9	5 621.6	40.7	561.1	10.0
2007	18 088.2	6 423.9	35.5	769.5	12.0
2008	24 008.6	9 064.6	37.8	1037.8	11.4
2009	20 442.1	8 888.4	43.5	1133.2	12.8
2010	23 081.7	10 745.2	46.6	1036.7	9.7
2011	22 693.5	5 906.2	26.0	1 182.7	20.0
2012	21 508.2	2 522.8	11.7	1 292.0	51.2
2013	28 661.9	8 744.8	30.5	2676.3	30.6
2014	26 767.3	9 704.2	36.2	1 530.5	15.8
2015	29 736.0	9 911.3	33.3	2 530.2	25.5

Source: compiled by the authors on the basis of data [2, 3].

So, according to indicators, we can distinguish several stages of changes in the interaction with non-residents: by 2004, the share of premiums paid for reinsurance was more than half of all collected premiums with the share of non-residents being more than 58%. In the period of 2005-2011 there was a significant reduction of reinsurance volumes, while the foreign share was within 10-16%; 2012-2013 was characterized by a significant increase in the share of paid premiums to non-residents – up to 51%, although the level of reinsurance remained relatively low.

In order to provide a more qualitative analysis, we determined the directions of insurance premiums transferring according to the countries of the world. In this context, we can note that reinsurance by mode of action is divided into active, which involves transferring risks to reinsurance to other countries and passive – taking risks for reinsurance.

Thus, the major countries from which reinsurance premiums were transferred were developed countries: Great Britain, Austria, France, Germany, Switzerland, as well as the largest CIS country – Russia. The largest partners were Britain and Russia (their shares at the end of 2014 amounted to 19%). German insurers received a smaller share – 17%, Switzerland – 11% and Austria – 8%. Moreover, in the dynamics of relations with insurers, it is possible to distinguish some divergences in directions. Thus, the dynamics of active reinsurance to Russia in the period of 2006-2009 was declining, in 2010-2012 it began to grow rapidly. Instead, in developed countries during these periods the trend was generally the opposite. The main partners that remit their premiums to Ukraine were mainly the countries of transition economies from the CIS: Kazakhstan – 39%, Russia – 28%, Georgia – 3%, Uzbekistan – 2%. Exceptionally, France listed 11%, mainly due to the active activities of the BNP group Paribas SA. So, the analysis of reinsurance showed some imbalances in the structure of active and passive reinsurance: domestic insurers transfer premiums mainly to developed countries, while they receive – from the CIS countries. This situation is evidence of the insufficient level of development of the domestic insurance sector and the level of integration on it, the lack of opportunities to reliably cover international risks and promote economic growth.

Thus, taking into account investment possibilities of non-bank financial institutions in providing both real and bank sectors with financial resources, we consider that they potentially must have an influence on the economic growth in the country.

In order to confirm this supposition, we conducted econometric research of dependence of GDP growth in Ukraine and the size of assets of non-bank financial mediators and bank credits. We used the methods of cross-correlation analysis and statistical equalizations of plural dependences (Kylunuch, 1997) [10]. Such method allows to define the combined influence of factors (assets of NFI) at a change on the unit and degree of influence of each factor on the development of the economic phenomenon. To that aim we accept such indexes: GDP (Y), bank credits (X_1), assets of insurance companies (X_2), assets of NFI (X_3), assets of IGI (X_4), assets of credit unions (X_5). The base for our research was data of the World Bank (2004-2015).

So as we investigated dependence on a few factors, we used plural equalization of linear direct dependence (1):

$$Y_{x_{1-5}} = Y_{\min} \left[1 + B \times \left(d_{\frac{x_{1i}-1}{x_{1\min}}} + d_{\frac{x_{2i}-1}{x_{2\min}}} + d_{\frac{x_{3i}-1}{x_{3\min}}} + d_{\frac{x_{4i}-1}{x_{4\min}}} + d_{\frac{x_{52i}-1}{x_{5\min}}} \right) \right], \quad (1)$$

where $Y_{x_{1-5}}$ – the equalization of plural dependence; Y_{\min} – a minimum value of effective sign; B – the combined parameter of plural dependence; d – a symbol of rejections of coefficients of comparison; x_i – a value of factor.

To determine the possibility of acceptance of these factors for realization of statistical research, we estimated the stability connection (2):

$$K = 1 - \frac{\sum |d_y - bd_x|}{\sum d_y}, \quad (2)$$

where K – a coefficient of connection stability; d_y – a size of rejections of coefficients of comparison of empiric values of effective sign; bd_x – a size of rejections of coefficients of comparison of theoretical values of effective sign.

