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BENEFITS AND CONSTRAINTS OF BLOGGING AS AN EDUCATIONAL TOOL IN THE ENGLISH LANGUAGE CLASSROOM

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In the educational setting, particularly in the EFL (English as a Foreign Language) context, blogging is viewed as an excellent way of both expressing yourself and learning from others. First of all, it provides the opportunity to hone students' writing skills and reflect on a great variety of topics: having a real audience in mind makes it a truly demanding (and rewarding) experience. Secondly, by reading each other's posts, commenting on other blogs and by responding to comments, students gain a deeper understanding of the problem and learn how to interact with each other.

Trajtemberg and Yiakoumetti's (2011) view weblogs as a tool for expression, self-evaluation, and interaction. These positive aspects of blogging are highlighted by other authors as well.

Self-expression is connected with the idea of autonomy and empowerment that enhance learners' confidence and desire to write (Trajtemberg & Yiakoumetti, 2011). This resonates with Arena's (2008) observation that a sense of ownership of writing combined with the possibility to experiment with such features of a blog as images, videos, hyperlinks, etc. promotes creative thinking. Moreover, as Arena (2008) argues, blogs develop a relationship with a broader audience, not just the instructor, which leads to more carefully written texts. This entails choosing a more expanded vocabulary needed for a more precise articulation of ideas (Arena, 2008). Similarly, Chen and Brown (2012) (as cited in Lin 2015, p. 447) point out that increased awareness of audience/authorship has a strong impact on students' quality of writing.

Self-evaluation is seen by Trajtemberg and Yiakoumetti (2011) as learners' ability to reflect on their language progress which leads to their sense of improvement/achievement. Such perception of own progress as well as visibility of their writing to others adds to learners' motivation to improve their English (Trajtemberg & Yiakoumetti, 2011). Moreover, as Arena (2008) notes, the ability to reflect on the quality of writing and the language being used does not only enhance learners' language skills but contributes to their media and information literacy.

Interaction in blogging takes place by providing comments, posing questions, drawing on personal interests, etc. (Trajtemberg & Yiakoumetti, 2011). Likewise, Arena (2008) notes that with the help of blogging, classroom discourse can thrive. According to Davis (2006, as cited in Arena, 2008, p.2): "Blogging lets many more become engaged. Blogging can be a place where we can make connections and dig deeper into how and what we are learning, both student and teacher". What is equally

important is that in this way learners can scaffold each other by "simply by being exposed to their peers' work" (Trajtemberg & Yiakoumetti, 2011, p. 438)

Other salient advantages of blogging include creating a more authentic learning environment (as it serves a real communicative purpose) and giving every student a voice (Trajtemberg & Yiakoumetti, 2011)

However, despite these convincing arguments in favour of blogging, the literature mentions some head ups in regards to its effectiveness in English language teaching. In fact, there are some serious claims that the educational benefits of blogging are premature and overstated (Lin, 2014).

Lin's (2014) research showed that blogging contributed neither to the improvement of writing performance nor to self-efficacy beliefs. Moreover, motivation to learn appeared to be higher in the controlled group, which was not exposed to blogging (Lin, 2014). In fairness, Lin's later research in 2015 provided some evidence of the role of blogging in improving the quality of writing, enhancing motivation and self-efficacy toward writing.

Among other constraints are increased teacher's workload (Levy, 2009 as cited in Lin, 2014); low blogging frequency (Lin, 2015); cease of students blogging activity after the class projects finish (Lin 2014; 2015); students' concern about "losing face" connected with their low level of English (Lin, 2015); varying degrees of (un-)suitability for students, depending on their learning styles (Lin, 2015).

It is important to realise that blogging in the English language classroom "doesn't simply happen" (Arena, 2008). Success here largely depends on the role of the teacher (Arena, 2008; Trajtemberg & Yiakoumetti, 2011). First of all, before deciding on embarking on a blogging journey, teachers need to realistically evaluate their capacity: are they ready to go the extra mile to create the meaningful context so that their students see the value in blogging (Arena, 2008) and feel motivated and enthusiastic about it; will they have enough inner resources to manage the content and to provide all kind of support and scaffolding. According to Arena (2008), it is crucial to establish the basis for an active group of student bloggers or, in other words, to create "a community of bloggers" (p. 6). Another important aspect to consider is how blogging fits into students' needs. For ESP (English for Specific Purposes) students, they will be most likely interested in job-related pieces of writing such as business reports, emails, minutes, etc. whereas with students who study General English blogging can be more relevant.

In conclusion, in teaching there can rarely be out-of-the-box solutions and fixed agendas. It is all about teacher's professional vision, resourcefulness and intuition. With blogging, it is definitely worth experimenting so that students have a chance to unleash their creative potential and improve their writing.

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UKRAINE'S FOREIGN TRADE RELATIONS WITH CHINA

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Foreign economic activity contributes to the development of promising areas of export potential; It is at the expense of foreign economic activity that our country solves the problem of shortage of energy, new machines and equipment, technologies, and some consumer goods. Thirty years ago, China embarked on a path of radical economic and social transformation, based on pragmatic calculation and the realities of market relations. This course is called "policy of reform and openness." During this period, China has become an example of how a balanced foreign economic strategy can in a relatively short period of time bring a huge country to the number of global leaders. The issue of the Chinese phenomenon is especially relevant today, when humanity is at the epicenter of the largest financial and economic crisis since the Great Depression. One of the ways to get the global economy out of the crisis is to increase and maintain high and stable economic dynamics in countries that are at the forefront of world development, and, above all, the United States and China. Given the above, the research topic, which analyzes the experience of Chinese foreign economic reforms as a prerequisite for strengthening the competitive position of the national economy in terms of its active integration into the global economic space, is relevant and has not only theoretical but also practical significance for Ukraine, which needs to optimize its strategy for the realization of national economic interests through the mechanisms of international cooperation (A Chinain formation base, 2020).

China is a global player on the geopolitical and geoeconomic maps of the world. In order to strengthen its position in world politics and economy, the Chinese government is initiating a number of large-scale projects and programs that have a global impact and deepen interstate cooperation. Among such initiatives is "One Belt, One Road" - the revival of the ancient Great Silk Road, which aims to create a new global order and move to globalization 2.0. Within the framework of the Initiative, a grand transport and logistics project of the XXI century is being developed, which connects China and the countries of Western Europe. Ukraine did not stay aside by signing the Action Plan for the implementation of the joint construction initiative "Economic Belt of the Great Silk Road" and "Sea Silk Road of the XXI century. However, currently Ukraine's participation in the "One Belt, One Road" project is only declarative and it slows down the progress of economic cooperation between Ukraine and China, which is reflected in trade, investment relations and scientific and technological exchange (Khomutenko L.I., Tereshchenko A.S. 2017).

Table 1**Economic profile of China and Ukraine in 2020**

Indicators	PRC	Ukraine
Nominal GDP, billion dollars	14731,81	3659,8
GDP per capita for PKS, USD	16785	13341
Real GDP growth, %	6,1	2,7
Consumer price index, % to the previous year	102,9	100,7
Net FDI inflows, billion dollars	206,5	2,5
Exports of goods and services, billion dollars	3016	50,1
Imports of goods and services, billion dollars	2890	67,7
Unemployment, %	3,6	8,6

Source: State Statistics Service of Ukraine

Ukraine is interesting to the Chinese because of its production, scientific, resource, human potential, as well as its advantageous geographical location. In addition, Ukraine has a large consumer market - 38 million people. Ukrainian-Chinese cooperation began with the signing of the Agreement between the Government of Ukraine and the Government of the People's Republic of China on trade and economic cooperation in 1992. This agreement established the most-favored-nation treatment for export and import duties on the two countries' goods, taxes and domestic duties. According to the results of 2020, the trade turnover between Ukraine and China amounted to \$ 11 billion, including exports - \$ 2.5 billion, imports - \$ 8.5 billion. China ranks 2nd in the geographical structure of foreign trade with a share of 11% of trade (exports - 5%, imports - 13%). The volume of trade increased by 27.3% compared to the previous year (Fig. 1).

Since 2004, the negative balance of trade in goods has continued to grow. This is due to:

- first, the raw material structure of Ukrainian exports, the value of which is influenced by the situation on world raw material markets;
- secondly, the presence of barriers to entry into the Chinese market;
- thirdly, low activity of Ukrainian enterprises at international exhibitions and fairs in order to promote their products.

Ukrainian exports to China are mainly raw materials (ores, grain and oil), and imports are technological in nature (semiconductors, telephones, automatic computers). Thus, 94.1% of exports to China are raw materials, and 5.6% - finished products.

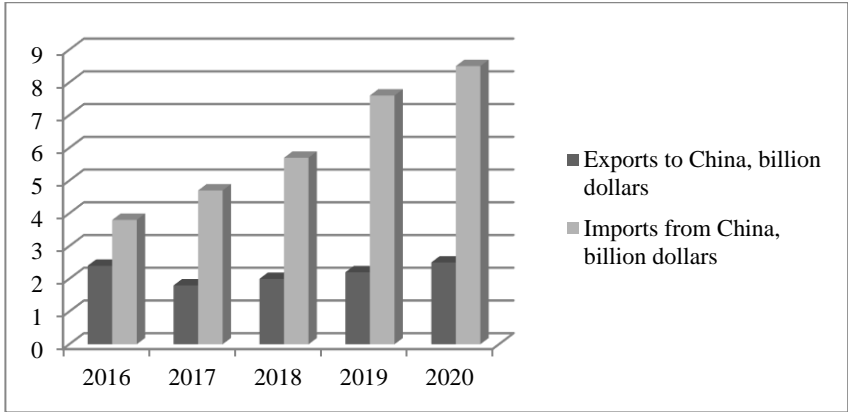


Fig. 1. Dynamics of Ukrainian-Chinese bilateral trade 2016-2020, billion dollars

Source: State Statistics Service of Ukraine

In 2020, the share of the five largest commodity items of Ukrainian exports to China was 85%, in particular: iron ore and concentrates - 31%; corn - 23%; sunflower oil and seeds - 16%; turbojet engines - 9%; cake - 6%. In the period from 2016 to 2020, the value of exports of iron ore and concentrates decreased by an average of 19% annually, and corn - increased by 18%. It should be noted that in 2020, 65% of China's total imports of corn and 60% of sunflower oil will be covered by Ukrainian exporters (Table 2).

Table 2

Key commodity positions of Ukrainian-Chinese trade in 2020

Exports to China	Part of the goods in		Imports from China	Part of the goods in	
	Exports of Ukraine	Imports of China		Exports of Ukraine	Imports of China
Iron ore and concentrates	24%	0,9%	Semiconductors	2,4%	95%
Corn	15%	64%	Smartphones	0,4%	61%
Sunflower oil and seeds	9%	59%	Computers	0,5%	69%
Turbojet engines	59%	2,8%	Rolled flat steel or non-alloy steel	1,6%	47%
Cake in granules	16%	24%	Pesticides	3,3%	19%

Source: International Trade Center / Trade Map

In 2020, the largest share in the commodity structure of imports was accounted for by: semiconductors and smartphones - 9% each; computers - 6%; flat rolled steel - 4%; pesticides - 3%.

During the period from 2016 to 2020, imports of semiconductors (diodes, transistors, light-sensitive semiconductors) almost doubled annually on average. In 2020, 95% of Ukrainian semiconductor imports were covered by Chinese exporters, which accounted for 2.1% of China's total exports of this item. Based on the statistics of the International Trade Center, the trade complementarity index was calculated according to the UNCTAD methodology and presented in the dynamics from 2016 to 2020 (Fig. 2).

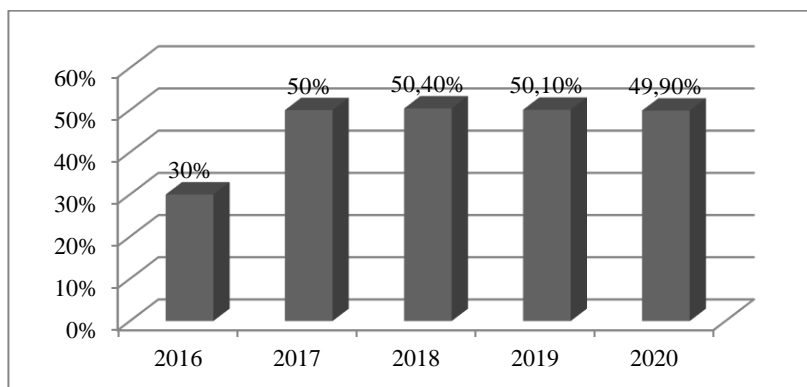


Fig. 2. Dynamics of the Ukraine-China trade complementarity index in the period 2016–2020

Source: calculation based on data from the International Trade Center

According to calculations, the trade complementarity index exceeds 50%, which indicates the average level of compliance of Ukrainian exports with Chinese imports. Thus, bilateral trade between Ukraine and China shows an upward trend after falling in 2015-2016. However, the negative balance continues to grow. According to the results of recent years, China is one of the key trade partners of Ukraine.

Recommendations for further cooperation with China.

1. Political direction:

- it is expedient for Ukraine to develop bilateral relations in areas that are of interest to China and, at the same time, do not contradict the political course of Ukraine and its closest allies;
- necessary understanding of the low probability of China's political support in the foreign arena, in parallel - revision of its own economic and foreign policy

towards this country (current policy of unconditional support for China in sensitive issues) (Tibet, Taiwan, Falun Gong).

One should be aware of the existence of an order of magnitude higher priority for the development of the Russian vector for Chinese foreign policy, given the plans to absorb a number of Siberian territories and further turn Russia into a satellite of China in the foreign arena. Any political or economic support for Ukraine declared by China will not be provided and will not be comparable to the support of partners from the EU and the US.

2. Economic direction:

- careful analysis and objective evaluation of joint projects for decision-making at the highest level on the feasibility of continuing / terminating work on them.

- Ukraine's participation in China's international economic projects.

- intensification of sectoral and interregional cooperation.

Activities under contracts that are extremely unfavorable to our state should be stopped with a clear statement of the reasons for such a decision by the Ukrainian side and the initiation of appropriate discussions on this issue with the Chinese side. Long-term projects, such as the "grain project", which are designed for 20-25 years and are linked to credit obligations, it is necessary to have a dialogue with the Chinese side to obtain more favorable terms. Thus, in case of dilemmas of project closure or granting certain concessions, the Chinese side can with certain probability satisfy our party's request (for example, reduction of effective rates on loans obtained under the guarantees of the Government of Ukraine or their prolongation).

Ukraine can show interest in its participation in Chinese economic initiatives: "One Belt, One Road", the format of cooperation "16 + 1", ABII, the project of China to create for its own needs "foreign food bases". And it does not matter what status Ukraine will have in these institutions or projects. The presence of Ukrainian representatives during the events on the Chinese side will at least keep an eye on the pulse of what is happening. An equally important factor is a certain declaration of interest in participating in these initiatives and their support at the international level, which has virtually no political threats given their positive perception in the world. At the same time, one should take into account the low probability of economic gain from these initiatives - the implementation of any large-scale projects in Ukraine with the participation of the Chinese side is hardly possible given the above. The purpose of these actions is to demonstrate good neighborly relations with China as an influential international player (World Investment Prospects Survey, 2020).

At the same time, it should be borne in mind that any intensification of economic cooperation with the Chinese side requires a careful analysis of the conditions for the implementation of individual projects in order not to harm the national interests of Ukraine. The SARSCoV-2 coronavirus pandemic of the acute respiratory illness COVID-19 was a factor that forced the whole world to rethink its

existence, reconsider not only its development forecasts, its short-term economic and social policies, but also realize that a new stage of transformation is beginning.

The baseline scenario assumes that countries implementing their pandemic strategies, supporting households and businesses, providing developed countries and international financial institutions with significant financial support to developing countries, and facing significant financial challenges during the pandemic, will restore global growth. economy already in 2021 at 5.4 percent after falling by 4.9 percent in 2020 and return to growth at 3.6 percent on average in 2022-2023.

The main contribution to global economic dynamics will continue to be made by 3 countries: China (average annual growth rate in 2021-2023 is projected at 6.4 percent against 6.6 percent on average in 2017-2019), the United States (2, 3 percent vs. 2.5 percent), India (7.1 percent vs. 5.6 percent, respectively). Europe will show a slightly more moderate pace - 2.2 percent. The eurozone economy will grow by 6 percent in 2021 (in 2020 - a decline of 10.2 percent is forecast). On average, growth will be slower in 2022-2023, averaging 1.4 percent, primarily due to slightly slower-than-expected growth in the eurozone's largest economies, which will lose the most from the pandemic, including Italy, Spain, Germany and France. . In turn, the European Central Bank will try to maintain a zero discount rate, which will allow the governments of these countries to pay off debts they have already accumulated without significantly increasing taxes.

Assessing the impact of the pandemic on the global economy, experts note that fiscal incentives and credit instruments will not only mitigate the impact on business, but will also be an incentive for further investment when the pandemic is over.

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BIBLIOMETRIC ANALYSIS AS CONTEXTS EXPLORING TOOL IN PUBLIC POLICY DECISIONS COORDINATING

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World practice shows various approaches to building a mechanism for implementing economic policy, namely the subordination and coordination of actions of different government branches in determining the priority areas of state regulation, selection, and application of economic policy instruments. Regulatory initiatives in the field of economic policy should be hierarchical, orderly, and balanced. Such coherence of goals and actions has become especially important in a commitment to humanitarian goals in a pandemic situation (minimizing the number of deaths and serious illnesses). Some measures may have positive consequences for some institutions and negative ones for others.

In Ukraine, there is not enough coordination of state policy in regulating various sectors of the public sector, households, and corporations, both at the legislative and executive levels. In recent years, the Central Bank has aimed to ensure the stability of the currency of Ukraine, based on maintaining price stability (inflation targeting). Unlike other central banks, the National Bank of Ukraine's tasks does not include counteracting the spread of unemployment and promoting economic growth. In the long-term persistence of the negative manifestation of the emergency's factors, the presence of this problem can trigger the further imbalance of the economy, loss of financial stability, and nullify any previous attempts to carry out economic reforms in the country.

Current developments in the scientific literature on this issue do not meet Ukraine's economy's needs and specifics. The vast majority of researches focus on using informal methods of interaction that require adaptation and consideration of domestic realities, such as permanent economic crisis, undeveloped market relations, imbalances in developing certain spheres of economic activity, high level of corruption, etc. And developments on the effectiveness of different economic policies and practices in other countries to overcome the pandemic's effects due to lack of time, of course, have not yet been created.

The problem of assessing the impact of economic policy on the functioning of economic sectors as a single system is considered in many domestic and foreign researchers' works. Foreign researchers such as Jan G. Mikkelsen, Paolo Dudine work in comprehensive economic research, formalize relationships between sectors of the economy and develop measures to stimulate economic growth based on existing economic and mathematical models, including the COVID-19 pandemic.

Adolfo Barajas, Eric Verreydt, Luisa Zanforlin, Nan Li, Francesco Luna, Douglas Laxton, David Rose, Alasdair Scott, Michael Mussa, Miguel Savastano and others.

Therefore, to identify the vectors of scientific developments in the field of interaction of economic policy instruments in recent years, it was decided to use bibliometric analysis based on VOSviewer v.1.6.10.

The Scopus Citation Overview tool was chosen as the database for analysis as one of the most authoritative scientific information sources.

As a result of bibliometric analysis by the keywords "decision making" and "government," the following results were obtained (Fig. 1a).

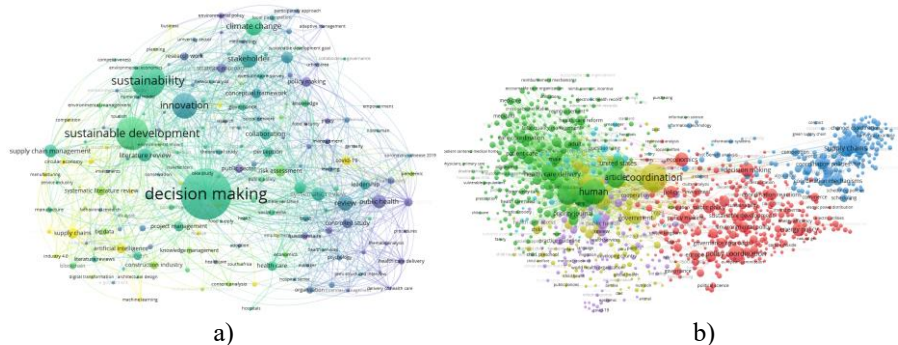


Fig. 1. Results of bibliometric analysis by keywords a) "decision making" and "government" b) "coordination" and "policies."

Source: Compiled by the authors

The obtained results are mainly concentrated in the context of sustainable development and ecology. They do not take into account the issue of building mechanisms for the interaction of economic policy instruments. In Ukraine, due to the permanent crisis of the economy, sustainable development and ecology are not a priority.

The next step was to search the Scopus Citation Overview tool for the keywords: "communication" and "ministries." As a result, only 44 publications were found, which is not enough to build a network.

The third search was carried out on the keywords "coordination" and "policies," which resulted in 1780 publications (Fig. 1b).

Thus, 1780 publications were identified in the Scopus database, which mainly focused on the context of health and education.

The last search was conducted in Scopus on the keywords "policy" and "decision making" and "government" and included the results of more than 4,000 publications (Fig. 2).

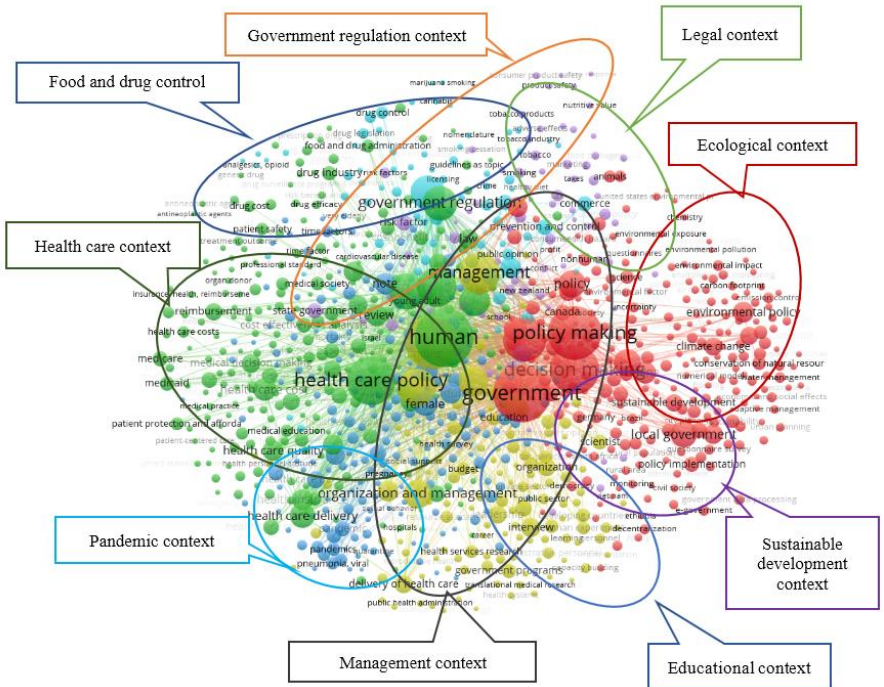


Fig. 2. Results of bibliometric analysis by keywords "police," "decision making," and "government."

Source: Compiled by the authors

Note that even the general context of "management" implies that the basis of modern approaches to decision-making is coordination with the health care context. After all, in the context of "management," there are pandemics, hospitals, care, health care delivery, health care administration, healthcare quality, health care personal, health insurance, etc. However, all of them, together with the public sector government program, social support, resource, budget, indicate the need for new research to develop economic policy instruments as a driver of stabilization of various sectors of the economy.

This indicates that the main criteria for decision-making and coordination in various areas of public policy at the moment are universal values (human context), the goals of the health care system, taking into account the resources of the state, including budget.

In other words, we can observe an increasing social orientation of the policy formed by the state authorities of different world countries.

Summary: For effective search for publications on the mechanisms of interaction between ministries and other government agencies in making sound public policy decisions that affect various stakeholders' interests, the possibilities of bibliometric analysis using VOSviewer v.1.6.10. Data for this analysis were taken from the Scopus Citation Overview tool. The research results formed 9 clusters: Health care context, Legal context, Food and drug control context, Educational context, Ecological context, Management context, Pandemic context, Sustainable development context, and Government regulation context. Formed clusters cannot be considered separately from each other, as one cluster's tasks are closely intertwined with others, creating a complex relationship system. Thus, an objective needs to improve the theoretical and methodological foundations and applied aspects of an accurate selection of economic policy instruments. That would ensure effective achievement of economic development goals of different maturities and macroeconomic modeling of the impact of selected tools on the functioning of economic sectors in a pandemic situation.

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FLUCTUATIONS OF TRUST IN UKRAINIAN GOVERNMENT: KEY MEASUREMENT AND ASSESSMENT METHODS¹

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Studies over the past two decades have provided important information on A considerable amount of literature has been published on ensuring economic security (Bublyk et al., 2017), national economy de-shadowing (Levchenko et al., 2018), sustainable economic growth (Kendiukhov et al., 2017; Toyin et al., 2020), country' innovative developing (Lyulyov et al., 2017). Several studies emphasized the crucial role of corporate governance, corporate social responsibility, and business ethics towards achieving those objectives (Al-Khonain et al., 2020; Tommaso, 2020; Alkubaisy, 2020; Stavrova, 2020; Huo et al., 2020). While the primary focus of others has been on the public sector (Aljaloudi et al., 2020), government power (Bhandari, 2017), state management (Levchenko et al., 2018), financial decentralization level (Vasylieva et al., 2018), self-government reforms (Aghasiev et al., 2018).

Trust is a fundamental element of social capital – a key contributor to sustaining well-being outcomes, including economic development. Data from several studies suggest that this concept is the foundation upon which public institutions' legitimacy is built and is crucial for maintaining social cohesion (Voronkova et al., 2019; Bappayo et al., 2019; Kaya, 2019; Kasztelnik, 2020; Taliento et al., 2020). It is also crucial for the success of a wide range of public policies that depend on the public's behavioral responses. It has been demonstrated that public trust leads to greater compliance with regulations and the tax system. It is necessary to increase the confidence of investors and consumers. Also, trust is a set of assessments of various processes taking place in society, in the socio-economic sphere, policy, which consists of public satisfaction with the government's activities to perform its functions (Lopez et al., 2020). Moreover, lack of trust compromises citizens' and businesses' willingness to respond to public policies and contribute to a sustainable economic recovery.

Trust in government is a multi-faceted, somewhat ambiguous concept. It covers general and systemic factors, such as the legitimacy accorded to the political-administrative system, but also more specific experiences with the government and its services and the dynamic interaction between the two. Public opinion about

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governmental institutions is quite inconsistent and ambivalent, and it is characterized more by complexity than by consistency. When asked in general and abstract terms, citizens are often skeptical towards the public sector but relatively satisfied with more specific services. It has conclusively been shown that society, in general, wants more service delivery from the public sector.

