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### **THE IMPACT OF INVESTMENT PLACEMENT BY LIFE AND NON-LIFE INSURANCE COMPANIES ON ECONOMIC GROWTH IN UKRAINE**

**Abstract.** Ukrainian insurers, especially those engaged in life insurance, like European insurers, have a large potential investor in the financial market and can become a key driver of economic growth. Social significance of the investor activity of insurers is tightly connected with the saving function of insurance. Economic significance of investing activity of the insurance companies is determined by the large volumes of their investment resources. The article analyzes the dynamics and structure of insurance reserves of life and non-life insurers of Ukraine in comparison with foreign insurers. Contrary to foreign experience, when the bulk of the reserves is invested in debt and equity securities and real estate, Ukrainian insurers are mostly oriented towards banking investments due to the underdevelopment of the stock market, high deposit rates, and lack of investment experience. The differences in behavior of life and non-life insurers in the financial market as institutional investors are determined based on the features of insurance activity. The specifics of life insurance lays in the long-term contracts that allow investing a significant portion of the reserves in relatively long-term investment vehicles and significantly reduce the requirements for liquidity of investments. The reserves of life insurance companies are in fact 4 times higher than non-life insurance ones. In order to assess the impact of investment placement of life and non-life insurance on economic growth in Ukraine, the correlation between rates of change of technical provisions and life insurance reserves and GDP in the dynamics of 2001-2016 has been analyzed. The investment activity of life and non-life insurance companies during the period of 2001-2016 was basically ineffective. This is evidenced by the correlation between the rates of change of insurance reserves and GDP, that is higher than 1. It has been determined that the rate of change of investments is predominantly ahead of the GDP rate. This indicates they are used not to ensure the development of the national economy, and, more likely, with a speculative purpose. There is a cyclical correlation between annual rates of change of technical provisions and GDP. The life insurance investment placement was only effective in 2010, 2011 and 2016. However, it should be noted that over past years, namely from 2014 for non-life insurance, and in 2016 for life insurance, there is a positive trend that allows us to conclude that further prospects for economic growth in Ukraine in dynamics.

**Keywords:** life insurance, non-life insurance, technical provisions, life insurance reserves, investment placement, economic growth.

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## **ВПЛИВ РОЗМІЩЕННЯ ІНВЕСТИЦІЙ КОМПАНІЯМИ ЗІ СТРАХУВАННЯ ЖИТТЯ ТА РИЗИКОВОГО СТРАХУВАННЯ НА ЕКОНОМІЧНЕ ЗРОСТАННЯ В УКРАЇНІ**

**Анотація.** Українські страховики, особливо, які займаються страхуванням життя, як і європейські страховики, мають великий потенціал інвесторів на фінансовому ринку і можуть стати ключовою рушійною силою економічного зростання. Соціальна значущість страхових компаній як інвесторів тісно пов'язана зі зберігальною функцією страхування. Економічна їхня значущість визначається значними обсягами інвестиційних ресурсів. Проаналізовано динаміку і структуру страхових резервів страховиків в Україні у порівнянні з іноземними страховиками. На противагу зарубіжному досвіду, коли основна частина резервів вкладається в боргові і пайові цінні папери та нерухомість, українські страховики переважно орієнтуються на банківські вкладення, що зумовлено нерозвиненістю фондового ринку, високими депозитними ставками, браком досвіду інвестування. Визначено відмінності поведінки страховиків, які займаються страхуванням життя і ризиковим страхуванням на фінансовому ринку як інституційні інвестори, виходячи з особливостей їхньої страхової діяльності. Особливість страхування життя полягає в довгостроковості контрактів, що дає можливість інвестувати значну частину резервів у відносно довгострокові інвестиційні інструменти і значно знижувати вимоги до ліквідності інвестицій. Обсяги резервів компаній зі страхування життя вчетверо перевищують технічні резерви. Для оцінювання впливу інвестицій страховиків на економічне зростання проаналізовано співвідношення між річними темпами зростання технічних резервів і резервів зі страхування життя та ВВП України в динаміці за 2001—2016 рр. Інвестиційна діяльність страхових компаній була в основному неефективною, що підтверджується співвідношенням між темпами зміни страхових резервів і ВВП, яке перевищує 1. Це свідчить про їх використання не для забезпечення розвитку національної економіки, а, імовірно, зі спекулятивною метою. Існує циклічне співвідношення між щорічними темпами зміни технічних резервів і ВВП. Інвестиційне розміщення компаній зі страхування життя було ефективним лише у 2010, 2011 та 2016 роках. Проте з 2014 року для компаній, які займаються ризиковим страхуванням, і з 2016 року для компаній зі страхування життя спостерігається позитивна тенденція, що свідчить про перспективи економічного зростання в Україні.

**Ключові слова:** страхування життя, ризикове страхування, технічні резерви, резерви зі страхування життя, розміщення інвестицій, економічне зростання.

