





“The impact of macroeconomic factors on the development of the insurance system in Ukraine”

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ARTICLE INFO	Tetiana Yavorska, Lyudmyla Voytovych and Dmytro Voytovych (2022). The impact of macroeconomic factors on the development of the insurance system in Ukraine. <i>Insurance Markets and Companies</i> , 13(1), 21-35. doi: 10.21511/ins.13(1).2022.03
DOI	http://dx.doi.org/10.21511/ins.13(1).2022.03
RELEASED ON	Wednesday, 25 May 2022
RECEIVED ON	Wednesday, 02 February 2022
ACCEPTED ON	Tuesday, 17 May 2022
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Insurance Markets and Companies"
ISSN PRINT	2616-3551
ISSN ONLINE	2522-9591
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

39



NUMBER OF FIGURES

4



NUMBER OF TABLES

1

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BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 2nd of February, 2022

Accepted on: 17th of May, 2022

Published on: 25th of May, 2022

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THE IMPACT OF MACROECONOMIC FACTORS ON THE DEVELOPMENT OF THE INSURANCE SYSTEM IN UKRAINE

Abstract

The functioning of the insurance system is associated with the dynamics of development and the current state of the economy, the political and social situation in a country, the legal field of operation of both insurance companies and economic agents. That is why the effective development of the insurance system is impossible without a deep understanding of the factors of the macroeconomic environment that can determine the scale of insurance activity. The aim of the study is to identify and determine the impact of macroeconomic factors on the development of the insurance system in Ukraine. To analyze the exogenous factors influencing the development of the insurance system, the study uses the method of PESTL analysis, as a result of which the strength of the influence of factors was assessed by insurance experts through a questionnaire. It is determined that political factors play an important role in the development of the insurance system. It is proved that economic factors influencing the insurance system have a direct impact, since the decline in production, rising inflation, which is reflected in the reduction of purchasing power of the population, leads to a reduction in insurance premiums to insurance companies. Social factors influencing the development of the insurance system manifest themselves through trust in insurers, which is the catalyst for the development of the insurance system. Technological factors influencing the development of the insurance system are represented by the level of development of innovations and technologies in insurance, the level of penetration of the Internet and mobile gadgets into the insurance system, the degree of globalization and openness of the insurance system. It is determined that legal factors are inhibitors of the development of the insurance system, as they do not create appropriate conditions for its improvement and development. It is concluded that economic factors have the greatest impact on the development of the insurance system and the functioning of its elements.

Keywords

insurance system, insurance companies, political system,
legislation, inflation, development

JEL Classification

B22, E44, O11, G22

INTRODUCTION

The dynamics of the insurance system development depends on the current state of the economy, political and social system in a country, the legal field of operation of both insurance companies and economic agents. Ukrainian experience shows that the problems that arise in the insurance system are often preceded by macroeconomic changes. In such circumstances, the assessment of the effectiveness of the insurance system is incomplete without analyzing the impact of changes in the economic system. As practice shows, financial crises, which are characteristic of economic development, are a direct consequence of the impact of mainly external factors. That is why the effective development of the insurance system is impossible without a deep understanding of the factors of the macroeconomic environment that can determine the scale of the insurance activity.



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Conflict of interest statement:

Author(s) reported no conflict of interest

The impact of macroeconomic factors on the development of the insurance system can have a direct or indirect effect. Factors with the nature of the action affect the subjects of the insurance system, while the factors of indirect action do not directly affect, but are consistent with the results of the development and life cycle of the insurance system. In modern conditions, when studying the factors of the insurance system development and its cyclical nature, it is necessary to take into account the following features: the emergence of supranational bodies and regulatory documents (international organizations); integration of the insurance system into the world insurance sphere; excessive regulation of the development of the insurance system during its transition to the stage of decline.

In turn, the life cycle of the insurance system is a multi-vector phenomenon that depends on many factors, each of which leads to certain individual results at each stage of its development, so the study should be comprehensive and systematic, rather than the dynamics of a single indicator. Such a study will then be impractical, incomplete, and, as a result, will not have qualitative scientific results. All the indicated factors justify the relevance of the topic of the scientific article.

1. LITERATURE REVIEW

Many authors study the influence of certain factors on the development of the insurance system, in particular, the influence of demographic factors (Galkiv, 2010; Pirozhkov, 2013), political factors (Lyuljov, 2018; Shyhun & Khodzytska, 2015; Maksimentsev, 2019, Shulika, 2017), and the impact of the shadow economy (Koshel, 2019; Goncharuk & Fleichuk, 2009) on the development of the insurance system. The study of the impact of the shadow economy on the development of insurance companies has not gone unnoticed.

It is worth emphasizing the position of Tsurkan and Dobrovolskyi (2017) who believe that the way of life and customs of the population has a significant impact on the development of the domestic insurance system. The paper investigated that the formation of a voluntary life insurance market in developed countries began with a salary of USD 500 per month and if the average monthly salary of citizens is less than this amount, life insurance is growing rather slowly. In Ukraine, this figure did not reach USD 450. For every citizen of Ukraine, payments made in life insurance are usually formed from additional surplus funds that will bring him/her income in the future.

Marshalok (2019) argues that the factors of growth of average incomes are the growth of the minimum wage, gradual and systematic increase in wages in medicine, education, decentralization policy, medical reform, agricultural development, increasing the share of IT market in the overall

economy. These factors have become the main ones in the growth of average income and increased welfare of citizens in Ukraine.

Demographic problems, the level of migration have a significant impact, which can serve as a disincentive to the development of the insurance system. In particular, scientists have repeatedly stressed the severity of the problem of gender and age structure of the population, because there is a transformation of the age structure of the population, in particular the growth of the proportion of older people (Galkiv, 2010; Pirozhkov, 2013). Analyzing the age structure of the population of Ukraine in 2020, one can say about the regressive development of the age structure, as the share of the population aged 0 to 17 was 18%, and people over 60 – 23.9% (SSSU, 2021a). All these factors affect the development of the insurance system, serving as its inhibitor, as it reduces not only the number of people employed in insurance, but also the number of young people who could use insurance products. This process will continue as Ukraine's population is constantly declining. With the acquisition of independence, the country lost more than 10 million people (about 20% of the population) for the period 1990–2021 (SSSU, 2021a).

Ukrainian scientists have analyzed political factors and their risks in depth (Shyhun & Khodzytska, 2015; Maksimentsev, 2019, Shulika, 2017; Marshalok, 2019). It is not enough to insert the study of the impact of corruption and the shadow economy on the development of insur-

ance companies. In particular, the development of insurance companies is hampered by the high level of corruption in Ukraine. The development of the insurance system is hampered by a high level of corruption in the country. In 2020, according to the Corruption Perceptions Index (CPI), Ukraine improved its performance compared to 2019 and fell by three points – from 30 to 33 points, taking 117th place (in 2019, Ukraine was nine steps lower and ranked 126th in the ranking) in the ranking of 180 countries studied (TI, 2020).