The calculated stability coefficients for every factor appeared to be within the scope from 0,7 for bank credits to 0,86 for the assets of credit unions. It means that between the factors chosen for calculations there is proof connection, so research of dependence of GDP on these factors will be reliable. In accordance with the next formula we found out the parameter B (3).

$$B = \frac{\sum \left(\frac{Y_1}{Y_{\min}} - 1 \right)}{\sum \left(\frac{X_1}{X_{\min}} - 1 \right) + \sum \left(\frac{X_2}{X_{\min}} - 1 \right) + \sum \left(\frac{X_3}{X_{\min}} - 1 \right) + \sum \left(\frac{X_4}{X_{\min}} - 1 \right) + \sum \left(\frac{X_5}{X_{\min}} - 1 \right)}, \quad (3)$$

The calculated parameter B with the result 0.0325 testifies the at the combined growth of levels of factors for per 1 unit the volume of GDP will increase on 0.0325. In accordance with the contribution of every factor to the growth of GDP we calculated the measure of necessary growth of the volumes of the bank credits and assets of non-bank financial institutions for the growth of size of GDP to 200 mlrd. dollars. We took an advantage of formula (4):

$$X_i = \left(\frac{\frac{Y_{200\text{bln USD}}}{Y_{\min}} - 1}{b_{x_i}} + 1 \right) \times X_{i_{\min}}, \quad (4)$$

Thus, in obedience to the conducted research for achievement the noted volume of GDP it is necessary to increase the bank crediting on 45.4%, the assets of insurance companies on – 18.4%, NPF – 85.6%, IGI – 156%, credit unions – 51.3%.

Conducted econometric research proves the presence of close intercommunication between the level of growth of GDP and the development of non-bank financial institutions. Investment activity of financial mediators is the basic channel of influence. But the mechanism of influence depends on the structure of their assets: mediated – through an investment into bank deposits, i.e. the banking system or equity investment, and thus through the growth of fund market capitalization; direct – through an investment to the bonds of enterprises, bills of exchange, real estate, consumer credits, etc. So, all non-bank financial institutions conditionally can be subdivided into 2 groups: those which influence on the financial market, state and real sectors (insurance companies, IGI, NPF) and those which influence only on the situation of real sector of economy (credit unions and pawnshops). The degree of influence on the sectors of economy depends on the size and structure of assets of non-bank financial intermediaries. Conducted econometric researches set close cross-correlation connection between the volumes of bank credits and the deposits of NFI (0.76), equity investments of NFI and operations on the fund market (0.81).

Conclusions and discussion

An analysis of the development of non-bank financial mediation both in Ukraine and in foreign countries showed that in spite of considerable gap after the volumes of assets of bank sector, non-bank financial institutions can accumulate and redistribute financial resources depending on the necessities of economy; the rates of increase of NFI in many transitional economies considerably pass ahead the rates of growth of bank sector; the structure of assets of NFI plays a premium role for determining their place on the financial market of the country (greater part of securities in an investment portfolio makes NFI more independent from bank sector).

The synthesis of scientific approaches has made it possible to determine that the integration of the Ukrainian non-bank financial services market into the international financial market can help to increase its role in the context of economic growth. The components for determining the level of integration are proposed to consider: the level of openness and development of the domestic economy as a whole and the market of non-bank financial services in comparison with other countries of the world; comparing the general level of development of the Ukrainian non-bank financial services market with indicators of development of this sector in other countries of the world, which gives bases for determining potential opportunities and prospects of integration into the world financial space; the share of foreign capital in the domestic non-bank financial services market, which allows determining the current level of foreign capital penetration and analyzing the effectiveness of changes brought to the domestic financial services market; volumes of mutual use both foreign capital in the activities of Ukrainian NFI and Ukrainian capital in the activities of foreign non-bank financial services companies, which makes it possible to identify the directions and efficiency of the movement of capital.

Also, it is proved that there is a close connection between the degree of the development of NFI and economic growth; the influence of NFI on an economic growth is carried out by a direct method and mediated through the banking system, the state budget and fund market; due to the growth of economies and needs in the additional internal resource for financing of innovative projects the role of non-bank financial institutions in the economy of Ukraine will grow. In this context it is important to estimate the degree of their influence on the development of enterprises of real sector of economy, which could be the subject of further researches.

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Appendix

Table 4. Investments of international financial conglomerates into the financial services market of Ukraine

International financial conglomerate	Country origin	Financial intermediaries that owned in Ukraine		
		Bank sector	Insurance sector	Investment sector
Allianz	Germany	-	IC "Allianz", IC "Allianz Life"	-
AXA	Belgium	-	IC "AXA Insurance", IC "AXA Ukraine"	-
BNP Paribas SA	France	"UkrSibbank"	IC "Cardiff" IC "Cardiff Life",	JSC AMC "UkrSib Asset Management" LLC "Ukrainian Leasing Company"
Generali	Italy	-	IC "Generali Guarantor", SC "Generali Guarantor Life Insurance"	-
ING	Netherlands	"ING Bank Ukraine"	IC "ING Life Ukraine"	-
RZB-UNIQA	Austria	"Raiffeisen Bank Aval"	IC "UNIQA Life", IC "UNIQA"	LLC "Raiffeisen Investment" AMC LLC "Raiffeisen Aval"
SEB	Sweden	"SEB-Bank" (Left the market)	IC "SEB Life Ukraine"	AMC "SEB Asset Management Ukraine", AMC "SEB Equity Fund"
Petr Kellner (PPF)	Czech Republic	-	IC "Home Credit Insurance"	-
GRAWE	Austria	-	IC "Grave Ukraine", IC "Grave Ukraine Life Insurance"	-
ERGO	Germany	-	IC "Utica"	-
Ingosstrakh	Russia	-	IC "Ingo-Ukraine", IC "PROSTO-insurance", IC "PROSTO-insurance. Life and Pension"	-
ROSNO-Alians	Russia	-	IC "ROSNO-Ukraine"	-
Rosgosstrakh	Russia	-	IC "Providna"	-

Source: compiled by authors.