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## **ВЛИЯНИЕ РАЗМЕЩЕНИЯ ИНВЕСТИЦИЙ КОМПАНИЯМИ ПО СТРАХОВАНИЮ ЖИЗНИ И РИСКОВОМУ СТРАХОВАНИЮ НА ЭКОНОМИЧЕСКИЙ РОСТ В УКРАИНЕ**

**Аннотация.** Украинские страховщики, особенно занимающиеся страхованием жизни, как и европейские страховщики, имеют большой потенциал инвесторов на финансовом рынке и могут стать ключевой движущей силой экономического роста. Социальная значимость страховых компаний как инвесторов тесно связана со сберегательной функцией страхования. Экономическая их значимость определяется значительными объемами инвестиционных ресурсов. Проанализированы динамика и структура страховых резервов страховщиков в Украине по сравнению с иностранными страховщиками. В противоположность зарубежному опыту, где основная часть резервов вкладывается в долговые и паевые ценные бумаги и недвижимость, украинские страховщики преимущественно ориентируются на банковские вложения, что обусловлено неразвитостью фондового рынка, высокими депозитными ставками, недостатком опыта инвестирования. Определены различия поведения страховщиков, занимающихся страхованием жизни и рисковым страхованием на финансовом рынке как институциональные инвесторы, исходя из особенностей их страховой деятельности. Особенность страхования жизни состоит в долгосрочности контрактов, дает возможность инвестировать значительную часть резервов в относительно долгосрочные инвестиционные инструменты и значительно снижать требования к ликвидности инвестиций. Объемы резервов компаний по страхованию жизни в четыре раза превышают технические резервы. С целью оценки влияния инвестиций страховщиков на экономический рост проанализировано соотношение между годовыми темпами роста технических резервов и резервов по страхованию жизни и ВВП Украины в динамике за 2001—2016 гг. Инвестиционная деятельность страховых компаний была в основном неэффективной, что подтверждается соотношением между темпами изменения страховых резервов и ВВП, превышающим 1. Это свидетельствует об их использовании не для обеспечения развития национальной экономики, а, скорее всего, со спекулятивной целью. Существует циклическое соотношение между ежегодными темпами изменения технических резервов и ВВП. Инвестиционное размещение компаний по страхованию жизни было эффективным лишь в 2010, 2011 и 2016 годах. Однако с 2014 года для компаний, которые занимаются рисковым страхованием, и с 2016 года для компаний по страхованию жизни наблюдается положительная тенденция, свидетельствующая о перспективах экономического роста в Украине.

**Ключевые слова:** страхование жизни, рисковое страхование, технические резервы, резервы по страхованию жизни, размещение инвестиций, экономический рост.

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**Introduction.** Insurance companies that are active members of the insurance market, and take responsibility to pay their clients damages in case of adverse events, also have a considerable potential of the investor due to accumulation of a large amount of financial resources. Social significance of the investor activity of insurers is tightly connected with the saving function of insurance, when necessary insurance funds under the supervision of professional insurers are formed from a large number of individual insurers. Economic significance of investing activity of the insurance companies is determined by the large volumes of their investment resources. Financial resources, which are accumulated as insurance reserves, play a significant role as a source of economic investment. They contribute to increasing competition on a financial market, stimulate financial innovation, improve corporate governance, and facilitate the development of regulatory acts.

In developed countries, insurance companies exceed generally recognized institutional investors (banks and investment funds) by investment rates. Insurers are the largest European institutional investors, investing in long-term assets, including infrastructure, to meet expectations of insurers and provide them with decent investment gain. They encourage to make savings and pensions, growth and stability in Europe. The European Commission has made an ambitious investment plan, which main goal is to increase the flow of investment into the real economy, thereby supporting creation of workplaces and economic growth. European insurers hold more than €9.6 billion assets and more than €1.3 billion new insurance premiums per year [1]. Lloyd's Global Underinsurance Research shows a single percentage point increase in insurance penetration is associated with an increase in domestic insurers held by insurers equivalent to 2% of nominal GDP — potentially a key driver of economic growth [2].

**Literature review and the problem statement.** Many foreign and domestic scientists have been exploring the problems of the investing activity of insurance companies and their impact on the development of state's economy. Arena (2006) notes that "...the evolution of insurance industry can affect economic growth by: (a) mobilizing domestic savings; (b) allowing more efficient management of different risks, thus encouraging new capital accumulation; (c) boosting financial stability and reducing anxiety; (d) facilitating trade and commerce; (e) supporting to reduce or mitigate losses; and (f) fostering a more efficient allocation of domestic capital..." [3].

Outreville (1990) has conducted a pioneering examination of the relationship between insurance development and economic growth in developing countries. His results have shown that both non-life and life insurance generate economic growth [4].