The shadow component of the insurance system is growing every year, which negatively affects its development and operation (Koshel, 2019; Goncharuk & Fleichuk, 2009). According to the results of January-March 2020, an increase in the level of the shadow economy in the financial and insurance sector of Ukraine (by 4 percentage points to 35% compared to 2019 – 31% of the official gross value added) was recorded (DSPMF, 2021). In some scientific papers, attention is drawn to the fact that financial inclusion should be an important priority in the fight against corruption in the development of the insurance system, which allows involving all segments of the population to insurance companies, which in turn contributes to economic growth through the mobilization of savings, investing in the development of the state economy, diversification of the financial system. These explanations are confirmed according to international studies, the level of financial inclusion affects the country's economic growth, development of the insurance system and the lives of citizens – if the level of financial inclusion increases by 10%, the country's GDP grows by about 0.3%, which is over 9 billion hryvnias for Ukraine (MEDTA, 2020).

The domestic economy felt the negative effects of external and internal imbalances due to the war in Eastern Ukraine, the annexation of Crimea and Sevastopol, various trade restrictions imposed on Ukraine by the Russian Federation (Lyuljov, 2018). These negative events lead to the loss of income, reduction in GDP, reduction in production capacity, shortfall of tax revenues, closure of regional insurance companies and banks or their withdrawal from the Eastern Territories and Crimea, respectively, due to business closure (urgent need to leave the occupied territories) – reduction of insurance

payments and mass closure of accounts, withdrawal of bank deposits by customers due to migration of the population, which led to a reduction in the resources of the banking system by UAH 80.5 billion. In general, the occupation caused a liquidity deficit in the banking system of UAH 130 billion, which caused a strong banking crisis in Ukraine in 2014–2015 (Razumkov Center, 2019).

It is necessary to single out financial offenses on the part of employees of insurance companies and insurance intermediaries, as they may be de facto unregistered without licenses, and as Yermoshenko (2009) researched, sell invalid insurance policies and do not transfer collected insurance premiums to the insurer on whose behalf they act. By selling such insurance policies, insurance intermediaries receive, in addition to the interest of the insurance company, the full amount of the insurance premium, as a result of which the insurer loses his benefit and reputation because he does not provide insurance coverage to his client. Dobrik (2016) correctly noted that the described problem is related to the lack of a proper system of licensing and accreditation of domestic insurance intermediaries, as in Ukraine almost any person can become an insurance agent. We believe that the approaches in the papers deserve attention, but the insurance system in Ukraine is influenced not by one factor, but by a set that requires in-depth research.

The aim of the study is to identify and determine the impact of macroeconomic factors on the development of the insurance system in Ukraine.

2. RESEARCH METHOD

The methodological basis of the paper includes general scientific methods of cognition, scientific works of economists on the development of the insurance system. The method of comparison (to compare the impact of macroeconomic factors on the development of the insurance system), analysis and synthesis (analysis of the political situation in the country, assessment of corruption and inflation on the functioning of the insurance system, analysis of insurance legislation) and survey method (for conducting and presenting the results of PESTL-analysis) are used. Dwell in more de-

tail on the survey method, which was conducted through a survey among experts in the insurance market. The questionnaire contained questions on assessing (on a five-point scale) the strength of the impact of five main groups of factors (political, economic, social, technological, legal) on the Ukrainian insurance system. According to the results of the survey, a PESTL analysis was conducted, which contains a consensus forecast of insurance experts and their scenario of insurance system development and the average value of the main groups of factors assessed by experts based on common assumptions and consensus scenario of insurance system development.

3. RESULTS

It is considered that the cyclical development of the insurance system is due to the activity of both internal (endogenous) and external (exogenous) factors. Internal factors are caused by the activities of entities within the insurance system. In turn, external factors are catalysts that exacerbate or mitigate the effects of structural imbalances, including the state of economic development, other systems and their structures, the presence of positive and negative phenomena inherent in the insurance system, and the intensity of new technologies in its functioning. It should be noted that exogenous and endogenous factors can act as catalysts for the development of the insurance system and its inhibitors.

Political (P) – political factors influencing the insurance system. The political situation plays an important role in the development of the insurance system, as it is directly dependent on it, based on its impact on social and economic development processes in the country. If the impact of economic and social factors can be quantified, then political factors require a more qualitative approach to analysis.

The main indicator of the political situation in the country and the basic indicator of the stability of the insurance system in Ukraine is political risk. Subjective influence is crucial in making political decisions, because, looking at the thirty-year history of Ukraine's independence, politics does not promote the development of the insurance sys-

tem and economy, but rather consolidates certain "beneficial" people in the range of authority, who help and benefit from making political decisions, satisfy their own business desires, serve their own campaigns, finance elections.

Political system in Ukraine today is believed to be quite archaic and inert, which hinders decision-making in the field of insurance, integration of the domestic insurance system into the world insurance space and, accordingly, serves as an inhibitor of the insurance system.

Furthermore, it is necessary to emphasize the fundamental feature of the formation of Ukraine, when political interests dominate over legal ones in the development of insurance legislation. State policy is reflected in the rule of law, which shows the universally binding will of the state. In turn, law is a tool for policy implementation and legitimate political decision-making. Normally, legal norms should restrain political power, which very often seeks to refrain from illegal methods. In Ukraine, political interests often dominate over legal ones, although they do not have adequate legal support.

Large insurance companies have significant political relationships with government officials, which leads to oligopolization in the insurance system, as indicated by their actions to increase their profitability. Relations in political circles allow such companies not to pay taxes in full, which leads to an increase in the corruption component in the insurance system, and more precisely – to increase the level of shadow transactions.

Thus, political factors, on the one hand, indicate the possibility of effective development due to structural changes in the country, but on the other hand, politicized government, illegal political processes negatively affect the further development of the insurance system in Ukraine.

Economic (E) – economic factors of PESTL analysis of the insurance system. The main indicator of economic development is the level of GDP, which is directly proportional to the amount of insurance premiums paid in the country, which in turn depends on the solvency of the population. In situations where GDP growth slows down, produc-

Source: NBU, (2020), SSSU (2021a, b).

