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tools that were available to a very small number of academic economists became available to anyone involved in educational or scientific activities.

Conclusions. The main conclusion of this paper is that the classics of world economic thought devoted much of their attention to various interdisciplinary aspects of economic activity and did it with a great skill. In those days, few people could comprehend the complexity of economic reality at such a high level. With the development of the theory of interdisciplinarity in the 80s of the 20th century, the world academic community gained a "revolutionary advantage", which influenced the conceptualization of current tasks at national and global levels. This "revolutionary advantage" lies in providing effective "interdisciplinary instruments" to every interested student, scientist or practitioner. Accordingly, with the increase in the number of competent persons we can observe the increase in the speed and efficiency of existing problems solving, including economic ones.

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ANALYSIS OF THE EUROPEAN INSURANCE MARKET AND CONDITIONS OF ITS FUNCTIONING

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Abstract:

The article analyzes the current status and trends in the global insurance market, quantitative and regional structure of its participants.

Identifies the European countries leading the global insurance market and explains their position on the world market.

Attention is drawn to the statistics.. Provides forecasts for the development of the global insurance market.

The article provides a comparative analysis of the development of the insurance market of Ukraine and the European Union countries in terms of the number of insurance companies, the structure of the insurance market by type of insurance, the claims ratio, the insurance density, the insurance penetration, the share of employed in insurance sector.

For today for the world market of insurance services characteristic are next tendencies and range of problems of further advancement: acceleration of increase of volume of insurance bonuses, that get insurers from the risk types of insurance, life-insurance and reinsurance; activations of demand are on insurance services in countries that develop; declines of cost of insurance products in the field of commercial insurance and strengthening of insurance interest in cyber-insurance and insurances of robots; consolidations of leading insurers are in a few highly developed countries.

Based on the results of the analysis, the main shortcomings in the functioning of the insurance market of Ukraine were identified and a set of measures to reduce them was proposed.

Keywords: insurance, insurance market, European insurance market, insurance services, insurance business.

Introduction. The market of insurance services plays a significant role in the economy of any state, ensuring the formation of funds of funds sufficient to cover the results of adverse events, and thus reducing the risks of economic entities. The insurance market allows you to accumulate huge long-term investment resources, raising funds through pension and life insurance programs. The expansion of the insurance business creates jobs, intensifies the introduction of innovations, stimulates the resilience of the economy and mitigates the effects of global risks. The development of insurance markets has become for many European countries a factor in socio-economic development, improving living standards, solving other macro-economic problems.

The current state of development of the world economy and international relations is characterized by the complexity of the process of reproduction, increasing the scale and expansion of internationalization of production, increasing development and expansion of the market environment, deepening integration processes. The condition of an effective reproduction process is its continuity and continuity. The risky nature of the operation of any enterprise, the life of each person determines the emergence of a system of social relations (to prevent, overcome and reduce the devastating effects of natural disasters and other adverse emergencies), which together form the content of the economic category of insurance protection. The market economy is further characterized by the need of society for insurance protection, due to such random factors as the negative impact of destructive forces of nature on the production of material goods and human life, the process of human life as a biological being, the negative impact of human economic activity on the environment, growth of technological, business risks, interstate and interethnic conflicts, criminal phenomena. The need for insurance protection is growing all over the world, the essence of which is to accumulate and use money and other resources to implement measures to prevent, overcome or eliminate the negative impact of risks and to compensate for material or other losses caused by them. In accordance with the requirements of the economic category of insurance protection, to implement a set of protective measures requires the alienation in the form of stocks of gross domestic product to prevent and compensate for material or other losses caused by the insured event, ie the formation of the insurance fund.

The insurance fund is funds withdrawn from national income and total social product. Significant financial resources accumulated in the insurance fund serve as a source of investment in the national economy. The economic essence of the insurance fund determines its difference from the depreciation and reserve funds. There are a number of organizational forms of the insurance fund: centralized in-kind and monetary reserves of the state; decentralized funds (self-insurance) and funds created by the insurance

method. Under conditions of transition economy, privatization and restructuring of enterprises, significant state budget deficit, banking restructuring, strict tax policy, the possibility of providing insurance protection through a centralized way of organizing the insurance fund and self-insurance are very limited, which requires reorientation in the insurance system. The most effective means of protecting enterprises of various forms of ownership and citizens, stabilizing the national currency, redistribution of capital, implementation of investment policy of the state is insurance, which contributes to socio-economic development of the country and the world economy and international relations.

Insurance is an important aspect of the development of modern life and economy without which modern society cannot function.

In 2017, European insurers generated a total premium income of 1213 billion euros and invested 10226 billion euros in the economy.

Insurers paid the equivalent of 2.8 billion euros a day to help businesses and individuals through challenging events and benefits for long-term investors. Lifetime premiums increased by 5% compared to 2016, although there are significant differences between individual EU countries. However, premiums in most P&C business areas suffered more in line with the level of economic activity - an increase of 4.4%. Health insurance premiums increased by 4%. In total, a continuous increase in premium income of 4.7% was registered.

In general, the results of the EU insurance market in 2017 indicate a clear improvement in the economic environment and the sustainable operation of financial markets in general. The EU economy in 2017 showed growth of 2.4% (in 2016 - 2%), which is the best result after the global financial crisis of 2008-2009, the US economy in 2017 grew by 2.3%, China - by 6.9%).

The macroeconomic environment for the functioning of the European insurance market as a whole improved significantly between 2016 and 2017. However, within the EU, national economies grew at different rates: 7.2% in Ireland and 7.3% in Romania against 1.6% in Italy, 1.7% in Belgium, 1.5% in Greece. Although the growth of the Greek economy of 1.5% should be considered a positive trend, as this is the first positive year after the crisis in the Greek economy in 2014. However, in the UK in 2017 continued the downward trend in GDP growth - 1.7% in 2017 against 1.8% in 2016.

In 2017, the ratio of the government deficit to GDP in the EU-28 continued a long-term decline, which began in 2009 and was caused by the implementation of policies through higher taxes, lower public spending, and so on. Overall, the EU-28's economic growth prospects have improved: the average public debt-to-GDP ratio has fallen from 83.3% at the end of 2016 to 81.6% in 2017; the unemployment rate decreased from 8.1% in 2016 to 7.2% in 2017; growth of the euro in price against the dollar. (From 1.06 per 1 USD at the beginning of 2017 to 1.2 per 1 USD at the

end of 2017) However, the current low interest rates continued to create difficult conditions for insurers in terms of providing long-term savings products .

Analysis of recent research and publications.

Theoretical and practical aspects of the formation and development of the insurance market were studied in the works of foreign and domestic scientists, such as Aleskerova Yu., Salkova I., Fedoryshyna L., Todosiichuk V. and others.