Webb, Grace and Skipper (2002) have conducted an empirical analysis between several countries (cross country) and have concluded that the development of the insurance sector and financial intermediation increases the total productivity of production factors by facilitating efficient allocation of capital [5].

Njegomir and Stojić (2010) concluded that insurance positively affects economic growth as a risk transfer, compensation and institutional investor [6].

Arena (2008) finds evidence that life and non-life insurance has different effects on economic growth for different levels of economic development measured by GDP per capita. Life and non-life insurance has an impact on economic growth at the low and middle stages of economic development. However, life insurance would have a greater impact on economic growth in low level of economic development and non-life insurance at middle level [7].

Zaletov (2016) emphasizes that investments of insurance companies are powerful factor in a development of the national economy and social sphere. Insurance companies provide the country budget with tax payments, and the economy — with financial resources. In order to prevent the outflow of insurers' assets abroad, state regulation of investment activity of insurance companies should be improved by raising the requirements for asset quality and diversification [8].

Vnukova's paper (2015) [9] is devoted to examining the methods of state regulation of insurance activity, and analyzing international standards of prudential supervision as well as the possibility of introducing solvency requirements for Ukrainian insurance companies based on the EU Solvency II Directive.

Rekunen (2017) examines peculiarities of the investment activity of insurers in terms of the structure of their assets and the placement of reserves, and also generalizes the most influential factors that impede the development of the domestic insurance market [10].

Kozmenko (2013) established the role of insurance companies on the investment market and assessed the impact of the yield on financial instruments on the efficiency of investment activities of insurance companies [11].

Slav'yuk (2017) noted that during the period of 1997—2015 insurance companies were not the driving force of economic growth in Ukraine. Their activities were focused mostly on profit than on the functions inherent to the financial market intermediaries [12].

Investigations of the investment activity of insurers by domestic scientists are mostly theoretical. Therefore, it should be noted a lack of national empirical studies, which would refer to the impact of

investment activity of Ukrainian insurers on the development of our country's economy. The purpose of the article is to assess the dynamics and structure of insurance reserves of life and non-life insurers, identify differences in their behavior on the financial market as institutional investors, and to determine how investment activity of life and non-life insurers influences on economic growth in Ukraine.

**Research results.** The insurance market is the second in terms of capitalization among non-bank financial markets. According to National Commission for the State Regulation of Financial Services Markets as of June 30, 2017 the total number of insurance companies was 300, including life insurers — 36 companies, and non-life insurers — 264. The number of insurance companies is decreasing; when comparing data for June 30 in 2017 and 2016, the number of companies decreased by 43. Compared to the first semester of 2016, insurance premiums grew by UAH 4895.8 million (30.0%), and net insurance premiums grew by UAH 527.5 million (4.1%). The increase in gross insurance premiums occurred in almost all types of insurance. During the analyzed period a number of concluded insurance contracts has increased by 7028.8 thousand units (or by 8.5%). In comparison with the first half of 2016, the volume of gross insurance payments increased by UAH 829.4 million (21.0%), and net insurance payments increased by UAH 843.1 million (22.4%).

The insurer must have a certain part of the reserved funds for the payment of insurance indemnity in case of occurrence of insured events. Formation and placement of insurance reserves (technical provisions and life insurance reserves) is the basis of the investment activity of the insurance company. Placing these funds, the following points should be taken into account: safety, profitability, liquidity, and diversification. The investment potential of the insurance market depends on the development of life insurance, as this is a sector that provides a significant share of insurance investments in developed countries. Usually terms of non-life insurance contracts are less than one year. In this regard, investments that meet the obligations for these types of insurance are mostly short-term. The specifics of life insurance lays in the long-term contracts that allow investing a significant portion of the reserves in relatively long-term investment vehicles and significantly reduce the requirements for liquidity of investments.

In order to evaluate the investment activity of national insurance companies, volumes of their separate reserves for life and non-life insurance and their placement during 2014—2017 (*Table 1* and 2) will be analyzed. Since the number of non-life insurance companies significantly exceeds the number of life insurance companies, it is advisable to analyze the data per one insurance company. It should be noted that in 2014 the number of non-life insurers was equal to 342, in 2015 — 322, in 2016 — 298, in 2017 — 264, life insurance: in 2014 — 58, in 2015 — 52, in 2016 — 45, in 2017 — 36.