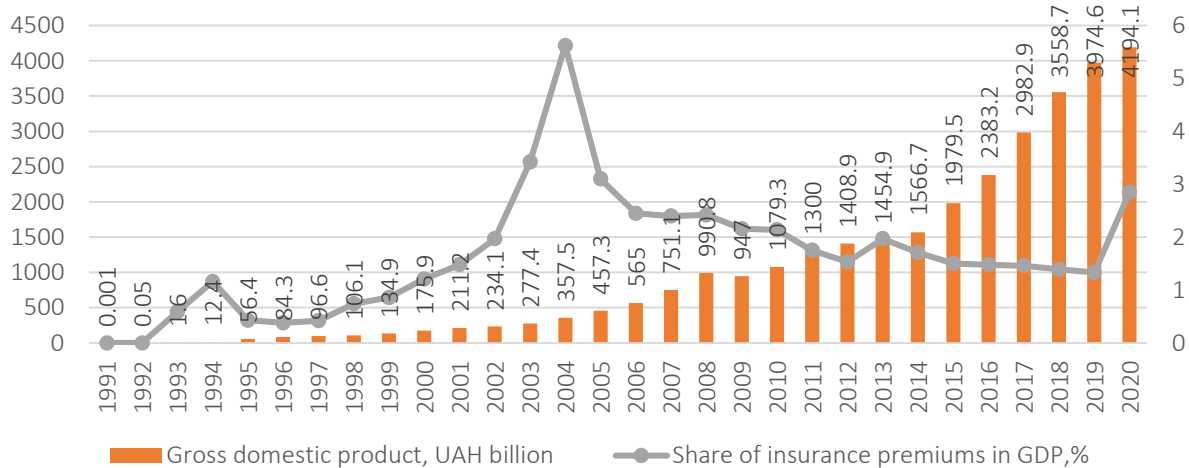


Figure 1. The volume of Ukraine's GDP and the share of insurance penetration in GDP, 1991–2020

tion capacity decreases, which leads to a decrease in production, inflation is immediately noticeable, which is reflected in a decrease in purchasing power and a reduction in insurance premiums to insurers.

To show the share of insurance in the economy of Ukraine, there is a need to refer to the insurance penetration ratio (Insurance Penetration ratio), which is used as a risk financing mechanism and insurance protection tool and is calculated as the ratio of insurance premiums to GDP (Figure 1). In Ukraine, the share of insurance in GDP is negligible and amounts to only 1.33% (1.3% of which is at risk). Since 2004, this indicator in Ukraine shows an annual reduction in the share of collected premiums in the country's GDP, which indicates a slight development of the insurance system. In comparison, this figure averages 6.3% in the world and 7.2% in Europe.

Figure 1 shows a gradual increase since 2009 and a quite active increase since 2015. This period is characterized by active growth and insurance premiums in the insurance system, but this share remains quite small compared to developed countries. In addition, not only GDP as an economic factor affects the development of the insurance system, but also the insurance system affects the development of the economy. If the population trusts the insurance system and, accordingly, the elements that constitute the part of its structure, they begin to invest their savings in financial assets without hesitation. These savings, directed to

insurance companies, are the insurer's resource for investing in the economy, which contributes to the financing of the real sector of the economy and GDP growth. Therefore, it can be said that GDP serves as a stimulus to the development of the insurance system in Ukraine rather than an inhibitor.

The inflationary fluctuations of the economy serve as a disincentive to the development of the insurance system because due to rising prices in the country, the purchasing power of money reduces. Inflation poses the greatest threat to elements of the insurance system such as life insurance companies, which usually offer long-term insurance policies, which, given their maturity, may depreciate at the end of the insurance period. The main consequences of inflation in the insurance system are as follows: a decrease in the real value of currency, expected income and profits or capital, due to changes in price levels in the economy. In addition to the threat that inflation poses to various savings of the population, it also has a negative impact on the value of securities that serve as investments of insurers.

The analysis of consumer price indices for the period of independent Ukraine 1991–2020 (Figure 2) can show that in the early 90's, in times of chaos, economic uncertainty and the presence of criminal authorities in the country and business, there was hyperinflation in 1993 at 10,256%, which fell sharply to 501% the following year, showing annual declines.

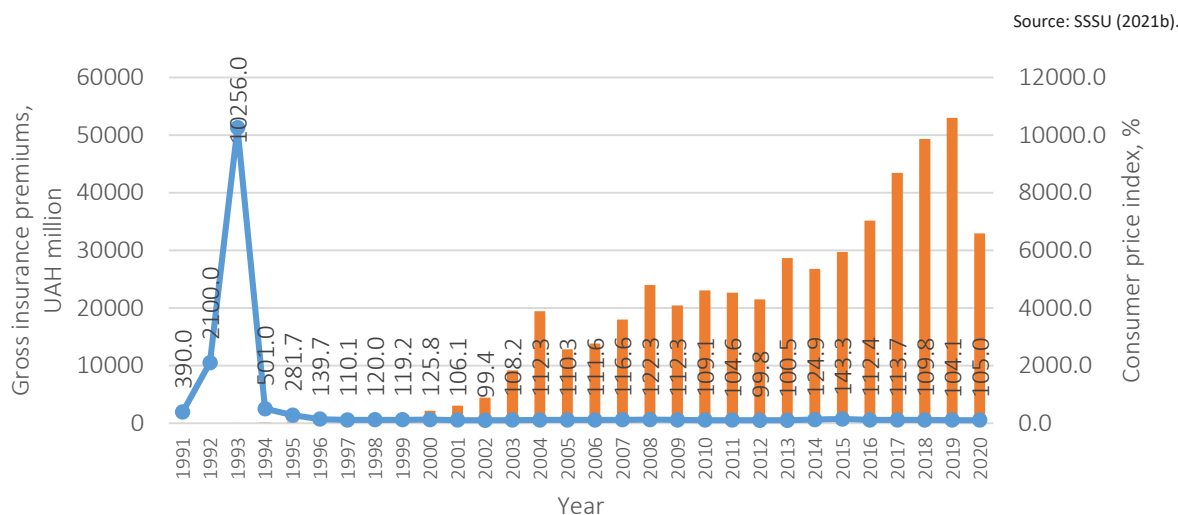


Figure 2. Gross insurance premiums and consumer price index in Ukraine in 1991–2020

A slight increase can be seen as a result of the global financial and economic crisis in 2008–2009, when consumer price indices were set at 122.3% and 112.3%, respectively, and then in 2014–2015 inflation was significant – 124.9% and 143.3%, respectively, due to political factors described above – the beginning of the war in Eastern Ukraine and the annexation of Crimea. In addition to these reasons, the decline in the real value of money in this period led to the banking crisis of 2014–2016, which left its mark on public confidence in the banking system and the devaluation of money held in bank accounts.

Given the relationship between inflation and the amount of insurance premiums collected in the insurance system, it is difficult to trace the clear dynamics until 2017, according to which conclusions could be drawn about the direct relationship between these indicators, as the population behaved differently, which shows the amount of collected insurance premiums for this period.