The purpose of the article is to analyze and prospects for the development of the Ukrainian insurance market in terms of approaching the European Union market.

Presenting main material. The EU insurance market is open to cooperation at both European and global levels, despite the current conditions of economic uncertainty. An effectively functioning insurance market is an important component of a developed market economy and plays a key role in shaping the general economic situation not only in the country but also in the world.

First, it creates an insurance environment capable of providing insurance protection not only to businesses and individuals, but also to international entities,

which determine the foundations of the development of the whole community; secondly, it accumulates significant funds of inactive capital and turns it into a powerful source of investment resources that activate the real sector and stimulate socio-economic growth. In addition, with the proper organization of the insurance business there is an opportunity to reduce the consequences of various natural and man-made disasters, to eliminate the risks of industrial and man-made nature and financial abuse.

As already mentioned, in 2017 the total amount of premiums in the EU increased by 4.7% to 1213 billion euros and showed a significant increase in all areas of insurance - life by + 5.0%, health - by + 4 %, P&C - at + 4.4%. Total premiums in Europe increased over the five years from 2013 to 2017 by an average of 3.2% per year. The total number of insurance companies in the European insurance market in Europe in 2017 amounted to 3343 companies. In general, from 2008 to 2017 there is a steady downward trend in the number of insurance companies (a decrease of 2.2% on average), Fig. 1

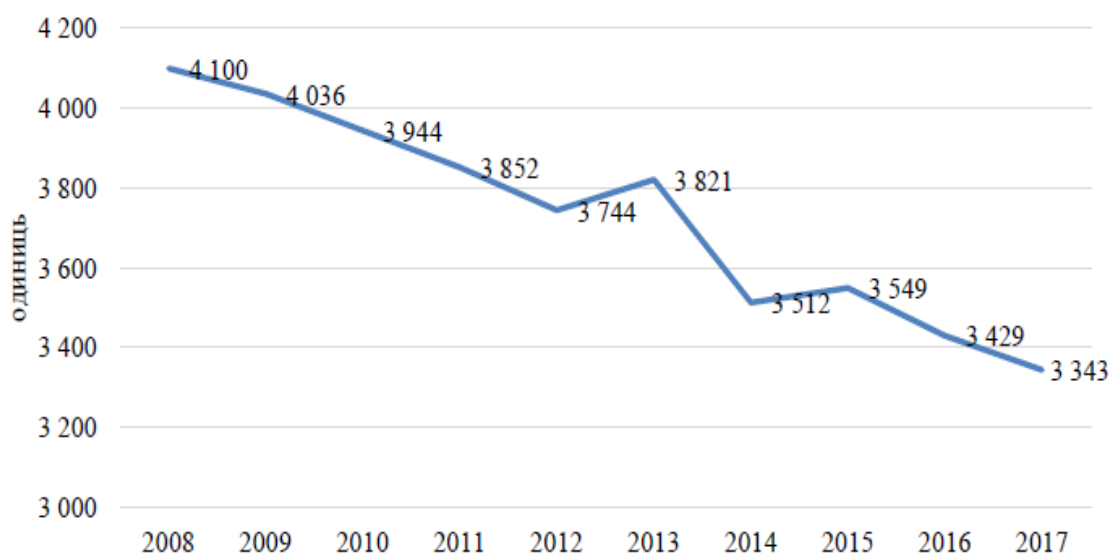


Fig. 1. Dynamics of the number of insurance companies in Europe in 2008-2017.

Note. Developed by the author.

In 2017, the average amount of insurance premiums per person was very different according to the type of insurance: the largest insurance premiums are typical for life insurance (almost 1,200 euros per 1 person), Fig. 2

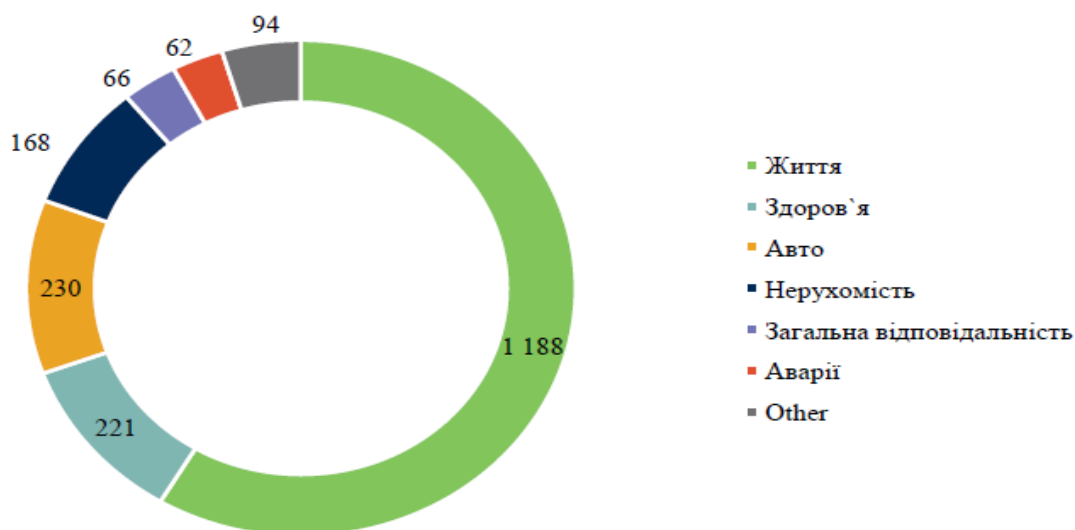


Fig.2. The average size of insurance premiums, 2017, euros

The total amount of insurance premiums for various types of insurance in the EU-28 is presented in table. 1.

Table 1.

Gross insurance premiums (billion euros)

	2016	2017	Growth rates
Life	686	710	5,0%
Health	128	132	4,0%
Real Estate and Accidents (P&C)	361	371	4,4%
Auto	134	138	4,2%
Real estate	99	100	3,6%
General responsibility	38	40	5,4%
Accidents	35	36	4,2%
In general	1175	1213	4,7%

Note. Developed by the author.

More than half of the EU insurance market is life insurance. Health insurance and car insurance are the second most important types of insurance (11% respectively). In third place in terms of insurance premiums is real estate insurance (8%). Analysis of the dynamics of insurance premiums in the period from 2008 to 2017

(Fig. 3) shows a steady increase in the indicator (probability of forecast 89%). The average annual increase in insurance premiums is 2.1% with the maximum percentage of its growth of 4.7% in 2017 and 4.6% in 2014 and the maximum percentage of decline - -3% in 2011.