According to extensive cross-sectional longitudinal studies, over the past 20 years, there has been a gradual decline in the trust level in governments in most countries of the world. Trust is below average across countries. For example, in 2010–2014 among countries with a level of confidence in the national government below the global average were Haiti (5%), EU members Slovenia (7.7%), Poland (16%), Romania (18.3%) and Spain (20.7%), Japan (24.3%), Ukraine (25.6%) and even the USA (32.6%). The group of countries with the highest level of trust in the government is more homogeneous. In most cases, it was formed by countries with rather undemocratic political regimes. The absolute leader in 2010–2014 according to this indicator, Uzbekistan (95.2%) was followed by China (84.6%), Qatar (82.9%), Azerbaijan (77.1%), Malaysia (75.1%) and Kazakhstan (74.8%). In Russia, in the same period the analysis, the level of trust in the government was higher than the average for the sample - 47.4% (Christensen et al., 2020). In this regard, it can be assumed that both high and low levels of trust in the national government are fraught with danger.

Much of the available literature on public trust in national government deals with the question of its measurement and assessment. Some writers (e.g., Porumbescu, 2015; Gabriel, 2017) have attempted to determine the level of political trust in society by the indicator representing the degree of development of civic activity and political participation. The apolitical nature of the population leads to the underdevelopment of citizens' political culture and political consciousness and, consequently, to crisis phenomena in the sphere of public understanding and a decrease in the level of political trust. Among the factors influencing the population's attitude to the authorities are not only professionalism, competence, efficiency, but also the degree of development of feedback between government and the public, taking into account its interests, public opinion, dealing with citizens, openness and transparency authorities (Liuta et al., 2020). Public surveys are one of the most common procedures for determining and measuring trust in the national government. Among many others, the most widely recognized are the World Values Survey, the European Quality of Government Index, the E-Government Development Index, and others. Measures of trust from attitudinal survey questions remain the most common source of data on trust. Given the multidimensional nature of the trust phenomena, a significant problem with the public opinion survey method is that it is impossible to consider unilaterally with only one indicator.

To date, there is no single universal method of measuring this empirical category. This, in turn, leads to the fact that the results obtained by research groups

are incomparable; there are some difficulties in interpreting the results because it is difficult to understand what exactly is hidden behind the percentages in the surveys. Despite a certain conditionality of indicators, their use allows assessing the level of trust in society. Still, it does not explain why this happened, i.e., what led to an increase or decrease in trust level. Nor can such measurements be accurate, as much of what is associated with trust exists in an implicit or relative form, making it impossible for researchers to measure or codify.

In most recent studies, public trust in the national government has been measured in three different ways. Traditionally, the following methods of measuring trust are distinguished: qualitative, experimental and quantitative (sociological).

The qualitative method of measuring trust includes problem identification, hypothesis formulation and consideration of social fact from other points of view. This approach is used in research when interacting with a hard-to-reach or small sample. The experimental method of measuring trust is based on a game approach (TrustGame). The game is a simulated situation in which partners' trust can lead to a higher result (income) than purely selfish behavior. When using the quantitative (sociological) method, data are collected from large groups of respondents and analyzed using statistics to determine the level of interpersonal and institutional trust. When measuring trust, it should not be limited to purely economic indicators, as the basis for trust in political institutions is considered by some scholars through culturological macro-and micro theories. In their research, foreign scholars confirm or refute the hypotheses refer to the added World Values Survey (WVS) or European Values Survey (EVS). These are long-term comparative projects that bring together sociologists worldwide who study public trust or support of the national governments and their impact on social, economic, and cultural lives.

Since the 1970s, World Values Survey has conducted opinion polls in nearly a hundred countries. Six waves (rounds) of public opinion polls were conducted in the period from 1981 to 2014. Ukraine was included in this project in 1996, 2006 and 2011 (World Values Survey named Value orientations of the population) and 1999 (European Values Survey). The last seven wave took place in the period from January 2017 to December 2018. There has been an increasing amount of researchers who use Eurobarometer data in their trust studies in recent years. Qualitative and quantitative research carried out within the European Commission project allows policymakers to provide general information needed to make important decisions and develop European public policy concepts.

Moreover, the level of public trust in national government could be accessed by analyzing the degree of government corruption since corruption prevails where society does not trust public institutions. Since 1995, Transparency International has compiled an annual Corruption Perceptions Index. The survey mentioned above includes information about the Ukrainian government and could indicate distrust in the national government.

Indicators of trust in the government are present in all nationwide studies by the Institute of Sociology of the National Academy of Sciences of Ukraine, the International Federation of Electoral Systems, the Kyiv International Institute of Sociology, the Razumkov Center, the Democratic Initiatives Foundation, Ukraine sociology service and individual polls conducted by a number sociological centers. To understand the extent to which Ukrainians trust the government when processing databases, average values are calculated, characterizing the level of public trust. Against the background of unresolved issues of transparency and efficiency of the Ukrainian public authorities and institutions, there is a gradual decline in trust, the low level of which is in line with trends in most post-socialist countries. In line with previous studies (Kubakh et al., 2020), this trend could be explained by the economic situation and the government's inability to quickly overcome the harmful consequences of the global financial crisis and national economic crises and policymakers to form governments that can solve most of the related issues.

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STRATEGY OF ECONOMIC SECURITY OF UKRAINE

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Economic security involves developing certain conditions in which the economy and all its spheres work smoothly and efficiently. Any state should aim to create such quality conditions in which the economy could feel protected. Economic processes are transforming and changing, and due to changes, state regulation and support for development must change.

Thus, the processes of government reforms have finally begun in Ukraine. The Government of the country, represented by the Cabinet of Ministers, has approved a draft strategy for Ukraine's economic security until 2025. The Strategy was adopted at a meeting of the Government on March 10, 2021, within the National Security Strategy of Ukraine "Human Security - Country Security" (On the National Security Strategy of Ukraine, 2020).

The main goal is to determine the strategic course of state policy in economic security based on a proactive approach.

Economic security is a state of protection of an economic entity from all internal and external threats to make the most efficient use of available resources to realize interests according to its strategic goals and objectives (Vorobiov, 2011).

The Strategy defines the main national economic interests of Ukraine as ensuring economic stability, high competitiveness of the Ukrainian economy, integration into the European economic space and achieving high standards of quality of life.

In recent years, Ukraine's economy has failed to achieve its main national economic interests. During 2010-2019, economic security was assessed as unsatisfactory with deteriorating indicators for almost all components. According to the calculations of the Ministry of Economic Development, Trade and Agriculture, conducted by the Guidelines for calculating the level of economic security of Ukraine from October 2009, 2013 №1277, the average value of the level of economic security is 40% - the zone of unsatisfactory condition. In 2019, the level of economic security of Ukraine amounted to 43% (according to the main components of economic nature), and in the first half of 2020 - 41%.

The Strategy's main components of economic security are financial security, industrial security, foreign economic security, innovation and investment security, and macroeconomic security. Indicators of all major economic security components remain low, which maintains high risks of large-scale destabilization in economic development in the long run.

The financial component in the country's economy is a fundamental area, as financial flows are reflected in all sectors of the economy and affect the financial

market, currency component, monetary sphere. The reason for the decline in financial security in Ukraine was the constant deficit of the state budget and the associated significant debt burden, insufficient development of long-term investment lending to the economy and the stock market. Due to structural problems, Ukraine's financial system has been unable to adequately withstand the challenge of armed aggression by the Russian Federation and the temporary occupation of part of Ukraine's territory. It has been in crisis for several years.

However, the Financial Stability Report of the National Bank of Ukraine states that the financial security level was sufficient to ensure that the financial sector performed its functions properly and to overcome the crisis caused by the COVID-19 respiratory disease pandemic.

The main provisions of the Strategy are:

- stimulating the banking sector, the real sector of the economy, small and medium enterprises;
- creating conditions for expanding long-term and investment lending;
- reducing the level of non-performing loans and increasing the stability of the banking system;
- preservation of the institutional independence of the National Bank of Ukraine;
- development of the national stock market;
- protection of the national financial system from money laundering and terrorist financing;
- minimization of investor risks and protection of their rights in the stock market;
- further implementation in the Customs Code of Ukraine of the provisions of the EU customs legislation by the Association Agreement between Ukraine and the EU;
- reforming the Ukrainian insurance market through the widespread introduction of life insurance, medical and other types of personal insurance;
- ensuring the functioning of the three-tier pension system without increasing the burden on the payroll (Masny, 2021).

Implementing the state policy on the Economic Security Strategy will be ensured through continuous monitoring of economic stability. Based on the results of monitoring and with the involvement of state bodies, namely the Cabinet of Ministers of Ukraine, the National Bank of Ukraine, the National Commission on Securities and Stock Market, the Antimonopoly Committee and, if necessary, other government agencies, measures are taken to intensify development. Level of security and support of criteria within critical values.

Regarding the achievement of national economic interests of Ukraine, the Strategy is focused on:

- 1) creation of a stable, competitive, socially responsible market economy and conditions for advanced development of the scientific and technical potential of the country, a sustainable increase of national wealth and factors of production;
- 2) achieving the goals of sustainable development, living standards and socio-political stability inherent in economically developed countries;
- 3) occupation of Ukraine in the world division of labor and international economic relations by a place that corresponds to its natural, labor and intellectual resources, economic and geopolitical potential;
- 4) ensuring guaranteed protection of the national economy in the event of the emergence or intensification of internal and external threats.

Implementation of the Strategy provides

- launching a scoreboard of economic security indicators - the basis of a transparent system of continuous monitoring of economic stability;
- introduction based on a new scientifically sound methodology of an annual assessment of the state of economic security and use of its results for the formation of the main directions and measures of economic policy, which will take into account in the processes of strategic and budget planning;
- increasing the effectiveness of state policy in economic security and political responsibility for its results.

The Strategy is implemented by the Cabinet of Ministers of Ukraine, the National Bank of Ukraine, the National Commission on Securities and Stock Market of Ukraine, the Antimonopoly Committee of Ukraine within the powers defined by the Constitution and laws of Ukraine, with the participation of other state bodies.

The Strategy's expected result is to ensure the state's economic security as a condition for achieving the main national economic interests.

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CURRENT ASPECTS OF DIGITALIZATION IN THE AREA OF PUBLIC HEALTH IN UKRAINE IN CONDITIONS OF EPIDEMIOLOGICAL THREATS

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Introduction. At present, in Ukraine and around the world, the issue of public health development is becoming relevant given the spread of coronavirus infection COVID-19. In this context, it is worth considering the process of digitization of public health and related issues of personal data protection, restriction of personal freedoms for public welfare, the effectiveness of BIG-DATA and LONG-DATA for global management decisions to combat future epidemics.

Analysis of recent research. Researchers O. Karpenko, J. Denisyuk, V. Deputy, I. Maly, G. Muravytska (Karpenko et al., 2020 ; Karpenko, Maly et al., 2020), G. Demoshenko (Demoshenko, 2020), E. Yefimov (Yefimov, 2020), T. Vasilieva, S. Leonov (Vasilieva, 2020) and other scientists in their works emphasize the growing influence of the digital economy on the development of society, justify the need for digital communications in the activities of state institutions and local governments, including in the field of health. Representatives of the Ukrainian Institute of the Future (Ukraine 2030E - a country with a developed digital economy, 2020) and developers of the Digital Agenda of Ukraine-2020 (Digital Agenda of Ukraine-2020, 2019) offer their digital transformation projects in the country, including in the field of health care. However, the introduction of electronic tools in the field of public health has not yet been sufficiently reflected in recent publications by researchers.

The aim is to analyze the current state of digitalization in the field of public health in Ukraine and the world, and to identify further areas of application of information and communication technology tools in this area.

Research: Experts of the Ukrainian Institute of the Future believe that the systematic implementation of national digital transformation projects is a key indicator of the implementation of real structural changes, including in such areas as health care (Ukraine 2030E - a country with a developed digital economy, 2020). Also, domestic specialists in the field of computer technology have created their own strategic document - the project "Digital Agenda of Ukraine-2020" (Digital Agenda of Ukraine-2020, 2019). The project also proposes a significant modernization of the health care sector.

"Digital Agenda of Ukraine 2020" offers as a necessary condition to achieve this goal - the creation of a national system Electronic Health Record (EHR). EHR is a dynamic set of systematized electronic data on the state of health of an individual patient, which provides information exchange between participants in the process of

production and consumption of medical services (Digital Agenda of Ukraine-2020, 2019). Thus, a vicious circle of digital information is formed not only in the field of providing medical services to the population, but also in other areas - disease prevention, medical statistics, monitoring the health of the nation, surveillance, interaction with social services.

In another project developed at the Ukrainian Institute of the Future - "Ukraine 2030E - a country with a developed digital economy" (Ukraine 2030E - a country with a developed digital economy, 2020), provided at the level of:

- strategic technologies: widespread introduction of digital jobs; open state data as a tool for evaluating and monitoring the work of government and the state, etc .; digital government platforms (ERP, CRM, etc.); blockchain.

- cloud strategies: introduction of cloud computing technology. The main advantage is that cloud users (government agencies, local governments) do not need to invest significant amounts of money in building their own, often redundant ICT infrastructure, and it is advisable to pay only for its actual use, according to current demand.

- e-government: development and support of central registers, registers, cadastres, identifiers, directories and other critical information elements of the architecture (on the blockchain), which are used in the process of providing services directly by providers;

- electronic identification: the use of technical tools for mass identification of citizens through the use, introduction of affordable, secure and convenient means of alternative identification, including BankID (identification through a bank) and MobileID (identification through a mobile operator).

- digitalization of the social sphere: building a communication ecosystem of social services, departments, non-governmental organizations, service providers for joint concerted action to meet the needs of citizens.

Thus, using and creating demand for modern IT solutions, introducing the most modern electronic administrative services and implementing innovative models, the state should serve as an example in the transition to digital technologies for all of Ukraine (Ukraine 2030E - a country with a developed digital economy, 2020).

During 2017-2020, a number of systemic changes and digital transformations in healthcare took place in Ukraine. The Law of Ukraine "On State Financial Guarantees of Medical Care" (Law of Ukraine "On State Financial Guarantees of Medical Care", 2017), Resolution of the Cabinet of Ministers of Ukraine of April 25, 2018 № 411 "Some issues of the electronic health care system" (Resolution Cabinet of Ministers of Ukraine of April 25, 2018 № 411, 2018), a number of bylaws in which the electronic health care system and digital tools are defined as fundamental for the development of the sphere. It is determined that the electronic health care system includes a central database and electronic medical information

systems, between which the automated exchange of information, data and documents through an open software interface (API) is provided.

In addition, the Order of the Cabinet of Ministers of Ukraine of 28 December 2020 №1671-r approved the Concept of e-health development (Concept of e-health development, approved by the Order of the Cabinet of Ministers of Ukraine of 28 December 2020, 2020). The Concept defines e-health (e-health, eHealth) - an ecosystem of harmonious and mutually acceptable information relations of all participants in the medical environment of the state, based on cost-effective and safe use of information and communication technologies aimed at supporting the security system health, including health services, preventive health care, medical literature and medical education, knowledge and research.

The document declares the following purpose:

- formation of a unified state policy on the development of e-health, ensuring its effective implementation;

- formation of a single medical information space as a set of databases and data banks, technologies for their maintenance and use, information and telecommunications systems and networks operating on the basis of common principles and general rules, providing information interaction of different parties and meeting their information needs, as well as interoperability, integration and harmonious relationship with related areas;

- use the benefits of big data processing and intelligent systems to forecast health care needs, resource planning in the field;

- debureaucratization and administrative simplification for health care providers;

- transparency and public availability of generalized data on e-health development;

- focus of the electronic health care system on the patient, involving citizens in caring for their own health, quality control of services received, in particular by providing access to their own medical data and their disposal, as well as convenient access to relevant impersonal open data (Concept development of electronic health care, approved by the Order of the Cabinet of Ministers of Ukraine of December 28 2020, 2020).

Thus, the Concept of eHealth Development introduces a large-scale digital transformation of the entire healthcare sector, including public health. The digitalization of health care, including public health at the regional level, needs further development.

Conclusions: New technologies are used by governments around the world to implement effective e-government, provide quality public services. The study found that e-government tools play a leading role in public policy-making, including in the field of public health. Today, Ukraine is laying the groundwork for the digital transformation of public health. The necessary legislative and regulatory framework

for the development of e-government has been developed, including in terms of morbidity prevention, monitoring and assessment of public health, promotion of healthy lifestyles, anti-epidemiological measures, formation of health culture and development of health-preserving regional and local visions. Further research should focus on aspects of human-centered, humanistic public health policy. This policy direction is especially relevant in the context of global quarantine, anti-epidemiological measures and the strengthening of digital control, when humanity is faced with forced social atomization and the introduction of covid-passports.

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E-COMMERCE AS AN ELEMENT OF THE GLOBAL TRADING SYSTEM

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Nowadays, e-commerce is the fastest and most convenient way to trade for both sellers and buyers. More and more people are choosing simple and time-saving ways to buy or sell a product. E-commerce is spreading to different areas of the world market every day. Practicality is achieved by reducing staff costs, rent and other factors (E-commerce, 2021; Lesidrenska, S., & Dicke, P., 2012).

Recent research clearly shows that e-commerce is now shaping the way people shop. The e-commerce market has gained great popularity among Western countries, including Europe and the United States. The current trend of e-commerce is encouraging companies to shift the traditional business model, which focuses on "standardized products, a homogeneous market and long product life cycle", to a new business model, which focuses on "diverse and individual products". E-commerce requires a company to be able to meet the needs of different customers and provide them with a wider range of products (Yudina, 2017; Cosmulese et al., 2019; Semenova & Tarasova, 2017; Hammou et al., 2020; Arora, 2019; Kandel & Acharya, J., 2018).

E-commerce acts as a specific form of market organization. Defining e-commerce in this way, it should be borne in mind that the market as a system of interaction between counterparties (seller and buyer), aimed at determining the price of goods and its quantity, requires detailed consideration of the specifics of interaction between e-commerce market counterparts and business modeling on a new technological basis (E-business, 2021; Retailers, 2021; Khan & Hossain, A., 2018; Vargas-Hernández et al., 2018; Rakotoarisoa et al., 2019). The organization of interaction in the e-commerce market involves the use of models of information presentation, transmission, organization of information flows, which allow to optimize the implementation of various economic processes. In addition, one of the conditions for the effective functioning and development of e-business is the definition and implementation of requirements for the environment of information interaction of all participants. Thus, the most relevant study of the organization of the e-commerce market at the structural-functional, technological and logical-linguistic levels, including the disclosure of the social and informational essence of e-commerce, its institutional organization (E-business, 2021; Mishenin, et al, 2018; Mishenin & Yarova, 2019). The organization of business on a new technological basis provides the processes of using information as a factor of social production. Such a business organization creates new forms of competition, a specific competitive environment in which, first of all, the information resource competes

(Mishenin et al., 2018). Based on the model of information interaction of e-commerce market counterparties, it is important to (Hammou et al., 2020; Arora, 2019):

- correspondence of the resource to the direction of the firm's activity;
- availability of necessary and sufficient information about the offered goods and services;
- convenience of communication with the "client", including the possibility of feedback, establishing further contact;
- the ability to study the target audience, consumer preferences, etc. ;

A feature of e-commerce is the individualization of relations between participants in commercial transactions, which is the basis for the implementation of new approaches to the organization of advertising products and services via the Internet, as well as allows detailed study of the market (Ярова, 2018; International Logistics, 2020).

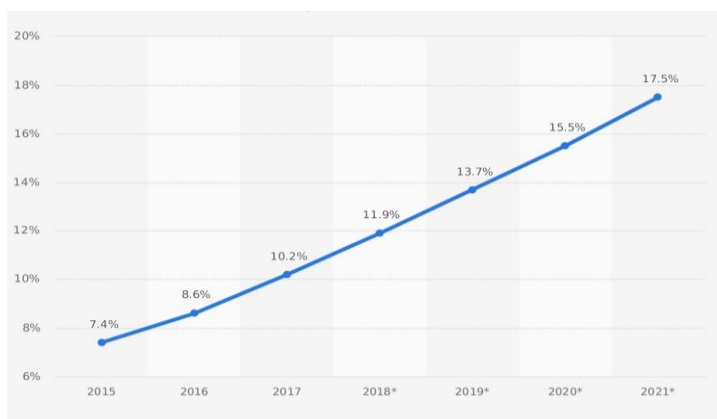


Fig. 1. Share of e-commerce in total global retail sales from 2015 to 2021, %.

Source: E-commerce, 2021

Today we can talk about the following most common areas of e-business (Semenova & Tarasova, 2017; Hammou et al., 2020; Arora, 2019):

- e-commerce (e-commerce in the consumer and corporate sector according to the models of business business – B2B, business – consumer – B2C, consumer – consumer – C2C, consumer for business C2B, etc.) (E-business, 2021);
- Internet services (Internet trading, Internet banking, Internet insurance; information services – access to search engines, electronic catalogs, e-mail and

Internet telephony; medical, transport, tourism, educational and consulting services);

- thematic Internet services (online media, electronic offices of newspapers, magazines, radio and television stations);
- activities of electronic companies (software development for offshore programming technologies, system integration, site promotion and maintenance, hosting and domain registration).

Online stores pay great attention to the aspect of customer trust, trust is another way to manage customer behavior in the digital environment, which may depend on the attitude and expectations of the customer (Ana Njegovanović, 2018; Kibaroglu, 2020). Indeed, product design or company ideas cannot meet customer expectations. The meaning of a customer's purchases is based on rational expectations and additionally affects emotional trust.

One of the key conditions for success for retailers will be their ability not only to track users through a growing number of devices and touch points, but also to figure out how to effectively determine which ones are most effective for driving sales. This will mean an increasing level of complexity in how sales relate to different points of marketing (Mishenin et al., 2021; International Trade, 2020; Mishenin, et al, 2018; Mishenin & Yarova, 2019; Ярова, 2020). The sharing economy should remain, but with a mixed impact on retail. The trend towards shared consumption, which is emerging today as technology is used to facilitate borrowing, sharing, lending, renting and exchanging goods and services, will soon become more apparent. The common economy also forms a way of thinking that is much more adapted to environmental problems and the need to maximize existing resources (Мішенін & Ярова, 2019; Goncharenko, 2020; Abeysekera, 2020; He, Shuquan, 2019). Although shared consumption will have a strong impact on hospitality, we expect its impact on retail to be mixed. The popularity of the Airbnb model means that it will be followed by others, and over time this can have a negative impact on traditional hotel chains and tours (Jaswal, I. & Narayanan, B. 2017; Ana Njegovanović, 2018).

According to the forecasts of the research company, in the world by 2024 the volume of e-commerce will almost double and will grow from \$ 3.4 trillion (2019) to \$ 6.5 trillion. This growth was made possible by the pandemic - 43% of online shoppers, according to Activate, made their first online purchases during this period (Retailers, 2021).

At the same time, there is reason to believe that the coronavirus pandemic will serve as an additional impetus for the development of online commerce. Indeed, in this situation, more and more people around the world are forced to buy on the Internet what they used to go to the store for. And, accustomed to making purchases in one click, they are unlikely to spend more time on it in the future (Khan & Hossain, A., 2018; Vargas-Hernández et al., 2018; Rakotoarisoa et al., 2019). Another advantage of "online" over traditional trade is that many stores are now

simply closed. This problem bypasses online business, because if there is no physical store, you cannot close it (Kibaroglu, 2020).

Thus, the development of e-commerce in general and e-commerce in particular in foreign countries is accelerating. Every year online strengthens its position as a modern and promising method of doing business (Obeid et al., 2021). Foreign sellers and consumers are willing to interact with each other by concluding agreements on the purchase – sale of goods and provision of services on Internet trading platforms.

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IMPACTS OF GLOBAL CLIMATE CHANGE ON THE AGRARIAN BUSINESS IN UKRAINE

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Over the last few decades, humanity has faced a growing number of natural disasters. The world is experiencing a steady rise in air temperature, and the previous five years are recognized as the hottest in the history of meteorological observations. Global climate change has become a global problem. Most scientists acknowledge the existence of climate change on the planet, and the fact of global warming is considered scientifically proven. More and more often in the world, there are abnormal weather phenomena (showers, floods, tsunamis, tornadoes, hurricanes, earthquakes, etc.), the global air temperature is constantly rising, the ozone layer is decreasing, the level of the world's oceans is increasing. Weather, which is the most important factor influencing crop formation, is changing.

Thus, global climate change poses many threats to agricultural producers that affect key agricultural indicators. Decreased productivity of agricultural production and the overall productivity of crops lead to lower agricultural business incomes and loss of production stability (*Strategy*, 2019).

There are many versions and forecasts on the impact of climate change on agriculture: the development of crops will accelerate; the yield of the main types of crops will increase (decrease); sown areas will be reduced (expanded); increase (decrease) the efficiency of fertilizer application, etc. (Stepanenko, 2015).

Ukrainian agricultural producers are significantly feeling the consequences of climate change. The favorable temperate climate in our latitudes is changing significantly - it is becoming drier throughout Ukraine. According to the FAO (Food and Agriculture Organization), over the past 19 years, air temperature in Ukraine has risen by almost 1 ° C (average annual temperature increase in 2000 was 1.42 ° C, and in 2019 –by 2.37 ° C higher than in 1951–1980) (FAO, 2020, p.350). Climatic zones have shifted by almost 200 km (in the Kherson oblast there is a subtropical zone, and the Polissya zone has practically disappeared). In the last decade, there has been a declining trend in rainfall, causing droughts even in areas where they have never been observed before (*Climate*, 2020). Abnormal heat in summer, winters without snow, significant differences between day and night temperatures, very heavy showers with hail and gusts of wind, floods, fires, etc., which cause additional damage, are not typical for our latitudes.

Thus, due to the drought in 2020, about 400 thousand hectares of winter crops were lost in Ukraine (*The analysis*, 2020). According to the press center of the Ministry of Development of Economy, Trade and Agriculture of Ukraine, Ukrainian farmers in 2020 harvested 65.4 million tons of grain, which is 7 million tons less

than in 2019. There is a reduction in crop yields throughout Ukraine (*Harvest*, 2020). Adverse conditions most affected the yield of grain and legumes in Kherson, Dnipropetrovsk, Kirovohrad, Zaporizhzhia, and Mykolaiv oblasts (2.68–3.45 tons per hectare). The worst situation is in the Odesa oblast (1.85 tons per hectare) (*Named*, 2020). The lowest yields of major crops were collected in Volyn, Rivne, Ivano-Frankivsk, and Chernivtsi oblasts (0.84–1.68 million tons). The worst situation is in the Zakarpattia oblast (0.40 million tons) (*Harvest*, 2020).

It should be noted the positive effects of climate change on agriculture in Ukraine. Thus, it has been established that an increase in air temperature by 2–2.5 °C in our territory will increase the yield of many crops (*Climate*, 2020). Currently, Ukraine is already extending the active growing season by ten days or more. This opens up additional opportunities for agricultural producers to grow new heat-loving varieties of crops. When conducting agribusiness, it should also be taken into account that the winter period has been reduced by almost a month. This creates the conditions for the early sowing of individual crops (*Climate*, 2020). Accordingly, if you choose the right crops, it is possible, under irrigation, to grow two crops of some crops, especially in the southern regions of Ukraine.

Thus, agribusiness owners need to implement changes in land use and changes in business management. The most excellent effect will be achieved if the main types of changes in land use will be: changes in the cultivated area, types of crops, and places of their sowing (Parry, 2019).