However, it can be said that with the decrease in inflation since 2017, the population began to actively invest in insurance, as they wanted not only to receive insurance coverage, but also income from rising value of money by investing in various financial assets. There was a significant increase in the profitability of insurers due to rising commissions of the banking system, which led to improved performance in the insurance system and GDP growth in 2019. Already in 2020 the situation changed in favor of the insurance system and the

economy as a whole due to the COVID-19 pandemic, which shook the whole world, but affected the country's economy by a slight increase in inflation by almost 1%, but a significant decline in gross insurance premiums.

Due to the devaluation of the national currency, the value of insurance products immediately increases due to the appreciation of foreign currency, insurers do not pay the full amount of insurance indemnity under certain insurance contracts. In addition, exchange rate fluctuations lead to losses, reduced solvency of insurance companies, especially life insurance companies, because they form insurance reserves in the currency in which they are liable to policyholders, and usually buy freely convertible currency because they pay insurance premiums in national currency units.

The banking crisis of 2014 caused the devaluation of the hryvnia, which led to a decrease in incomes in dollar terms in 2014–2015. In three years since 2013, the national currency has devalued more than three times, which has reduced incomes from USD 408 in 2013 to USD 174 in 2015. The following years showed a significant increase in income, which in 2018 already amounted to USD 380 and statistics show the revaluation of the hryvnia this year in Ukraine. The growth of citizens' incomes is an indicator of socio-economic growth in the country.

It should be emphasized that the level of employed and unemployed population in the country has a significant impact on the development not only of

Source: SSSU (2021c).

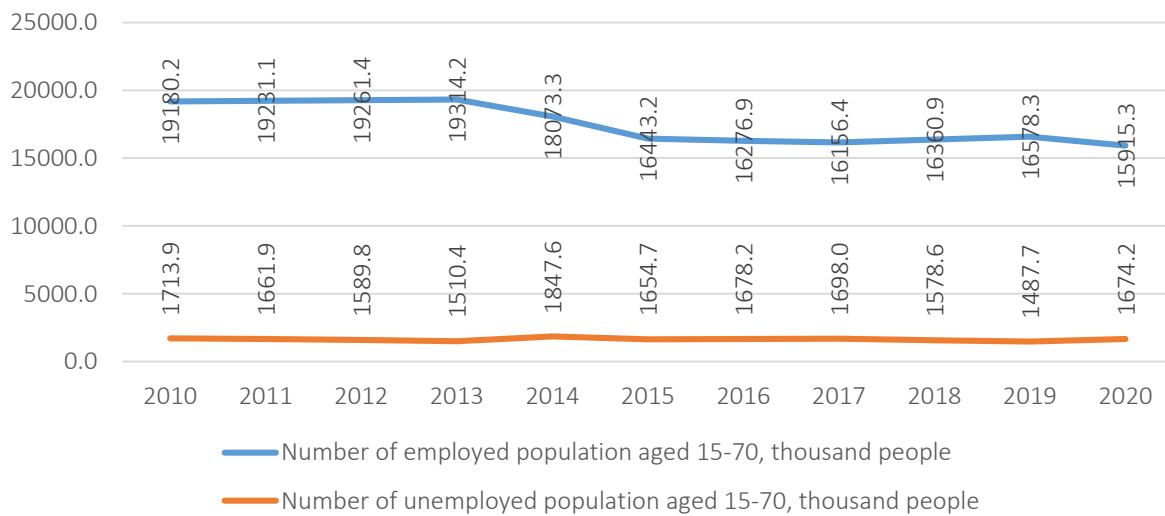


Figure 3. The number of employed and unemployed population in Ukraine in 2010–2020

the insurance system, but also of the economy as a whole. Unemployment is a catalyst for the activity of the employed population and an inhibitor of the development of the domestic insurance system, creates a range of problems, ranging from reducing taxpayers, purchasing power of the population to the loss of qualified personnel in the insurance system. Figure 3 shows the declining trend in the number of unemployed for the period 2010–2014, respectively, the growth of the employed population, which can be explained by the recovery after the global financial crisis and increasing production, which provided additional jobs.

The reason for the decrease in the number of employed in 2014 is explained by the decline in production, political factors, the loss of Ukraine's

territories and, accordingly, jobs in these regions. The jump characteristics in the following years were different, can highlight a significant increase in the unemployed in 2020 due to the global pandemic, coercive measures by the state to impose strict quarantine, which led to the closure of jobs.

According to the State Statistics Service of Ukraine, the share of the employed population in the financial and insurance sectors is about 1.5%. It is impossible to reliably say what share of the total employment in the financial and insurance sectors belongs to the employed population in the insurance system, but these areas can be conditionally divided into banking, insurance and non-banking financial and credit, and it can be assumed that the share in insurance will be 30-33% (Figure 4).

Source: SSSU (2020).

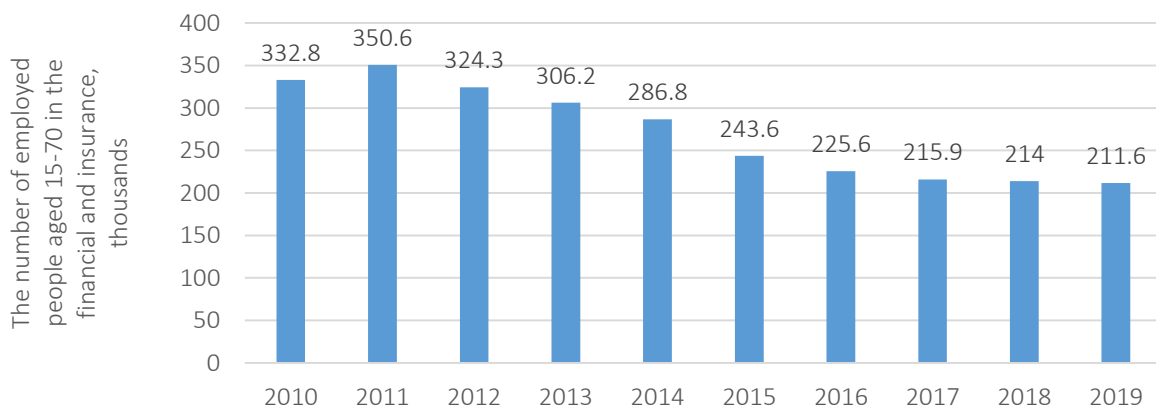


Figure 4. The number of employed population in the financial and insurance spheres in Ukraine in 2010–2019

Since 2011, there has been a reduction in the number of employed working people in the insurance sector, which is due to the regulator's policy of "cleaning" the insurance system from insolvent and uncompetitive elements. If in 2011 the insurance system was represented by 442 insurers, then in 2019 there were 233 left, and in 2020 another 18 insurers left the insurance system and the total number was 215.

