

PROBLEMS AND PROSPECTS OF PERSONAL INSURANCE DEVELOPMENT

Life insurance plays a vital role in the country's economy, as a tool for attracting long-term investment, and in the social life of the population, as a tool for welfare and insurance protection. Life insurance plays a vital role in developing the country's economy, as the accumulated sums insured are used to pay insurance premiums and invest in the economy. At the same time, insurers and policyholders receive additional income. The positive role of life insurance is reflected in the addition of the social protection system, as the insurance policy adds confidence in the future and takes care of health in case of suicide and other targeted actions that directly threaten the insured's life with no payments. This work aims to study the trend of changes in the volume of critical indicators of personal insurance on the example of life insurance, accident, health insurance, and analysis of the dynamics of change of these indicators in the future. The article analyzes the leading indicators of Ukrainian insurance companies in personal insurance during 2015-2019. It was found that the largest amount of insurance premiums in the field of health insurance have insurance companies "Unika", "Leading", "Ingo Ukraine". Accordingly, the maximum insurance payments are made by "Unika", "Leading", "Alpha Insurance". The top level of insurance payments for life insurance is observed in the company "Alpha Insurance". Metlife, Unika Zhyttia, and TAS are also leaders in the insurance market. Instead, the leaders in insurance payments are Metlife, Grave Ukraine Life Insurance, and TAS. Thus, the prominent leading companies in the life insurance market are "MetLife", "Unique of Life" and "TAS". The leaders in the accident insurance market are "Credo", "Alpha Insurance" and "PZU Ukraine". The constructed forecast was carried out using absolute growth and growth rate. The obtained result of the estimates allows us to conclude that in 2020 there will be a gradual increase in the volume of insurance premiums and payments in the personal insurance sector.

Keywords: insurance, insurance market, personal insurance, insurance company, insurance payments.

СІДЕЛЬНИК НАТАЛІЯ

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ПРОБЛЕМИ ТА ПЕРСПЕКТИВИ РОЗВИТКУ ОСОБИСТОГО СТРАХУВАННЯ

Страховання життя відіграє важливу роль в економіці країни, виступаючи інструментом залучення довгострокових інвестицій, та в соціальному житті населення, виступаючи інструментом забезпечення добробуту та страхового захисту населення. Страховання життя відіграє важливу роль для розвитку економіки країни, так як накопичені страхові суми спрямовуються не лише на виплату страхових сум, а й інвестуються в економіку, при цьому страховики та страховальники отримують додаткові доходи. Позитивна роль страхування життя відображається у доповненні системи соціального захисту, оскільки поліс страхування додає впевненості у майбутньому та змушує піклуватись про своє здоров'я, так як за умови самогубства та інших цілеспрямованих дій, що несуть пряму загрозу життю застрахованого, виплати не будуть здійснені. Метою даної роботи є дослідження тенденції зміни обсягу даних ключових показників особистого страхування на прикладі страхування життя, від нещасних випадків і медичного страхування та аналіз динаміки зміни зазначених показників в перспективі. У статті проаналізовано основні показники діяльності українських страхових компаній у сфері особистого страхування протягом 2015-2019 років. Було виявлено, що найбільший обсяг страхових премій у напрямку медичного страхування мають страхові компанії «Уніка», «Провідна», «Інго Україна». Відповідно максимальні страхові виплати здійснюють «Уніка», «Провідна», «Альфа страхування». Максимальний рівень страхових виплат із страхування життя спостерігається у компанії «Альфа страхування». Лідерами на ринку страхування є також «Метлайф», «Уніка життя» та «ТАС». Натомість лідерами зі страхових виплат є «Метлайф», «Граве Україна страхування життя» та «ТАС». Таким чином, основними провідними компаніями на ринку страхування життя є «Метлайф», «Уніка життя» та «ТАС». Лідерами на ринку страхування нещасних випадків є «Кредо», «Альфа страхування» та «PZU Україна». Побудований прогноз був здійснений за допомогою абсолютного приросту і темпу росту. Отриманий результат прогнозу дозволяє зробити висновок, що у 2020 р. спостерігатиметься поступовий ріст обсягу страхових премій і виплат у секторі особистого страхування.

Ключові слова: страхування, страховий ринок, особисте страхування, страхова компанія, страхові виплати.

Problem statement in general and its connection with important scientific or practical tasks

Life insurance plays a vital role in developing the country's economy, as the accumulated sums insured are used to pay insurance premiums and invest in the economy. At the same time, insurers and policyholders receive additional income. The positive role of life insurance is reflected in the addition of the social protection system, as the insurance policy adds confidence in the future and forces you to take care of your health, as, in case of suicide and other targeted actions that directly threaten the life of the insured. The advantage of life insurance is also motivational, as the insured person is interested in making payments that are accumulating for various purposes.

Thus, life insurance is one of the types of personal insurance, which protects property interests in case of disability of the insured, living to the specified age or death. The peculiarity of this type of insurance is that it is long-term (the contract term is from 10 to 40 years). Life insurance plays a vital role in the country's economy, as a tool for attracting long-term investment, and in the social life of the population, as a tool for welfare and insurance protection.