Agricultural production, from a business point of view, can be considered as ecosystem management (Melnichenko, 2019; Косик, 2011; Чигрин, Пимоненко, 2011; Sotnyk, Shvets, Momotiuk, & Chortok, 2018). The need to attract investment for effective business is proven in the research of modern scientists (Bhowmik, 2020; Chygryn, Krasniak, 2015; Чигрин, Мельник, Дегтярьова, Шкарупа, 2014; Sokolov, Mykhailov, Khandurin., 2018; Чигрин, Івахненко, 2020; Masharsky, Azarenkova, Oryekhova, & Yavorsky, 2018; Pavlyk, 2020; Pimonenko, Lyulyov, Chygryn, 2018; Yelnikova, Barhaq, 2020). It should be borne in mind that in today's world, preference is given to environmentally friendly business (Andreas Karaoulanis, Vasiliki, 2018; Brimah, Rabiou, Bamidele, & Sheu, 2020; Chygryn, 2017; Dkhili, 2018; Ivakhnenko, 2020; Rabiou, Olanipekun, Bamidele, & Awe, 2020; Rakotoarisoa, Kaitibie, 2019; Singh, 2019; Tovmasyan, Avetisyan, Galustyan, Tatosyan, Mirijanyan, & Rushanyan, 2020; Toyin, Oludayol 2020).

Thus, agribusiness owners need to rethink their farming strategies (Kaya, 2020; Pięta, 2018; Popoola, Samaila, & Lawal Kamaldeen, 2019; Potapenko, Kornatovskyy, & Shylkina, 2017; Sadiq, 2020) to turn the negative effects of climate change into benefits. To maintain their business and increase its efficiency, agrarian must, above all, adapt their crops to climate change. To do this, they need:

- to choose more heat-loving and drought-resistant varieties of crops for crops, taking into account the length of their growing season;

- apply in production, if necessary, drip irrigation and mulching;
- switch to new types of plowing that retain moisture in the soil;
- to prevent liquid moisture in the soil to use liquid fertilizers;
- considering that warm winters help to increase pest populations, take timely measures to control them, etc.

Agricultural business owners should follow the rule "land should not be left bare." To do this, they need to change outdated approaches to crop rotation to the latest technologies for growing crops. For example, after harvesting the main crops, to preserve nutrients in the soil, grow low-growing plants (perennial grasses and legumes), which also inhibit the growth of weeds and loosen the soil, and reduce soil erosion to use radish crops or mustard. Using environmentally-oriented approaches in the process of crop production, crop producers have the opportunity to adapt to new realities and turn adverse climate change into their advantages, which will effectively use available land resources and promote agricultural development in Ukraine.

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BANK PROFITABILITY AS A BASIS FOR FINANCIAL STABILITY OF THE COUNTRY

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An integral part of the banking institution's activity is its resistance to internal and external shocks. Undoubtedly, its timeliness is facilitated by the timeliness of settlements between business entities, a balanced management policy of the financial institution and the NBU, as the main regulator that ensures confidence in the banking system. Assessment of financial stability is a complex process that involves the calculation of a large number of indicators. One of the important factors influencing the stability of the banking system is the return on assets and capital.

In turn, the high level of profitability provides the bank with the following advantages:

- provides the bank with high competitiveness among other banks;
- opportunity to develop new technologies and services;
- protection against the impact of risk on the financial position of the bank;
- expansion of the bank's activities in order to increase revenues, etc.

If the bank does not receive income, serious problems may arise in the bank's activities, if no measures are taken to improve the situation, it may lead to the bankruptcy of the economic agent, which will generally negatively affect the activities of the entire banking sector and jeopardize its financial stability.

Thus, banks face the difficult task of ensuring a high level of profit, ensuring an appropriate level of liquidity, and minimizing the risks inherent in the banking system (Karcheva, 2015).

Thus, profitability is a relative indicator that reflects its efficiency, and reflects the level of efficiency of use of assets and capital of banks, is of great importance in monitoring the reporting to assess the financial stability of the bank (Ryabushka et al., 2020). Therefore, to understand the trends inherent in the banking system of Ukraine and its analysis, it is necessary to analyze the following indicators:

1) ROA (Return on assets of the bank). It is calculated as the ratio of the bank's profit after tax on the reporting date to the average value of assets used by the bank for the relevant period and is expressed as a percentage.

2) ROE (Return on capital of the bank) Calculated as the ratio of the bank's profit after tax at the reporting date to the average value of balance sheet capital for the relevant period and is expressed as a percentage (National Bank, 2021a).

An acceptable level of return on assets in banking practice is 1-4%, and return on capital at 14-20%.

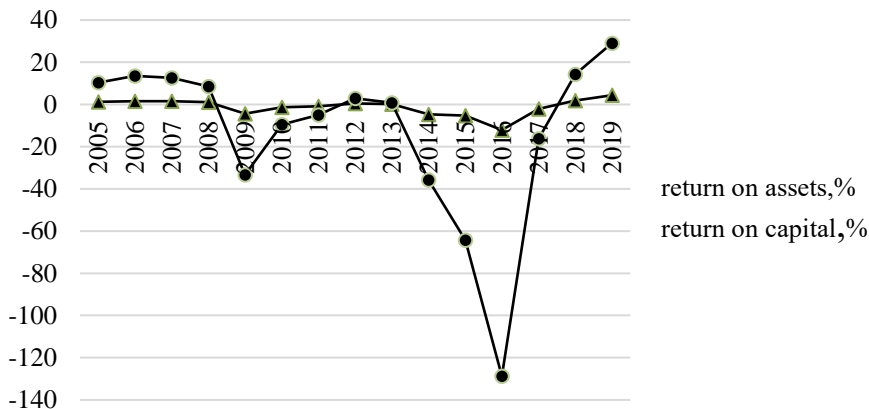


Fig. 1. ROA and ROE indicators for the period from 2005 to 2019

Source: (National Bank of Ukraine, 2021b).

Analyzing these indicators, we can conclude that for the period from 2005 to 2008 there were positive values, but compared with foreign practice, where the optimal level of these indicators is 1.7% for return on assets and 15% for return on capital, their level in Ukraine is low, but in 2018-2019 the situation stabilized. The global financial crisis has negatively affected the state of the banking sector, leading to financial losses in the banking system.

After the temporary recovery of 2010-2013, the unstable political, economic situation and the military conflict in 2014 had a negative impact on development, so in 2016, return on assets was -12% and return on capital -122%. This situation is explained by the low quality of assets, which has become the main reason for the decline in profitability of banking, especially for state-owned banks. The main way out of this situation was to reduce allocations to reserves for distressed assets, which allowed in late 2017 and early 2018 to get out of the negative ROA and ROE. Thus, the return on capital is from 10 to 20%, and in times of crisis it reached negative values, 2016, as already mentioned, was difficult for the banking system. During the entire analyzed period, the domestic banking system was unprofitable in terms of assets, and unprofitable in times of crisis, but the last two years, the positive dynamics signaling an increase in the stability of the banking system.

Thus, the profitability of the bank is one of the main indicators that characterizes the efficiency of the institution and ensuring financial stability. Thus, profitability primarily depends on such factors as: efficiency of asset and liability management of the bank, clearly defined strategy and high level of management, recognition of risks inherent in banking and organized risk management, maintaining

the required level of liquidity in the bank.

Thereby, based on the analysis, it becomes clear that the domestic banking system operated in an unstable economic situation, which can negatively affect not only a particular bank, but also the entire banking system as a whole.

It should also be noted that a single methodology for assessing financial stability in our country is not defined, so this issue remains relevant and is constantly being modified. One of the effective methods is Z-score, which is actively used abroad, especially this methodology is inherent in the National Bank of Kazakhstan, which actively uses it. Thus, this indicator is based on the assessment of the probability of insolvency of the bank, and is based on the indicators of ROA and ROE (Belova & Grechenok, 2013; Goncharenko & Lopa, 2020; Karintseva & Benetyte, 2018; Zolkover & Renkas, 2020; Karintseva, 2020; Palienko & Lyulyov, 2018; George, 2020; Goncharenko, 2020; Agnihotri & Gupta, 2019; Vashchenko & Cherniavskiy, 2017; Pimonenko et al., 2017; Giebe et al., 2019).

It is worth noting that there are a large number of models for rating and ranking of the bank, so some methods, such as the method of O.B. Shirinskaya includes ROA and ROE indicators in her calculation, which was an innovation for the banking system (Shirinskaya, 2001; Bublyk et al., 2017; Vasylieva et al., 2018; Kendiukhov & Tvaronaviciene, 2017; Levchenko et al., 2018; Lyulyov & Pimonenko, 2017; Sharma & Shukla, 2019; Kishwar & Ullah, 2019; Naser, 2019; Djalilov & Ngoc Lam, 2019).

Surrounding the range of significant performances, a methodology is given that includes a large number of indicators from a given systematization in a given group. In a small skin group, there is a gross indicator of the multiplication of the aim of the efficiency at the establishment for them of the empirical vagi and of the other generation.

So in the future due to the use of ROA and ROE indicators in this methodology in grouping with other indicators allows to take into account a significant number of factors, and due to the adjustment provides increased rating accuracy.

Thus, return on assets and capital can be used as indicators to analyze the banking system of a particular country, and then used to determine the financial stability of an individual bank, and make appropriate decisions to improve the situation of an individual entity.

Thus, the return on assets and capital is an important indicator that significantly affects the provision of financial stability. Therefore, it is important to analyze ways to increase the profitability of a banking institution:

1) Increasing the percentage of assets. Since interest income is the basis for receiving income from a commercial bank, the increase in their share provides the bank with growth in profitability;

2) Development and improvement of marketing policy that will attract new

customers;

3) High level of training of employees of the institution;

4) Increase of own funds, which will increase the bank's resources and investment potential;

5) Rational and efficient placement of bank funds to ensure its further financial stability.

It should be noted that the above ways to increase the profitability of a banking institution are one of the main, however, each bank develops its own strategy to increase profitability, based on its strategy and existing problems.

In the conditions in which modern banks operate, management and the regulator should pay considerable attention to: ensuring financial stability, risk analysis inherent in the banking system, reducing costs: staff costs, administrative costs, reducing NPLs, improving asset and liability management strategy. effective management of the bank's profitability and its analysis contributes to ensuring the achievement of strategic and tactical financial goals of the bank, which in turn will have a positive impact on the financial stability of both a single unit and the entire banking system.

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STATE DEBT OF UKRAINE: A RETROSPECTIVE ANALYSIS

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Public debt is one of those components that play the most important significance in the economy of most countries of the world and acts as one of the most powerful levers for macroeconomic stability of the state. Modern economic transformations, reforming systems of social significance, progressive development and maintenance of competitive positions are impossible without significant investment, mobilization of which in most cases occurs at the expense of internal and external loans, which definitely leads to a state debt.

Lack of financial resources, inappropriate use of resource and industrial potential, corruption and inefficiency of state policy, caused a significant increase in the amount of public debt for the period from 1992 to 2020. The accumulation of internal and external debts and its strengthening to the state budget, the frequency of debt crises and instability in foreign capital markets transforms the issue of implementing effective debt policies into one of the priority tasks in the state's financial policy ((Adeyinka et al., 2019; Lyulyov & Pimonenko, 2017; Levchenko et al., 2018; Kendiukhov & Tvaronaviciene, 2017; Vasylieva et al., 2018; Bublyk et al., 2017; Holobiuc, 2020; Umadia & Kasztelnik, 2020; Louis, 2017; Yelnikova & Kuzior, 2020; Awujola et al., 2020; Molotok, 2020; Singh, 2019; Elhennawy, 2019; Logan & Esmanov, 2017; Stavrova, 2019; Eddassi, 2020; Antonov, 2018; Antonov & Lopa, 2017; Bouchetara et al., 2020).

Consequently, the assessment of scientific literature allowed to conclude that the debt policy of Ukraine led to the negative consequences of both social development and the state of the economy:

- growth of corruption;
- preservation of regimes that are not interested in reforms and a fair distribution of income and national wealth among the population, as evidenced by the Orange Revolution and the Revolution of Dignity;
- unemployment;
- reduction of domestic savings;
- dependence of the government and business sector of the recipient country from easy money that undermines labor productivity and investment efficiency.

The consideration of the genesis of state debt policies and statistics of the dynamics of public debt has made it possible to distinguish several stages of its development (Figure 1).

By tracking the dynamics of domestic and external public debt for all years of Ukraine's independence, we can state a sufficiently rapid increase in debt not only at the initial stages of the formation of independence, but also in crisis periods that

were caused in most cases by the influence of external factors. At the same time, it is impossible not to note the fact of an unintentional and ill-considered debt policy of governments.

The first stage (1991 – 1999) is an active accumulation of debts and the first technical default. In accordance with the successful agreement on the former USSR of 04.12.1991, Ukraine inherited not only assets, but also committed to 16.37% (90 billion carb.) Aggregate external debt of the Soviet Union.

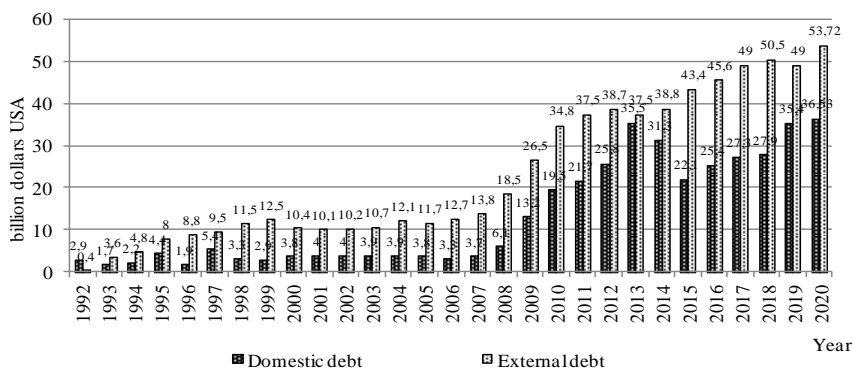


Fig. 1. Dynamics of domestic and external state and guaranteed state debt of Ukraine, billion dollars USA.

Source: composed by the author according to NBU.

At the same time, the transformation from the command-administrative to a market economy was convicted of the unbalanced trade balance, due to the rupture of ties, reduction of tax revenues, the lack of a strategic plan, chaotic in the management of economic processes. At this stage of development, budget deficit, which definitely arose as a consequence of the above processes, took place at the expense of loans of the NBU, as well as the first borrowing of Ukrainian enterprises through the system of government guarantees to foreign investors.

The second stage (2000–2007) is a balanced debt policy. For this purpose, the development phase is characterized by a decrease in external public debt by 17.1% (2000), the Government's refusal to comply with the requirements of the IMF, in terms of economic reforms, which ultimately led to the suspension of cooperation, but in March 2004 an agreement was concluded to the stand – Bai worth of 0.4116 billion dollars. USA. At the same time, cooperation with the IBRD and the EBRD was not suspended and Ukraine continued to attract funds for a number of projects

among which: repair of the road Kiev – Chop, the restoration of the highway M–06 Modernization of the second block of the Khmelnitsky NPP and the fourth block of Rivne NPP, Ukraine's financing, the construction of a high–voltage air line in the Odessa region and a number of others. Despite the 1999 technical default, the global economic situation and the tax privileges of the heavy industry contributed to the activation of the economy at the expense of exports into this rather difficult period.

The third stage (2008–2009) – the crisis period. The sharp deterioration of the world economy at the expense of the financial crisis that gained its turns in November 2008, led to a drop in exports as a result of a decrease in prices and demand for heavy industry products, lack of currency earnings in turn caused the devaluation of hryvnia from 5 to 7.79 UAH. At the end of 2008, it has also been a decrease in the value of real estate by 25% and frozen 80% of construction projects, non–fulfillment of the budget, social voltage and unemployment. In order to stabilize the economy and extraction of banks, 33.3 billion UAH was involved in the year, a rapid growth rate of government debt was held by 40% and the total debt obligations amounted to 24.6 billion dollars. So, 2008 was marked the restoration of relations with the IMF and as a consequence of an agreement was concluded by 16.4 billion dollars. US to replenish gold and foreign exchange reserves and support of the state budget. The fact of release in the 4th quarter of 2008 T–bills with profit in 25–27% with a maturity of 3 months sufficiently clearly signals a significant lack of funds in the budget.

Fourth period (2010–2016) – a period of rapid increase in debts. The post–crisis period determined the lack of capital on world sites, which caused the intensification of attraction of resources in domestic investors. At the same time, Ukraine gains revolving debt to increase in size from year to year only increased by the exception of 2014–2015, when the growth rate had a negative value of 3.97 and 6.56, respectively. This period was marked by the necessity of providing banks, the elimination of the consequences of the crisis, which arose as a result of political transformations during the revolution of dignity, acquisition into the state ownership of the additional issue of NJSC "Naftogaz Ukraine", an increase in defense expenditures as a result of the beginning of the war with the Russian Federation, the need to replenish the gold and foreign exchange reserves, balancing balance of balance and definitely the need to maintain public debt (Economic True, 2020). Additional pressure caused the devaluation of the hryvnia with 8 UAH. (2013) to 26.89 (2016) for a dollar that actually led to a sharp increase in the coefficient of public debt to GDP to its maximum in 81% in 2016.

Fifth period (2017 – ...) – a period of stabilization in debt policy. This period was marked by a decrease in cooperation with the IMF, but intensification of investors' interest in Ukrainian bonds. The problem of ineffective use of attracted resources and the lack of effective control over their distribution remains quite acute, as evidenced by an increase in external guaranteed debt. A significant proportion of

guaranteed debt in the structure of public debts is associated with hidden corruption actions, as a result of which is being liable for enterprises for the success of the project, as well as funded economic entities that are close to the political elite, and not those with significance and prospects for Development of production sector with high value added.

Given that in 2020, each seven hryvnia budget came to repayment of debt, and every Ukrainian service for debt servicing has paid 3 thousand UAH. The amount of accumulated debts for all years of independence is a rather serious burden in developing progressive and innovative economics; Active borrowing of the state in the securities market, taking into account that Ukrainian banks are the main investors, makes it impossible to overcome financial resources to the real sector debt (Economic True, 2020). Active cooperation with international organizations deprived the opportunity to independently make decisions of political, social and economic character.

The purpose of debt policies should become an increase in GDP through financing strategic investment projects and the sustainable development of institutions to provide legitimacy and convenience of public interaction.

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ALTERNATIVE INVESTMENTS ON CONTEMPORARY FINANCIAL MARKET: FEATURES AND OPPORTUNITIES

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In the recent years, the range of instruments that can be included in the investment portfolio has expanded significantly due to the institutional development of alternative investment markets.

When analyzing the definitions excluding those investments that are not alternative in character, it can be noticed that they compose a wide variety of financial products and services. In a broad sense, they are defined as investment products, which fall outside the circle of traditional investments such as stocks, bonds, or other money market instruments.

Thereby, this term encompasses all assets outside the investment categories considered as traditional. As such, this group will include e.g.: hedge funds, funds of funds, managed futures investments, structured products and various investments in emotional assets. Investments of an emotional character include e.g. art, wine or coins. This type of alternative investments generally is the domain of very wealthy people or enthusiasts and it includes collectible items (collectible coins, artifacts, antiques, vintage cars, private jets, as well as investment wine). Investor's emotional attachment to the items she/he owns, such as a yacht, jewelry or a valuable sculpture by a favorite artist, is a characteristic feature of investments in emotional assets. It is also possible to invest in people – in talented stage celebrities and film stars, athletes, scientists or managers (Sokołowska E., 2016).

The report of the Barclays (British financial, 2021) a British financial company reflects the investment position of 17 countries whose residents invest part of their equity in unconventional real assets in the 2016. The investors from UAE (18 %), China (17 %) and Saudi Arabia (17 %) are the leaders in the volume of unconventional direct investment in the investment portfolio. The private equity of investors in these countries is focused mainly on jewelry, however, the majority of alternative UAE investments come from carpets and tapestries, Saudi Arabian investors prefer jewelry the most, and Chinese investors favor art. European investors have invested in unconventional assets from 6 % to 10 % of private equity, in particular in Ireland – 10 %, the United Kingdom – 7 %, Monaco – 7 %, Switzerland – 6 %. Investors of India (3 %) and Qatar (2 %) accounted for the smallest share of real alternative investments in the investment portfolio (Khomutenko & Usenko, 2017) Thus, the largest share of the investments of private equity in unconventional assets by the investors all over the world goes to jewelry, works of art and antiques.

The share of unconventional real assets in investment portfolios of world

investors can reach up to 20 %; among the most attractive alternative assets for investors, the first five are: jewelry, art, antiques, precious metals and wine.

The return on non-financial assets directly depends on the term of its investment. Its rate of profitability increases over time as its investment properties improve, for example, wine becomes more expensive over the long term as it comes to the time of its absolute maturation and aging. The price volatility of the SWAG assets over 10 years is presented on Figure 1

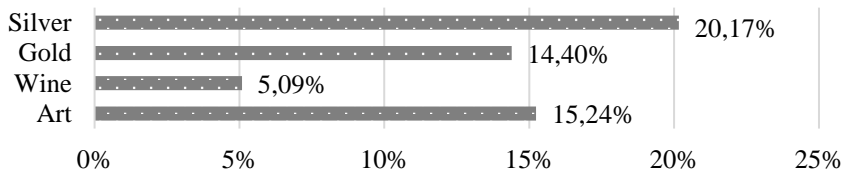


Fig. 1. Price volatility for SWAG assets over 10 years, %

Source: (Global Alternative, 2018)

Thus, the highest price volatility, and therefore the highest risk, among the assets under consideration belongs to the silver and is 20,17 %. Gold has a standard deviation of 14,40 %, the value of which is close to the value of the works of art. The high price volatility of precious metals is explained by a significant investor interest for this asset. In the case of gold and silver, interest increases regularly in the anticipation of crises, lower living standards, salaries, purchasing power of citizens, due to the formation of aspects of instability of the national currency.

The second largest price volatility is occupied by art with a standard deviation of 15,24 %, however this is due to only one major factor – the change in tastes in the art of the public and collectors in one direction or another. In order to reduce the risk of price volatility for works of art, it is important to develop a clear investment strategy.

Wine price has a much smaller fluctuation and standard deviation over time, accounting for 5,09 %. The relatively low volatility indicator can be explained by the steady increase in the price of wine during its aging, as well as the consistent quality of the constant leaders in the sale of the wine market, such as Bordeaux, chateaux Latour, Lafite-Rothschild, Margaux, etc.

Limitations of banking products narrow the investor's opportunities in terms of increasing investment efficiency in general, making it impossible to fully use the advantages of various investment objects. As a result, the process of choosing an investment strategy becomes more complicated (Tomilova & Indutenko, 2014). Given the opportunities available, investing in gold bullion may be advisable in the context of large investments over a fairly long period. For those who do not have

significant funds, it is worth paying attention to coins made of gold or silver, the return of which is also possible only in the long term.

Domestic legislation also discourages investment in winemaking. If this is absolutely official, a Ukrainian investor cannot import a batch of wine (more than two liters) into the country without the participation of a licensed intermediary company. Likewise, a person in Ukraine cannot sell wine without a license to sell alcoholic beverages (Klapkiv & Melykh, 2018). Therefore, there is no legal secondary wine market in the country, and it is impossible to invest in it.

Investors who plan to make their own investment decisions regarding good wine are encouraged to study at one of several Ukrainian sommelier schools, maintaining and improving their professional skills. Wine Spectator and Wine Advocate are considered the world's most respected wine publications. Also, to store the collection, a special wine cabinet or cellar is required, which costs from 1000 US dollars to 10000 US dollars and more (Anson, 2008). There is no opportunity to officially rent a special wine warehouse in Ukraine.

The art market in Ukraine is in the process of formation. According to experts, books, dishes, furniture and paintings are most widely represented here. However, in comparison with other countries on the Ukrainian market, collectibles are underestimated by an average of 100-200% (Klapkiv & Melykh, 2018).

Abroad, investment in art is promoted by art banking – financial and consulting support for investment in art (Belkevych, 2014). Major Western lending institutions (such as Deutsche Bank, UBS and Citibank) have art consulting departments for clients with a portfolio of US \$ 500,000, where art banking managers (specialists in economics, arts and the arts) advise clients on how to invest in art (Ivanova, 2014).

Art banking in Ukraine is now not as widespread as in the United States and Western Europe, but some Ukrainian banks are already taking their first confident steps in this area - these are UniCredit Bank Ukraine, National Credit, “Diamond Bank”, Оtp – bank”, although this system is new for them and is still poorly staffed and technically equipped.

Thus, the main reason for the low popularity of SWAG investments among Ukrainian investors lies in the underdevelopment of legislation on alternative investments. High – level regulation will allow domestic investors to manage their investment portfolios much more efficiently, thereby increasing their wealth.

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URBAN PLANNING AS A DETERMINANT OF THE LOCAL FINANCE

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The reason for writing this scientific work was the situation, which can be briefly described as a man-made disaster in the city of Sumy. Certain domestic inconveniences for the residents of one of the central streets of the city were created by a huge large-diameter plastic pipe, which for six months locally blocked the entrances of own vehicles belonging to the residents and transport of emergency and engineering services of the city to the adjacent territories of houses. Such inconveniences were accompanied by a constant unpleasant odor, which directly indicated that the pipe belonged to the sewer network of the municipal enterprise of the city. Attempts to understand the situation led us to obtain information that revealed the full depth of problems in the field of spatial planning of Sumy, as a regional center and the lack of such theoretical and methodological tools for long-term financial planning and financial support for sustainable urban development in Ukraine.

Prolonged repair work on the sewerage network in the city of Sumy on its section on the street of Sumy-Kyiv divisions simultaneously demonstrated several global problems facing the city. First, it turned out that almost the entire sewer network of the city was built in the era of active industrial achievements of the Soviet Union in the mid-seventies of the previous century. The material from which the pipes and wells were made and the network construction technologies available at the time led to the fact that they are all very worn out today. According to expert estimates, today approximately 70% of the city's sewerage networks are to be replaced. Overhaul of emergency sections of the sewerage network is significantly delayed due to the lack of financial resources of the city, reserved for such needs in the local budget. It is also unknown when and whether they will be found in sufficient amount. If the principles of co-financing of commercially interesting projects on the terms of private-public partnership are revealed quite meaningfully (Karpenko et al., 2015), the search for sources and ways of financing purely public services at the local level requires additional efforts.

Due to the effect of the avalanche, the accident on the sewerage networks leads to sewage entering the ground, saturating it with moisture, subsidence and destruction of the road surface, which leads to additional financial losses of municipal enterprises and huge environmental problems, the consequences of which no one even tries to assess (Karpenko et al., 2013).

Europe today consider urban development in terms of a sustainable model. Its main paradigm is the understanding that economic and social development should not pose a threat to the natural or cultural environment. Such a model of urban development should ensure a high quality of life in combination with democratic methods of effective urban management.

Today, cities around the world are trying to become open and attractive to live and do business in their territory. Convenient and comfortable environment implies the need to build a modern public space, promoting sustainable and healthy mobility. Spaces and locations in cities, centers and suburbs should look attractive, be accessible to people with disabilities and be safe to use. All this requires significant funding.