Ukraine is characterized by an increase in foreign capital in the insurance system, which can serve as a catalyst for the development of the insurance system provided the introduction of innovative insurance technologies that are already working effectively in the world, increase in capital investment, increase in qualified personnel who can share foreign experience in insuring in the domestic insurance system, growth of life insurance, as foreign investors are primarily interested in this type of insurance, since in the domestic insurance system it is covered by only 1%, presence (cooperation) with foreign reinsurers, which will diversify risks and guarantee foreign investment in Ukraine, adaptation of the regulatory framework in accordance with international standards, the growth of the authority of the domestic insurance system in the world insurance community.

On the other hand, the presence of foreign capital can be an inhibitor of the development of the insurance system, as part of the profits of insurance companies will "flow" abroad, the insurance system will gradually displace domestic insurance companies, increase competition in the insurance system.

Social (S) – social factors influencing the development of the insurance system. Trust in insurers is a catalyst for the development of the insurance system, if insurance companies operate transparently, openly and clearly to the mechanism of development of state regulation of the insurance system in the country. The main reason for holding back the development of insurance is the distrust of the population in insurance companies in Ukraine, as the domestic insurance system is working on the failure of the former state social insurance system, mass bankruptcies, hyperinflation, which devalued deposits. After the collapse of the State Insurance Agency and the State Bank,

Ukrainian citizens lost their savings through the banking and insurance systems, resulting in a high level of distrust in the population towards insurance companies.

In addition, one of the reasons for the low insurance culture is the lack of skilled workers in the insurance system. Since the beginning of the insurance system of Ukraine, the need for qualified insurance personnel has grown sharply, who can independently process analytical information on insurance services, set and economically justify insurance rates, make the necessary calculations related to the conclusion of insurance contracts. We agree with the opinion of Zhuravka and Lopatchenko (2015) regarding a certain specific process of formation and use of insurers' funds, taxation of their income, accounting and financial reporting, which requires consideration of these features in the training of insurance professionals.

The COVID-19 pandemic has become both an inhibitor and a catalyst for the development of Ukraine's insurance system and has had a powerful impact on the world economy. No economic entity has been prepared for such a financial burden without state aid. The losses of economic entities are quite large and difficult to calculate, but the results of the quarantine and financial crisis will have a positive impact on the insurance system, as they intensify online products and digitalization of insurance business processes (Tataryn et al., 2021). The spread of the pandemic has also exacerbated the accumulation of systemic problems in the insurance system that need to be addressed immediately. Studies conducted by large insurance corporations (for example, London's Lloyd's) have shown that the best model for overcoming such catastrophic situations is a partnership between the state and private insurance companies (Suprun & Bessinna, 2020).

In 2020, the Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Procedure for Using the Fund for the Control of Acute Respiratory Disease COVID-19 Caused by SARS-CoV-2 Coronavirus and Its Consequences" No. 302 dated April 22, 2020 was adopted which supposes allocation of funds for measures aimed

at preventing the rise and spread, localization and elimination of outbreaks, epidemics and pandemics of acute respiratory disease COVID-19 and providing financial assistance to the Social Insurance Fund and the Compulsory State Social Insurance Fund in case of unemployment on a reversible or irreversible basis. Insurance companies are not involved in the COVID-19 anti-government mechanism (CMU, 2020).

Technological (T) – technological factors influencing the development of the insurance system. In the modern information-rich insurance system, the development of innovations and technologies in the insurance system is becoming important. The main insurance “novelties” in the digital age are presented by electronic insurance policies and the ability to pay insurance premiums with digital signatures and electronic money, a perfect electronic document management system, automation of business process management, use of information systems. Gostryk and Malyshko (2013) successfully described the purpose of information systems with their compatibility and with automated control systems aimed at covering all the main elements of the technological process. Klepikova (2013) supplemented this analysis by studying the domestic technological products of the corporation “Parus”, “Galaxy”, “FigaroERP” of the company “Business Console”, “IC: Enterprise 8” and foreign computer information systems: SAP R/3; MS AXAPTA (Navision); BAAN; Frontstep, IPS Applications and other DBMS class software products (object-oriented database management systems). After comparing with world experience, the scientist claims that universal products such as MySQL, mSQL, PostgreSQL, Oracle, Microsoft SQL, Access, Sybase are gaining popularity in the global insurance market.

Oracle Insurance is considered to be the most popular in the world in the insurance system. This is an application that allows you to support insurance processes and software products (BPM – Business Process Management), which are developing in domestic insurance practice. According to Zybchenkova (2016), in Ukraine only a few subjects of the insurance system use information systems and software products. Thus, the insurance company “Providna” uses the information system “Insurance Company”,

which allows the customer to record insurance information in accordance with modern international standards and establish sales of insurance products.

The level of penetration of the Internet and mobile gadgets into the insurance system is a catalyst for the development of the insurance system in the modern world of information and innovation technologies. According to research conducted by the Factum Group Ukraine Research Holding, in 2019 71% of Ukrainians in Ukraine regularly used the Internet, which amounted to 22.96 million people (more than half of the country’s population). Among users, 44% have an average income, 40% – below average, and 7% have a low income; 6% of users have above average incomes and only 1% have high incomes. Regarding the level of education, 87% of active users have a complete higher education. Among high-income people, 100% are regular users, above average – 93%, average – 88%, below average – 66%, and low – 39% (Economic Truth, 2019).

Legal (L) – legal factors influencing the development of the insurance system. Ukraine is characterized by imperfect regulatory framework for regulating the insurance system, which serves as an inhibitor of its development, as it does not create any conditions for its improvement, does not contain provisions for determining its features taking into account the specifics of the insurance system. Ukraine is characterized by the presence of a large number of bylaws, which indicates the dispersion of legal norms. The current legislation contains many inaccuracies and discrepancies that have a negative impact on the development of the insurance system.

Legal regulation of the domestic insurance system is based on the norms of the Law of Ukraine “On the National Program for Adaptation of the Legislation of Ukraine to the Legislation of the European Union” (Verkhovna Rada of Ukraine, 2014). The legal system of the European Union (Acquis communautaire), which includes acts of European Union legislation adopted within the European Community, the Common Foreign and Security Policy and Cooperation in Justice and Home Affairs together with the domestic legal system, focuses on EU legislation and recommenda-

tions of the International Association bodies supervising insurance activities and the Organization for Economic Cooperation and Development.

The integration of the Ukrainian legal system into the European one will allow citizens to have access to a wider range of insurance services and will discipline the subjects of the insurance system in fulfilling their obligations to policyholders. In order to effectively regulate and supervise the insurance system, domestic state authorities should cooperate with European organizations on issues that contain contradictory facts, in order to develop practical recommendations for Ukraine, taking into account the peculiarities of our state's development. International and European law has a significant impact on the insurance system in Ukraine, as it will form the concept of strategic development of the insurance legislation of Ukraine.