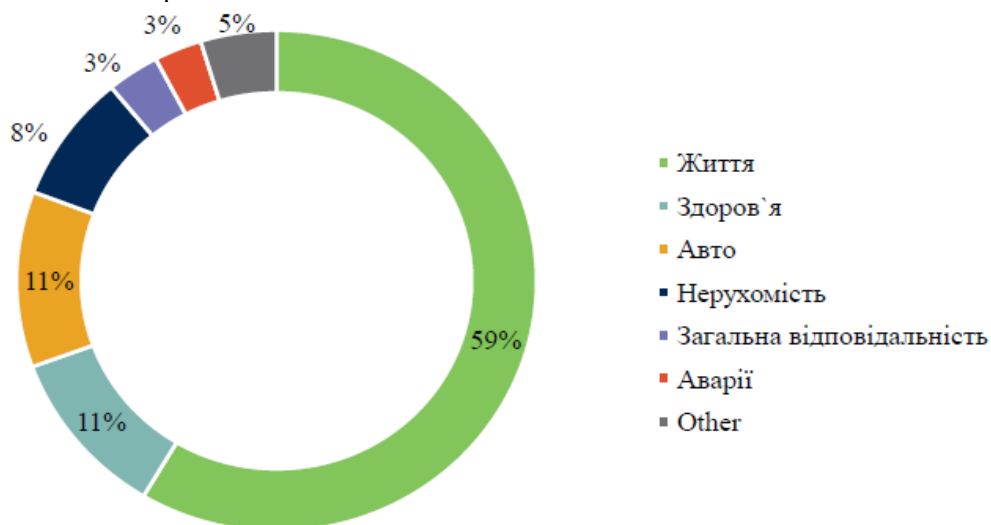


Fig. 3. Total insurance premiums, billion euros, 2017

Note. Developed by the author.

Regarding the national differences in the structure and size of insurance premiums, as can be seen from Fig. 3.9 - the growth of insurance premiums in 2017 was due to the three largest insurance markets in Europe: the United Kingdom, France and Germany. These countries account for 57.2% of total premiums in Europe. Northern, Central and Eastern European markets also grew, but at a much slower pace.

In Italy, the fourth largest insurance market in Europe, insurance premiums continued to decline in 2017 (-2.5%), but less than in 2016 (-8.7%). In other markets, insurance premiums remained relatively stable - the Netherlands (+ 0.6%), Spain (-0.4%), Switzerland (- 0.9%), Belgium (-0.3%) and Austria (+ 0.4%).

The total amount of insurance payments and indemnities for various types of insurance in the EU-28 countries are presented in table. 2.

Table 2

Insurance payments and indemnities (billion euros)

Life	610	669	11,4%
Health	103	105	3,0%
Real Estate and Accidents (P&C)	233	239	4,0%
Auto	99	99	1,0%
Real estate	56	63	13,9%
General responsibility	25	26	3,5%
Accidents	19	20	2,4%
In general	945	1 014	8,8%

Note. Developed by the author.

More than 60% of payments and reimbursements in the EU insurance market are life insurance. Health insurance and car insurance are the second most important types of insurance (10% respectively). In third place in terms of insurance premiums is real estate insurance (6%).

Analysis of the dynamics of insurance payments

and reimbursements in the period from 2008 to 2017 (Fig. 4) shows a steady increase in the indicator (probability of forecast 82%). The average annual increase in insurance premiums is 2.0% with a maximum percentage of its growth of 8.8% in 2017 and a maximum percentage of decline - -4.2% in 2009.

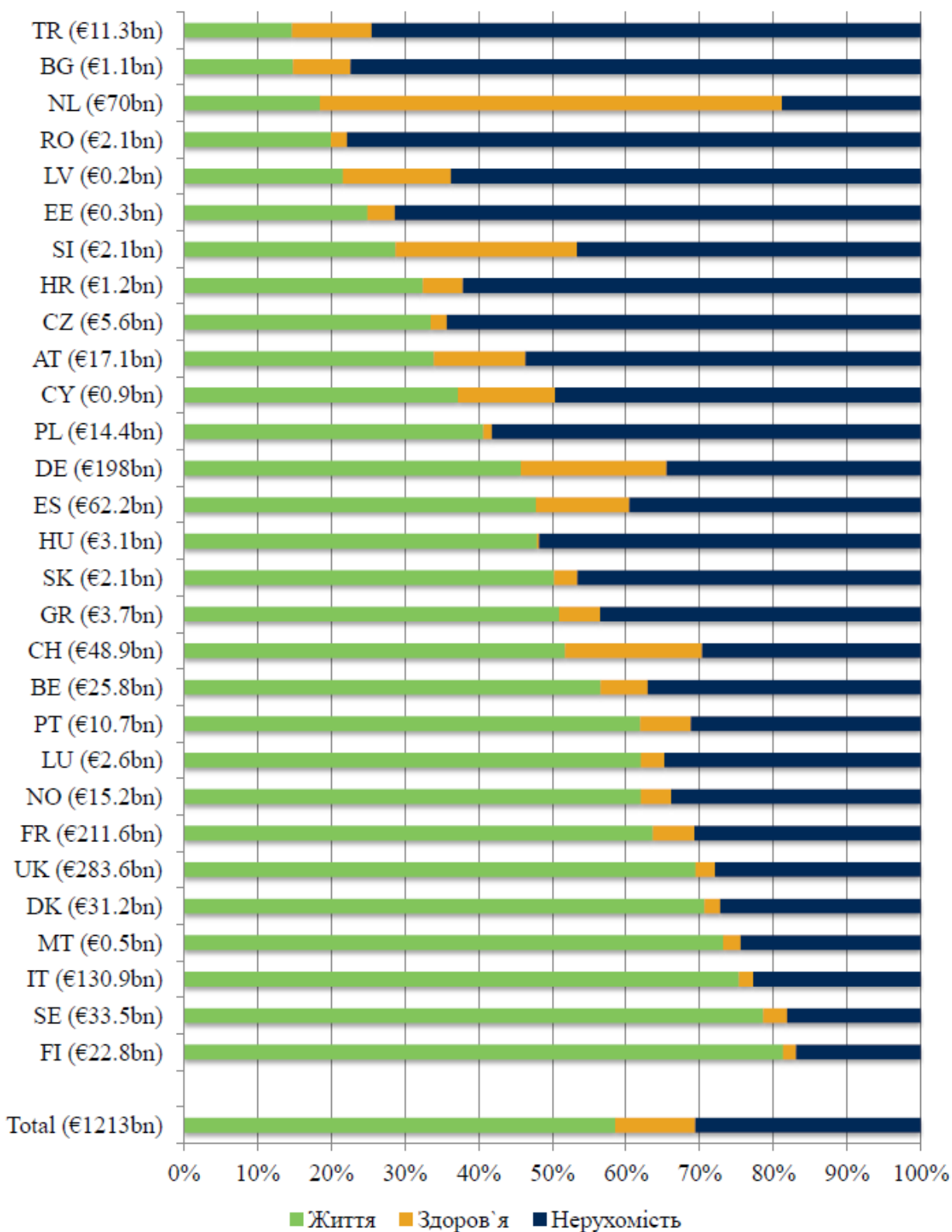


Fig. 4. Total insurance payments and indemnities, billion euros, 2017

Note. Developed by the author.