City development is a set of activities implemented in different areas that intersect with each other. The key to success is a proper analysis of the city's strengths and weaknesses and the selection of relevant projects and programs arising from the opportunities created by the outside world - all in order to understand local specifics, the relationship between individual challenges and distribute strategic initiatives among stakeholders in conditions of limited resources.

Today, the administrative boundaries of cities do not fully reflect the relationships and processes in which their inhabitants are involved. Cities are growing territorially, their influence extends to the surrounding rural areas and territories. For example, the territorial community of Sumy includes the territories of Pishchane, Verkhne Pishchane, Zahirske, Trokhimenkove, Zhyteyske and Kyriakivshchyna of the Pishchane village council. The negative effect of urban sprawl - new spaces - are new costs for the budget.

A sustainable model of urban development requires the coordinated work of all stakeholders in four key areas, each of which can be described as “Accessibility”, “City for People”, “Competitive Economy” and “Effective Governance”.

But all of the above are rather directions of strategic vision of the city's prospects and needs, but not a specific logic of actions with a clear algorithm, instructions for all participants and a criterion base for assessing the effectiveness and efficiency of control. Confirmation of this thesis we get in the Sumy Development Strategy (Sumy Development Strategy, 2019). Indeed, each of the above strategic directions of the city's development is specified in strategic and operational goals, each of which in turn provides for the possibility of using specific relevant operational tools. But all the above logic is a declaration of intent, not a directive for application.

Obviously, the Sumy Development Strategy authors understood this very well, as at the end of the document you can see the indicators that should be monitored in the process of implementing the Strategy. But there are no specific recommendations on how to compare individual multi-vector and sectoral achievements in case of the development strategy implementation by the city

administration and this issue is not even raised (Pokhylo, S., 2012). The authors of these abstracts could not get answers to questions such as what is better for the city: to increase the number of sports facilities and facilities put into operation (indicator 36) by one unit, or to increase the number of competitions of all levels in which local students participated during the year for twenty events (indicator 42). As a result, it is impossible to determine the comparative efficiency of the city's investments in the above areas. The domestic populism of the ruling political elite of Sumy is possible precisely because of the lack of an effective mechanism for objective and comprehensive assessment of the effectiveness during the strategic goals implementation and low level of financial literacy of the population (Захаркіна Л.С., 2014).

Thus, the high quality of urban space should be provided by a set of agreed solutions for managing the development of the territory. In this regard, we consider especially important the task of finding a specific set of tools of local territorial governance, which can be used in the formation of a comfortable urban environment. A comprehensive project to create a management system for urban development involves the one-time development of all types of planning and regulation of spatial development: documents of strategic planning, urban planning, spatial planning, urban zoning, planning and landscaping; measures to stimulate innovation activity of local enterprises etc (Захаркін О., 2015).

The recommended composition of the package of mutually agreed documents on city agglomeration territories development integrated management, in our opinion, should include: strategy of social and economic development; action plan and list of specific projects and programs for the implementation of socio-economic development strategy; general development plan (master plan), which serves as a spatial basis for the development of the city; "Road map" for the implementation of the master plan; zoning plan of the city territory, which should detail the provisions of the general plan of the city and contain projects of planning and surveying of public areas, including the territory of the road network, rules of land use and development; territory planning projects and territory surveying projects of planning structure elements; landscaping rules; program of complex development of communal infrastructure systems; program of integrated development of transport infrastructure; program of integrated development of social infrastructure; information-analytical management system for the development of territories, which includes an automated information system for urban development.

Only under the above conditions it will be possible to develop detailed financial plans, which will simultaneously play not only significant role as a tool for planning but rather an effective tool of financial control over the implementation of human development strategic goals. Today, the financial plan for the implementation of the development strategy of Sumy, despite the existence of the relevant section in the Document of the same name is virtually absent. The city has declared strategic

development goals, which are in no way supported by specific financial calculations, sources of funding and there are no guarantees at all, regarding their implementation due to the lack of understanding of the adequate financial model of the city.

There are no two identical or maximally similar cities in Ukraine. While the mayor of one city spends community money on parks and squares, repairing public toilets for millions of hryvnias, other city leaders are buying the support of citizens before the next election by repairing residential areas (backyards), ignoring the need to finance sewer repairs and the need to relocate people from the flooding area. Given the above, the prospects for sustainable development in the future will be completely different in each city.

Only comprehensive urban planning, urban design and development management of urban agglomerations will formalize specific local and operational goals and objectives, taking into account the prospects and opportunities for their financing. At the same time, not only the directions of using local budget funds, but also the prospects of their return in the form of real additional benefits for residents and businesses will be as transparent as possible for the public.

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CHINA AND UKRAINE RENEWABLE ENERGY DEVELOPMENT: STATUS AND COOPERATION

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Renewables have grown rapidly in recent years, driven by policy support and sharp cost reductions for solar photovoltaics and wind power in particular. Since 2013, Ukraine has made green energy an important field of economic and trade cooperation with China. To reduce energy dependence, improve the energy supply security and develop a green economy, the governments of both states have promoted the deployment of renewable energy (RE) by formulating national RE development plans, providing financial subsidies and tax breaks for RE projects (Xu Hongfeng & Wang Jing, 2020).

Analysis of RE development in China and Ukraine over the 10-year period from 2010 to 2019 shows that the total installed capacity of RE in the countries has increased significantly, with an average annual growth rate of 14% in China and 11.17% in Ukraine. The installed capacity of solar, wind, hydro and biomass power shows positive growth trends. It is particularly noteworthy that the solar energy capacity has increased the most. As of 2019, China's installed solar power capacity reached 205,493 MW, with an average annual growth rate of 80.27%, while Ukraine's installed solar power capacity reached 5,936 MW, with an average annual growth rate of 132.41%. At present, the RE cooperation between China and Ukraine mainly focuses on photovoltaic power generation and wind power with the main cooperation mode of Engineering Procurement Construction (EPC) (Xu Hongfeng & Wang Jing, 2020).

The conducted literature review has revealed many publications regarding the RE development issues in China and Ukraine, for example (Du Xiangwan et al., 2017; Fang Yuan et al., 2018; Kurbatova et al., 2019; Ma et al., 2005; Sotnyk et al., 2014; Мельник та ін. 2015, 2020; Письменна та ін., 2020; Сотник та ін., 2016, 2019). According to (BP, 2020), China's RE consumption in 2019 was 368 million tonnes of oil equivalent, accounting for 11.8% of China's total primary energy consumption, an increase of 7.5% year-on-year. China is the world's largest RE consumer, accounting for 23.3% of total global RE consumption. Between 2010 and 2019, China's installed RE capacity has increased with hydropower growing at an average annual rate of 5.72%. Wind and bioenergy grew at an annual rate of 24.34% and 19.04% respectively (BP, 2020; CMA Wind and Solar Resources Center, 2011). The installed capacity of solar energy has increased almost 200 times from 1,022 MW in 2010 to 205,493 MW in 2019 (Table 1).

Table 1

**Average annual growth rate of China's RE capacities in 2010-2019,
MW (BP, 2020)**

Year	Hydropower	Wind	Solar	Bioenergy	Total installed capacity
2010	216 057	29 633	1 022	3 446	233257
2011	232 980	46 355	3 108	3 808	267898
2012	249 470	61 597	6 719	4 617	302101
2013	280 440	76 731	17 759	6 089	359516
2014	304 860	96 819	28 399	6 653	414651
2015	319 530	131 048	43 549	7 977	479103
2016	332 070	148 517	77 809	9 269	541006
2017	343 775	164 374	130 822	11 234	620846
2018	352 261	184 665	175 237	13 235	695438
2019	356 403	210 478	205 493	16 537	758626
Average annual growth rate, %	5.72	24.34	80.27	19.04	14.00

As of 2018, Ukraine has the second highest total installed RE capacity in the Commonwealth of Independent States (CIS) with solar energy being the most promising RE source in Ukraine (ДАЕЕ, 2020). Between 2010 and 2019, the total installed RE capacity in Ukraine grew at an average annual rate of 11.17% with wind power and biomass generation growing at an average annual rate of 34.39% and 51.58% (Table 2). It is a relatively fast growth rate, but there is still a lot of room for progress in the total number of installed RE facilities.

Table 2

**Average annual growth rate of Ukraine's RE capacities in 2010-2019,
MW (BP, 2020)**

Year	Hydropower	Wind	Solar	Bioenergy	Total installed capacity
2010	5 458	88	3	4	4691
2011	5 469	146	188	4	4945
2012	5 470	248	372	13	5241
2013	5 489	362	748	31	5769
2014	5 851	514	819	50	6048
2015	5 883	514	841	53	6105
2016	6 079	526	955	60	6199
2017	6 213	553	1 200	73	6530
2018	6 318	621	2 003	98	7530
2019	6 318	1 258	5 936	169	12171
Average annual growth rate, %	1.64	34.39	132.41	51.58	11.17

At present, the RE cooperation between China and Ukraine is developing in the field of distributed photovoltaic. Many Chinese enterprises export relevant photovoltaic equipment to Ukraine. Besides, Chinese enterprises have started to participate in biomass power generation projects in Ukraine gradually in recent years (Xu Hongfeng & Wang Jing, 2020; ДАЕЕ, 2020). In general, the directions of China-Ukraine cooperation include the followings:

1. Photovoltaic cooperation. In November 2016, China National Building Materials Corporation (CNBM) completed the delivery of 10 photovoltaic power generation projects in Ukraine, all located in Odessa and Nikolaev regions, with a total installed capacity of approximately 267 MW (Market.korupciya, 2016).

2. Wind power cooperation. In September 2018, China Power Construction Group Limited and the Norwegian company "NBT" officially signed an EPC contract for the Sivash wind power project in Ukraine, with a contract value of EUR 292 million, which has an installed capacity of 250 MW and uses 64 Nordex 3.9 MW wind turbines (Belt and Road Portal, 2018). The completion of this power project will be able to meet more than one-third of the electricity demand of the Kherson region, greatly improving local electricity consumption and driving regional economic development.

3. Biomass power cooperation. In 2019, China Energy Construction International Engineering Co., Ltd. signed an EPC turnkey contract for the Cindrigo

1000TPD waste-to-energy power plant project in Ukraine. The project intends to build a waste-to-energy power plant in Kiev oblast, Ukraine, with a total installed capacity of 20 MW (Power.in-en, 2019).

Although recently there have been many RE cooperation projects between China and Ukraine, they have encountered many problems and obstacles under the condition of complementary advantages. The main barriers are the relatively poor business environment and limited support from financial institutions for RE projects. To address these challenges, it is recommended to focus on four aspects: promoting favorable government policies and platforms, actively participating in the upgrading of power infrastructure, promoting the facilitation of RE trade between China and Ukraine, and strengthening financial institutions' support for RE projects' financing.

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FORECASTING THE DEVELOPMENT OF COVID-19 IN UKRAINE BY FOURIER SERIES

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With the advent of COVID-19, Ukraine has suffered a significant blow in the economic sphere, which was already in a rather unstable state. Therefore, a sharp slowdown in economic development, the transformation of the depression in industry into an industrial downturn, reduced the amount of work performed in the transport sector. in the field of tourism, hotel and restaurant business, etc. in the field of services. There is a decrease in investment activity and an increase in the number of officially registered unemployed among the population. The relevance of this topic is that it allows you to analyze the development of the disease on COVID-19 and get a complete picture of the situation to choose the best strategy to prevent further development of the infection.

The impact of the pandemic has left an indelible mark on many areas of the world economy: trade, labor market, tourism, education and not only, which is reflected in the works (Alkubaisy, 2020; Constantoglou, 2020; Lopez, et al, 2020; Miller, 2020; Srivastava, 2019; Sysoyeva, et al.,2017; Tovmasyan, et al., 2020;). The economic crisis that accompanies any negative manifestations in the social sphere of life attracts the views of researchers from all over the world (Balas et al., 2019; Kaya, 2020; Palienko, et al.,2018; Yelnikova, et al., 2020; Zolkover, et al.,2020). As a result, many researchers (Aslan et al, 2018; Bejtkovsky, 2020; Chinedum, et al.,2019; Gallo,et al., 2020; Mohsen, 2018) drew attention to the quality of medical services, and also focus on the need for a symbiosis between the economy and the health sector. The work (Njegovanović, 2020) examines in detail the impact of the pandemic on financial decision-making, and also emphasizes the importance of correctly assessing the forecast of the following negative impacts on the economy.

As a research tool, let us consider harmonic analysis, which will take into account the general trend and seasonal fluctuations (Bhowmik, 2020; Moskalenko, et al., 2020). The object of study, we choose the data from 18.01.21. to 22.03.21 daily: number of registered deaths in Ukraine caused by COVID-19. As a prediction tool, we use data extrapolation using harmonic analysis using the decomposition of a discrete time series into a Fourier series. The data decomposition procedure is iterative when we divide the data in half, so a prerequisite for the process is the number of observations equal to 2^n . We used the following methodology:

1. Remove the linear trend (1) from the time series:

$$y_t = 1,204t + 115,7 \quad (1)$$

$$U_t = S_t + y_t \quad (2)$$

2. Using MathCad, and the built-in Fast Fourier transform package, we will divide the studied series, 64 observations long, into 32 harmonics, from which we will choose the three that are most significant and have the greatest relative value: U_1, U_9, U_{18} , and the rest of the harmonics will be considered insignificant.

3. Calculate the coefficients of the Fourier series, amplitude (3) and argument (4):

$$A_n = \frac{U_n}{e} \quad (3)$$

$$F_n = \arg(U_n) \quad (4)$$

The result of the analysis is the constructed oscillatory component of the time series (5):

$$S_t = 58,7 \cos\left(\frac{\pi t}{4} + 0,043\right) + 26,2 \cos\left(\frac{36\pi t}{13} - 1,8\right) + 81,1 \cos\left(\frac{9\pi t}{5} - 2,2\right) \quad (5)$$

To build a forecast, using the constructed schedule (5), it is necessary to return the trend component (1), and substitute the following values of $t = [64..85]$. Given that the input data range is 64 observations, the most optimal number of predicted values will be 21, which are presented in table 1:

Table 1

The result of the harmonic analysis for the indicator: mortality from COVID-19

Date	Predicted value	Date	Predicted value	Date	Predicted value
23.03.2021	235	30.03.2021	194	06.04.2021	257
24.03.2021	274	31.03.2021	161	07.04.2021	278
25.03.2021	289	01.04.2021	201	08.04.2021	199
26.03.2021	205	02.04.2021	210	09.04.2021	195
27.03.2021	207	03.04.2021	184	10.04.2021	132
28.03.2021	160	04.04.2021	250	11.04.2021	106
29.03.2021	141	05.04.2021	233	12.04.2021	181

Source: Constructed by authors.

As a test of the adequacy of this model, we calculate the coefficient of determination, it turned out to be 59%, which indicates sufficient quality, but encourages further searches for more relevant models or an increase in the number of harmonics in the construction of the Fourier Series. This research will be useful for students, graduate students and researchers who focus on the economy of health, and for are socially active citizens of the country.

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BUSINESS MODELING OF ENTERPRISE ECONOMIC ACTIVITY: ESSENCE AND APPROACHES

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Business modeling is the most important aspect of business and shows the interdependence and relevance of each process that takes place in the enterprise. The business model helps to answer the most important questions about the business, such as: “Who is the customer?”, “What is the value?”, “What will the company produce, where will it take resources?”, “Who and why is needed for implementation?”, etc. Accordingly, the business model is a valuable foundation used by many small and large organizations around the world. Through its flexible but simple application, it has helped many companies improve existing businesses, create new ones and develop better market strategies (Zahorna et al., 2010).

To date, many scientists and researchers for many years cannot agree on the interpretation of this concept. The Harvard Business School states that “a business model is a set of business decisions, as well as concessions and trade-offs used by a company to make a profit”. The list of elements that can be covered with the business model of the enterprise is limited in no way. It can include all in the opinion of the top management of a certain enterprise, which is decisive for its activities. Business models are often equated with strategy because they are closely related. This relationship between the business model and the strategy can be illustrated by the “value equation” (Levy et al., 2005):

$$V = M \cdot S \quad (1)$$

where: V – value;
M – business model;
S – strategy.

From this equation follows that the company must identify the best business models for the implementation of the strategy and on their basis to develop and implement its strategy aimed at creating value for customers and other stakeholders. That is, the process of developing a business model is part of the business strategy – the business model describes how the firm converts the created value into profit, and the strategy focuses on creating a sustainable competitive advantage. In addition, designing a business model does not require in-depth knowledge of the business environment, while strategy development requires a comprehensive analysis of it in order to understand which competitive strategies can ensure the success of the business model (Johnson et al., 2008). Companies often go bankrupt with well-

established and well-founded business models, and often the opposite: the company has significant success, but its business model is quite “fragile” and has almost no foundation. But despite this, the business model provides a number of advantages to both the entrepreneur and other participants in business processes (partners, suppliers, employees, financial institutions), because the business model has important advantages (Fig. 1).

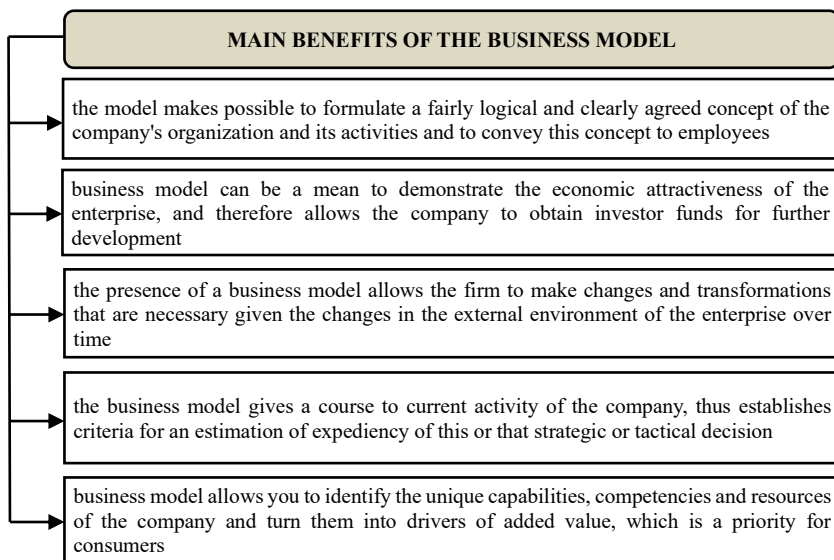


Fig. 1. The main advantages of the business model (Kasych et al., 2019)

The main task of the company’s business model is to turn the internal “inputs” of the business (resources, technologies, capabilities, competencies) into external “outputs” (economic value for customers and financial results for the company). Each business model is faced with a range of issues that it must address in its implementation at the enterprise:

- how the company creates value for external customers, which the company offers them in the form of its goods and services;
- how the company earns money, i.e., the assets and technologies that the company uses to create this value;
- how the company provides strategic control over value chains, or in other words – is the observation and evaluation of the strategic management process, which should ensure the achievement of certain goals.

An effective business model is able to create new competitive advantages of the enterprise and additional values for consumers. It should reflect the main processes that take place in the enterprise, as well as be under constant improvement (Bzhuska et al., 2018). Business modeling must be preceded by a detailed analysis of the external and internal environment. This allows to determine the capabilities and prospects of the enterprise for development. The feasibility and ability to predict changes are important, because both elements of the internal and external environment of the enterprise are not stable, and are under constant change. The results of the diagnosis of the internal and external state of the enterprise, as well as its crisis state, determines further actions in the process of business modeling of enterprise's economic activity. The formation of the business model occurs only in the conditions of accumulation by the company of resource-competitive base, which determine the growth of its business activity, promote business intellectualization, provide unrepeatability competitive advantages, the most optimal use of existing and promising opportunities and market value.

Thus, business modeling is extremely important for companies in all industries. The essence of business modeling is to develop a business model. The latter is a detailed description of the main business processes of the enterprise, through which it conducts its own business, receives income, creates added value and develops. The business model reflects how the company creates added value for the consumer. If it is available, it becomes much easier to understand the purpose of the enterprise, the tasks set for employees, development strategy and attract additional investment.

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LOGO AS MARKETING MANAGEMENT INSTRUMENT FOR BLOOD SERVICE FACILITIES

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A logo is an important visual communication tool, especially for promotional activity, brand identity, and campaigns. The logo allows identifying the company from hundreds of others in the consumer's eyes. It sets the direction in the further branding and marketing system for the company. It allows customers to visualize the image.

The number of publications on the blood service's marketing activities is increasing every year, but no work has been found on logos in the blood service. Such blood service studies are the semiotic analysis of postage stamps in the blood service (Lefrere & Danic, 2010) and posters (Lefrere & Danic, 2012). Also, there were analyzed marketing activities in blood service with other methods (Khomenko et al., 2020; Lyubchak et al., 2020; Khomenko, 2020; Хоменко^a, Сагер, Любчак, 2020; Хоменко^b, Сагер, Любчак, 2020; Любчак, Любчак, Тимченко, Хоменко, 2020; Любчак, Плакса, Малігон, Любчак, Хоменко, 2018) and other activity areas (Хоменко, 2020; Мельник, Сагер, Черкас, 2016; Kasztelnik & Gaines, 2019; Obeid, Hillani, Fakih, Mozannar, 2020; Pimonenko, Radchenko, Palienko, 2017; Bejtkovsky, 2020; Chinedum, Chinwuba & Rejoice, 2019). Also it was described some marketing aspects in other researches (Brown & Kasztelnik, 2020; Dave, 2019; Bachoo & Ahmad, 2018; Shkarupa, 2020; Zwerenz, 2020; Constantoglou, 2020; Abeyssekera, 2020; Delanoy & Kasztelnik, 2020; Moradi & Zihagh, 2019; Gallo et al., 2020; Mohsen, Hussein & Mahrous, 2018; Aslan & Morsunbul, 2018). So this issue needs further study on using logos in the blood service in Ukraine.

The research was conducted with the main purpose to perform a consistent comparative analysis of the logos of blood facilities and organizations working in this field and identify their constituent elements features to develop the logo of new facilities of rebranding.

The study compares blood service facilities' logos working in Ukraine with facilities' logos in different world regions.

The logos of various blood service facilities were searched on the Internet, particularly on the facilities' official websites and on social networks' official pages. There were found 100 logos from 58 countries: 43 logos found in Europe (12 of them in Ukraine), 13 in Asia, 19 in South and North America, 15 in Africa, 10 in Australia and Oceania.

The comparison of logos was based on the analysis of the logos of Ukraine and other countries' blood service facilities. It was used the semiotic analysis method, in which were analyzed verbal and visual signals symbolic messages.

The following aspects were investigated: the use of symbolic and font elements in the logo, the colors used and their number, the main messages of identity (message symbols).

All logos were systematized. Then there were studied the use of colors and their number in the logo, the type of logo, and the identity's main messages.

There were found 12 logos in Ukraine. These are logos of 11 regional and one city blood services centers: Sumy, Chernihiv, Ivano-Frankivsk, Ternopil, Ternopil, Kherson, Kyiv, Kharkiv, Vinnytsia, Zaporizhzhia, Zhytomyr Blood Service Centers, and Kyiv City Blood Service Center.

58.3% of Ukrainian logos are combined, have both letters and graphic symbolic, 33.3% contain only graphical symbolic, and one (8.4%) use the abbreviation. They mainly have red colors (91.7%) with combines of white or yellow. Usually (66.7%), they have 1 or 2 colors. The most common symbols are a drop (83.3%) and a heart (33.3%). Less often are used men (25%), circle (25%), hands (16.7%), and cross (16.7%). Most of them contain a few elements.

An analysis of 100 logos revealed that the most commonly used letter and graphic symbol elements are found in most logos (90%), most combined type logos combine different elements (86%) (table 1).

Table 1
Character and font elements in logos (developed by the author)

Elements in the logo	Ukraine	Europe	Asia	America	Africa	Australia	Together
Letters	8	29	11	19	14	9	90
Abbreviations	1	5	0	1	5	1	13
Graphic symbolic	9	27	12	18	15	10	91
Emblems	3	6	4	3	5	7	28
Combined	9	25	11	18	14	9	86

Among the selected images are observed in descending order a drop of blood (39 logos), heart (29 logos), cross (22 logos), men (14 logos), hands (6 logos), circle (5 logos), crescent (5 logos), pelican (3 logos), stars (2 logos) and butterfly (2 logos) (table 2).

The logos of blood facilities most often use three colors (in descending order): red in combination with white (95% of logos), black (36% of logos), and blue (24% of logos). There are also green, gray, yellow, purple, and orange.

Table 2

Symbols of logos in the service of blood (developed by the author)

Elements in the logo	Ukraine	Europe	Asia	America	Africa	Australia	Together
A blood drop	9	10	3	7	7	3	39
Heart	4	8	4	8	5	-	29
Cross	2	6	4	3	-	7	22
Men	3	2	-	4	5	-	14
Hands	2	1	-	1	1	1	6
Circle	-	5	-	-	-	-	5
Crescent	-	-	2	-	3	-	5
Pelican	-	3	-	-	-	-	3
Star	-	-	1	1	-	-	2
Butterfly	-	-	1	1	-	-	2
Other	-	1	1	2		1	5

Logos usually use two colors (61%) or only one (23%, often red). Less common are three colors (13%). The maximum number of colors is 4 (3%).

This study of logos confirms that by assembling such a powerful comparative base of components, colors, and their combinations, symbols, and messages, you can create a good separation from competitors and several times increase the marketing performance of the newly formed organization or existing.

Blood service facilities can use this study's results in the organization's rebranding and the organizations' owners to develop the future brand's identity.

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THE FEATURES REMOTE MANAGEMENT OF PROJECT TEAM

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The COVID-19 pandemic is forcing employers and employees to use new forms of activity management, as well as to use new incentives to increase efficiency and motivation, to increase the potential of workers in project management (Zwerenz, 2020; Tovmasyan et al., 2020). The modern paradigm of business management is determined by entrepreneurial orientation, knowledge creation, owner optimism (Vidic, 2018; Taliento et al., 2020; Kaya, 2020). Innovations in human resource management are essential in the pursuit of an effective system of staff motivation (Kobushko et al., 2020; Gallo et al., 2019; Usheva, 2011; Hryshchenko et al., 2011).

The organization of project team management and the team's focus on achieving results are often part of a matrix management environment, especially in large-scale projects with a large number of participants, involving employees of various departments (eg, marketing, customer service, finance, etc.). This means that most project participants work under a dual management system - they report to their line manager and to the project manager. In this case, the project manager has to monitor the effectiveness of communication channels in terms of project communications management (Stein, 2018).

Rapid technological development and digitalization require the modernization of project team management methods, in particular the active use of remote tools. This approach not only optimizes the interaction of the project manager with the team, but also facilitates the interaction of team members, opens for everyone simultaneous access to the unified tools needed for project implementation.

When it comes to remote control, it makes sense to appeal to a virtual team. While a physical team is a group of physically located people in order to solve tasks, members of a virtual (remote) team belong to the same organization, but are physically separated from each other in the process of work and are in scattered locations (Falkowski et al. 2005). Thus, remote control of the project team is considered as an effective operational organization of the work process in order to solve project problems in the absence of physical location of team members next to each other. The reasons for the expediency of remote control are primarily short and long business trips, the need to regenerate and reorganize thoughts due to mental and physical exhaustion, health of workers (in conditions of mass infections), etc.