Offenses in the insurance system are a destabilizer of its development in Ukraine. The most common types of violations of the law in the insurance system are tax evasion by allocating insurance costs to production costs. A financial offense in the insurance system is the payment of smaller insurance payments than those established by the insurance company for a particular type of risk.

Today a variety of schemes of offenses can be found in the insurance system, but the most common are in the field of liability insurance of vehicle owners with staging or falsification of accidents. Other examples of the most popular offenses in the field of personal insurance: insurance of tourists with inflated prices for medical care; medical insurance in case of false accidents; accumulative insurance.

In recent years, an individual has become important as a consumer, so the protection of the rights of insurance service consumers should be based on a high level of financial literacy, insurance culture, open information in the interests of consumers, efficiency and protection of their rights. To do this, there is a need to streamline specialized legislation, as the regulator did in 2021. The National Bank of Ukraine has determined the procedure for supervising the observance of the legislation on protection of the

rights of consumers of insurance services by approving the subjects of the insurance system, approving the Resolution "On approval of the Regulation on the supervision by the National Bank of Ukraine of the observance by the participants of the financial services market of the legislation on the protection of the rights of consumers of financial services" No. 52 dated June 16, 2021. This was the first step towards transparent and complete disclosure of information in order to understand the client's possible risks when concluding an insurance contract, imposing sanctions on insurance companies in case of violation of consumer rights.

Therefore, all groups of factors were analyzed that affect the development of the insurance system in Ukraine and model of PESTL-analysis was proposed, which will comprehensively assess the degree of influence of the selected exogenous factors (Table 1). It should be emphasized that this is the first such study in the insurance system. The analysis was conducted using a questionnaire survey of thirty insurance experts, which makes it comprehensive and professional.

In the process of the PESTL analysis, a formalized criterion assessment of influence of the factors of each group on the development of the domestic insurance system was carried out. The impact indicator is evaluated in points, adjusted for the weighting factor that the respondents indicated for each of the groups of factors. Subsequently, the scores were summed up and due to the ranking it was concluded which group of factors will have the greatest impact on the development of the insurance system and the functioning of its elements.

Economic factors (the strength of which is 3.90) have the greatest influence on the development of the insurance system, which seems natural in the current unstable economic situation. The next positions in terms of strength of influence on the development of the domestic insurance system are held by legal – 3.70, technological – 3.55, political – 3.25, and social – 3.20. The value of these coefficients is quite high, which shows the significant influence of exogenous factors of the macroenvironment and the imperfection of the insurance system to which it is exposed.

Table 1. PESTL analysis indicators of the insurance system development in Ukraine

Political factors	Rating	Weighting coefficient	Weighted assessment
The political situation in the country	3	0.15	0.45
The level of corruption	5	0.20	1.00
Dominance of political interests over legal ones in the development of domestic legislation	3	0.15	0.45
Weak interaction of branches of the government	2	0.15	0.30
Business interest lobbying	3	0.15	0.45
The mechanism of interaction of political forces that promote different political ideologies	3	0.10	0.30
Military conflicts in the country	3	0.10	0.30
Total	22	1.00	3.25
Average assessment of the influence of political factors			3.14
The strength of the influence of political factors			3.25
Economic factors	Rating	Weighting coefficient	Weighted assessment
The level of GDP	3	0.20	0.60
Inflation rate	5	0.25	1.25
Exchange rates	4	0.25	1.00
The level of working population	4	0.15	0.60
Unemployment rate	3	0.15	0.45
Total	19	1.00	3.90
Average assessment of the influence of economic factors			3.80
The strength of the influence of economic factors			3.90
Social factors	Rating	Weighting coefficient	Weighted assessment
Trust in insurers	4	0.15	0.60
Quality of insurance services	5	0.20	1.00
Lifestyle and customs	3	0.10	0.30
The level of migration	2	0.20	0.40
Gender and age structure of the population	2	0.15	0.30
Pandemic	3	0.20	0.60
Total	19	1.00	3.20
Average assessment of the influence of social factors			3.17
The strength of the influence of social factors			3.20
Technological factors	Rating	Weighting coefficient	Weighted assessment
The level of innovations and technologies development in insurance	4	0.20	0.80
Legislative regulation of issues related to the technological support of the insurance system	3	0.25	0.75
The level of penetration of the Internet and mobile gadgets into the insurance system	4	0.25	1.00
The degree of globalization and openness of the insurance system	4	0.20	0.80
The level of use, introduction and transfer of technological processes	2	0.10	0.20
Total	17	1.00	3.55
Average assessment of the influence of technological factors			3.40
The strength of the influence of technological factors			3.55
Legal factors	Rating	Weighting coefficient	Weighted assessment
Regulatory framework for regulating the insurance system	4	0.15	0.60
European legal framework	3	0.20	0.60
Offenses in the insurance system	4	0.15	0.60
Protection of the rights of consumers of insurance services	5	0.20	1.00
Insurance fraud	3	0.30	0.90
Total	19	1.00	3.70
Average assessment of the influence of legal factors			3.80
The strength of the influence of legal factors			3.70

4. DISCUSSION

In contrast to the comprehensive results, the impact of certain factors on the development of the insurance system was revealed. Ionin (2017) argues that the processes taking place in the insurance market are the result of macroeconomic factors that reduce the efficiency of insurers. Bihdan and Usova (2018) identify economic, social, organizational and legal factors influencing the development of the insurance market. We do not agree with the decision to single out only these factors, since this classification can be extended to technological, legal, geographical and environmental.

Sobol (2009) provides, along with economic factors affecting the insurance market, to identify political, ethical, ethnic, and social factors that mainly shape the behavior and motivate the main subjects in the insurance market, rather than the insurance system.

Empirical calculations by Lyulyov (2018) show that political instability, together with inefficient public administration in Ukraine, reduces the level of macroeconomic stability by 8 points and reduces the level of social progress by 0.14 points.

Subjective influence is crucial in making political decisions, because, looking at the thirty-year history of independent Ukraine, it can be concluded that politics does not promote the development of the insurance system and the economy, it consolidates in power certain “beneficial” people in favor of which political decisions are later made, their business desires are satisfied, their campaigns are serviced, and election campaigns are financed.

This study supports the opinion of Goncharuk and Fleichuk (2009) who emphasize the power of corruption that hinders economic growth and generates inefficient use of resources, as well as their concentration only in a limited number of businesses and individuals.

The approaches to such classifications are generalized and do not take into account in detail the purposeful influence of factors on the development of the insurance system. Therefore, according to the results of calculations and discussions, the prospects for further research should be associated with a deeper study of economic factors influencing the development of the domestic insurance system.