Table 1

Technical provisions dynamics and structure for the first half of 2014—2017

Years	2014		2015		2016		2017	
	Mln. UAH	%	Mln. UAH	%	Mln. UAH	%	Mln. UAH	%
1	2	3	4	5	6	7	8	9
Total assets representing technical provisions, including:	28,46	100,0	32,90	100,0	39,30	100,	47,63	100,0
1) current bank accounts	3,68	12,93	4,37	13,29	5,73	14,57	5,57	11,70
2) deposits	12,28	43,14	13,32	40,47	17,22	43,82	21,56	45,26
3) precious metals	0,008	0,03	0,006	0,02	0,012	0,03	0,0038	0,01
4) real estate	2,14	7,51	2,23	6,78	2,74	6,97	3,55	7,45
5) shares	3,56	12,50	3,81	11,57	0,224	0,57	0,1027	0,22
6) bonds	0,235	0,82	0,139	0,42	0,214	0,54	1,32	2,76
7) mortgage credit certificate	0,00	0,00	0,028	0,09	0,00	0,00	0,00	0,00
8) government bonds	1,34	4,71	2,36	7,16	3,97	10,11	6,45	13,54
9) reinsurance claims	5,19	18,24	6,61	20,1	9,09	23,12	8,94	18,77
10) real economy investments	0,00	0,00	0,00	0,00	0,06	0,15	0,09	0,18
10.1) tourism infrastructure development	0,00	0,00	0,00	0,00	0,06	0,15	0,0640	0,13
10.2) telecommunications industry development	0,00	0,00	0,00	0,00	0	0,00	0,0239	0,05
12) cash	0,034	0,12	0,033	0,10	0,04	0,11	0,0557	0,12

Source: National Commission for the State Regulation of Financial Services Markets

Table 2

## Life insurance reserves dynamics and structure for the first half of 2014—2017

Years	2014		2015		2016		2017	
	Mln. UAH	%	Mln. UAH	%	Mln. UAH	%	Mln. UAH	%
1	2	3	4	5	6	7	8	9
Total assets representing life insurance reserves, including:	80,57	100,00	115,62	100,00	156,28	100,00	213,54	100,00
1) current bank accounts	2,56	3,18	7,93	6,86	15,77	10,09	16,43	7,69
2) deposits	36,28	45,04	59,33	51,32	66,00	42,23	76,48	35,81
3) precious metals	0,1948	0,24	0,28	0,24	0,10	0,06	0,100	0,05
4) real estate	2,57	3,19	2,10	1,81	2,67	1,71	2,83	1,33
5) shares	4,36	5,41	4,78	4,13	0,46	0,30	0,2889	0,14
6) bonds	2,55	3,16	6,03	5,21	1,44	0,92	2,10	0,98
7) mortgage credit certificate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
8) government bonds	29,75	36,93	32,41	28,03	65,78	42,09	110,30	51,65
9) reinsurance claims	2,05	2,54	2,73	2,36	4,02	2,57	4,99	2,34
10) real economy investments	0,1707	0,21	0,0154	0,01	0,0111	0,01	0,0083	0,00
10.1) development of high-tech equipment, other innovative products	0,1259	0,16	0,0077	0,01	0,0022	0,00	0,00	0,00
10.2) tourism infrastructure development	0,0052	0,01	0,0077	0,01	0,0089	0,01	0,30	0,14
10.3) housing construction	0,0397	0,05	0,00	0,00	0,00	0,00	0,00	0,00
11) loans to insured person	0,0776	0,10	0,0058	0,00	0,0067	0,00	0,0083	0,00
12) long-term residential construction loans	0,0017	0,00	0,0019	0,00	0,0022	0,00	0,0028	0,00
13) cash	0,00	0,00	0,0058	0,00	0,0133	0,01	0,0028	0,00

Source: National Commission for the State Regulation of Financial Services Markets

Although during analyzed period (2014—2017) the number of insurance companies annually have decreased in average by 5—15%, the volume of insurance reserves have increased. At the same time, the reserves of life insurance companies are in fact 4 times higher than non-life insurance ones.

The amount and structure of investment placement are determined by peculiarities of life and non-life insurance (Table 3). Insurance amounts for life insurance are determined, non-life — stochastic. Maturity funding sources and maturity of liabilities are respectively long-term and short-term.

Table 3

## The amount and structure of investment placement of life and non-life insurance

Comparison options	Life insurance	Non-life insurance
Investment period	Long-term	Short-term
Profitability	The contract of life insurance necessarily provides for an increase in the sum insured amount and (or) the amount of insurance payment on the amount (bonuses), which are determined by the insurer per a year, on the basis of received investment income from the placement of life insurance reserves	Requirements not set
Asset liquidity	Low due to long-term investments	Should be high
Inclusion of inflation	It may be provided for indexing according to the official index of inflation the sum insured amount and (or) the amount of insurance payment during the life insurance contract, subject to appropriate indexation (modification) of the amount of insurance payment	Not taken into account
Investment volume	Significant, increased by capitalization	Lower than life insurance
Reconciliation of the maturity period	Reconciliation of the maturity period is specified in the insurance contract	Random value; it is necessary to take into account the distribution of losses during the year by different types of insurance
Safety	Long-term projects with minimal risk	Minimization of risk within 1 year
Payback period	More than 1 year	Up to 1 year
The main type of investments	Government bonds	Deposits

Note: proposed by authors.