The main factors that require the use of project team management methods at a distance include: insufficient efficiency of workers in the absence of the project manager; unwillingness of workers to work without clear direct instructions; gaps in

the configuration of channels for transmission and exchange of information within the team; effective influence of technologies on workflow optimization. Important stages of the organization of remote control of the team are: development of a strategic plan; staff training and reprogramming; establishment of communication channels; software installation; location selection for remote control (Eric, 2014).

Especially important are the stages of setting up communication channels and selection and installation of software, because the choice of certain tools directly affects the speed of interaction of the manager with the team, and hence the effectiveness of the project. Regular communication is the basis of management of any team, so for the effective implementation of the project it is important to provide employees with e-mail, set a clear schedule of telephone meetings or video conferences with early submission of issues for discussion.

There are many modern software tools that facilitate remote team management. Examples of such tools are GoToMyPc, pcAnywhere, TeamViewer тощо. They allow you to log on to a remote PC and access any file or program. This not only facilitates the control of the tasks, but also enables technical support of employees, their on-site counseling and acceleration of resolving dubious issues within the project. Along with these programs are tools for optimizing paperwork (Evernote, Google Docs, Google Drive, Dropbox) and alternative communication programs (Zoom, Google Hangouts, Help Lightning, Pulseway, Telegram, Skype, і т.д.).

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ANALYSIS OF MAJOR EXOGENOUS AND ENDOGENOUS FACTORS AFFECTING THE STABILITY OF THE FINANCIAL SECTOR OF UKRAINE

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Effective functioning and stability of the financial sector is the prerequisite for building a financially stable state. Today, the financial sector of Ukraine is characterized by significant financial imbalances that generate discrimination of the development of individual sectors over the past ten years. Especially in recent years, the comprehensive and resonant challenges facing Ukraine have been primarily the escalation of the military conflict, a decrease in economic activity, a deterioration in the trade balance, an imbalance in the state budget, a decrease in deposits, a significant reduction in lending, etc. These factors have led to a substantial deterioration in the sustainability of the country's entire financial sector. Accordingly, it is necessary to consider factors that violate the state's financial stability.

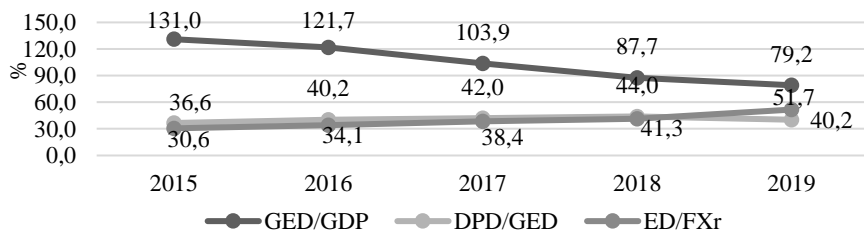


Fig. 1. Dynamics of the main macroeconomic indicators of Ukraine for 2015-2019 years, %

Source: Rates, Indexes, Tariffs, n.d., 2021; Supervisory Statistics Data, n.d., 2021

Since the financial sector is part of the state's economic system and mediates all its sectors' activities, the GDP indicator quite broadly shows the level of development and sustainability of the country's financial sector. After analyzing Figure 1, we can conclude that the gross external debt (GED) ratio to gross domestic product (GDP) has a positive trend to decrease from 131% to 79.2%, which is 51.8% less in 2019, compared to 2015. Although the absolute values of both GDP and GED grew, GDP growth was rapid. Over the last analyzed years, foreign government debt (ED) chronically outstrips the gold and foreign exchange reserves of Ukraine, and in 2019 it overlapped with them by only 51.7%. The increase in public debt leads

to the fact that the banking system will depend on borrowing both in the domestic and foreign markets. It is also important to note that such a situation significantly impacts the banking system's financial stability and the entire financial sector. The banking sector intensifies the manipulation of domestic and external loans, influencing the central bank's policies.

A significant increase in prices for consumer goods and services led to the transition to an inflationary targeting regime. In turn, this entailed a rise in the NBU accounting rate and a shortage of credit resources. Under such conditions, production growth generally slows or declines. In figure 2, there is a decline in the industrial production index from 106.5% in 2016 to 91.7% in 2019, which means that losses in the industry continued. However, the industry's decline over this period was not shocking like the 2008-2009 years. Besides that, the crisis of 2008-2009 and 2013-2014 had a similar effect on the inflation component. In both cases, among the main factors of rapid price increases were: the immediate and collapse devaluation of the hryvnia and the administrative increase in housing and communal tariffs, and the low living standards of the population (and also low purchasing power) remained a significant limiting factor for accelerating inflation. During 2015-2019, we observe fluctuations in the inflation index, but there is a tendency to decline by 39.2% over the entire analyzed period.

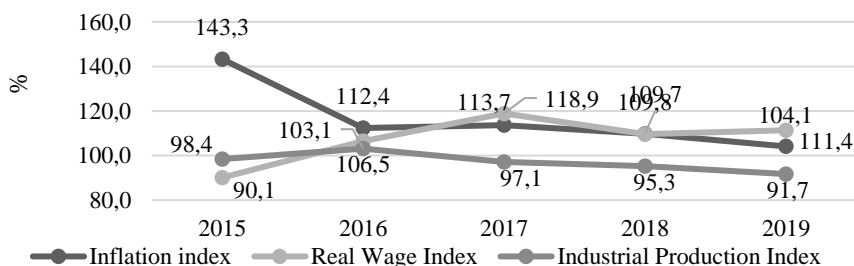


Fig. 2. Dynamics of inflation index, wage index, industrial production index of Ukraine for 2015-2019 years,%

Source: Rates, Indexes, Tariffs, n.d., 2021

Since the country's financial sector is represented not only by the banking sector but also by the sector of non-bank financial institutions, which also have a significant impact on the stability of the financial sector, the primary endogenous factors affecting the stability of the financial sector will be the following indicators: the ratio of unsecured bank loans to gross loans; assets of insurance companies to GDP; the share of overdue and bad loans of credit unions; Share of receivables in pawnshop assets.

Since the banking system is one of the largest and most influential areas of

the financial sector, it will be necessary to consider the dynamics of banks' unsecured loans (Fig. 3).

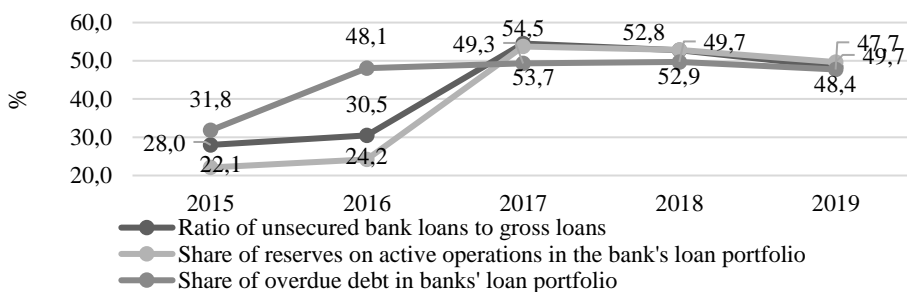


Fig. 3. The dynamics of the bank's unsecured loans to gross loans, the share of reserves, and overdue debt in the loan portfolio of the bank of Ukraine for 2015-2019 years, %

Source: Monetary and Financial Statistics - IMF Data, n.d., 2021; Supervisory Statistics Data, n.d., 2021

Since 2015, there has been a negative trend towards increasing the share of unsecured loans to the bank's gross loans, which in the 2019 year amounted to 47.7%, which is 19,7% more than the 2015 year. This trend is negative and indicates an increase in the risks of credit activities of banks. A significant increase in the share of unsecured loans in banks' loan portfolios predetermines substantial deductions to reserves to cover credit operations costs. An analysis of the dynamics of reserves and overdue debt in the bank's loan portfolio, with the fact that banks force to increase reserves in parallel with unpaid debt growth. Therefore, reserve growth dynamics almost coincides with the dynamics of change in the level of overdue debt. The most significant fluctuations observe for 2015-2017.

Below is information on the need to study the issue of changes in insurance companies' assets to GDP. This factor shows whether the insurance sector's economic growth affects the financial sector (Figure 4).

As shown in Figure 4, since 2015, there has been a negative trend towards decreased assets in insurance companies share in the GDP structure, which in 2019 was 1.6%, which is 1.5% less than in the 2015 year. We also see fluctuations in both overdue loans of credit unions at about 70-75% and receivables at the level of 14-25%. Still, there is a slight decrease in these indicators, which characterizes weightless improvements in the financial market. The drop in the population's solvency is an increase in overdue debt of borrowers on credit obligations. There is an outflow of deposits from accounts and an increase in the debt of credit unions of Ukraine. Today's pawnshop market cannot compete fully with banks, but they are an effective intermediary in the physical persons lending market.

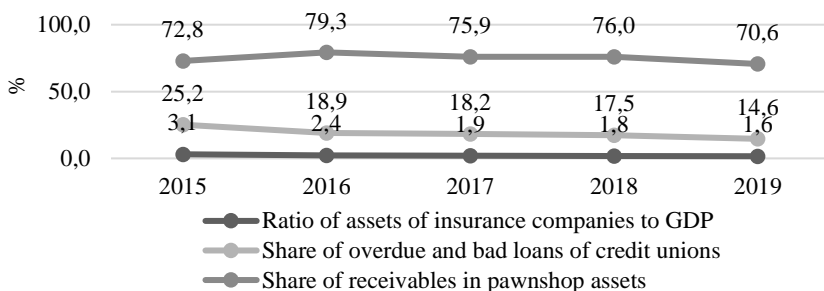


Fig. 4. Dynamics of changes in assets of insurance companies to GDP, quality of credit portfolio of credit unions and share of receivables in assets of pawnshops of Ukraine for 2015-2019 years, %

Source: *Insurance Market Review*, n.d., 2021; *Information on the State and Development of Pawnshops in Ukraine*, n.d., 2021; *Information on the Status and Development of Credit Institutions in Ukraine*, n.d., 2021

The change in any endogenous or exogenous factor analyzed above indicates a difference in the financial sector's development. The most sensitive to changes in the financial sector's stability are changes in the indicator of GDP, inflation, and the index of industrial production; the banking sector reacts most sensitively from endogenous ones, followed by the insurance market. Of course, together, each of the factors has a significant influence in one way or another and shows how to improve the country's financial sector's sustainability.

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COMPETITIVENESS BENCHMARKING AT DIFFERENT STAGES OF AN ENTERPRISE LIFE CYCLE

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In the difficult times of the economic crisis and the prevailing COVID-19 pandemic, it is difficult for Ukrainian enterprises and organizations to enter the international market with goods and services of their own production. Most of them do not withstand the level of competition in the market sector where they enter. Others cannot reach the necessary level of competitiveness in the field of business. This situation is due to the fact that such companies and organizations do not make a preliminary analysis of the level of competitiveness of their business and do not understand what parameters should be included in such an analysis.

The vast majority of organizations do not pay enough attention to the factor influencing the stage of the life cycle in which they are. Knowledge of the features of the life cycle stages allows the company with a high probability to predict its development and determine the real competitiveness of products/services or the organization as a whole. The system of indicative indicators help in determining the stage of OLC and planning measures to improve competitiveness.

The definition of the life cycle of the organization in their work revealed such scholars as L. Greiner (Greiner, 1972), B. Milner (Milner, 2002), I. Adizes (Adizes, 2007), S. Koryahina (Koryahina, 2004), V. Dombrovsky (Dombrovsky, 2009) and others. Hanna Shvindina in her works (Shvindina, 2020, 2017) studies the competitiveness of organizations in terms of strategic development and parameterization.

The term "organization life cycle" was quite clearly described by economist L. Ligonenko and characterizes it as a «...set of stages that the company goes through in its life from creation to liquidation, each of which is characterized by a certain system of strategic goals and objectives, features of resource potential, the achieved results of functioning" (Ligonenko, 2001).

Breaking the life cycle of an organization into stages, most scientists use a variety of criteria and approaches by which the distribution takes place.

Table 1 analyzes the approaches of the classics to determine the stages of the life cycle and the peculiarities of their distribution relative to the 4-stage classification (without stages of "death" or "renewal").

Table 1

Modern approaches to the distribution of stages of the organization life cycle

Stage Author	"Birth"	"Youth"	"Maturity"	"Aging"
Greiner	Creativity	Directive leadership	Delegation	Coordination; Cooperation
Adizes	Conception (courtship); Childhood	Wild years (go – go); Youth	Blossom; Stability	Aristocracy; Salem City; Bureaucracy;
Blanc	Birth	Childhood Youth	Early maturity Maturity Final maturity	Aging
Kolass	Childhood (current financial losses)	Youth (first profits appear)	Maturity (maximum profits)	Old age (income decrease)

Source: based on (Greiner, 1972; Adizes, 2007; Blanc, 2000; Kolass, 1997)

In accordance with the above stages of OLC, the key economic and financial indicators used in the process of assessing the level of competitiveness of the organization at each stage were analyzed (Kotenko, 2018).

Economist O. Milinchuk, referring in his work (Milinchuk, 2012) to the publication of Kaplan and Norton (Kaplan&Norton, 1992), emphasizes certain priority components of assessing the life cycle of the organization. Milinchuk pay attention to the organization's staff, consumers, business processes and financial component. The collection of information for the calculation of indicators is proposed to begin with the processing of financial statements of accounting (Balance Sheet, Statement of Financial Performance).

Table 2 shows the main indicators that are proposed to calculate in the analysis of the OLC stages.

Table 2.

Groups of indicators for the study of the stages of OLC according to Milinchuk.

Group of indicators	Indicator	Method of calculation
1	2	3
Organization staff	Productivity	The ratio of net income from sales and the average number of employees

Continue of table 2.

Group of indicators	Indicator	Method of calculation
1	2	3
	Coefficient of total labor costs	When calculating the ratio take into account the residual value of fixed assets and current assets of the organization
Clients	Net return on sales	Calculated as the ratio of net income to net income
	Solvency ratio	Relation of current assets to current liabilities at the end of the reporting period
Business processes	Return on assets	The ratio of net income to the value of the organization's assets
	Workrate of current assets	Calculated as the ratio of the average number of employees to the number of current assets
Finances	Coefficient of financial autonomy	The ratio of equity to total assets (balance sheet currency)
	Equity maneuverability ratio	The ratio of the difference between equity and non-current assets to the amount of equity of the organization
	Coefficient of own working capital	The ratio of the difference between equity and non-current assets to the amount of current assets of the organization
	Absolute liquidity ratio	The ratio of cash and investments to current liabilities at the end of the period
	Rapid liquidity ratio	The ratio of the difference between cash and inventories to current liabilities at the end of the period

Source: based on (Milinchuk, 2012)

To identify the stage of OLC and the level of its competitiveness, Milinchuk proposes to use an integrated indicator, the value of which will reflect the location of the organization at a particular stage of OLC (Milinchuk, 2012).

Ukrainian scientists V. Marchenko and V. Evdokimenko (Marchenko & Evdokimenko, 2016) described the process of changing the above indicators during the transition between the stages of OLC. They highlight such indicators as the structure of the organization and its type. This allows you to better understand the internal processes of the organization and clearly see the structural changes throughout the life cycle. The personnel indicator reflects different types of management (entrepreneurial, professional) and periods of internal conflicts. In the

indicator of technologies Marchenko and Yevdokymenko pay attention to specialized and differentiated technologies that change during the transition from the stage of "Growth" to the stage of "Stability".

The stage of the life cycle, which is an organization at the current time, the direct impact on its overall competitiveness. World science identifies 4 main stages of the life cycle that each organization goes through. Accordingly, indicators that reflect the level of competitiveness of the organization are correlated and change depending on the OLC stage.

The use of a large number of methods for measuring competitiveness at various stages of OLC reflects considerable interest of scientific community to this topic.

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PERSONNEL SELECTION SYSTEM IN INTERNATIONAL CORPORATIONS

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Personnel management is becoming increasingly important as a factor in increasing the competitiveness of the enterprise, achieving success in implementing its development strategy (Abchuk, 2018; Chakrawal & Goyal, 2018).

Personnel management can be defined as activities aimed at achieving the most effective use of employees to achieve business goals and personal goals. The first, traditionally, are associated with ensuring the efficiency of the enterprise. And efficiency is sometimes understood in a narrow sense - as obtaining maximum profit. However, more and more often efficiency is considered not only in economic terms - as efficiency, quality, productivity, innovation, profit, but also in a broader context and is associated with such concepts of personal, psychological plan as employee satisfaction with their work, participation in the workforce. enterprises, a high level of self-esteem of the team, motivation of staff to work effectively (Alkubaisy, 2020; Barhaq & Radchenko, 2018; Bublyk et al., 2017; Dagmara, 2020).

The personnel policy is important in the process of human resource management of international corporations, which is a system of views, requirements, principles that determine the main directions, forms and methods of working with staff.

When filling personnel vacancies in the established foreign branch of TNC, external and internal recruiting technologies can be used.

External recruiting as a personnel selection and selection system is focused on the resources of the labor market, and internal recruiting - on the capabilities (qualification, adaptation, motivational) of its own personnel.

The dominants of one form or another of recruiting characterize the personnel system either as open (in the case of the prevalence of the external form), or as closed (in the case of the prevalence of the internal form).

The use of the first source of personnel is associated with internal recruiting technologies. The use of the second and third source is entirely determined by recruiting technologies.

The optimal combination of external and internal recruiting technologies is the most relevant for TNCs (Abchuk, 2018).

All TNC employees are divided into expatriates and local citizens.

Expatriates are considered to be posted workers who leave their country for long-term work abroad. Expatriates are divided into nationals of the countries where the parent company or its headquarters is located and citizens of third countries (all

other countries except the home country and the one where the branch is located).

Expatriates have the following strengths (Delanoy & Kasztelnik, 2020; Hanić & Jevtić, 2020; Iqbal, 2018; Karaoulanis & Karaoulanis, 2020):

- technical competence;
- high qualification;
- control over corporate strategy.

The benefits of local staff are:

- adaptability to local conditions;
- high incentives to work;
- mobility;
- lower personnel costs.

Problems of repatriation of expatriates (Kasztelnik & Gaines, 2019; Kendiukhov & Tvaronavičienė, 2017; Levchenko et al., 2018):

- readaptation to life in the "home country".
- Personal financial problems.
- Promotion.
- Relationships with former colleagues (Abchuk, 2018; Vladimirova, 2019).

When dealing with the selection system in international corporations, first of all should be based on:

1. Criteria for selection of personnel for international appointments (Vladimirova, 2019):

- a) general criteria:
 1. Technical skills.
 2. Human skills.

Managing subsidiaries: communications; managerial talent; emotional stability; ability to adapt to a new environment.

Functional managers: maturity; emotional stability; technical ability to perform official duties.

Operations managers: maturity; emotional stability; knowledge of local laws; knowledge of the people of the host country.

The American approach is an emphasis on technical skills.

Japanese approach - emphasis on behavioral skills (customers, consumers, subordinates, etc.)

b) Adaptation to cultural change: ability to integrate with staff of another culture, ability to understand development in the host country, ability to solve problems with different networks and perspectives, feeling better in another culture, politics, religion and ethics in adapting to individual differences, flexibility in operational matters in the absence of assistants and information.

c) Independence and self-sufficiency: the need for assistants and installations, experience of independent work (domestic or foreign), experience of project management, hobbies, activity at the enterprise, public activity.

d) Physical and emotional health: the ratio of health and working conditions, the psychological ability to adapt to another culture, the ability to cope with culture shock.

e) Age, experience, education: balancing between age and experience, level of education, preferably after university, the critical importance of international experience.

f) Language training: knowledge of English, knowledge of other languages.

g) Motivation for a foreign destination: belief in the possibility of working abroad, anticipation of adventure and interesting activities, career opportunities, increased rewards.

h) Marital status and dependence: satisfaction with family life, the family's ability to reduce stress, the family's ability to adapt to a new culture.

i) Abilities of the leader: opportunities to continue "home leadership" in foreign activities, specific traits of a leader necessary for successful activity in the destination country.

Factors affecting the salary for foreign appointments, we can identify the following (Lyulyov & Pimonenko, 2017; Medvedev, 2014; Moskovicz, 2018; Saima, 2019; Srivastava, 2018; Tommaso, 2018; Vasylieva et al., 2018):

- Personality.
- Country.
- Cost of living.
- Improving official status.
- Compensation for complications of a business trip abroad.
- Currency.
- Remoteness of the district.

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ETHICS AND MORALS OF THE ACCOUNTANT AS THE BASIS OF SUSTAINABILITY OF SOCIO-ECONOMIC SYSTEMS

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Ukrainian reality is characterized by contradictions in various spheres of life. Moral values formed by Ukrainian society are often manifested in real terms as anti-values. For example, most managers and business owners consider their ability to minimize the tax base and the amount of taxes paid, including through illegal means, as a measure of the professional competence of accountants. Thus, potential employers and clients impose requirements on accountants, the implementation of which initially contradicts the principles of professional ethics (Lughova, et al., 2019).

It should be noted that if most accountants, contrary to the requirements of users of their services, guided by their conscience and adhered to ethical principles, employers and clients would be forced to change their attitude to the profession over time.

In practice, however, requests for unethical behavior have resonated with accountants in recent years, losing their true social role in improving the welfare of society.

According to AA Shaposhnikov "the real reality shows that Ukrainian entrepreneurs have other values, their capital is either sent offshore or sent for personal consumption, and the accountant and auditor in the implementation of capital outflow schemes play key roles" (Shaposhnykov,2016).

Thus, it is the Ukrainian reality, which is characterized by the low-ethical nature of the socio-economic system, leads to the fact that the accountant, having studied the code of ethics and understanding the need for its application, in practice can not or does not want to follow its rules.

Here are the main directions of solving the problem of non-compliance with the code of ethics for accountants in Ukraine. The reason for "ethical ignorance" can be considered gaps in educational programs; insufficient attention paid to ethics in the professional training of accountants. The study of the code of ethics should be carried out in the educational process along with special accounting disciplines, starting with secondary vocational education, in higher education institutions, continuing in the additional system of education and certification of accountants, as well as in advanced training. In the process of training accountants it is necessary to cultivate and educate professional values, to develop skills of forming a model of professional behavior.

Practice shows that most Ukrainian accountants first get acquainted with the code of professional ethics in the stages after university professional education - at the stage of certification of professional accountants, as the study of the code of ethics is necessary in preparation for exams for a professional accountant. Applicants who have gained some practical experience are admitted to the certification, and compliance with the rules of ethical conduct is not taken into account, but only at the level of intuition.

I. Zamula and O. Levkivska (2015) notes that the attempt to grow professional ethical values at the stage of preliminary qualification of specialists is problematic, as a person has already determined his basic moral and ethical qualities and the process of adult education is always very complex. It is necessary to begin much earlier, in the period of training of students and professional development of young experts.

It should be noted that theoretical acquaintance with the provisions of the code will not achieve the desired result. It is necessary to analyze and demonstrate models of ethical and unethical behavior of accountants, ways to resolve ethical conflicts on numerous practical examples and situations.

It is important that each student try on different roles (both accountant and employer, client, user reporting), which will not only understand but also feel the importance of professional ethics and the real problems of their compliance in practice. This will help train professionals who can not only technically keep accounts, but also work in good faith and honestly, with the appropriate level of professional competence and diligence, which will strengthen the image of the accounting profession in society.

The specifics of Ukrainian problems related to the violation of the code of ethics by accountants make us think about the fact that no less attention should be paid to the moral education of professionals in other areas of economic activity, so that users of accounting services demonstrate and appreciate ethical behavior in business. Only a comprehensive approach, implemented in changing the values and behaviors not only of the accountants themselves, but also their employers and clients, will lead to a positive result.

As part of creating real conditions for compliance with the code of ethics for professional accountants in Ukraine, work should be done to improve its content, primarily in terms of adapting the text to Ukrainian terminology and accounting practices. According to Myslavska, «the code is not a tribute to fashion, it is a guarantor and tool of self-preservation of professional identity, and therefore deserves careful study, rethinking, improving certain provisions of implementation in practice» (Myslavsjka, 2016).

An important direction in the work on the practical application of the provisions of the code of ethics is their specification through the development of internal corporate codes of ethics in each professional organization and accounting

service. The fact is that there are no specific methods and criteria for assessing the significance of threats of violation of basic ethical principles in an international or national code.

Most often, such an assessment is made intuitively, when the specialist has already gained experience, and he met with various consequences of certain circumstances, recognized as threats.

It is extremely difficult for novice accountants to assess the significance of emerging threats. Therefore, it is necessary to regulate the internal rules of professional conduct, which detail the basic ethical rules and regulations, taking into account the specifics of the work performed by the accountant or services provided; management requests; customer circles, etc. Internal rules of conduct in specific professional organizations or accounting offices should provide for their employees the maximum possible number of behaviors, guidelines for action, examples. This will significantly increase their practical significance.

In order for the application of the code of ethics to be more realistic in practice, and for accountants themselves to have an interest in ethical behavior, the country must have conditions in which society, users of accounting services will not interfere with compliance with the code of ethics. demonstrate support for the ethical behavior of professionals. Ethical behavior should be demanded and encouraged by society (for example, in the form of trust in the choice of labor market and services), while violations of the code of ethics should be condemned (not approved and provoked). Such a reaction is lacking in Ukrainian society. In this case, the problem is deep, it lies in the formation of common moral and ethical values of Ukrainians.

Accountants' compliance with the code of ethics should also be facilitated by the development of an effective system of sanctions for violations of its principles. As long as there are no clear guidelines as to what sanctions will be imposed for certain violations of the provisions of the code, representatives of the professional community will commit violations, hoping for impunity.

It should be borne in mind that violation of basic ethical principles may be associated with the emergence of other types of liability: criminal, administrative, material and cause sanctions in accordance with the Labor Code of Ukraine, the Criminal Code of Ukraine and the Code of Administrative Offenses. These types of sanctions include various groups of measures - from termination of employment contract with an accountant at the initiative of the employer and the imposition of an administrative fine to deprivation of the right to hold certain positions or engage in certain activities and imprisonment. The imposition of sanctions alone will not promote compliance with the principles of the code of ethics, as there is no necessary component of an effective system of penalties for detecting violations. To date, the mechanism for detecting, tracking and reporting information on unethical behavior of accountants is not established. As a result, the number of cases of punishment provided by law is insignificant.

Work on the detection and investigation of ethical violations should be carried out both by the relevant state regulatory authorities and within the accounting firms and accounting services should be appointed persons responsible for monitoring compliance with the code of ethics. In addition, accountants themselves should be required to report known breaches of professional code of conduct by enshrining this obligation in a code of ethics or internal corporate code of conduct.

Recording the facts of non-compliance with the code of ethics will be possible if the accountant will clearly understand where or to whom he must report a known fact, as well as if the specialist has confidence that the violations are investigated and the perpetrator will be punished.

The ways of solving the problems described in the work will not lead to their complete elimination in our country until comprehensive work is carried out to ensure compliance with the code of ethics - by the professional community, by the state, and, last but not least - internal, personal work. accountant. In addition, most efforts will be fruitless until users of the accountant's professional services – primarily employers and clients, and the general public – begin to make real demands on the ethical conduct of professionals.