CONCLUSION

The latest trends in the world economic order show that the functioning of the insurance system of any country depends on both macroeconomic and microeconomic factors. Exogenous factors of influence in recent years have forced them to rethink their role and emphasis in the development of the domestic insurance system. Identification and determination of the peculiarities of the influence of macroeconomic factors on the development of the insurance system were carried out using the PESTL analysis. Based on a thorough study, it was concluded that the most destabilizing and interdependent impact on the functioning of the insurance system in Ukraine is the level of corruption, political instability, martial law, inflation, and low level of protection of insurance consumers. It is the high level of corruption and political instability in Ukraine that give rise to inflation, which hampers the development of the insurance system. To overcome these problems, the role of the state in the process of intensifying the development of the insurance system should be important. A comprehensive study of these issues should reveal the conditions for the proper safe functioning of the insurance system, indicators of its level of competitiveness.

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ACKNOWLEDGMENTS

The authors wish to thank V. S. Krupka, Certified consultant of IC “OVB Alfinance Ukraine”, kvolyody@ukr.net; V. O. Plyuta, Director of Khmelnytskyj Branch of IC “Providna”, Head of the Center for Reception and Customer Service in Khmelnytskyj, v.plyuta@providna.com.ua; and V. V. Kulchytskyi-Polyvko, Deputy Director of the Center for Corporate Sales Development in the Western Region of IC “Unika”, office@uniqa.ua.

REFERENCES

1. Bihdan, I. A., & Usova, M. O. (2018). The modern state and the development vectors of the Ukrainian life insurance market. *Young Scientist*, 11(63), 1063-1068. (In Ukrainian).
2. Cabinet of Ministers of Ukraine (CMU). (2020). *Pro zatverdzhennia Poriadku vykorystannia koshtiv fondu borotby z hostroiu respiratornoiu khvoroboiu COVID-19, sprychynenoiu koronavirusom SARS-CoV-2, ta yii naslidkam [On approval of the Procedure for using the costs of the Fund for the Control of Acute Respiratory Disease COVID-19 caused by the coronavirus SARS-CoV-2, and its consequences]*. Resolution of the April 22, 2020, No. 302. (In Ukrainian). Retrieved from <https://zakon.rada.gov.ua/laws/show/302-2020-%D0%BF#Text>
3. Department of Strategic Planning and Macroeconomic Forecasting (DSPMF). (2021). *General trends of the shadow economy in Ukraine in January-March 2020*. (In Ukrainian). Retrieved from <https://www.me.gov.ua/Documents/Download?id=699fa73c-084f-431a-9491-47ad5ffbaf09>
4. Dobrik, L. O. (2016). Fraudulent schemes in the insurance sector, an essential element of economic security, their identification and disclosure. *Efektivna ekonomika – Efficient economy*, 4. (In Ukrainian). Retrieved from <http://www.economy.nayka.com.ua/?op=1&z=4900>
5. Economic Truth. (2019). *Kilkist korystuvachiv internetom v Ukraini vyroslo na 7% – doslidzhennia [The number of Internet users in Ukraine has grown by 7% – research]*. Ekonomichna pravda. (In Ukrainian). Retrieved from <https://www.epravda.com.ua/news/2019/10/11/652498/>
6. Galkiv, L. I. (2010). Statistical evaluation of migration processes in Ukraine. *Scientific Bulletin of NLTU of Ukraine*, 20(5), 124-131. (In Ukrainian). Retrieved from <https://cyberleninka.ru/article/n/statistichne-otsinyuvannya-migratsiynih-protseviv-v-ukrayini-u-konteksti-vtrat-lyudskogo-kapitalu/viewer>
7. Gamankova, A., & Khlivny, V. K. (2012). The insurance market of Ukraine in the global insurance space. *Financial Services Market*, 2(46), 58-67. (In Ukrainian). Retrieved from https://ir.kneu.edu.ua/bitstream/handle/2010/27147/Fu_2012_5_7.pdf
8. Goncharuk, J. A., & Fleichuk, M. I. (2009). Vplyv tinovoho sektora ta koruptsii na ekonomichni systemy [The impact of the shadow sector and corruption on economic systems]. *Economics and Forecasting*, 2, 7-22. (In Ukrainian). Retrieved from http://eip.org.ua/docs/EP_09_2_07_uk.pdf
9. Gostryk, O. M., & Malyshko, V. S. (2013). Modeling and analysis software in the Forex market. *Proceedings of the IV International Scientific and Practical Conference “Information Technology and Modeling in Economics”* (pp. 38-41). Cherkasy-Odessa: Brama-Ukraine. (In Ukrainian). Retrieved from <http://dspace.oneu.edu.ua/jspui/handle/123456789/2498>
10. Ionin, M. E. (2017). Market factors of influence on the competitive potential of the insurance company. *Economics and Organization of Management*, 3(27), 116-126. (In Ukrainian). Retrieved from <https://jeou.donnu.edu.ua/article/view/5003/5036>
11. Klapkiv, Y. M. (2020). *Insurance services market: conceptual principles, technical innovations and development prospects* (Monograph). Ternopil: TNEU. (In Ukrainian). Retrieved February 3, 2022, from <http://dspace.wunu.edu.ua/bitstream/316497/38485/1/Klapkiv.pdf>
12. Klepikova, O. A. (2013). Modern consisting and role of information technologies of management