Total payments and indemnities to European insurers paid to customers in 2017 increased by 8.8% to € 1,014 billion. The total amount of claims and payments in 2017 is equivalent to 1,697 euros per capita or

2.8 billion euros per day. The four largest European markets (UK, France, Germany, Italy) accounted for 76% of all insurance premiums and claims paid in 2017, which is 7% more than in 2016, Fig.5



*Fig. 5. Volume and structure of insurance payments and indemnities by European countries,% **

Note. Developed by the author.

As more than half of the European insurance market is occupied by life insurance, we will conduct a brief analysis of this sector of the European insurance market.

The total amount of insurance premiums in Europe increased by 5% in 2017 to 710 billion euros, after a decrease of 2.1% in 2016, 73.4% were recorded in the four largest markets in Europe: the UK, France, Italy

and Germany. Their total share of life awards in Europe in 2017 increased by 1%. In 2017, the European Central Bank maintained its monetary policy and low interest rates, which affected life insurance in some national markets. Premiums for life decreased in Italy (-3.6%), Spain (-4.3%), Switzerland (-3.5%), and the Netherlands (-5.7%). Other markets remained broadly stable, primarily Germany (-0.1%) and France (+ 0.5%). Northern and Eastern European markets have shown signs of resilience through growth.

Thus, the analysis of the current state and dynamics of the European insurance market has proved its heterogeneity: more than 50% of the European insurance market is formed by countries such as Germany, the Netherlands, France, Italy and the United Kingdom. Most countries have a share of several percent of Europe's insurance market in terms of national insurance markets.

To determine what factors form the prerequisites for the functioning of the European insurance market,

including Ukraine, the author proposed a method of assessing the preconditions for the functioning of the European insurance market by determining the index of conditions of the insurance environment.

As components, it is proposed to use the components of PEST-analysis through the assessment of economic, social, political and technological aspects of the external and internal environment of the insurance market.

It is proposed to operate only with the economic and social components of the development of the insurance environment, as the calculations use global indicators, respectively, the political component is already taken into account.

As for the technological component - the rating of global competitiveness also contains data on the technological development of countries. Thus, the economic dimension is determined on the basis of two global indicators: The first is the Competitiveness Index (SI). EU and Ukrainian countries have different levels of competitiveness, which is shown in Table 3.

Table 3.

Index of global competitiveness of the EU and Ukraine

№	Country	General IGC	Place countries for IEC	№	Country	General IGC	Place countries for IEC
8	Austria	5,2	19	17	Malta	4,5	40
7	Belgium	5,3	17	1	Netherlands	5,6	4
21	Bulgaria	4,4	50	2	Germany	5,6	5
4	United Kingdom	5,5	7	16	Poland	4,6	36
28	Greece	4	86	19	Portugal	4,5	46
6	Denmark	5,3	12	23	Romania	4,3	62
12	Estonia	4,8	30	24	Slovakia	4,3	65
11	Ireland	5,2	23	22	Slovenia	4,4	56
14	Spain	4,7	32	25	Hungary	4,2	69
18	Italy	4,5	44	89	Ukraine	4	85
27	Cyprus	4	83	5	Finland	5,4	10
20	Latvia	4,4	49	10	France	5,2	21
15	Lithuania	4,6	35	26	Croatia	4,1	74
9	Luxembourg	5,2	20	13	Czech Republic	4,7	31
				3	Sweden	5,5	6

Note. Developed by the author.

As can be seen from the table, all EU countries, despite some diversity, are in the first half of the ranking (the worst competitive is Greece, 86th place, and Ukraine ranks one position higher). However, economic and political instability in the form of crises in many areas of EU life. However, the EU28 is still the most competitive in the world - the average level of competitiveness is higher than the world average (4.78 in the EU compared to the world average of 4.11).

2. The second is the IEF (Index of Economic Freedom). Economic freedom is a fundamental right of a person to manage his own work and property. In economically free societies, individuals are free to choose work, produce goods, spend, and invest in any way they wish. All these freedoms are supported and protected by the state. In the table. 4 shows the countries of the EU and Ukraine, their index of economic freedom.

Table 4.

Index of economic freedom of the EU and Ukraine *

№	Country	General index	Place countries for IEC	№	Country	General index	Place countries for IEC
13	Austria	72,3	30	19	Malta	67,7	50
18	Belgium	67,8	49	5	Netherlands	75,8	15
16	Bulgaria	67,9	47	11	Germany	73,8	26
3	United Kingdom	76,4	12	15	Poland	68,3	45
28	Greece	55	127	24	Portugal	62,6	77
7	Denmark	75,1	18	14	Romania	69,7	39
1	Estonia	79,1	6	21	Slovakia	65,7	57
2	Ireland	76,7	9	27	Slovenia	59,2	97
22	Spain	63,6	69	20	Hungary	65,8	56
25	Italy	62,5	79	162	Ukraine	46,8	162
17	Cyprus	67,9	48	10	Finland	74	24
9	Latvia	74,8	20	23	France	63,3	72
6	Lithuania	75,8	16	26	Croatia	59,4	95
4	Luxembourg	75,9	14	12	Czech Republic	73,3	28
				8	Sweden	74,9	19

Note. Developed by the author.

All surveyed countries according to this index are divided into the following groups: mostly free, with an index of 70-79.9 (Estonia, Ireland, Great Britain, Luxembourg, the Netherlands, Lithuania, Denmark, Sweden, Latvia, Finland, Germany, the Czech Republic, Austria); moderately free, with a rate of 60-69.9 (Romania, Poland, Bulgaria, Cyprus, Belgium, Malta, Hungary, Slovakia, Spain, France, Portugal, Italy); mostly unfree, with a rate of 50-59.9 (Croatia, Slovenia, Greece); despotic, with a score of 0-49.9 (Ukraine, but

none of the EU countries belongs to this group).

The social dimension of the development of the European insurance space can be formed on the basis of the following indicators: 1. Quality-of-life index QLI (Quality-of-life index). 2. Human Development Index HDI (Human Development Index). 1. Index of quality and safety of life. The distribution of EU countries according to the Index of Quality and Safety of Life is given in table. 5.

Table 5.