The dynamics of the structure of assets, which represent reserves, in recent years has not changed much. According to *Table 1* and 2, it can be seen that the structure of technical provisions mostly consists of bank deposits, reinsurance claims, government bonds, current bank accounts and real estate. In the structure of life insurance reserves, the largest share is government bonds, bank deposits, current bank accounts and reinsurance claims. The risks inherent in life insurance are easier to be predicted, there are no significant unforeseen events that may affect the insurer's liquidity. Therefore, companies engaged in life insurance can invest in long-term government bonds, equity securities and real estate. In non-life insurance, the liability for payment of claims and the amount paid is more difficult to predict. It is more difficult to predict the potential amount of indemnity payments in non-life insurance. Therefore, it is necessary to provide some liquid assets that in case of unforeseen expenses can be quickly converted into cash.

Looking at the world experience in insurance companies investment, the investment volume is much larger, and the structure is slightly different. Thus, in the structure of the investment portfolio of Germany prevail credits and loans (45,5%), and then shares and other securities (23%). In France, investment activity mainly focuses on debt securities (70,5%) and shares (22,3%). In UK, much of the funds are also invested in shares (68%), while the share in the investment portfolio of debt securities is 19,8% [13]. Average composition of European insurance investment portfolio in 2015 is shown in Fig. 1.

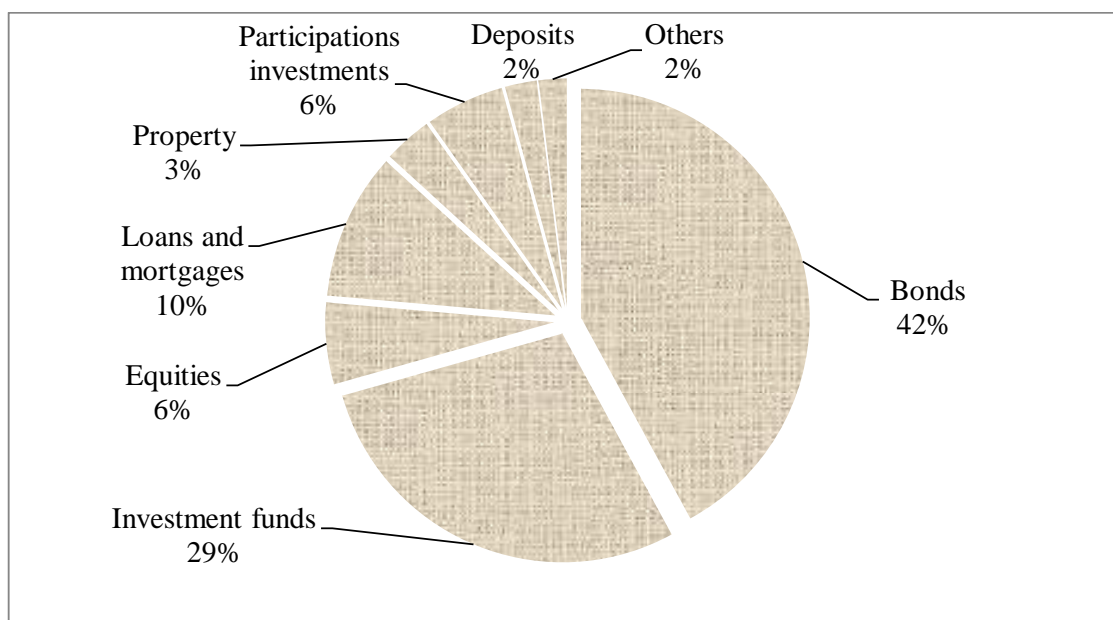


Fig. 1. Average composition of European insurance investment portfolio in 2015  
 Source: <https://www.insuranceeurope.eu/annual-report-2016-2017>.

Bank deposits with the largest share in the investment portfolio of domestic insurers make up only 2% of the portfolio of European insurers. Securities are the basis of the portfolio and collectively take up almost 50%. Investments into investment funds make up to 30%. That means that in general insurers make investments in the stock market. Thus, the level of financial market development is the determining factor in the impact on the structure of insurers' investment portfolio.

American experience shows that the investment portfolio of insurers is combined as highly liquid short-term investments (such as certificates of deposit), as well as medium- and long-term investments in securities, real estate and mortgages. Insurance companies in the USA are the largest buyers of corporate, government and municipal bonds, so their share in assets is 68%; the next two major types of assets are ordinary shares (about 11%) and mortgages (about 7%) [14].

Comparing American and European approaches to the investment activity of insurers, it can be seen that the American one is based on the diversification and directing fixed assets into priority sectors of the economy, investing in shares of multinational companies. Therefore, the possibility of losses of the main type of activity — insurance — is covered by the investment income. On the contrary, European approach focuses on the insurance profitability, and then on the investment income.