Analysis of recent research and publications

Domestic scientists were engaged in research of essence and features of functioning personal insurance and research of the basic tendencies of the insurance market development in Ukraine, including Botvina N. O. [1],

Клепикова О. [Помилка! Джерело посилання не знайдено.], Onyshko S. V. [7], Muzyka O. M. [Помилка! Джерело посилання не знайдено.] Philipenko A. V. [9], Hrynychshyn Ya. M. [3], Onyshchenko V.P. [Помилка! Джерело посилання не знайдено.], Malikova I. P. [6], Zolotarova O. V. [5], Pozdnyakova L.O. [Помилка! Джерело посилання не знайдено.], Vremenko L. V. and Derkach K. I. [2], Zhuravka O. S., Pakhnenko O. M. and Sukhomlin A. A. [4] and others.

Highlighting previously unsolved parts of the general problem to which the article is devoted

Despite the significant amount of research to identify key trends in the development of personal insurance, it is not enough attention to the logical combination between the analytical part of the study of potential prospects for the development of this sector.

Formulation of the goals of the article

The article aims to study the trend of changing the volume of these critical indicators of personal insurance on the example of life insurance, accident, health insurance and analyze the dynamics of change of these indicators in the future.

Presenting main material

Given that the leading share of the personal insurance market is health insurance, the percentage of which exceeds 50%, consider the leaders among insurance companies that provide voluntary health insurance (Table 1).

Table 1.

Rating of insurance companies by indicators of health insurance for 2019

№	Insurance Company	Premiums, UAH mln.	Payments, UAH mln.	Level of payments,%
1	Unika	621,0	352,7	56,79
2	Providna	483,8	314,9	65,09
3	Ingo Ukraina	329,4	192,0	58,29
4	ARX	286,8	159,5	55,59
5	Alfa Insurance	266,2	221,1	83,08
6	Naftogastrakh	242,2	170,9	70,59
7	Krayina	170,9	107,4	62,83
8	PZU Ukraina	139,9	82,2	58,75
9	TAS SG	127,6	73,9	57,91
10	Universalna	109,7	44,5	40,62

According to the Table 1 we will note that the largest volume of premiums has "Unika" - 621 million UAH, "Providna" - 483,8 million UAH, "Ingo Ukraina" - 329,4 million UAH. Accordingly, the maximum insurance payments are in "Unika" - UAH 352.7 million, "Providna" - UAH 314.9 million, "Alpha Insurance" - UAH 221.1 million. However, the maximum level of insurance payments is observed in "Alpha Insurance" - 83,08%.

As shown by the calculations shown in Table 2, the number of companies providing life insurance has halved over 2015-2019, so consider the market leaders (Table 2).

Table 2.

Rating of life insurance companies for 2019

№	Insurance Company	Premiums, UAH mln.	Payments, UAH mln.	Level of payments,%
1	Metlife	1231,3	167,3	13,59
2	Unika	871,3	24,2	2,78
3	TAS	559,7	144,4	25,80
4	PZU Ukraina	523,8	44,0	8,40
5	TAS SG	383,8	6,1	1,59
6	Grave Ukraina Insurance	379,1	162,9	42,97
7	ARX LIFE	176,2	17,2	9,76
8	Knyaza Life	73,5	10,2	13,88
9	Grinvud Life	67,4	0,3	0,45
10	KD-life	45,7	12,3	26,91

According to the data given in Table 2, the leader in the insurance market is "Metlife" which volume of premiums makes 1231,3 million UAH, "Unika" - 871,3 million UAH., and TAS SG - UAH 559.7 million. Instead, the leaders in insurance payments are Metlife - UAH 167.3 million. Grave Ukraina Insurance - UAH 162.9 million. and TAS - UAH 144.4 million.

Thus, the prominent leading companies in the life insurance market are Metlife, Unika, and TAS SG.

Consider the rating of insurance companies that provide insurance against accidents (Table 3).

After analyzing the Table 3 note that the leaders in the accident insurance market are "Kredo". The collected premiums are 584.5 million UAH, "Alfa Insurance" - 142.1 million UAH., and PZU Ukraina - UAH 113.6 million.

Given the leading indicators of the development of the personal insurance market of Ukraine during 2015 - 2019. Structural changes characterized the dynamics of net insurance premiums and payments. Therefore, it is necessary to study the trend of changes in life insurance, accident, health insurance and analyze the dynamics of these indicators in the future. Since the study is conducted in five years, it is possible to optimally forecast the number of net insurance premiums and payments in the personal insurance market of Ukraine for one year.

Consider the dynamics of changes in insurance payments in the studied segment of the insurance market. The absolute growth and growth rate of the respective indicators are presented in Table 4.

Table 3.