Index of quality and safety of life of the EU and Ukraine

№	Countries	General index of quality and safety life	Place in the region	№	Country	General index of quality and safety life	Place in the region
1	Austria	190,37	1	15	Malta	–	25
2	Belgium	160,52	15	16	Netherlands	175,23	8
3	Bulgaria	138,2	23	17	Germany	189,74	2
4	United Kingdom	172,87	9	18	Poland	150,21	18
5	Greece	148,32	19	19	Portugal	178,43	6
6	Denmark	184,92	3	20	Romania	143,04	20
7	Estonia	171,09	11	21	Slovakia	152,55	17
8	Ireland	166,9	13	22	Slovenia	175,45	7
9	Spain	183,65	4	23	Hungary	138,82	22
10	Italy	142,52	21		Ukraine	102,34	62
11	Cyprus	130,90	25	24	Finland	182,93	5
12	Latvia	131,20	25	25	France	160,25	16
13	Lithuania	130,28	24	26	Croatia	170,63	12
14	Luxembourg	132,63	25	27	Czech Republic	165,41	14
				28	Sweden	172,74	10

Note. Developed by the author.

Austria, Germany, Denmark, Spain and Finland have the highest level of quality and safety of life; the worst is Ukraine.

1. All EU countries according to the Human Development Index belong to the countries with a very high level of human development (only Bulgaria belongs to the group of countries with a high level of human development), Table 6.

Table 6.

EU and Ukraine Human Development Index *

№	Countries	Human Development Index	№	Countries	Human Development Index
24	Austria	0,893	33	Malta	0,856
22	Belgium	0,896	7	Netherlands	0,924
56	Bulgaria	0,794	4	Germany	0,926
16	United Kingdom	0,909	36	Poland	0,855
29	Greece	0,866	41	Portugal	0,843
5	Denmark	0,925	50	Romania	0,802
30	Estonia	0,865	40	Slovakia	0,845
8	Ireland	0,923	25	Slovenia	0,89
27	Spain	0,884	43	Hungary	0,836
26	Italy	0,887	84	Ukraine	0,743
33	Cyprus	0,856	23	Finland	0,895
44	Latvia	0,83	21	France	0,897
37	Lithuania	0,848	45	Croatia	0,827
20	Luxembourg	0,898	28	Czech Republic	0,878
			14	Sweden	0,913

Note. Developed by the author.

Thus, the study of the preconditions for the functioning of the European insurance environment of the EU and Ukraine allows us to calculate the ratio of economic and social components for each country. 4 indi-

cators were chosen for the calculation: 1. Global Competitiveness Index; 2. Index of economic freedom; 3. Index of quality and safety of life; 4. Index of human development, table. 7:

Table 7

Components of the index of preconditions for the functioning of the European insurance environment

№	Country	1	2	3	4
	Austria	5,2	72,3	190,37	0,893
2	Belgium	5,3	67,8	160,52	0,896
3	Bulgaria	4,4	67,9	138,20	0,794
4	United Kingdom	5,5	76,4	172,87	0,909
5	Greece	4,0	55,0	148,32	0,866
6	Denmark	5,3	75,1	184,92	0,925
7	Estonia	4,8	79,1	171,09	0,865
8	Ireland	5,2	76,7	166,90	0,923
9	Spain	4,7	63,6	183,65	0,884
10	Italy	4,5	62,5	142,52	0,887
11	Cyprus	4,0	67,9	130,90	0,856
12	Latvia	4,4	74,8	131,20	0,830
13	Lithuania	4,6	75,8	130,28	0,848
14	Luxembourg	5,2	75,9	132,63	0,898
15	Malta	4,5	67,7	129,26	0,856
16	Netherlands	5,6	75,8	175,23	0,924
17	Germany	5,6	73,8	189,74	0,926
18	Poland	4,6	68,3	150,21	0,855
19	Portugal	4,5	62,6	178,43	0,843
20	Romania	4,3	69,7	143,04	0,802
21	Slovakia	4,3	65,7	152,55	0,845
22	Slovenia	4,4	59,2	175,45	0,890
23	Hungary	4,2	65,8	138,82	0,836
24	Finland	5,4	74,0	182,93	0,895
25	France	5,2	63,3	160,25	0,897
26	Croatia	4,1	59,4	170,63	0,827
27	Czech Republic	4,7	73,3	165,41	0,878
28	Sweden	5,5	74,9	172,74	0,913
29	Ukraine	4	46,8	102,34	0,743

Note. Developed by the author.

To stabilize the data of each of the indices, the arithmetic mean is used for each indicator by which we divide each indicator for each country by the corresponding value of the arithmetic mean. The results of the calculation of the index of preconditions for the functioning of the European market.

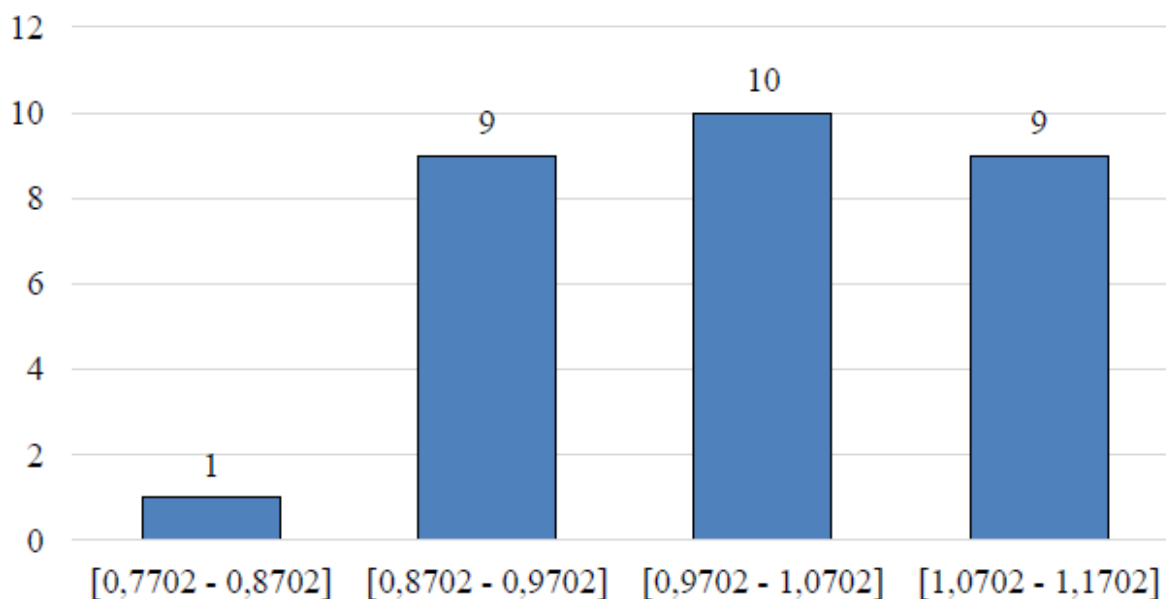


Fig. 6. Distribution of the countries of the European Union and Ukraine according to the index of preconditions of functioning of the European insurance environment (according to the Pareto principle) *

Note. Developed by the author.