- an enterprise. *Scientific Bulletin of the International Humanities University*, 5, 74-77. (In Ukrainian). Retrieved from http://nbuv.gov.ua/UJRN/Nvmgu_eim_2013_5_17
13. Koshel, O. (2019). *Ukrainian elections are 50% financed by shadow funds*. (In Ukrainian). Retrieved from https://lb.ua/news/2019/01/31/418584_ukrain-skie_vibori_50.html [in Ukrainian]
 14. Lyuljov, O. V. (2018). *Macroeconomic stability of the national economy: social, political and marketing determinants* (Doctoral Thesis). Sumy: Sumy State University. (In Ukrainian).
 15. Maksimentsev, M. G. (2019). Political factors of criminality in the sphere of subsoil use in Ukraine. *Scientific Bulletin of Dnipropetrovsk State University of Internal Affairs*, 1, 15-20. (In Ukrainian). <http://doi.org/10.31733/2078-3566-2019-1-15-20>
 16. Marshalok, T. (2019). Influence of political turbulence on the economic development of Ukraine. *Economic Discourse*, 1, 22-36. (In Ukrainian). <https://doi.org/10.36742/2410-0919-2019-1-3>
 17. Ministry of Economic Development, Trade and Agriculture (MEDTA). (2020). *Doslidzhennia tinovoi ekonomiky v Ukraini: maizhe chvert VVP – abo 846 mlrd hryven – перебуvaie v tini* [Study of the shadow economy in Ukraine: almost a quarter of GDP or 846 UAH billion is in the shadows]. (In Ukrainian). Retrieved from <https://www.me.gov.ua/News/Detail?lang=uk-UA&id=b2fe7b9f-4e8a-487f-b3f7-ecd29c1c79c6&title=DoslidzheniaTinovoiEkonomikyVUkraini-MaizheChvertVvpAboV46->
 18. National Bank of Ukraine (NBU). (2020). *Ohliad nebankivskoho finansovoho sektoru* [Review of the non-banking financial sector]. (In Ukrainian). Retrieved from https://bank.gov.ua/admin_uploads/article/Nonbanking_Sector_Review_2020-12.pdf
 19. National Commission for State Regulation of Financial Services Markets (NSSMC). (2020). *Pidsumky strakhovykh kompanii za 2009–2019 rr* [Results of insurance companies for 2009–2019]. Retrieved from <https://www.nssmc.gov.ua/>
 20. Pirozhkov, S. (Ed.). (2013). *Demographic crisis in Ukraine: its causes and consequences* (pp. 43-46). Kyiv: State Statistics Committee of Ukraine. (In Ukrainian).
 21. Prykaziuk, N. V. (2017). *Development of insurance system of Ukraine* (Doctoral Thesis). Kyiv: Taras Shevchenko National University of Kyiv. (In Ukrainian).
 22. Razumkov Center. (2019). *War in the Donbass: Realities and Prospects of Settlement*. Kyiv. (In Ukrainian). Retrieved from https://razumkov.org.ua/uploads/article/2019_Donbas.pdf
 23. Shulika, A. A. (2017). Politychna bidnist yak faktor vykliuchennia suspilnykh hrup zi sfery pryiniattia politychnykh rishen [Political poverty as a factor in the exclusion of social groups from the sphere of political decision-making]. *Bulletin of Vasyl Stus Donetsk National University*, 24-27. (In Ukrainian). Retrieved from <https://jvestnik-politology.donnu.edu.ua/article/view/5041/5074>
 24. Shyhun, M. M., & Khodzyska, V. V. (2015). Political risks and their assessment in strategic management accounting. *Accounting and Finance*, 2(68), 71-75. (In Ukrainian). Retrieved from https://ir.kneu.edu.ua/bitstream/handle/2010/33056/Oif_apk_2015_2_12.pdf
 25. Sobol, R. G. (2009). Insurance market of Ukraine development is in the conditions of world financial crisis. *Derzhavne budivnytstvo – State building*, 2. (In Ukrainian). Retrieved from http://nbuv.gov.ua/UJRN/DeBu_2009_2_19
 26. State Statistics Service of Ukraine (SSSU). (2020). *Employed population by type of economic activity in 2012–2020*. Retrieved from http://www.ukrstat.gov.ua/operativ/operativ2014/rp/zn_ed/zn_ed_u/zn_ed_2020_ue.xls
 27. State Statistics Service of Ukraine (SSSU). (2021a). *Annual population data 1990–2020*. Retrieved from http://www.ukrstat.gov.ua/operativ/operativ2021/ds/nas_rik/nas_90_20.xlsx
 28. State Statistics Service of Ukraine (SSSU). (2021b). *Consumer price index in 1991–2020 (up to the previous month)*. Economic statistics. Retrieved from http://www.ukrstat.gov.ua/operativ/operativ2020/ct/isc_rik/isc1991-2020pm.xls
 29. State Statistics Service of Ukraine (SSSU). (2021c). *Unemployed population (according to the ILO methodology) due to unemployment in 2010–2020*. Retrieved from http://www.ukrstat.gov.ua/operativ/operativ2021/rp/eans/brnpr_10-20_ue.xls
 30. State Statistics Service of Ukraine (SSSU). (2021d). *Zainiate naseleennia za profesiinymi hrupamy ta statti u 2010–2020 rokakh* [Employed population by occupational groups and gender in 2010–2020]. Retrieved from http://www.ukrstat.gov.ua/operativ/menu/gender/gender_dok/2019/pracia/ryn_pr_2019.htm
 31. Suprun, A. A., & Bessinna, O. S. (2020). Insurance industry activities in the COVID-19 pandemic conditions: problems and opportunities. *Economic Space*, 161, 124-129. <https://doi.org/10.32782/2224-6282/161-23>
 32. Tataryn, N., Lopushanskyi, R., & Luka, P. (2021). Modernization of the Ukrainian insurance market in the condition of the COVID-19 pandemic. *Economy and Society*, 25. (In Ukrainian). <https://doi.org/10.32782/2524-0072/2021-25-48>
 33. Transparency International (TI). (2020). *Corruption Perceptions Index of Ukraine*. Retrieved from <https://www.transparency.org/en/countries/ukraine>
 34. Tsurkan, I. M., & Dobrovolskyi, A. O. (2017). Life insurance market development in the context of providing social protection of population of Ukraine. *Economic Space*, 123, 127-143. (In Ukrainian). Retrieved from http://nbuv.gov.ua/UJRN/ecpros_2017_123_14

35. Verkhovna Rada of Ukraine. (2014). *Zahalnodержavna Prohrama Adaptatsii Zakonodavstva Ukrainy do Zakonodavstva Yevropeiskoho Soiuzu [National Program Adaptation of the Legislation of Ukraine to the Legislation of the European Union]*. Law of Ukraine No. 1629-IV. (In Ukrainian). Retrieved from <https://zakon.rada.gov.ua/laws/show/1629-15#Text>
36. Yermoshenko, A. M. (2009). *Strakhove shakhraystvo yak dzherelo vynyknennia zahroz u vzaiemodii strakhovykiv i bankiv [Insurance fraud as a source of threats in the interaction of insurers and banks]*. (In Ukrainian). Retrieved from <http://essuir.sumdu.edu.ua/handle/123456789/54055>
37. Zhuravka, O. S., & Lopatchenko, S. G. (2015) Insurance culture as one of the impact factors of the insurance development. *Efektivna Ekonomika*, 5. (In Ukrainian). Retrieved from <http://www.economy.nayka.com.ua/?op=1&z=4102>
38. Zhuravka, O. S., & Vasilchuk, A. Yu. (2017). Analysis of the Insurance Market in Ukraine. *Efficient Economy*, 3. (In Ukrainian). Retrieved from <http://www.economy.nayka.com.ua/?op=1&z=5493>
39. Zybchenkova, G. V. (2016). Information technology in insurance companies. *Financial policy in the system of socio-economic development of Ukraine* (pp. 167-169). All-Ukrainian scientific-practical conf. Kyiv: KNTU.