Only joint actions of all stakeholders can eventually restore confidence in the honesty, objectivity and competence of accountants and thus increase confidence in the accounting institution as a whole, proving that the international coat of arms of accountants rightly contains a motto that reflects the essence of the profession: «Conscience - Independence!»

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EVALUATING THE EFFECTIVENESS OF AN ENTERPRISE' EXPORT-IMPORT ACTIVITY

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The leading indicators of the economic development of the country are the advantage of exports of goods over imports, and the intensity of this development depends on the ratio of exports and imports for some time. Among modern concepts of measuring efficiency at the enterprise level more popular such as comprehensive data analysis, which features a large information base to describe efficiency, and hence the complexity of calculation (Abeysekera, 2020; Abolfazl Akhondzadeh, 2019; Khan, 2018; N. S. M. Ahmad et al., 2018); measuring the achievements of the service enterprise, which pays more attention to the types of enterprises in the field of service and services (Pavlyk, 2020); the concept of the achievement measurement model, which provides for the selection of key indicators for management and the process of continuous improvement of units (Huo et al., 2020; Yiu et al., 2020; Bublyk et al., 2017); the concept of the internal market Hewlett-Packard, which provides for the implementation of technology to assess the effectiveness of activities (Kasztełnik, 2020; Singh, 2019; Adeyinka et al., 2019; Al. K. Chakrawal et al., 2018).

Analysis of these concepts shows the following: in almost all definitions, efficiency is a coefficient that characterizes the degree of return on investment; efficiency must have both quantitative certainty and qualitative; efficiency should be perceived as a vector that indicates the direction of development and growth of the enterprise; in the ratio of the components of the efficiency of the enterprise there are several approaches, namely: results and costs (efficiency), results and goals (feasibility), result and needs (profitability) (Tovmasyan et al, 2020; Vasylyeva et al., 2018; Lyulyov et al, 2017).

Evaluation of the effectiveness of an export-import activity was made on the indicators of the large industrial enterprise PJSC «Turboatom» (Ukraine). Guided by the requirements for the criteria and analysis of well-known scientists and practitioners on economics and management of the enterprise showed the feasibility of considering a system of partial efficiency criteria in the following composition: export efficiency ratio (x_1), import efficiency ratio (x_2), overdue liabilities ratio (x_3), the share of exports in the total sales of the enterprise (x_4), the profitability of sales (x_5) (Waluyo et al., 2016; Yarovenko et al., 2020; Ministry for Development of Economy, Trade and Agriculture in Ukraine). These indicators were

measured during the 2010 – 2018 years. To diagnose the effectiveness of export-import activities according to these criteria at the enterprise the value must be converted taking into account both the numerical characteristics of distribution laws and patterns of development of this activity (Fig. 1). There are many approaches to this procedure, namely standardization, normalization by various formulas. Given the obvious advantages of the modified logistics conversion function:

$$y_{ij} = \frac{1}{1 + e^{-\frac{x_{ij} - P_i}{q_i}}}, \quad (1)$$

where q_i – the value of the indicator x_{ij} , at which the conversion function takes a value not less than 0,95; P_i – the value of the indicator x_{ij} , at which the conversion function becomes 0,5 (Us et al, 2018). It should be noted here that the level of the converted values of the criterion depends on the establishment of q_i and P_i .

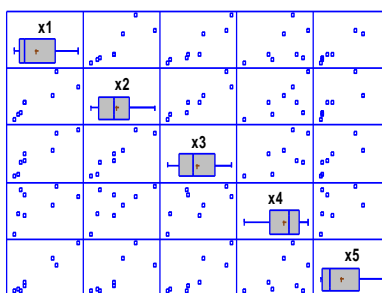


Fig. 1. The Box and Whisker Plot for the indicators of the effectiveness of an export-import activity of PJSC "Turboatom"

Source: developed by the authors with Statgraphics Centurion tools

Transformed values by the formula (1) can be compared with each other; are on a scale from 0 to 1; can be used in further mathematical calculations. An important function of diagnosing the effectiveness of export-import activities of the enterprise is to predict the development of its features and analysis of scenarios for this development.

To predict the features of the enterprise's export-import activities efficiency, its level and the level of structural dynamics, it is advisable to calculate models of growth curves, which are presented as a function of time, given that the influence of other factors is insignificant or indirectly taken into account due to time. The statistical quality of the constructed models of growth curves for the forecast is determined by the criteria of checking the quality of the constructed regression

models: the coefficient of determination (R^2), the Fisher criterion (F), the Darbin-Watson criterion (DW). The existence of autocorrelation of residues can significantly distort the predictive values, so if the Darbin-Watson test confirms the existence of autocorrelation of residues in the model, such a model shouldn't be used to calculate the forecast. Using the statistical package Statgraphics Centurion, models for forecasting the values of the criteria of efficiency of export-import activity of the enterprise PJSC «Turboatom» were calculated on the basis of growth curves (Table 1).

Table 1.
Models and values of the forecast of criteria of export-import activity efficiency

Forecasting models	Statistical criteria	Predictive values of criteria
$x_1 = \frac{1}{0,836 + 0,061 \ln t}$	$R^2 = 0,542, F = 8,28,$ $DW = 1,921$	1,024; 1,0179; 1,01245
$x_2 = \sqrt{1,318 - 0,142 \ln t}$	$R^2 = 0,986, F = 486,02,$ $DW = 2,021$	0,9957; 0,9889; 0,9827
$x_3 = \frac{1}{4,242 + 0,078t^2}$	$R^2 = 0,963, F = 184,42,$ $DW = 2,08$	0,0832; 0,0733; 0,0648
$x_4 = \exp^{-0,342 - 0,007t^2}$	$R^2 = 0,514, F = 7,39,$ $DW = 1,95$	0,3404; 0,2917; 0,2464
$x_5 = \frac{1}{-0,007 + 0,03t}$	$R^2 = 0,884, F = 52,93,$ $DW = 1,78$	36,4292; 36,1103; 35,8457

Source: developed by the authors

Statistical criteria indicate that the calculated models are suitable for forecasting the criteria. According to the forecast values of indicators of efficiency of export-import activity, we see the decreasing all values, and it is a bad tendency. The enterprise should urgently develop a program of action. Only a decrease in overdue liabilities is a good trend. One of the important diagnosis stages is the formation of reference values of diagnostic criteria and assessment and analysis of the state of the object based on the comparison of the achieved values of the criteria with the standards (Dove, 2020; Miller, 2019; Levchenko et al., 2018; Musa et al., 2017). If there are no legally proposed normative values of criteria, it's recommended to be based on optimal and predictive ones to form their relevant values.

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SMART ENERGY TECHNOLOGIES IN THE EU COUNTRIES²

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Smart energy policy in the European Union is an inevitable part of energy security strategy. Detailed analysis of the European smart energy market was conducted in the paper (Marekha et al., 2020). Special attention to the technological factors of smart grid efficiency concept was paid in the paper (Marekha, 2020).

The main technologies of intelligent electricity can be distinguished in the following way : web access management systems (WAMS); unified power flow controller (UPFC); flexible alternating current transmission systems (FACTS, FACDS); flexible alternating current distribution systems (FACDS); high-voltage direct current (HVDC), superconducting materials.

The Smart Grid information network integrates a lot of technical elements and components. In the electricity consumer domain, such items include smart meters, electrical appliances, energy storage systems, electric transport, and distributed generation facilities. In the domain of energy transmission and distribution, the elements of the information system are the units of phase measurement, substation controllers, distributed generation facilities, energy storage systems.

In the operating domain, the elements of the Smart Grid information system are SCADA (supervisory control and data acquisition) systems. In turn, each of the domains listed above may consist of its own subnets, which makes the overall architecture of the network quite complex. One of the key components of this information system is the security of data storage and transmission.

In accordance with generally accepted approaches abroad, a key element of Smart Grid information systems are IP networks (Internet Protocol). The advantages of using IP-protocols include the widespread use of this technology, the existence of a large number of the already developed industry standards, a significant number of relevant software products designed. In addition, IP-based solutions are easily scalable, enabling a large number of network elements (smart meters, home appliances, etc.) to be included in the information system.

The unification of data interfaces from primary metering devices to hubs and from hubs to the data processing system plays an important role in shaping the prospects of the global smart metering market. Such information technologies can significantly improve the efficiency of the operation of energy networks. In the

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countries of the European Union, the mostly spread technologies were the data interfaces with GSM/GPRS channels, PLC and radio channels. Table 1 lists the key communication interfaces used in smart energy accounting systems in the EU countries.

Table 1

The spread of the key communication interfaces used in smart energy accounting systems in the European Union countries

Country	Communication interface (from meter to data concentrator), %			Communication interface (from data concentrator to data processing system), %		
	PLC	GSM/GPRS	Radio-modem	PLC	GSM/GPRS	Optical fiber
Austria	70	30				100
Belgium						
Bulgaria	+	+				
Cyprus	+	+				
Czech Republic	99	1		+	+	+
Denmark	+	+	+			100
Estonia	90	10				
Finland	30	60	10			
France	100					
Germany	20	80				100
Greece	100			100		
Hungary						
Ireland	+		+			
Italy	100			+	+	
Latvia	100				100	
Lithuania	+	+			100	
Luxembourg	+	+		+	+	
Malta	+	+				
Netherlands	80	20				
Poland	100					
Portugal	85	15				
Romania	100				+	+
Slovakia	+		+			
Slovenia	+	+	+			
Spain	100					
Sweden	+	+	+	+	86	33

Source: Smart Grid

The implementation of national strategies in the area of Smart Grid and smart

metering technologies development in different countries of the world implies the achievement of a number of key goals, which may vary depending on the specificities of the energy market agents. Thus, for energy companies, the key goals of Smart Grid technology development are:

- reduction of energy losses;
- improving timeliness and completeness of payment for consumed energy resources;
- managing the irregularity of the electrical load schedule;
- improving the efficiency of asset management of energy companies;
- improving the quality of integration of renewable and distributed generation facilities into the power grid;
- increase of reliability of operation of the power system in case of emergencies;
- enhancing the visualization of energy infrastructure operations.

The key tasks for the energy consumers related to the implementing the Smart Grid technologies are:

- improving consumer access to energy infrastructure;
- improving the reliability of energy supply for all categories of consumers;
- improving the quality of energy use;
- creation of a modern interface of interaction of energy consumers with its suppliers;
- opportunity for the consumer to act as a full participant in the energy market;
- increased opportunities for consumers to manage energy consumption and reduce the level of payments for consumed energy resources.

The development of Smart Grid concept in the EU countries is based on efficient use of energy resources, which is a comprehensive approach in terms of combining environmental and economic interests in the system of rational nature resource management.

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CHALLENGES OF REMOTE EMPLOYMENT AND THEIR CONSEQUENCES FOR THE YOUTH SEGMENT OF THE LABOR MARKET IN UKRAINE

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Remote employment in the modern labor market is attracting more and more interest from both employees and employers. The pandemic has become a kind of catalyst for increasing such interest. Remote work has both advantages and disadvantages for each party to social and labor relations.

For the employee, the remote form of work organization requires the most self-discipline, personal responsibility, time management skills. Not all employees, especially the younger age group, are able to perform work in such conditions. The employer, for its part, must ensure that the work is performed using effective methods of accounting and control. Such challenges become an obstacle to the dynamic development of the economy.

Studies conducted by the Ukrainian group CEDOS (Filipchuk, Lomonosova et al., 2020) have shown that young people who should go from study to work are already called "lockdown generation". According to ILO forecasts, young people run the risk of being excluded from the labor market or "postponing" entry into the labor market - in particular due to the education crisis, as 79% of those who studied were forced to take a study break; some of them are involved in distance learning, which is not always effective enough.

The results of international research show that current megatrends of globalization, digitalization, environmental change and socio-demographic change, alone or in combination, affect the growth of flexibility in the European labor market (European Working Conditions Survey 2020 et al., 2020). In the realities of the business environment in Ukraine, employers often do not take into account the prospects of using young workers, most of whom are able to adapt quickly to change.

According to research (Kolot et al., 2020) among the current trends of demographic nature, which have a global manifestation, one of the most important is to increase the share of older people, and hence reduce the share of young people, including in the labor market. Objectively, young people have a higher level of education, a creative type of thinking, a tendency to non-standard professional decisions, so the demand for labor of this demographic group will grow steadily in the future. But today, for those aged 14 to 35, there is no risk of being unemployed because of the economic crisis caused by the pandemic.

The use of labor remotely creates certain preconditions for global

employment, ie the free movement of workers between jobs and companies in different countries without crossing borders.

It is already clear that in the post-pandemic period the global economy is undergoing transformations, so we should expect transformations in the labor market, in particular in its youth segment, in particular the decline in labor demand due to the expected new "wave" of robotics (Kolot et al., 2020).

Thus, the post-pandemic period for the labor market may be a kind of shock and exacerbate the existing problems of youth unemployment, but at the same time new opportunities open up.

According to I Ostrovskiy and K. Volkovska, in general, youth unemployment in Ukraine is characterized by certain features, in particular, there are higher unemployment rates among young men and people living in rural areas (Ostrovskiy and Volkovska et al., 2021).

A necessary condition for innovative development and improving the efficiency of employment, and especially in youth, is its flexibility.

Flexibility implies free flow of labor between labor markets, a wide variety of forms, methods, modes of labor use, differentiation of its payment, which creates conditions for more efficient use of labor resources, faster overcoming of crisis phenomena, adaptation to new challenges (Petrova et al., 2019).

Current forecasts suggest that in the near future we should expect a significant increase in non-standard employment, due to the trend towards digitalization of the economy. Digital employment by its nature requires a change in established perceptions of the spatial and temporal limits of the use of human labor.

At this stage, Ukraine's labor legislation on labor market flexibility is imperfect and incomplete. To date, it has made changes to remote employment, but the main provisions of this legislation do not contain a mechanism for the practical implementation of flexible forms of employment in the formal economy (unresolved issues of social protection of workers in new non-standard forms of employment).

Non-standard working conditions can give workers access to the labor market, but along with some flexibility in the relationship between employees and employers, many forms of labor use, including teleworking, do not deprive employees of certain guarantees in the workplace (Galayda TA, Tenytska NB and Chernogorska NV et al., 2018).

To increase the efficiency of remote employment in general and in the youth segment of the labor market in particular, a comprehensive integrated approach to the regulation of social and labor relations, taking into account trends in their development.

The main vectors of youth employment development at the present stage are innovation, flexibility and social security. They should become guidelines for the development of comprehensive programs.

Certain steps have already been taken in Ukraine today. Yes, March 12, 2021.

The Decree of the President of Ukraine approved the National Youth Strategy until 2030, which provides for the introduction of new approaches to youth development in Ukraine, taking into account important aspects of the Sustainable Development Goals of Ukraine. (www.president.gov.ua et al., 2021). In particular, this document states that it is necessary to increase the level of competencies of both young people and professionals who work with children and youth, and it is important to develop a network of youth centers for appropriate career guidance. Emphasis is also placed on the fact that the task of all social partners is to promote creative industries among young people and increase their competitiveness and employment, providing advice on professional and career development, taking into account their interests, opportunities and needs of the labor market.

We can hope that the adopted strategy will not remain just a declaration, but will become a roadmap for the development of new forms of youth employment, in particular the provision of social protection through the use of remote forms of work.

Thus, taking into account the best world practices of employment management, trends in the labor market, social and labor relations in the post-pandemic period, implementation at the state and local levels of social responsibility of business and workers has real prospects to increase the competitiveness of national and regional economies. as well as business entities in Ukraine.

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ECONOMIC CRISIS IN UKRAINE CAUSED BY THE COVID-19 PANDEMIC

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No matter how long analysts look for the root cause of the economic and financial crisis, one thing is clear - the collapse of the world economy is the result of its imperfections. Economic crisis - a phase of the economic cycle, during which there is a sharp restoration of the disturbed reproductive proportions through a decline in production, underutilization of production capacity, rising unemployment and others. This phenomenon is periodically repeated and manifested in the overproduction of capital and goods.

Crises are divided into certain types that reflect different aspects of the same crisis process: the industrial crisis (manifested in the mismatch between the mass of invested in the industry and the possibility of their profitable use), intermediate crisis (differs from cyclical in that it does not start a new cycle, and interrupts for some time the phase of rise or recovery), partial crisis (covers not the entire economy, but a certain area of economic activity), sectoral crisis (crisis in one of the sectors of the economy that may occur in any phase of the cycle).

The causes of socio-economic catastrophe in Ukraine can be called, first, almost complete or total nationalization of the economy, property, in which 92% of all means of production were in the hands of the state, they were managed by all-Union ministries and departments. Second, the concentration of 95% of all property located in Ukraine is in the hands of all-Union ministries and departments. Therefore, "rotten" seas were created on its territory, nuclear power plants were built near large cities, an excessive number of harmful industries were concentrated, and so on. Third, the significant militarization of the economy. Also, the suppression of national production, almost complete loss of the domestic market, as evidenced by the dominance of imported goods. And of course, the lack of a proper investment climate (Buriak & Artemenko, 2018; Bezzub, 2020; Bubyk et al., 2017; Constantoglou, 2020).

Characterizing the current economic crisis in Ukraine, it should highlight such important points. Rapid reduction of production. During for the period 1991-1996 the decline in industrial production was 65%, production in agriculture decreased by almost 50%, the volume of investment decreased by 5 times (Demkiv, 2018; Dudchenko, 2020; Escaith et al., 2020; Glants, 2018). Catastrophic depth and duration of the crisis phase. Reducing the production of national income by only 20% by world standards is considered critical for the economy. In Ukraine, the production of national income during the crisis decreased by almost 70%. All records

on the duration of the crisis have been broken (Grebeniuk & Jinan, 2017; Guley & Gusev, 2017; He, 2018; Kaya & Lumpkin-Sowers, 2020; Kendiukhov & Tvaronaviciene, 2017). It is also possible to reliably predict the long duration and phases of depression that will occur after the crisis. After all, the country's fixed capital is physically worn out by more than 60%, not to mention moral wear (Khmelevsky & Bagrova, 2020). So, even if there are funds, it will take more than one five-year plan to update almost all the fixed capital, to carry out the reconstruction of production. The depth and duration of the economic crisis in Ukraine is also due to the fact that, firstly, it is part of the crisis of the socio-economic system, secondly, unfolded against the background of monopoly in all areas, and thirdly, intertwined with crises: financial, structural, energy and environmental. All this creates inconsistency, contradiction and ineffectiveness of most measures taken by the authorities to stabilize the economy. Measures to reform the economy are not dictated by domestic conditions, which have been formed in Ukraine for many years, and not the interests of the vast majority of the population organizations and primarily the International Monetary Fund. Therefore, they do not have enough support from the population, which deepens the economic crisis and complicates the process of overcoming it.

In the updated macroeconomic forecast, the Cabinet of Ministers of Ukraine raised the inflation forecast for 2020 from the previously approved 5.5% to 11.6%. According to the updated macro-forecast, the government expects the unemployment rate to be 9.4% against the projected 8.1%, and the nominal wage adjusted for inflation will decrease by 4.5% compared to last year. The Ministry of Economy has also revised Ukraine's GDP forecast for 2020. It is currently expected to fall by 3.9% compared to the growth of 3.7%, which was forecast earlier, before the global crisis (Prishchepa, 2021).

According to IMF report, in the first half of this year, the COVID-19 pandemic had a more negative impact on economic activity, and recovery will be slower than previously expected.

According to the updated IMF forecast, in 2020 world GDP will decline by 4.9%. Two months ago, in April this year, the fund's experts estimated this year's decline at 3%. Developed economies are hit even harder - their GDP will fall by 8%. This is almost 2% more than in the previous forecast. For developing economies, the new forecast is minus 3% (Levchenko et al., 2018; Logan & Esmanov, 2017; Lopez & Alcaide, 2020; Lyulyov & Pimonenko, 2017). To this was added a "catastrophic blow" to the labor market. The IMF cites data from the International Labor Organization, according to which the reduction in working hours in the first quarter of 2020 compared to the fourth quarter of 2019 can be compared with the loss of 130 million full-time jobs in the world. But the second quarter more than doubled this figure - the equivalent of 300 million jobs was lost. World trade was also hit hard, falling by 3.5% in the first quarter alone. In general, the year-on-year decline may

be almost 12% (Prishchepa, 2021). This figure is very important for Ukraine given that its economy is considered export-oriented. This means that it is world trade that largely determines what revenues Ukrainian producers receive and how much taxes they can pay to the budget.

Questions arise for investors. First, with the spread of the coronavirus crisis and uncertainty, investors have lost interest in new market economies and are investing in safe assets. Second, emerging economies themselves are actively competing for the resources of MFIs, including the IMF and the World Bank, to fund coronavirus control costs. In addition, the National Bank expects that this year the fall in world prices for Ukrainian exports may deepen due to a significant drop in external demand. At the same time, energy prices, which Ukraine mainly imports, may fall even more (Vasylieva, 2018).

The new crisis has already resulted in problems with loan servicing and declining demand for new loans. According to the NBU, this crisis could lead to the loss of banks more than 10% of the loan portfolio.

However, the IMF is still optimistic about next year and believes that economic growth will resume at 5.4%. However, two months ago, the IMF was more optimistic, expecting 6% growth in 2021 (Vinokurov, 2020).

The IMF names the following parameters that will affect the speed of economic recovery (Yoshimori, 2019; Zainea et al., 2020; Zarutskya, 2018):

- duration of the pandemic and strictness of quarantine restrictions,
- social distancing that affects consumption,
- opportunity to find jobs for laid-off / displaced workers in other sectors,
- changes in the distribution of working time due to the need for social distancing and enhanced hygiene measures, increased spending on it,
- speed of recovery of supply chains in the world,
- the impact of restrictions on border crossings in the general fall in demand.

Of course, all these predictions can be crossed by the second wave of coronavirus spread. And this scenario is already being calculated by the IMF. However, as well as faster than expected recovery, if there is drastic progress in the fight against coronavirus.

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THE ANALYSIS OF ELECTRIC CAR CHARGING STATION INSTALLATION COSTS

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Given the world's limited fossil fuels, countries are trying to provide enough natural resources to create economic and environmental balance. The search for alternative energy sources will be crucial for the future development of the nation. One of the essential uses of fossil fuels is transportation. Many cars run on demand every day. Thus, the main consequence of burning fossil fuels is the release of large amounts of harmful gases, which creates the effect of global warming and harms human health.

Therefore, it is necessary to look for alternative fuels for cars. Electricity is considered the universal form of energy that can be efficiently transferred from one form to another. By converting sustainable renewable energy sources, such as solar and wind energy, into electricity, we can process energy much more efficiently and cleanly. Electrification of transport and the proliferation of electric vehicles can ease our demand for fossil fuels and help improve living conditions. Therefore, electric cars will become a significant part of the future transport system. Only the city's expansion by electric vehicles in the city without proper road connections and proper charging and parking infrastructure will suppress the usefulness of using electric vehicles due to their limited range of motion. Besides, existing gas stations are mainly designed for gas filling. Combining a refueling infrastructure with conventional filling stations may not be appropriate, as a relatively longer refueling process saturates the limited space of the filling station. Accordingly, it is necessary to carefully plan electric charging stations to upgrade the transport system or study how electric vehicles will be integrated into the transport system without any problems with the emphasis on charging stations.

The number of electric cars in Ukraine is growing quite rapidly, but electric charging stations' infrastructure is not developing fast enough. Electric cars are treated as the latest technology in the automotive market. Even though all developed countries are trying to switch to «green» electric car systems, interest in these vehicles worldwide is still low. An important issue for electric vehicles is the availability of adequate charging infrastructure, as waiting at charging stations due to lack of chargers can deny electric vehicle owners.

It is ambiguous to open a gas station in order to make money here and now. One needs to be prepared for a small income and a long payback period.

The infrastructure of charging stations is concentrated mainly in large cities, but on long-distance routes, the number of charging points is extremely limited.

Therefore, let us consider creating an autonomous charging station for electric vehicles on Kyiv- Sumy's long-distance route in Romny.

Since it is planned to create a fully autonomous charging station, we will start the calculation with the number of solar panels necessary for the continuous operation of such a station.

The magnitude of solar insolation in different regions of Ukraine differs significantly. On average, we can assume that every 1 kW of power of modern, high-quality panels will provide the next annual generation of electricity – 1135 kW * h (northern, north-western regions) (Skilky enerhii, 2021).

A solar panel with a power of 320 W was chosen for our business model; the price of one such panel is UAH 2,800 (Skilky enerhii, 2021). To calculate how much power a 320-watt solar battery produces, the above figure will need to be divided by 3,125. This will give the following figures (year) – 363.2 kWh.

Electric car charging stations are not in demand all day long continuously – load rates range from 5 to 35%. Let us take the average value: in this case, we need 250 kW every day. Therefore, solar panels must produce 91,250 kW per year. So we calculated that we need 286 solar panels with a capacity of 320 watts. It would help if you also bought an inverter, terminal, meter, and rechargeable battery.

Since one battery has an area of $1.65 \text{ m} * 1 \text{ m} = 1.65 \text{ m}^2$ (Soniachna panel, 2021), we will need the following area to build our station:

For solar panels: $1.65 \text{ m}^2 * 286 = 472 \text{ m}^2$.

For inverter and battery: 10 m².

For parking of electric cars: $5 * 10 \text{ m}^2 = 50 \text{ m}^2$.

Total $472 + 10 + 50 = 531 \text{ (m}^2\text{)}$.

The cost of 100 m² in Romny is UAH 2,500 (Vykorystannia zemelnykh, 2021), so for the station's construction, it is necessary to purchase land for UAH 13,275.

Two charging stations were selected for our model, namely one standard charging (model T2-36.1-22.2-7) (Zaryadnaya stantsiya, 2021), which has three connection points and one high-speed with three connection points (model Efacec QC45) (Efacec QC45, 2021). They can be used to service the following car models: BMW i3, Chevrolet Volt, Citroen C-Zero, Nissan Leaf, Renault Zoe, TESLA Model S, TESLA Model X, i.e., those that are most represented in Ukraine.

It is possible to service electric gas station by forces of 2-3 people. Estimated salary costs are presented below.

Position, UAH / month:

1) Contact center specialist – 7000.

2) Electrician (service specialist) – 8000.

3) Security (outsourcing) – 6000.

Total: 21000.

Let us consider the main financial indicators when opening an autonomous charging station (of course, the main costs will go to the purchase of the equipment itself):

1) The cost of solar panels: $286 * 2800 = 800\ 800$ UAH.

2) 2 charging stations = 950,000.

3) The cost of the land plot: UAH 13,275.

4) Inverter, rechargeable battery, meter: UAH 50,000.

5) Terminal: UAH 6,000.

6) Video surveillance: UAH 7,000.

7) Specialized software: UAH 11,000.

Total: UAH 1,838,075.

The next step is to set tariffs at the gas station:

The cost of “refueling” electric cars at high-speed and conventional stations will be different. To begin with, let us take the average prices (Skilky koshtuie, 2021):

High-speed charging network – UAH 9 / kW.

Normal charging network – 5 UAH / kW.

Thus, we can calculate the payback period of this autonomous station by the formula:

$$T = I / P$$

Initial costs (investments) – UAH 1838075, and the profit is calculated by the formula: $P = D - ZV$.