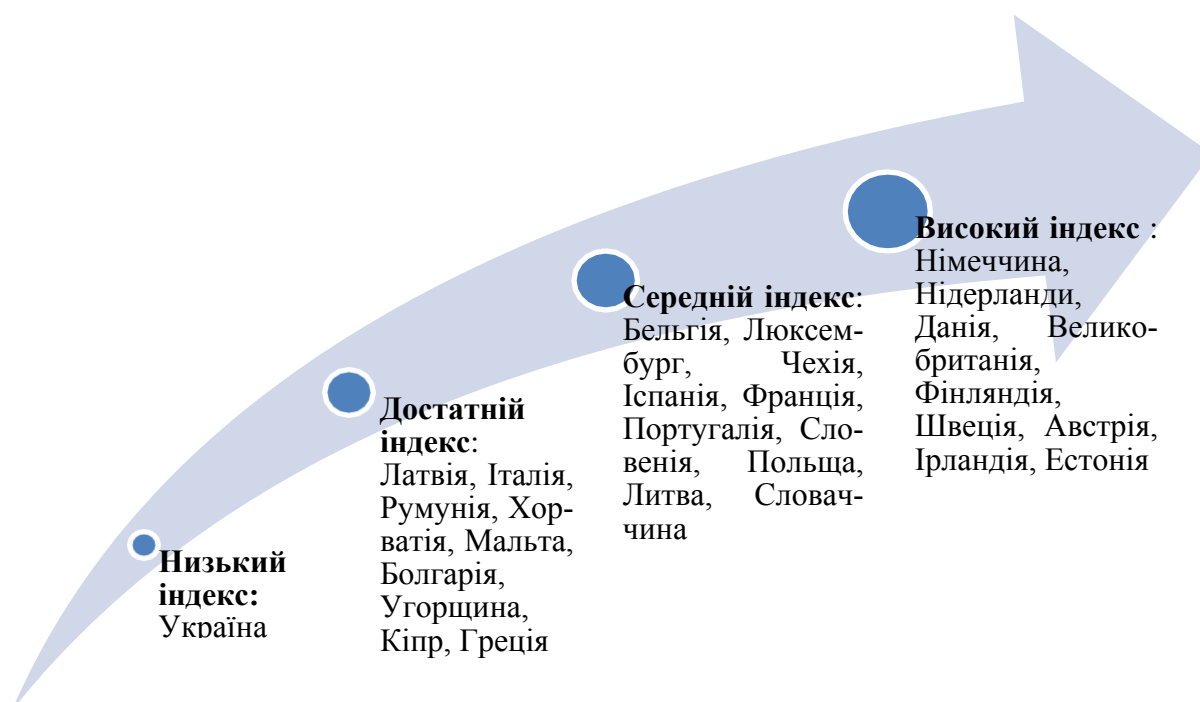


Fig. 7. Asymmetry of the European insurance environment under the preconditions of development *

* Calculated by the author

As can be seen from Fig. 7, the highest index of preconditions for the functioning of the insurance environment have such countries as: Germany (1.1575), the Netherlands (1.1417), Denmark (1.1390), Great Britain (1.1303), Finland (1.1277), Sweden (1.1257), Austria (1.1211), Ireland (1.1101), Estonia (1.0856).

The average index of preconditions for the functioning of the insurance environment have: Belgium (1.0631), Luxembourg (1.0575), the Czech Republic (1.0545), Spain (1.0465), France (1.0399), Portugal

(1.0116), Slovenia (1.0013), Poland (0.9993), Lithuania (0.9878), Slovakia (0.9740).

Latvia has a sufficient index of preconditions for the functioning of the insurance environment: (0.9696), Italy (0.9682), Romania (0.9601), Croatia (0.9600),

Malta (0.9547), Bulgaria (0.9488), Hungary (0.9436), Cyprus (0.9189), Greece (0.9142). Ukraine has a low index of preconditions for the functioning of the insurance environment (0.7701).

Based on the data obtained, we can build a "dia-

mond" of prerequisites for the functioning of the European insurance environment in its most favorable or unfavorable form, Fig. 8.

As can be seen from Fig. 8 "rhombus" of the most favorable preconditions for the functioning of the European insurance environment are formed by four European countries: the Netherlands and Germany as the most competitive countries in the EU on the index of global competitiveness; Estonia as the most economically free country according to the index of economic

freedom; Austria, which is the safest EU country in terms of quality and safety of life index; Germany, as the country with the highest human potential according to the human development index.

The "diamond" of the most unfavorable preconditions for the functioning of the European insurance environment is formed exclusively by Ukraine's place in the index of preconditions for the functioning of the European insurance environment