To assess the impact of investment in life and non-life insurance on economic growth in Ukraine, we will analyze the correlation between technical provisions rate of change ( $ROC_{TP}$ ), life insurance reserves rate of change ( $ROC_{lir}$ ) and GDP rate of change ( $ROC_{gdp}$ ) in Ukraine in dynamics (Table 4, Fig. 2).

The calculation for  $ROC_{TP}$  is simple in that it takes the current value of technical provisions and divides it by the value from an earlier period. Multiply the resulting number by 100 to give it a percentage representation. The calculation for  $ROC_{lir}$  and  $ROC_{gdp}$  is similar.

Table 4

Ukraine GDP and investments by insurers 2001—2016

Years	GDP, mln.UAH.	GDP rate of change ( $ROC_{gdp}$ ), %	Technical provisions, (TP), mln.UAH.	TP rate of change ( $ROC_{tp}$ ), %	$\frac{ROC_{tp}}{ROC_{gdp}}$	Life insurance reserves (LIR), mln.UAH.	LIR rate of change ( $ROC_{lir}$ ), %	$\frac{ROC_{lir}}{ROC_{gdp}}$
2001	204190	-	1168,2	-	-	15,9	-	-
2002	225810	110,59	1873,3	160,36	1,45	24,9	156,60	1,42
2003	267344	118,4	3724,2	198,80	1,68	50,8	204,02	1,72
2004	345113	129,1	8110,3	217,77	1,69	161,9	318,70	2,47
2005	441452	127,9	4793,51	59,10	0,46	252,29	155,83	1,22
2006	544153	123,3	5405,8	112,77	0,91	604,4	239,57	1,94
2007	720731	132,5	7432	137,48	1,04	991,3	164,01	1,24
2008	948056	131,5	9295,1	125,07	0,95	1609	162,31	1,23
2009	913345	96,3	9793,6	105,36	1,09	7978,9	495,89	5,15
2010	1082569	118,5	11541,8	117,85	0,99	9335,9	117,01	0,99
2011	1316600	121,6	8911,8	77,21	0,63	2688,8	28,80	0,24
2012	1408889	107,00	9812,5	110,11	1,03	3260,1	121,25	1,13
2013	1454931	103,30	11101,8	113,14	1,10	3920,3	120,25	1,16
2014	1566728	107,70	10757	96,89	0,90	5308,2	135,40	1,26
2015	1979458	126,30	11827,2	109,95	0,87	6859,8	129,23	1,02
2016	2383182	120,40	12552,9	106,14	0,88	7704,8	112,32	0,93

Source: National Commission for the State Regulation of Financial Services Markets; <https://data.worldbank.org/country/ukraine?locale=uk>.

According to aforementioned data, the investment activity of life and non-life insurance companies during the period of 2001—2016 was basically ineffective. This is evidenced by the correlation between the rates of change of insurance reserves and GDP, that is higher than 1. Thus, the investment rate of change exceeded the GDP rate.

In particular, the impact of investment placement by non-life insurers in 2005—2006, 2008, 2010—2011 and 2014—2016 is positive. There is a cyclical correlation between annual rates of change of technical provisions and GDP. The life insurance investment placement was only effective in 2010, 2011 and 2016. However, it should be noted that such a trend in 2011 is due to the negative growth of insurance reserves, which decreased by almost 3.5 times when comparing to

2010. The analysis of recent periods gives grounds to expect improvement of the economic situation for insurers and the state in subsequent years.