Variable costs of each year (s / n): $21\ 000 * 12 = 252\ 000$.

Income every year: $91250 * (5 + 9) / 2 = 638\ 750$.

Hence $P = 638\ 750 - 252\ 000 = 386\ 750$ UAH.

Having all the data for the calculation, we calculate the payback period:

$$T = 1838\ 075 / 386\ 750 = 4.8 \text{ (r.)}$$

Analyzing all of the above, we can conclude that the number of electric vehicles is growing every year, which requires an increase in the number of charging stations for electric vehicles. Thus, an effective business model of energy supply for electric vehicles in the cities of Ukraine has been developed. So, to open an autonomous charging station, we need UAH 1838075; the income will be UAH 638750 each year, and the profit will be UAH 341125. The payback period of this project will be 4.8 years.

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FOREIGN EXPERIENCE IN AGROVOLTAICS DEVELOPMENT

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Global and national challenges to energy and food security against the background of environmental problems require the search for innovative technologies for sustainable development of energy and agriculture sectors (Prokopenko et al, 2017; Kurbatova et al, 2019; Kurbatova et al, 2020). One of such technologies is agrovoltaics that provides for the simultaneous use of land for growing crops and generating electricity based on photovoltaic system (Perederii et al, 2020).

Today, agrovoltaics projects have become widespread in a number of countries. Some of them are pilot in nature and are being implemented for the purpose of conducting scientific research, while others have been used for making a profit from growing crops and generating electricity (Figure 1).

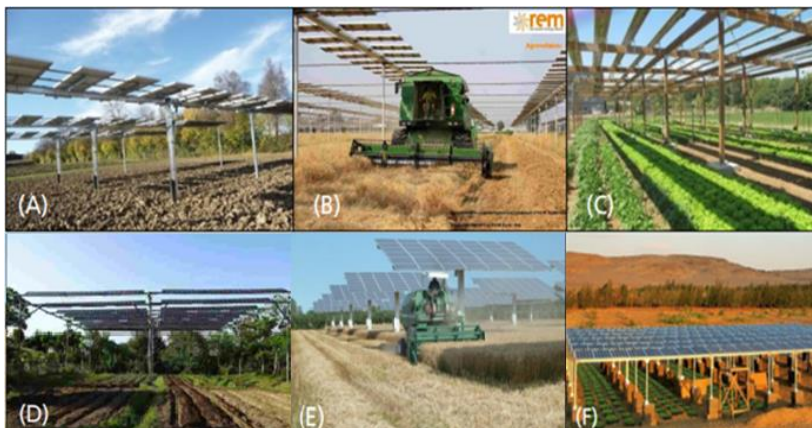


Fig. 1. Best practice examples of agrovoltaics system worldwide

(A) Bavaria, Hochschule Weihenstephan, 30 kW, 2013 (B) Italy, R.E.M. Spa, 3x 3 MW each, 2011 (C) France, University of Montpellier, 50 kW, 2010 (D) Japan, Solar Sharing, Ministry of Agriculture, Forestand Fishery, Akira Nagashima, 2013 (E) Italy, Corditec, Ahlers, 800 kW, 2012 (F) Egypt, SEKEM, Almaden, Kairo, 90 kW, 2017 (Fraunhofer ISE, 2017)

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Germany was the first country where agrovoltatics began to develop. The pioneer of this direction was Adolf Gotzberger, who founded the Fraunhofer Institute for Solar Energy Systems. The institute installed a “dual farm” on an area of one-third of a hectare, where the solar panels were located high enough for agricultural machinery to pass under them. Wheat, potatoes, celery and clover were grown under photovoltaic panels. Electricity generated by the agrovoltaic system has increased the economic efficiency of land use by 60% (Eco tech Ukraine, 2018).

A few agrovoltatics projects have also been implemented in the rest Europe in recent years. In addition to several research facilities in Germany, three commercial agrovoltaic projects, patented as “Agrovoltaico”, have been realized in North Italy. The installed systems have capacities of up to 1.5 MW using mounted solar modules (4–5 m height) with solar-tracking technology. In France, the first agrivoltaic plant in the open field of Sun’R is built in the spring of 2018 in Tresserre. This plant has a capacity of 2.2 MW installed on 4.5 ha of vineyards (Amaducci et al, 2018).

In the United States a pilot agrovoltaic system is installed at the University of Massachusetts. Peppers, beans, coriander, tomatoes, lettuce and broccoli are grown under solar panels. These crops are harvested by hand. The gaps between the solar panels of this system are 1–1.2 m wide, which allows to obtain almost the same crop yields as in the open sun. In general, state farms hardly use agrovoltaic systems in practice. To stimulate the development of this area, it has introduced a special program, the amount of which reaches 100 thousand dollars (Eco tech Ukraine, 2018).

Arizona has some experience growing peppers, tomatoes, avocados, and mangoes using agrovoltaic systems. Observations have shown that plants need half as much water as in the open sun. Solar panels protected them from frost, smoothed temperature fluctuations, extended the growing season, and the temperature in the shade of photovoltaic panels allowed workers to work in more comfortable conditions (Eco tech Ukraine, 2018).

India is a particularly promising region for agrovoltatics, as it has an economy that focuses on agriculture, and is rapidly expanding energy services, as up to 21.3% of India’s population does not have access to any form of electricity. In India, in addition to the installation of agrovoltaic systems, the installation on the panels of solar steam generators – portable devices that purify and desalinate water in the process of evaporation. Such devices, according to scientists, can have a positive impact on the sanitary and epidemiological situation in regions with a shortage of drinking water, reduction of diseases caused by lack of safe drinking water (“Agrarian Together” analytical system, 2020).

While in Europe and America mainly small-scale research and a few medium-scale commercial agrovoltaic facilities have so far been established, China is already implementing this technology on a large scale. More and more attention is being paid to expanding domestic demand to address China’s photovoltaic overcapacity. The

combination of photovoltaic energy and agricultural activities is a natural response to the supply of clean and sustainable electricity for agriculture. Various agricultural crops including rice and forage grasses are cultivated. In recent years, photovoltaic agriculture has grown rapidly in China thanks to a strong state support policy, thriving controlled organic agriculture, a focus on rural electrification policy, etc. (Xue et al., 2017).

In 2013, Japan's Ministry of Agriculture, Forestry and Fisheries passed a law allowing the installation of photovoltaic systems on agricultural land. The law was introduced in response to the nuclear disaster in Fukushima and enables farmers to diversify their income through solar sharing, thereby counteracting the decline in Japanese agricultural exports due to the disruption of farming outputs as a consequence of the disaster and the related rural exodus of farmers who had given up their businesses and moved into cities. In total, 1654 agrovoltaic projects were implemented between 2013 and 2018 (Sugibuchi et al., 2019).

Similar to Japan, the South Korean government supports small-scale agrovoltaic projects with average installed capacity 100 kW. It is expected that state support leads to installation of 100,000 agrovoltaic systems by 2030. Besides the scarce availability of arable land in South Korea, further political reasons for agrovoltatics promotion are the aging farmers and the issue of farm abandonment, since no descendants or newcomers are willing to take them over. Accordingly, it can be assumed that many agricultural areas will lie fallow, and the farmers' monthly pension will remain low since the land cannot be leased. So, agrovoltatics will increase land use efficiency, providing farmers with an additional monthly income and preserving the potential of future crop cultivation on the arable land. With respect to crop selection, the Korean government considers the current account for agricultural goods as part of the balance of payments. The implementation of agrovoltaic projects is subsidized for crops for which Korea records a current account surplus, with exports higher than imports (Han KC, 2019).

Thus, agrovoltatics as a relatively new technology is becoming increasingly popular in the world, and in the most developed countries it has become a practice. Moreover, all pilot projects and practices prove that agrovoltatics undoubtedly increases in commodity production, both in the form of agricultural products and in the form of clean renewable energy. The most promising potential of agrovoltatics systems can be expected in arid regions where various synergistic effects may occur. Crop production may benefit from increased water savings by reduction in evapotranspiration and adverse effects of excessive radiation, while economic viability is increased and rural electrification is made possible.

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PRICE EFFECTS AFTER ONE-DAY ABNORMAL RETURNS: ESG VS TRADITIONAL INDICES

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Prices in the stock markets should follow a random walk (Fama, 1965). Still there are many empirical evidences in favor of different patterns in price dynamics, so called market anomalies (Plastun et al., 2019). They can be caused by seasonal or another timing aspects like day of the week, month of the year etc (calendar anomalies) or to the specific events like force-majors or news. In some cases price movements can be predictable based on a set of fundamental variables (economic, political, etc). De Bondt & Thaler (1985) revealed another group of anomalies caused by market overreactions (overreaction hypothesis). These anomalies are related to the existence of the fat tails in the financial data which is against the normal distribution of the data and thus non-random specific of price behaviour.

Jegadeesh and Titman (1993) showed that after the overreactions, prices tend to move in the opposite direction. A specific case of overreaction hypothesis is price behaviour after one-day abnormal returns. Existing evidences are mixed for different markets and data sets. Bremer and Sweeney (1991) found evidence of price reversals after one day of price declines in the stock market. Parikakis and Syriopoulos (2008) confirmed existence of the contrarian effect after one-day abnormal returns in the Forex. However, Caporale & Plastun (2019) find evidences in favour of momentum effects after one-day abnormal returns in the crypto currency market.

Despite a lot of empirical evidences related to price effects after abnormal returns there are still unexplored aspects. For example, relatively unexplored case of price effects after abnormal returns related to ESG data. We have examined price effects (momentum and contrarian) after one-day abnormal returns in the stock markets both developed and emerging for the cases of ESG and conventional indices of MSCI family. A number of hypotheses are tested: after one-day abnormal returns specific price effects (momentum/contrarian) do appear (H1) for the case of positive (H1.1) and negative (H1.2) returns; price effects after one-day abnormal returns are stronger for the case of traditional indices compared with ESG indices (H2). For these purposes different statistical tests and methodological approaches are used including average analysis, modified cumulative abnormal returns approach, regression analysis with dummy variables, R/S analysis, parametric Student's t-test and ANOVA, non-parametric Mann-Whitney tests and trading simulation approach.

We compare the power of detected effects for the cases of ESG data and Traditional indices. Results for the positive and negative abnormal returns are presented in Tables 1 and 2 respectively.

Table 1

Comparison of the price effects after one-day positive abnormal returns: ESG vs Traditional indices

Period	ESG		Traditional	
	Type of effect	Power	Type of effect	Power
USA	contrarian	6	contrarian	7
UK	momentum	1	momentum	2
Japan	contrarian	7	contrarian	4
China	momentum	2	momentum	5
India	momentum	2	momentum	3

Based on the results of Table 1 it's hard to find any evidences in favor of Hypothesis 2. Types of effects are the same both for the ESG and Traditional indices. The power of detected effects is different for different countries and used approaches, but there is no any detectable pattern in these differences. No ESG, no traditional indices are more vulnerable for the price effects after one-day positive returns.

Table 2

Comparison of the price effects after one-day negative abnormal returns: ESG vs Traditional indices

Period	ESG		Traditional	
	Type of effect	Power	Type of effect	Power
USA	contrarian	6	contrarian	6
UK	contrarian	3	contrarian	2
Japan	contrarian	7	contrarian	7
China	contrarian	4	contrarian	2
India	momentum	1	momentum	1

According to results from Table 2 types of effects are the same for the ESG and traditional indices. The power of these effects is very close for the analyzed data

sets.

This means Hypothesis 2 is rejected: price effects after one-day abnormal returns are not stronger for the case of traditional indices compared with ESG indices.

Results are mixed for the case of H1 and provide no evidences in favor of H2. The US stock market is extremely vulnerable for the price effects after one-day abnormal returns in the form of contrarian price movements. Some strong effects are found in the Japanese stock market data. ESG data results in general are in line with those for the conventional indices.

The results of this paper provide a bunch of new empirical evidences related to the price effects after one-day abnormal returns in the ESG indices. From the point of economic theory, they give additional evidences against the Efficient Market Hypothesis: markets are efficient only partial. For example, the US stock market even nowadays extremely vulnerable for the price effects after abnormal returns (prices tend to move in the opposite direction the day after the day with abnormal returns) and they can be exploitable to generate abnormal profits from trading. So “beat the market” attempts make sense. Behavioral finance gets another experimental confirmation in favor of irrational markets. Practitioners can use the results of this paper to generate extra profits from trading based on detected price patterns.

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PROSPECTS FOR STRENGTHENING THE SUSTAINABILITY OF THE FINANCIAL SYSTEM OF UKRAINE

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The stability of the country's financial system is considered its ability to actively respond to the effects of external shocks and internal imbalances, while maintaining the ability to constantly reproduce their original - pre-set qualities or their purpose as part of a higher-order mega system (Aguilar & George, 2019; Awojobi, 2019; European Commission, 2016).

For its assessment in Ukraine, indicators were used, each of which reflects certain aspects of financial stability systems of the national economy using existing methodological approaches, including developed on the basis of the methodology of the IMF, the European Commission, the World Bank, in particular, the approaches of the NBU (to assess financial stability in the banking sector) and the Ministry of Finance of Ukraine (to determine the debt and fiscal stability of the state) (European Commission, 2016).

The current global economic crisis, provoked by the reaction of most countries to the spread of coronavirus COVID-19, first revealed the accumulated problems with dollar liquidity in the financial system and corporate debt problems, and then - moved from the financial sector to the real economy. And now the world economy is experiencing a unique combination of two shocks at once - falling demand due to quarantines and declining supply of goods due to the shutdown of enterprises and disrupted logistics. Although not fully immersed in international logistics chains, Ukraine is sensitive to turbulence in the world economy, as it is a small and open economy with a predominantly raw material export structure. Falling export earnings, capital outflows, and a sharp reduction in the inflow of workers' funds can ultimately negatively affect the stability of the national currency, and then the devaluation may provoke other problems. And all this is superimposed on the huge debts accumulated before the beginning of the crisis (significant volumes of their return in the current and next years) together with budgetary problems caused by the shutdown of enterprises due to quarantine (Boutchouang, 2019; Bublyk et al., 2017).

The analysis and assessment of the latest complex risks associated with the global crisis and the need to combat the spread of COVID-19 showed the existence of significant risks to the stability of Ukraine's financial system in the budget, debt and banking, which necessitated rapid action by the state to maintain financial stability in the short term and to continue reforming public finances (Basic Basel principles).

The analysis of fiscal sustainability factors in terms of budget revenue generation showed the weak functionality of the tax system, which is manifested in the lack of fiscal, limited regulatory potential and distrust of the supervisory function of taxes. In order to strengthen the stability of the financial system in the process of acceleration socio-economic growth, the following priorities should be implemented: improving the functionality of the tax system, simplifying procedures and reducing the cost of tax administration through the development of electronic services and income tax evasion, modernization of customs technical and IT infrastructure to prevent smuggling and "gray" imports (Dudchenko, 2020; George, 2020; Giebe et al., 2019; He, 2018; Kendiukhov & Tvaronaviciene, 2017; Levchenko et al., 2018).

The analysis of the state of public debt in Ukraine showed the existence of problems and trends that negatively affect the debt sustainability of the state, the key of which, in particular, are: large amounts of public debt with excessive currency component; high cost of borrowing and significant pressure of debt payments on the budget; low efficiency of use (sampling) of borrowed funds for MFI investment projects; lack of effective tools for managing state-guaranteed debt and accumulation of overdue debts of borrowers to the state for the provision of state guarantees on loans; risks of making additional payments on GDP warrants (Lopez & Alcaide, 2020; Lyulyov & Pimonenko, 2017; Musa et al., 2017). Despite some improvement in some indicators, Ukraine's debt sustainability remains low and the national economy is too vulnerable to both external shocks and internal imbalances. The priority of the state policy in the debt sphere should be purposeful improvement of the structure of public debt in order to reduce its value, increase the repayment period, and minimize debt risks (currency, budget and refinancing risk) with a gradual transition to establishing a direct link between government borrowing and government investment expenditures.

The analysis of the state of the banking sector of Ukraine showed that the negative factors for achieving stability of the financial system remain extremely slow recovery of bank lending, high share of problem loans in banks' loan portfolio, significant outstanding refinancing loans, high share of foreign exchange assets and liabilities. In government securities; weak growth rates of profitability and capitalization of the banking system (Ahmad & Atniesha, 2018; Poliakh & Alikariyev, 2017; Stavrova, 2019; Subeh & Boiko, 2017; Umadia & Kasztelnik, 2020; Vashchenko & Cherniavskyi, 2017; Vasyliieva et al., 2018). The priorities of Ukraine's monetary policy should be, in particular: recovery of banks' problem loan portfolio, reorientation of bank investments from government securities to lending to businesses, growth of bank deposits as the main source of resources for bank loans, restoration of banking system capitalization, return funds lost by the state, which were provided to banks in the form of refinancing; reduction of currency risks by improving the currency structure of bank assets and liabilities (Comprehensive

program for the development of the financial sector of Ukraine until 2020).

Obstacles to ensuring the financial stability of the banking system of Ukraine are, in particular, the following key problems of the Deposit Guarantee Fund: incorrect definition of the objectives of the deposit guarantee system, lack of adequate interaction of the deposit guarantee system with other elements of financial stability, limited resources and lack of resources. instruments of profitable placement of own funds, a small amount of the guaranteed amount of reimbursement of bank deposits and a limited number of applicants for reimbursement. The key measures to improve the Deposit Guarantee Fund of individuals are creation of an effective system of management and sale of assets of insolvent banks, solving the problem of debt restructuring of DGF to the Ministry of Finance, approximation of Ukrainian banking legislation to guarantee deposits to the European Union. Attribution to the tasks of the Fund for the protection of the rights of all depositors, expansion of the Fund's powers, acquisition of participation in the Fund by other financial market participants, changes in the Fund's financing system, changes in the Fund's investment principles, reduction of the term DGF (Comprehensive program for the development of the financial sector of Ukraine until 2020).

Inflation dynamics in Ukraine has a positive trend due to the regulator's adherence to tight monetary policy, moderate fiscal policy of the Government and favorable price situation on the world energy market, as well as growth in the supply of food products in the domestic market. At the same time, there are still risks of price growth associated with deteriorating foreign trade conditions, rising rail freight and excise duties on tobacco products. The purpose of the monetary policy of the state for the coming years should be to reduce inflation to certain targets, which is a prerequisite for stability in the monetary sphere, including exchange rate stability of the hryvnia and intensification of bank lending through: accumulation of international reserves and their rational use; compliance with a positive level of NBU interest rates relative to projected core inflation; keeping the money issue within the parameters set by the state budget; reduction of recapitalization of state-owned banks; implementation of a set of measures to de-shadow the economy (The National Bank of Ukraine).

In Ukraine, there are no perfect institutional mechanisms that would ensure the coordination of actions of economic authorities to overcome existing imbalances and prevent new ones. In this context, it is necessary to identify the institution responsible for monitoring imbalances and making appropriate recommendations, including on the application of European experience in forming a "scoreboard" of macroeconomic imbalances and crisis prevention. Another important conclusion from the European experience is the need to consider macroeconomic stabilization in the inseparable context of structural reforms. Implementation of mechanisms for assessing the sustainability and coordination of financial policy components will require the NBU to cooperate with the executive branch within a single system for

identifying and overcoming macroeconomic imbalances, which should include testing of draft state budgets, discount rates, government and NBU planning actions public debt, etc. in terms of their likely effects on macroeconomic stability and financial stability (The National Bank of Ukraine).

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GREENING OF PRIVATE AND CORPORATE INVESTMENTS

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The transformational process of the world economy model has been going on since the end of the 20th century (Alam & Rashid, 2019). The implementation of this process began at the international level with the signing in 1992 of the United Nations Declaration on Environment and Development. It continued at the state level by implementing relevant international instruments in the legislative system of different countries (Shkarupa, 2020). The goal of transforming the economic model is the transition from a "carbon" to a "green" economy, which requires significant investment (Lusk & Mook, 2020). The Center for Sustainable Development of the international bank HSBS in its report for 2019, estimated the underfunding of sustainable projects at 2.3 trillion. US dollars (Report, 2021). Targeted public, corporate and private investments need to be attracted to finance the relevant projects. As these investments are aimed at achieving the goals of sustainable development, as well as the transformation of the economy into low-carbon and resource-efficient, they are identified as "green" (Pavlyk, 2020). In economics, there are different approaches to defining "green" investments made by foreign and domestic economists, as well as international organizations such as the United Nations, the World Green Council and the Organization for Economic Cooperation and Development, and others (Potapenko et al., 2017). Summarizing these definitions, we can conclude that **"green" investments** are investments by economic entities in financial instruments and projects that achieve sustainable development goals, including renewable energy, reducing emissions and waste recycling, as well as improving the environment and well-being of people. Unlike the "classic" concept of investment, "green" is not always aimed at making a profit, and the goal may be to reduce pollution, eco-social projects, etc (Potapenko et al., 2017).

"Green" investments can be classified on various grounds:

1. Economic entities making investments:
 - international financial organizations;
 - the state (through budget funding or state sovereign wealth funds);
 - commercial structures (banks, investment, and pension funds, enterprises, etc.);
 - charitable organizations;
 - households (Marcel & Am, 2019).
2. Depending on the method of involvement:
 - direct funds (sent from the investor to the borrower or fund manager);

— indirect investments (from the investor to the financial intermediary, and then through financial instruments to the borrower) (Agnihotri et al., 2019).

3. Depending on the direction of investment:

- renewable energy;
- waste processing;
- "green" transport;
- energy efficiency and energy-saving measures;
- environmental clean-up measures;
- environmentally friendly transport and industry;
- social measures aimed at improving sanitary conditions (Pavlyk,

2020).

4. Depending on the type of investment:

- bonds and shares;
- credits and loans;
- state budget financing;
- grants, etc (Dkhili, 2018).

Also, "green" investments can be divided into profitable (the main purpose of the investor is to make a profit and non-profitable investors are international organizations, states, charitable foundations, the main purpose is to improve the environment and human well-being (Nguedie, 2018).

Today, "green" investments are actively attracted through securities ("Green bonds, shares"), loans from banks that finance projects in the field of sustainable development, and in the form of direct government and corporate financing (Bhowmik, 2018). The market of "green" bonds shows significant growth dynamics for the 3rd quarter of 2020 - 69.4 billion US dollars were issued, which is 21% more than the bonds issued in the 2nd quarter of 2020 (Report, 2020). "Green" loans are also actively used worldwide, particularly in Ukraine from 2015 to 2019. UAH 7.4 billion was raised as part of the financing of energy efficiency measures for households (Report, 2020). Demand for private and corporate "green" investments has led to the emergence of specialized investment funds that invest in "green" projects (Chygryn & Krasniak, 2015). It should be noted that investments in the share capital of companies operating in the "green" economy can be very profitable. A clear example is a rise in share prices of Tesla from \$ 100. for one share in early 2020. up to over \$ 800 for one share in early 2021 (NASDAC, 2021).

In turn, the corporate principles of "green" finance were formed, which were implemented in the standards of many companies and organizations (Hanić & Jevtić, 2020). According to their legal status, these principles are declarative in nature, and each economic entity implements them voluntarily and undertakes a public obligation to comply with the following requirements:

1. include sustainability in corporate strategy and organizational structure;

2. understanding of environmental, social, and managerial risks;
3. disclosure of environmental reporting on the impact of activities and investments on the environment;
4. improving communication with stakeholders (environmental organizations, media, and civil society);
5. use of green financial instruments ("green" bonds, investing in "green" funds, environmental liability insurance);
6. introduction of environmental supply chain management (integration of ESG factors and use of international environmental impact accounting practices at all stages of operational activities);
7. Capacity building through collective action (through active interaction with associations of organizations, research institutes, think tanks, etc.) (Smolennikov & Kostyuchenko, 2017).

Transformational processes in the economy are reflected in all areas, including finance. The transition to the model of a "green" economy requires significant investment, which forms a significant demand for "green" investment (Masharsky et al., 2018). Funding is raised through financial intermediaries through the issuance of securities or "green" loans, as well as through direct financing of projects. The main investors in the field of "green" investments are banks and funds. At the present stage of development of the financial system and corporate governance, the principles of "green" financing have been formed, which allows consolidating the regulatory regulation of the identification of "green" investments (Sotnyk et al., 2018). For the further development of greening of private and corporate investments, it is important to build an effective financial mechanism that would allow attracting more funds with minimal risks.

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FEATURES OF FOREIGN TRADE IN GOODS AND SERVICES IN UKRAINE

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Ukraine's foreign trade in goods is the activity of participants in economic relations between Ukraine and other countries, the purpose of which is to purchase and sell goods outside Ukraine or on its territory.

The leading role in setting the price on the world market is played by aggregate services provided by producers and sales of a certain product to the importer or end consumer. These services are related to the promotion, sale and use of goods (Hrechyshkina & Samakhavets, 2018; Liubkina et al., 2019). This is especially true in today's world, when high technology is becoming widely used. With the development of science and technology, the price increases for almost all goods, as labor costs are reduced, production efficiency and productivity increase. When analyzing prices, it is important to pay attention to the movement of the economic cycle, which has certain features in the field of international economic relations. In the stage of depression, prices do not rise. At the stage of growth, on the contrary, prices rise because demand exceeds supply (Lyulyov, O. V., & Pimonenko, 2017; Bublyk et al., 2017; Kendiukhov & Tvaronaviciene, 2017; Mujtaba et al., 2019).

Exports of goods in 2019 compared to 2018 increased by 5.7% (by 2.7 billion dollars) and amounted to 50.1 billion dollars. Imports of goods decreased by 3.4% (by 0.5 billion dollars). In 2019, Ukraine exported the most products of plant origin, base metals, machinery, equipment and mechanisms, electrical equipment (Державна, 2021). With regard to imports, the largest volumes were in mineral products, chemical products, machinery, equipment, machinery and electrical equipment (Kandel & Acharya, 2018; Khan & Hossain, 2018; Vargas-Hernández et al., 2018; Rakotoarisoa, 2019). Among the main trading partners of Ukraine in exports of goods in 2019 are the following countries: the EU – 41.5% of total exports, China – 7.2, the Russian Federation – 6.5%, Turkey – 5.2%, India – 4%, Egypt – 4, 5%, Belarus – 3.1% and others (World, 2021; International Trade, 2020).

Traditionally, the main groups of Ukrainian exports were the products of agro-industrial complex and food industry – 37.6%, metallurgical complex - 26.8%, mechanical engineering – 11.4%, mineral products – 9%, chemical industry – 5.1%, wood and paper pulp – 4.2%, various industrial goods – 3.2%, light industry products – 2.7%. The growth of exports occurred in all major groups of goods compared to the same period in 2019. Thus, exports of agricultural products and food industry increased by 3.4%, metallurgical complex by 28.2%, mechanical engineering –

27.9%, mineral products – 15%, chemical industry – 35.3%, wood and paper pulp – 49 , 6%, various industrial goods – 53.9%, light industry products – 24.5% (Міністерство, 2021).