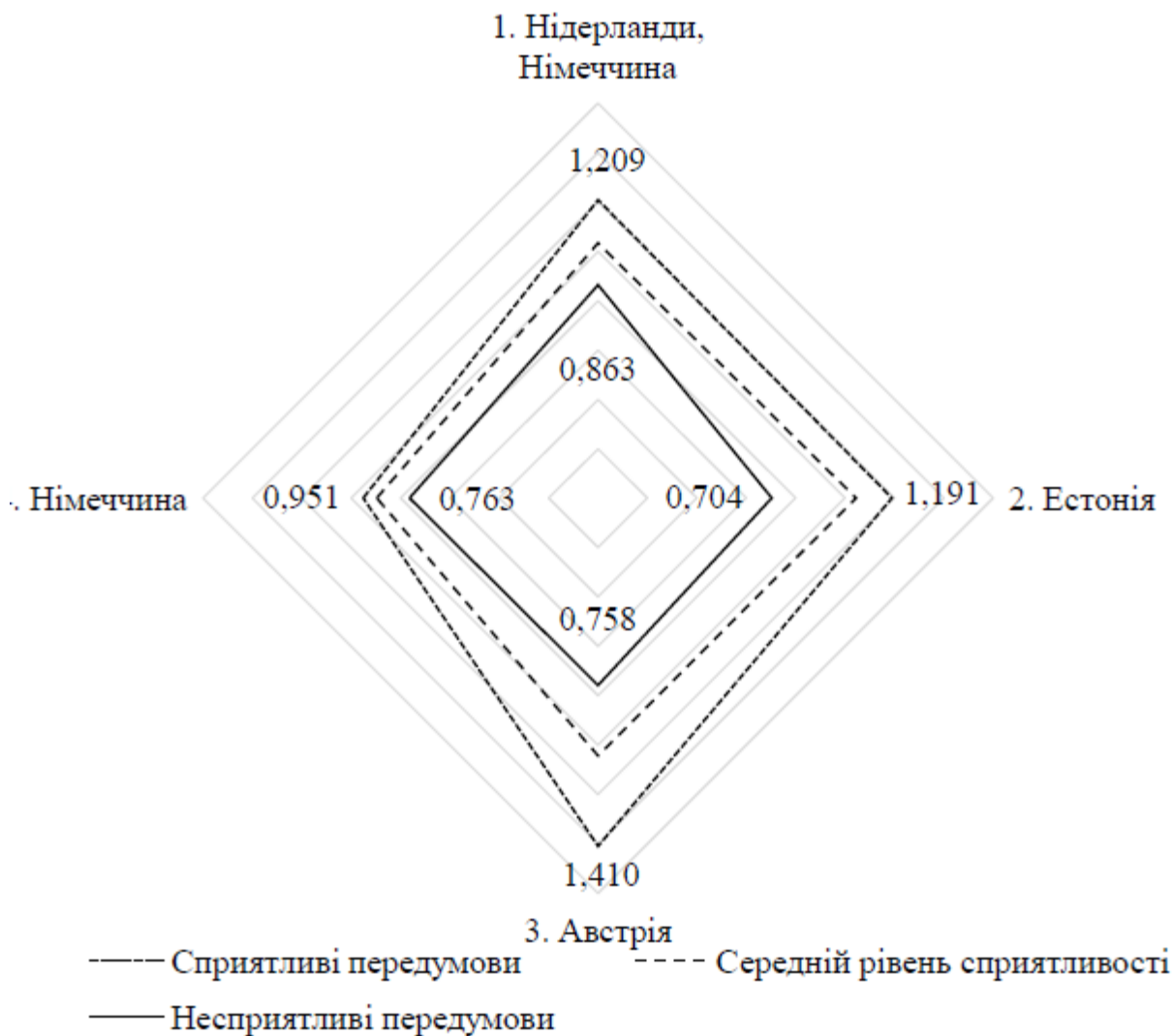


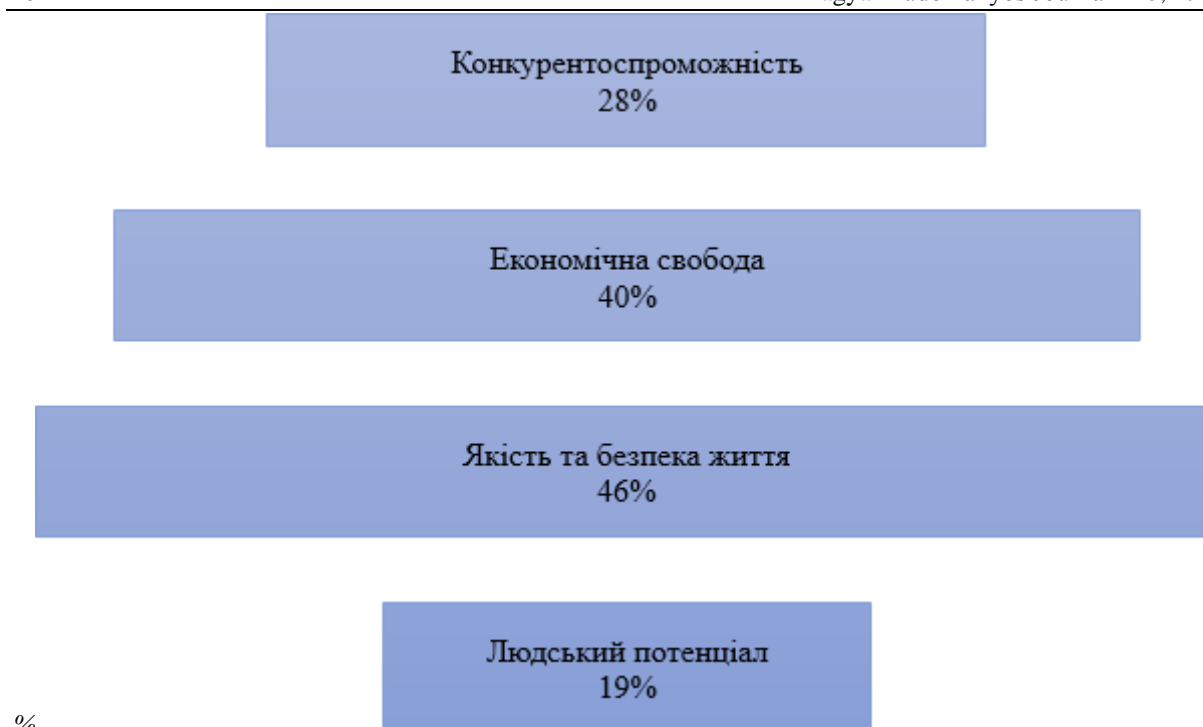
Fig. 8. "Rhombus" of favorable and unfavorable preconditions for the functioning of the European insurance environment *

* Calculated by the author

The "diamond" of medium level of favorability is formed as an average value for the European insurance space and can be considered by Ukraine as a goal for the gradual involvement of Ukraine in the European

and global insurance environment.

As can be seen from Fig. 9 Ukraine lags behind the leader in the first component is 29%, the second - 41%, the third - 47%, the fourth - 20



%

Fig. 9. Ukraine lags behind the preconditions for the functioning of the European insurance environment, % *

Note. Developed by the author.

Thus, Ukraine lags behind all components of the index of preconditions for the functioning of the European insurance environment, but the worst situation is in the field of economic freedom; quality and safety of life.

The process of integration of the insurance market of Ukraine into the EU also involves the approximation and unification of the activities of insurance companies, improving the quality of their work. This process of integration and transformation has its strengths and weaknesses. The main potential advantages of domestic insurance companies include: increase in foreign investment in the insurance market, reduction of tariffs for insurance services, introduction of European standards for classification of risks in insurance, the ability to protect the interests of consumers of insurance services in accordance with the pre-trial procedure. disputes, assistance in protection of economic competition in the insurance market of Ukraine, introduction of corporate governance of insurance companies; improvement of the system of legal support of the insurance services market, etc.

Among the disadvantages are:

- increase in imports and the possibility of using the market of Ukraine by developed countries as a market for their products, which will lead to the decline of uncompetitive sectors of the economy;
- reduction of gold and foreign exchange reserves and transformation of Ukraine into an import-oriented country with a narrow specialization.

Integration processes require countries, in particu-

lar Ukraine, to improve insurance conditions: to improve state regulation of insurance activities; improving the quality of service using the latest technologies; expansion of the range of insurance services, which is due to the emergence of new types of risks; increasing the statutory funds of insurance companies, which contributes to financial stability, solvency and competitiveness; increase the cost of examination, assessment of the object of insurance in accordance with European standards.