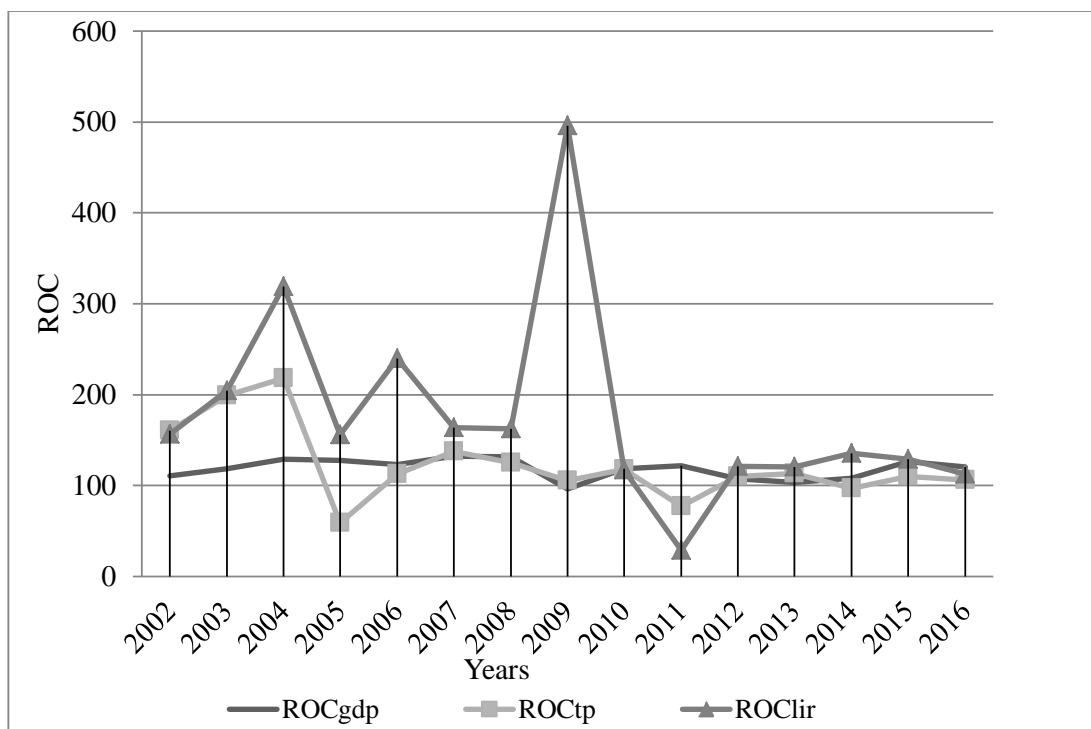


Fig. 2. Rate of change of Ukraine GDP, technical provisions, life insurance reserves 2001—2016

Source: Source: National Commission for the State Regulation of Financial Services Markets; <https://data.worldbank.org/country/ukraine?locale=uk>.

**Conclusions.** Insurance companies, especially engaged in life insurance, have great potential for investing. They accumulate a significant part of the financial resources that can be invested in the economy, while applying the long-term strategy. However, this activity is not yet sufficiently developed.

Contrary to foreign experience, where the bulk of the reserves is invested in debt and equity securities, and in real estate, Ukrainian insurers are mostly oriented towards banking investments due to the underdevelopment of the stock market, high deposit rates, and lack of investment experience. Insurance companies are also ready to invest in securities, but only those issued by the government and, accordingly, guaranteeing their payback. Investment income of insurance companies is insignificant, as this sphere in Ukraine is still not sufficiently developed.

The amount and structure of investment placement are determined by peculiarities of life and non-life insurance. The reserves of life insurance companies are in fact 4 times higher than non-life insurance ones. Maturity funding sources and maturity of liabilities are respectively long-term and short-term. Companies engaged in life insurance can invest in long-term government bonds, equity securities and real estate. In non-life insurance it is necessary to provide some liquid assets that in case of unforeseen expenses can be quickly converted into cash (bank deposits, reinsurance claims, government bonds, current bank accounts etc).

Analyzing the impact of investment placement by life and non-life insurance companies on economic growth in Ukraine, it is worth mentioning that the rate of change of investments is ahead of the GDP rate. This means ineffective use of them to ensure the development of the national economy. However, it should be noted that over past years, namely from 2014 for non-life insurance, and in 2016 for life insurance, there is a positive trend that allows us to conclude that further prospects for economic growth in Ukraine in dynamics.

### Література

1. Annual Report 2016—2017 [Electronic resource] / Insurance Europe. — Brussels, 2017. — May. — Available at : <https://www.insuranceeurope.eu/annual-report-2016-2017>.
2. Lloyd's Statistic 2019 [Electronic resource] / LLOYD'S. — Available at : <https://www.lloyds.com>.
3. Arena M. Does Insurance Market Activity Promote Economic Growth? A Cross-Country Study for Industrialized and Developing Countries / M. Arena // Policy Research Working Paper. — Washington, DC: World Bank, 2006. — № 4098.
4. Outreville J. F. The Economic Significance of Insurance Markets in Developing Countries / J. F. Outreville // The Journal of Risk and Insurance. — 1990. — Vol. 57. — № 3. — P. 487—498.
5. Webb I. P. The Effect of Banking and Insurance on the Growth of Capital and Output / I. P. Webb, M. F. Grace, H. D. Skipper // Centre for Risk Management and Insurance Working Paper. — Atlanta: Robinson College of Business, Georgia State University, 2002. — № 02-1.
6. Njegomir V. Does insurance promote economic growth: The evidence from Ex-yugoslavia region / V. Njegomir, D. Stojić // Ekonomika Misao i Praksa. — 2010. — № 1. — P. 31—48.
7. Arena M. Does Insurance Market Activity Promote Economic Growth? A Cross-Country Study for Industrialized and Developing Countries / M. Arena // Journal of Risk & Insurance. — 2008. — Vol. 75. — Is. 4. — P. 921—946.
8. Залетов О. Державне регулювання інвестиційної діяльності страхових компаній в Україні / О. Залетов // Вісник Київського національного університету імені Тараса Шевченка. Економіка. — 2016. — № 3 (180). — С. 25—32.
9. Внукова Н. Економіко-правові аспекти пруденційного нагляду за страховою діяльністю / Н. Внукова // Право та інновації. — 2015. — № 3 (11). — С. 15—21.
10. Рекуненко І. Особливості інвестиційної діяльності страхових компаній / І. Рекуненко, С. Чорна // Економіка і суспільство. — 2017. — № 8. — С. 666—672.
11. Козьменко О. Поведінка страхових компаній на інвестиційному ринку: досвід України та Німеччини / О. Козьменко, В. Ройко // Вісник НБУ. — 2013. — № 11 (213). — С. 30—36.
12. Slavyuk R. Financial market imbalance: reasons and peculiarities of occurrence in Ukraine / R. Slavyuk, L. Shkvarchuk, I. Kondrat // Investment Management and Financial Innovations. — 2017. — Vol. 14. — Is. 1. — P. 227—235.
13. Пікус Р. Досвід інвестиційної діяльності зарубіжних страхових компаній / Р. Пікус, Д. Нестерова // Вісник Київського національного університету імені Тараса Шевченка. — 2014. — Вип. 3 (156) — С. 6—11.
14. Gleeson P. How Do Insurance Companies Invest Money? [Electronic resource] / P. Gleeson // ZACKS. — 2019. — January 28. — Available at : <https://finance.zacks.com/insurance-companies-invest-money-11120.html>.