Rating of insurance companies for accident insurance for 2019

№	Insurance Company	Premiums, UAH mln.	Payments, UAH mln.	Level of payments, %
1	Kredo	584,5	119,5	20,4
2	Alfa Insurance	142,1	1,6	1,1
3	PZU Ukraina	113,6	2,3	2,1
4	Unika	86,2	16,6	19,3
5	Universalna	79,2	8,6	10,9
6	European travel insurance	37,9	0,8	2,2
7	VUSO	37,8	0,2	0,7
8	TAS SG	15,9	1,7	11,0
9	Arsenal Insurance	15,7	0,3	2,4
10	Ukrfinstrakh	14,6	0,03	0,3

Table 4.

Absolute growth and growth rate of insurance payments in the personal insurance market of Ukraine during 2015-2019

Year	Life insurance	Absolute growth	Growth rate	Accident insurance	Absolute growth	Growth rate	Medical Insurance	Absolute growth	Growth rate
2015	491,5			77,5			1414,3		
2016	418,3	-73,2	0,9	140,7	63,2	1,8	1579,7	165,4	1,1
2017	556,2	137,9	1,3	160,2	19,5	1,1	1965,5	385,8	1,2
2018	704,9	148,7	1,3	191,4	31,2	1,2	2439,8	474,3	1,2
2019	575,9	-129,0	0,8	197	5,6	1,0	3021,8	582	1,2

As you can see, the growth rate of life insurance premiums is trapezoidal with a decline in the corresponding value. Life insurance payments have also been on a negative trend since 2018, when health insurance has a slight but gradual increase in insurance benefits.

Let's build a forecast for both indicators for 2020, using the average value of absolute growth and growth rate. To do this, add the average total increase to the last level of the series, and multiply the value of the average growth rate by the previous value. Thus, we have the following forecast values of insurance premiums and payments (Table 5).

Table 5.

Forecast values of insurance premiums and payments in the personal insurance market of Ukraine for 2020, obtained using average absolute growth and growth rate

Insurance premiums			
Average value	Life insurance	Accident insurance	Medical Insurance
Absolute growth	5233,2	1912,5	7562,3
Growth rate	5597,1	2156,9	8294,1
Insurance payments			
Average value	Life insurance	Accident insurance	Medical Insurance
Absolute growth	597,0	226,9	3423,7
Growth rate	614,1	255,0	3657,2

As you can see, the obtained forecast values differ from each other and give a different picture of changes in indicators, while the trend of the series is positive.

Thus, we obtained three forecast values of insurance premiums and payments in the personal insurance market of Ukraine for 2020. It is possible to determine which value should be trusted using particular criteria for assessing the quality of the forecast: average absolute error (MAE), standard error (MSE), percentage error (MPE), fundamental mean percentage error (MAPE), standard deviation (RMSE), standard deviation (RMSPE).

The smaller the value of the calculated values, the higher the quality of the forecast. In practice, these characteristics are using quite often. This approach gives good results if the forecast period does not contain fundamentally new patterns. Based on the MPE and MAPE criteria, it is possible to conclude about some general level of adequacy of the model based on their comparison. The main criteria that indicate the quality of the forecast are MAPE and RMSPE.

The calculated values of the criteria for estimating the forecast of the volume of insurance premiums and payments are presented in the following tables (Table 6).

As you can see, the values of some criteria for assessing the quality of the forecast for insurance premiums are much higher than zero. However, the MAPE and RMSPE criteria indicate a good quality of the predicted value obtained by extrapolation based on the average absolute increase.

A similar picture is observed for the forecast of the value of insurance payments (Table 7).

Table 6.

Criteria for assessing the forecast of insurance premiums

Data source	MAE	MSE	RMSE	RMSPE	MPE	MAPE
Extrapolation based on average absolute growth	89,266	98,059	34,843	12,12%	-8,28%	8,28%
Extrapolation based on average growth rate	91,905	27,213	67,226	13,15%	-10,66%	10,66%

Table 7.

Criteria for assessing the forecast of insurance payments

Data source	MAE	MSE	RMSE	RMSPE	MPE	MAPE
Extrapolation based on average absolute growth	93,566	75,829	40,651	0,51	0,25%	0,25%
Extrapolation based on average growth rate	90,073	70,734	38,851	0,51	0,09%	0,09%

Conclusions from this study and prospects for further exploration in this direction

In the context of this goal, it was found that the largest amount of insurance premiums in the field of health insurance have insurance companies "Unika", "Providna", "Ingo Ukraina". Accordingly, the maximum insurance payments are made by "Unika", "Providna", "Alfa Insurance". The top level of insurance payments for life insurance is observed in the company "Alpha Insurance". Metlife, Unika, and TAS are also leaders in the insurance market. Instead, the leaders in insurance payments are Metlife, Grave Ukraina Insurance, and TAS. Thus, the prominent leading companies in the life insurance market are Metlife, Unika, and TAS. The leaders in the accident insurance market are "Kredo", "Alfa Insurance," and "PZU Ukraina". The constructed forecast was carried out using absolute growth and growth rate. The obtained result of the estimates allows us to conclude that in 2020 there will be a gradual increase in the volume of insurance premiums and payments in the personal insurance sector.

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Надійшла / Paper received : 01.08.2020
Надрукована / Paper Printed : 28.09.2020