This requires reforming the domestic system of insurance supervision, taking into account EU requirements for national supervisors, as well as bringing the classification of insurance activities in Ukraine, as well as adapting the national insurance market to European requirements. The process of integration in insurance is not only the penetration of the national insurance market into Western insurance markets, but also the reverse process. When entering European markets, domestic insurance companies will face many problems. One of the most important is that the level of development of Ukrainian insurance companies is not satisfactory for European consumers. Instead, as Western insurance companies, it will not be necessary to make a titanic effort to win over the Ukrainian consumer.

The calculations make it possible to present in the form of an equation, the degree of influence on the development of the national insurance environment such factors as competitiveness, economic freedom, quality and safety of life, human potential. And the table. 8 shows the factor loads separately for each of the EU countries.

Table 8.

Factor loads by factors of formation of preconditions of development of insurance environment for the EU countries

Country	X_1	X_2	X_3	X_4
Austria	1,122302158	1,088254478	1,410005407	0,91734
Belgium	1,143884892	1,020520797	1,188916678	0,920422
Bulgaria	0,949640288	1,02202599	1,02360008	0,815642
United Kingdom	1,18705036	1,149967387	1,280388899	0,933776
Greece	0,863309353	0,827856104	1,098555455	0,889604
Denmark	1,143884892	1,13039988	1,369639123	0,950212
Estonia	1,035971223	1,190607596	1,267205048	0,888577
Ireland	1,122302158	1,154482966	1,236171153	0,948158
Spain	1,014388489	0,957302694	1,360232668	0,908095
Italy	0,971223022	0,940745572	1,055596841	0,911177
Cyprus	0,863309353	1,02202599	0,858473242	0,879332
Latvia	0,949640288	1,125884301	0,860440714	0,852623
Lithuania	0,992805755	1,14093623	0,964939352	0,871114
Luxembourg	1,122302158	1,142441423	0,869818993	0,922476
Malta	0,971223022	1,019015604	0,869818993	0,879332
Netherlands	1,208633094	1,14093623	1,297868611	0,949185
Germany	1,208633094	1,110832372	1,405339213	0,95124
Poland	0,992805755	1,028046761	1,112554038	0,878304
Portugal	0,971223022	0,942250765	1,321569915	0,865977
Romania	0,928057554	1,049119462	1,059448303	0,82386
Slovakia	0,928057554	0,988911746	1,129885617	0,868032
Slovenia	0,949640288	0,891074206	1,299498076	0,914258
Hungary	0,90647482	0,990416938	1,028192208	0,858786
Finland	1,165467626	1,113842758	1,354899874	0,919395
France	1,122302158	0,952787116	1,18691688	0,921449
Croatia	0,884892086	0,894084592	1,263797986	0,849541
Czech Republic	1,014388489	1,103306407	1,225135233	0,901931
Sweden	1,18705036	1,127389494	1,279426033	0,937885

Note. Developed by the author.

On average, for the European insurance environment in the context of the preconditions for its development, the equation of factor loads has the form:

$$\begin{aligned} \text{Prerequisites for the formation (European insurance} \\ \text{environment)} = & 1,032887975X_1 + \\ & + 1,045195209X_2 + 1,16708338X_3 + 0,897419X_4 \end{aligned}$$

$$\begin{aligned} \text{Prerequisites for formation (insurance environment of} \\ \text{Ukraine)} = & 0,863309353X_1 + \\ & + 0,704430284X_2 + 0,757997339X_3 + 0,763252X_4, \end{aligned}$$

where: X_1 - factor of competitiveness; X_2 - a factor of economic freedom; X_3 - a factor of quality and safety of life; X_4 is a factor of human potential.

Conclusions and suggestions. Thus, it was proved that the insurance market of Ukraine is the most underdeveloped among European countries due to a number of economic, social, technological and political reasons and requires certain measures and mechanisms of integration into the global insurance market.

The analysis of the development of the insurance market of Ukraine in comparison with the countries of the European Union showed that in terms of insurance density, insurance penetration and the level of insurance payments, Ukraine is in the last and penultimate position among European countries.

At the same time, the domestic insurance market is negatively characterized not only by its significant lag behind such developed countries as Germany, Sweden, Finland,

France and others, but also much weaker positions compared to Eastern European countries - Bulgaria, Hungary, Czech Republic, Poland, Slovakia. The main problems in the development of the insurance market are: the formation of an unbalanced structure of the insurance portfolio of individual insurance companies and the resulting disparities in the development of different types of insurance; low level of insurance payments and the problem of integrity of insurance companies; public distrust of insurance companies and low interest in insurance products; limited reliable and liquid financial instruments for the investment activities of insurance companies. All identified problems and imbalances in the development of the insurance market of Ukraine are interrelated and need a comprehensive solution.

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ПОСТРОЕНИЕ 2D-ГРАФИКОВ V_{eu} НА ОСНОВЕ ПЕРЕМЕННОЙ X_6

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PLOTTING 2D FIGURES OF V_{eu} USING VARIABLE X_6

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Аннотация:

Рассмотрен вопрос расчета параметра V_{eu} , который можно представить в виде значения ВВП (GDP). Полученные расчеты изображены в виде 2D-графиков. При этом переменные могут быть как постоянными, уменьшаться, так и увеличиваться. Таким образом, в статье рассмотрена зависимость изменения V_{eu} от шести переменных, т.е. $V_{eu} = f(X_1, X_2, X_3, X_4, X_5, X_6)$.

Abstract:

The present article deals with the calculation of a parameter V_{eu} and variable X_6 for plotting 2D-figures. The meanings of parameter V_{eu} allow us to understand how the following variables X_6 and other parameters influence on V_{eu} .

Ключевые слова: 2D-графики, расчетная переменная X_6 , параметр V_{eu} , Excel.

Keywords: 2D figures, calculation X_6 , parameter V_{eu} , Excel.

В представленной ниже статье рассмотрен вопрос расчета параметра V_{eu} , который можно представить в виде значения ВВП (GDP). Полученные расчеты изображены в виде 2D-графиков. При этом переменные могут быть как постоянными, уменьшаться, так и увеличиваться. Таким образом, в статье рассмотрена зависимость изменения V_{eu} от шести переменных, т.е. $V_{eu} = f(X_1, X_2, X_3, X_4, X_5, X_6)$ [1].

Итак, на рис. 1 показан 2D-график V_{eu} , когда значения переменных были следующими $X_1 = X_2 = X_3 = X_4 = 1$, $X_5 = 2,03..2,13$, $X_6 = 0,24..0,94$. Здесь V_{eu} увеличивается в 16,54 раз. На следующем рис. 2 изображенный 2D-график V_{eu} при переменных $X_1 = X_2 = X_3 = 1$, $X_4 = 0,1..1$, $X_5 = 2,03..2,13$, $X_6 = 2,66..0,94$ имеет максимум 63,47 в точке 7.