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Сватюк О. Р.

### References

1. Insurance Europe. (2017, May). Annual Report 2016—2017. Brussels. Retrieved from <https://www.insuranceeurope.eu/annual-report-2016-2017>.
2. LLOYD'S. (n. d.). Lloyd's Statistic 2019. Retrieved from <https://www.lloyds.com>.
3. Arena, M. (2006). Does Insurance Market Activity Promote Economic Growth? A Cross-Country Study for Industrialized and Developing Countries. *Policy Research Working Paper, 4098*. Washington, DC: World Bank.
4. Outreville, J. F. (1990). The Economic Significance of Insurance Markets in Developing Countries. *The Journal of Risk and Insurance, Vol. 57, 3*, 487—498.
5. Webb, I. P., Grace, M. F., & Skipper, H. D. (2002). The Effect of Banking and Insurance on the Growth of Capital and Output. *Centre for Risk Management and Insurance Working Paper, 02-1*. Atlanta: Robinson College of Business, Georgia State University.
6. Njegomir, V., & Stojić, D. (2010). Does insurance promote economic growth: The evidence from Ex-yugoslavia region. *Ekonomika Misao i Praksa, 1*, 31—48.
7. Arena, M. (2008). Does Insurance Market Activity Promote Economic Growth? A Cross-Country Study for Industrialized and Developing Countries. *Journal of Risk & Insurance, Vol. 75, 4*, 921—946.
8. Zaliyev, O. (2016). Derzhavne rehuliuвання investytsiinoi diialnosti strakhovykh kompanii v Ukraini [State regulation of insurance companies investment activity]. *Visnyk Kyivskoho natsionalnoho universytetu imeni Tarasa Shevchenka. Ekonomika — Bulletin of Taras Shevchenko National University of Kyiv. Economics, 3* (180), 25—32 [in Ukrainian].
9. Vnukova, N. (2015). Ekonomiko-pravovi aspekty prudentsiinoho nahliadu za strakhovoiu diialnistiu [Economic and legal aspects of prudential supervision of insurance activity]. *Pravo ta innovatsiiu — Law and innovations, 3* (11), 15—21 [in Ukrainian].
10. Rekuenko, I., & Chorna, S. (2017). Osoblyvosti investytsiinoi diialnosti strakhovykh kompanii [Peculiarities of insurance companies investment activity]. *Ekonomika i suspilstvo — Economy and society, 8*, 666—672 [in Ukrainian].
11. Kozmenko, O., & Roienko, V. (2013). Povedinka strakhovykh kompanii na investytsiinomu rynku: dosvid Ukrainy ta Nimechchyny [The behavior of insurance companies in the investment market: the experience of Ukraine and Germany]. *Visnyk NBU — Bulletin of the National Bank of Ukraine, 11* (213), 30—36 [in Ukrainian].
12. Slavyuk, R., Shkvarchuk, L., & Kondrat I. (2017). Financial market imbalance: reasons and peculiarities of occurrence in Ukraine. *Investment Management and Financial Innovations, Vol. 14, 1*, 227—235.
13. Pikus, R., Nesterova, D. (2014). Dosvid investytsiinoi diialnosti zarubizhnykh strakhovykh kompanii [Experience of foreign investment activity of insurance companies]. *Visnyk Kyivskoho natsionalnoho universytetu imeni Tarasa Shevchenka. Ekonomika — Bulletin of Taras Shevchenko National University of Kyiv. Economics, 3* (156), 6—11 [in Ukrainian].
14. Gleeson, P. (2019, January 28). How Do Insurance Companies Invest Money? ZACKS. Retrieved from <https://finance.zacks.com/insurance-companies-invest-money-11120.html>.

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