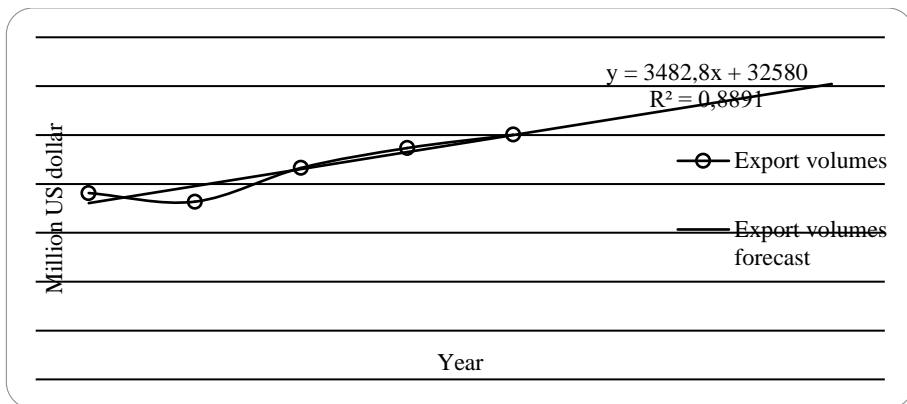


Fig. 1. Dynamics and forecasting of exports of goods of Ukraine, million dollars

Source: Державна, 2021

For the period 2015 – 2019 the largest volumes of exports of goods were in 2019, and the smallest – in 2016.

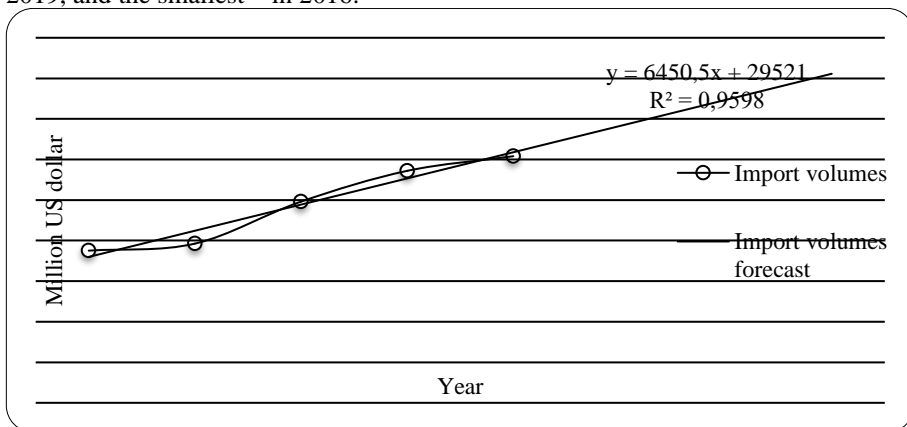


Fig. 2. Dynamics and forecasting of imports of goods of Ukraine, million dollars

Source: Державна, 2021

The largest volumes of imports of goods were in 2019, and the smallest - in 2015. Thus, the current state of foreign trade in goods is characterized by high external openness of the national economy, deepening the imbalance between exports and imports, bipolar structure of foreign trade, the dependence of exports on foreign markets (International Trade, 2020; Trifu, 2020; Bardy & Rubens, 2019; Abeysekera, 2020; Miller, 2019; Pomianek, 2018).

It should be noted that the role of international trade in services has been sharply growing in recent years. Such trade is becoming an increasingly important form of international economic activity in Ukraine. Although Ukraine has enough competitive advantages, such as favorable transit status, highly skilled labor force, extensive transport infrastructure, it still does not occupy a high position in the world market of services (El Amri et al., 2020; Wieland et al., 2020; Bouazizi, 2020; Aslam, 2020; Weldelessie et al., 2019).

Ukraine exports the most transport services (59.3%), telecommunications services, computer and information services (16%), material resources processing services (10.7%) and business services (7.9%). Largest imports: transport services (23.1%), travel services (19.7), business services (19, 8%), financial services (7.1%), government and government services (11.1%) (Міністерство, 2021).

According to 2019 data, Ukraine exports the most services to Russia, the United States, Great Britain, Switzerland, Germany, and Cyprus. The largest imports: Great Britain, Russia, Germany, USA, Turkey, Poland (World, 2021).

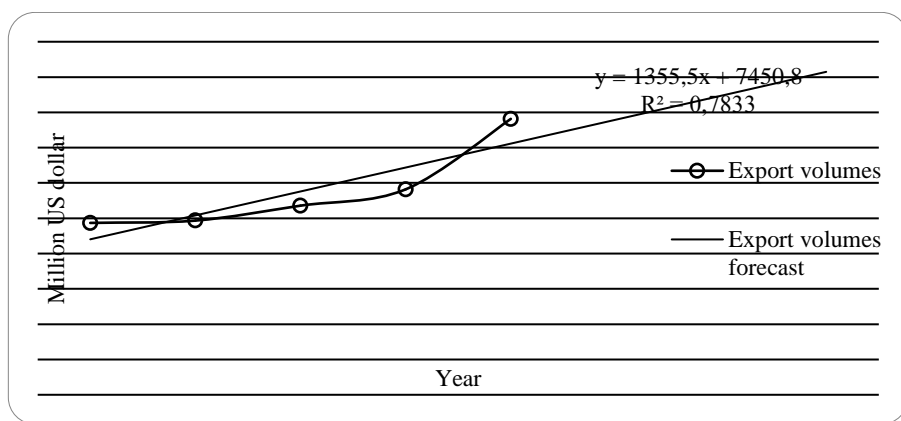


Fig. 3. Dynamics and forecasting of exports of services of Ukraine, million dollars

Source: Державна, 2021

For the period 2015 - 2019, the largest volumes of exports of services can be traced in 2019, and the smallest - in 2016.

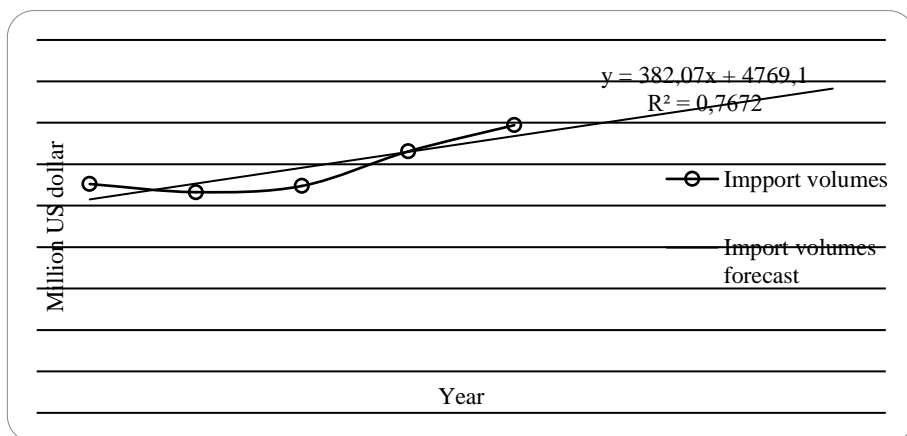


Fig. 4. Dynamics and forecasting of imports of services of Ukraine for 2015-2019, million dollars

Source: Державна, 2021

The largest volumes of imports of services were in 2019, and the smallest – in 2016.

Thus, Ukraine plays a minor role in international trade in services, despite the existing technological potential. Foreign trade in services is characterized by a positive trade balance, the largest share of exports are transport services (International, 2020). Ukraine consumes more foreign financial and business services than it provides.

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INNOVATION DEVELOPMENT AS A DRIVER OF COUNTRY'S COMPETITIVENESS: THE IMPACT ASSESSMENT

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One of the UN Sustainable Development Goals is to promote sustainable economic growth and policies focused on entrepreneurship and innovation (The United Nations). Thus, inclusive, and sustainable industrialization together with innovation and infrastructure have the potential to increase the dynamic and competitive economic forces that create employment and income. However, if the least developed countries are to achieve the UN Sustainable Development Goals by 2030, they must not only increase production levels, which declined even before the COVID-19 pandemic, but modernize sustainable critical infrastructure and increase investment in research and innovation.

In this context some approaches cover financing under conditions of sustainable development based on the principles of public-private partnership (Karpenko & Shyshova, 2015), substantiation of innovation development strategy and its aims (Zakharkina & Zakharkin, 2014). Ecological and economic effect of investments take place too (Pokhylko, 2012). Moreover, opportunities and threats to ensure sustainable development relate to financial decentralization of territorial communities (Tiutiunyk & Reshetnyak, 2017). In our opinion, the barrier is the deep deficit of competitiveness of some countries. We agree that globalization and the fourth industrial revolution created new opportunities, but also caused disruption and polarization within countries and between the economies of the world. The results of the Global Competitiveness Index in 2019 show that most economies continue to remain far from the 'border' of competitiveness (Schwab, 2019). So, we hypothesize that the indicator of innovation capacity has a significant impact on the total assessment of competitiveness, and we will check its validity in this research.

Simonceska (2012) emphasizes the strength of change and innovation in relation to the country's competitiveness by considering important ways to overcome resistance to innovation. Sacio-Szymańska (2013) analyzes factors influencing the creation of innovations and economic competitiveness of countries, including the level and structure of R&D expenditures, key national R&D priorities supported by major government programs, level of general entrepreneurial activity, etc. Doğan (2016) examines the impact of some factors that characterize innovation on the competitiveness of the EU countries. The author substantiates that knowledge and technology, and creative result have a positive effect on competitiveness. However, the impact of the level of country's innovation development on the total assessment of its competitiveness is covered in fragments and needs to be formalized and empirically confirmed.

The sample of data from 24 European countries for 2019 (which are simultaneously presented in all these rankings) was formed by blocks of influential international competitiveness ratings to investigate the impact of the level of country's innovation development on the total assessment of its competitiveness:

- ‘Innovation Capability’ (IC) (The Global Competitiveness Index – GCI), which contains indicators of interaction and diversity (diversity of the workforce, the state of development of clusters, international joint inventions, cooperation between stakeholders), R&D (evaluation of scientific publications, patent applications, R&D costs, popularity of research institutions) and commercialization (segments of buyers and applicants of trademarks);

- ‘Scientific Infrastructure’ (SI) (IMD World Competitiveness Ranking – WCR), which includes indicators of the structure of R&D expenditures, qualification of scientists and researchers, publishing activity, patents and grants, Nobel Prizes, average - and high-tech added value, intellectual property rights, knowledge transfer;

- Innovation Sub-index (ISI) of the EU Regional Competitiveness Index (ERCI), which combines indicators of technological readiness (the level of technology use), business complexity (productivity and enterprise potential, response to competitive pressure, inflow of foreign direct investment) and innovation in products and processes (Table 1).

Table 1.

Innovation development as a driver of country's competitiveness

Country	GCI		WCR		ERCI	
	Total ranking	Place by 'IC'	Total ranking	Place by 'SI'	Total index	ISI
Austria	21	14	19	13	77	66
Belgium	22	17	27	18	76	72
Croatia	63	73	60	55	32	32
Czech Republic	32	29	33	26	60	52
Denmark	10	11	8	10	83	74
Finland	11	12	15	16	73	72
France	15	9	31	12	67	62
Germany	7	1	17	5	80	70
Greece	59	47	58	41	24	30
Hungary	47	41	47	35	40	34
Ireland	24	21	7	22	68	70
Italy	30	22	44	21	42	42
Latvia	41	54	40	57	39	38
Lithuania	39	42	29	44	45	36
Luxembourg	18	19	12	27	94	97

Continued Table 1

Netherlands	4	10	6	15	87	77
Poland	37	39	38	31	43	29
Portugal	34	31	39	32	43	42
Romania	51	55	49	42	18	11
Slovakia	42	44	53	50	44	35
Slovenia	35	28	37	30	61	55
Spain	23	25	36	24	44	46
Sweden	8	5	9	9	81	73
United Kingdom	9	8	23	11	82	84

Source: developed by the author based on Schwab, 2019; Annoni & Dijkstra, 2019; International Institute for Management Development, 2019.

Then we determined the type of functional relationship between the innovation development of the country and the level of its competitiveness using correlation and regression analysis due to the STATA software package (Table 2).

Table 2.
The results of assessing the impact of country's innovation development on the level of its competitiveness.

Result indicator	Factor indicator	r	Function	R ²	Prob > F	P > t	[95% Conf. Interval]
Total ranking GCI	Place by 'IC'	0,9493	GCI = 0,86 IC + 4,87	0,9012	0.00	0.00	.736112 .9885717
Total ranking WCR	Place by 'SI'	0,7559	WCR = 0,83 SI + 8,5	0,5714	0.00	0.00	.5126981 1.148953
Total index ERCI	ISI	0,9693	ERCI = 0,98 ISI + 5,56	0,9396	0.00	0.00	.8685429 1.087842

Note: Prob > F – the level of significance of F-statistics (< 0.05); P > |t| – the level of significance of t-criterion (< 0.05); r – correlation coefficient; R² – coefficient of determination.

Source: developed by the author

That is why hypothesis of the significant impact of country's innovation development on its competitiveness is confirmed by the obtained values of correlation coefficients, which characterize significant, strong ($r > 0,7$) and very strong ($r > 0,9$), direct, and positive relationship between the investigated indicators, coefficients of determination ($R^2 > 0,9$; $R^2 > 0,5$), and the levels of significance of F-statistics and t-criterion (for all ratings the value is 0,00, not exceeding the

allowable 0,5). It confirms the statistical significance of the coefficients in the established functional dependencies, the adequacy of constructed linear regression models and the quality of the results of the correlation and regression analysis.

Thus, the impact of innovation development on country's competitiveness is statistically significant, direct (positive), very strong (according to GCI and ERCI ratings) or strong (according to WCR rating). With an increase in the value of innovation capability indicator by 1 %, the Global Competitiveness Index will increase by an average of 0,86 %, scientific infrastructure indicator – the value of IMD World Competitiveness Ranking will increase by an average of 0,83 %, innovation sub-index – the EU Regional Competitiveness Index will increase by an average of 0,98 % (probability of the hypothesis erroneous acceptance is 0 %).

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FISCAL EFFICIENCY OF LOCAL TAXES IN UKRAINE

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Effective realization and growth of tax potential of regions is the main condition for dynamic development of local and national economy as a whole. One of the most important instruments of influence on the pace of social and economic development and improve people's lives is the formation of local finances.

Ensuring an increase in their content will help increase the financial independence and sustainability of local governments. The main sources of local budget revenues are local taxes and fees, which ensure the implementation of the government's functions entrusted to them.

Recently, the issue of fiscal efficiency of local taxes is receiving more and more attention as one of the important components of sustainable development of any territorial unit.

In a general sense, local taxes should be considered as local tax payments paid by individuals and legal entities at the initiative of local governments in accordance with current legislation to form a system of independent local finances.

It is the responsibility of local authorities to develop and approve the regulations on local taxes and fees to be paid by citizens. It should be noted that local governments have the right to establish on the relevant territories only those taxes, the implementation of which is required by the current legislation (Tax Code, 2010).

Also, the peculiarity of local taxes and fees is that there is no specific rate. There are limits of tax rates, and the decision on their size is made by each local council independently for its territory.

Thus, the approved regulation on local taxes and fees is the main regulatory act on local taxation in the territory where taxpayers, objects, taxation base and other elements of local taxes are established.

Local taxes are undoubtedly the drivers of economic and social development of cities. For example, economic growth of cities is possible due to the development strategy, which is aimed at improving the level of urban infrastructure.

Besides this, local taxes must be directed to help the unprotected groups of the population. Nowadays the importance of social function of taxes is increasing, so by providing benefits and material assistance it is necessary to support the people who require it. Also, an equally important factor is the support of small and medium-sized businesses (Prots, 2016).

All this contributes to raising the level of the economy of the country and increasing the social wellbeing of the population.

Local budgets are formed from tax and non-tax revenues. To analyze the fiscal efficiency of local taxes, it's necessary to consider their share in the total local budget and tax revenues (Figure 1).

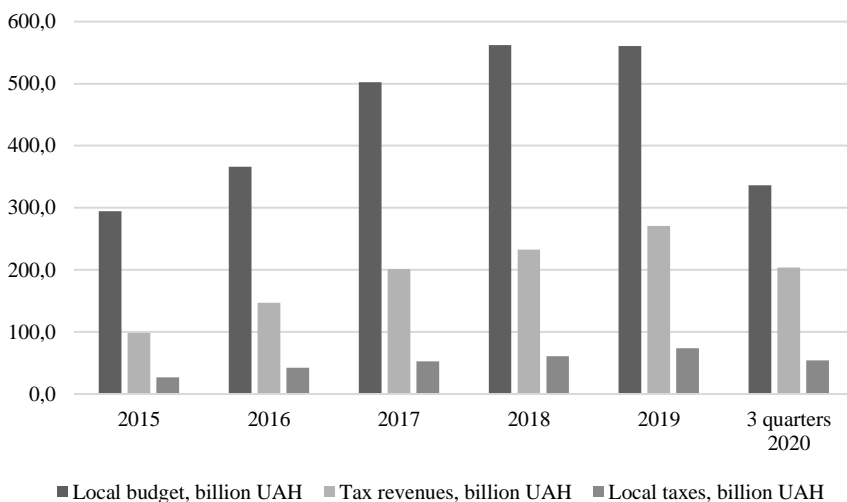


Fig. 1. Structure of local budgets in terms of tax revenues and local taxes, 2015 – 2020

Source: (Prots, 2016).

According to Figure 1, we can conclude that the amount of tax revenues in the total local budget has been constantly increasing during 2015-2019. The amount of tax revenues increased by 173.2 billion UAN or 275% during the analyzed period. This indicates that tax revenues are becoming a major part of local government revenues.

As it may be seen from the chart, the amount of local taxes has also increased over the last 5 years. At the beginning of the period, in 2015, it was equal to 27 billion UAN, but in 2019 the amount of local taxes reached 73.6 billion UAN. In comparison with 2015, the amount of local taxes has increased by almost three times. In 2020, due to the epidemiological situation in the world, the amount of tax revenues fell.

Thus, the fiscal importance of local taxation has increased substantially, but the dependence of the formation of tax revenues of local budgets on the general state taxes and fees remains high. However, there is a positive tendency to increase the net value of local taxes in the own funds for the last years. The conclusions are also confirmed by the calculation of the coverage ratio by local tax revenues of local budgets (Figure 2).

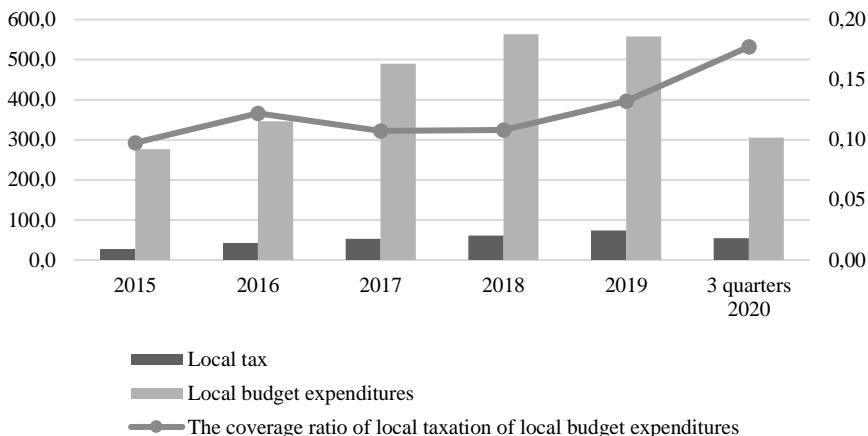


Fig. 2. Dynamics of coverage ratio by local taxes of local budgets of Ukraine, 2015 – 2020

Source: (State Treasury Service of Ukraine, 2021).

According to Figure 2, we can conclude that the increase in the amount of local taxes in the local budget leads to an increase in the rate of costs coverage by this type of state income. The graph presents data showing that the coverage ratio increased by 8 % during the analyzed period.

Analyzing the functioning of the local taxation system, it's necessary to consider its structure (table 1). Today, two types of local taxes are paid to the local budget of Ukraine, namely: property tax and flat tax. Moreover, property tax consists of tax on real estate, different that land, transport tax and land tax.

Table 1. Dynamics and structure of local taxes in local budgets of Ukraine, billion UAN

Type of local tax	2015	2016	2017	2018	2019	absolute growth
Property tax	16,0	25,0	29,1	31,3	38,0	22,0
Including: tax on real estate, different that land	0,7	1,4	2,4	3,7	4,9	4,2
transport tax	0,4	0,3	0,3	0,3	0,3	-0,1
land tax	14,9	23,3	26,4	27,3	32,8	17,9
Single tax	11,0	17,3	23,4	29,6	35,3	24,3

Source: (State Treasury Service of Ukraine, 2021).

According to Table 1, we can conclude that property tax and land tax have a significant share in the structure of local taxes. During the analyzed period, the amount of tax revenues increased by 22 and 24.3 billion UAN, respectively. It should be noted that the amounts of other items of income also tended to increase during the period 2015-2019

Thus, local taxation plays a key role in the growth and economic potential of cities, which creates more opportunities to improve social welfare in general. Analysis of revenues of local budgets of Ukraine, especially local taxes showed an increase in the total amount of these one in local budgets of Ukraine.

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THE PLACE AND ROLE OF TRANSNATIONAL CORPORATIONS IN SYSTEM OF INTERNATIONAL TRADE RELATIONS

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Currently, transnational corporations occupy one of the first positions in the world market. And this is no coincidence. They are available in many markets, take part in various projects and have influence in most areas.

First, we need to understand what transnational corporations (TNC) are. Their main distinctive feature is the presence of capital in several countries of the world. Transnational corporations are firms with branches in two or more countries, a significant proportion of assets, sales and employees located in the host countries (the main company is located in the home country) (Tyukhtenko et al., 2019; Kharichkov et al., 2011; Afzal et al., 2018; Letunovska et al., 2017).

Despite the fact that such enterprises are quite large-scale, they are not located entirely on the territory of a particular country, therefore, they must also obey the laws of the state where a particular branch of the corporation operates. Moreover, state-owned enterprises may become part of TNC. At the same time, agreements resulting in the creation of such cooperation can be both intergovernmental and private, between investors from different countries (Strojny, J. & Jedrusik, 2018; He, Shuquan, 2019; Vargas-Hernández et al., 2018).

The role of transnational corporations is increasing day by day. It is impossible to speak definitely about the role of transnational corporations. It should be noted that in the first decade of the 21st century transnational corporations accounted for 25% of the world economy. Nowadays, transnational corporations control up to 40 % of industrial production in the world, half of international trade. They employ 73 million employees, i.e. every tenth employed in the world. These are, in fact, huge companies that have large assets, revenues and profits that exceed several times the GDP of some states (Rakotoarisoa et al., 2019; Mujtaba et al., 2019; Awujola et al., 2019; Mishenin et al., 2019; Mishenin et al., 2020).

The power of multinational corporations is evident. TNCs are the driving force behind technological progress. Such firms often hold social events in order to win the position of customers (Mishenin Ye. et al., 2021; International Trade, 2020; International Logistics, 2020). The positive aspects of transnational corporations include:

1. Mostly high quality and affordable products.
2. Many reliable jobs.
3. Social events.
4. Innovative activity.

5. TNCs contribute to the development of scientific and technological progress.

6. TNCs create a favorable basis for the entire economy globalization.

7. TNCs favor the spread of international production.

8. TNCs impose free competition in international trade.

Looking at disadvantages, transnational corporations are essentially monopolies. Because of this, it is extremely difficult for other firms to enter the market, and this ultimately negatively affects the consumer. Smaller firms may not be able to withstand the existing price framework, even if their product is unique and of high quality (Mishenin, Ye. & Yarova, I., 2019).

Also, the main complaints against transnational corporations can be attributed to the export of jobs that leads to a reduction in employment and tax evasion with the help of foreign branches, which undoubtedly can harm the state budget. One of the significant problems created by transnational corporations is transfer prices. Since TNC establishes different stages of a single technological process in different countries, an intensive exchange of goods occurs between the parent company and its foreign branches (Мишенін & Ярова, 2019; Ярова, 2020).

At the same time, transnational corporations, operating in many countries, have the ability to influence all spheres of public life. And the most powerful of them can evade economic and political control from the host states. It is not uncommon in history when foreign investors have enlisted the support of their actions from the political leadership. And if the government of the host country began to exert pressure, then transnational corporations left this country and moved to another – with the most loyal government (Mishenin et al., 2018; Sahoo, 2017; Mujtaba et al., 2018; Mishenin et al., 2021; Goncharenko, 2020; Thomas, 2020).

Summarizing all the above, we can argue that transnational corporations are one of the main "engines" of the growth of the entire world economy, if not the most important. For the further development of the world economy, it is necessary to maximize the advantages of transnational corporations, and correct their shortcomings. One way or another, our further economic prosperity depends on it (Singh, 2019; Hadbaa, H. & Boutti, R., 2019; Kaya, 2020).

In modern conditions of the formation of the world global market, the role is significantly increasing, as well as the scale of functioning of TNCs, which serve as a kind of international regulator of industrial production and distribution of products, increases. In addition, transnational corporations are the main structural element of any open economy, the driving force behind economic development and increasing the competitiveness of countries in general. The sectoral structure of TNCs is quite wide: 60% of international companies are engaged in manufacturing (primarily they specialize in electronics, automotive, chemical and pharmaceutical industries); 37% in the service sector and 3% in the mining and agricultural sectors (Hadbaa, H. & Boutti, R., 2019; El Amri et al., 2020).

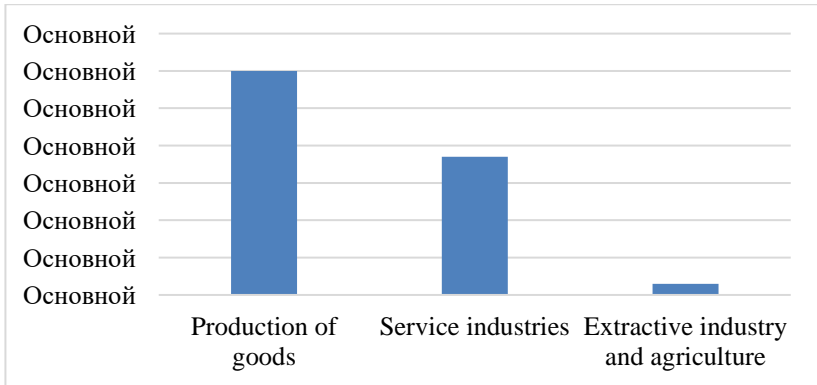


Fig. 1. Areas of TNCs activity (Міністерство, 2021)

The leading role in the world economy is played by the 100 largest transnational corporations. Most of them are located in industrialized countries. The top 100 TNCs control 70% of all foreign direct investment.

Geographic structure of the placement of the 100 largest TNCs (UNCTAD, 2021):

- USA - about 30%;
- Japan - 20%;
- Germany and France - 10% each;
- Great Britain - 7%;
- Switzerland - 5%.

Another trend in the global market is that China (together with Hong Kong) has become the leader in the number of companies included in the latest edition of the Fortune Global 500 ranking, surpassing the United States. Although American Wal-Mart still ranks first in the ranking based on last year's revenue, three Chinese companies follow. The American Fortune magazine has published an annual ranking of companies by their level of income – Fortune Global 500. Companies from different countries are compared by revenue received in the financial year ended March 31, 2020 or earlier, so that the rating does not reflect the decrease or increase in revenue. A total of 500 companies from the ranking received revenue of \$ 33.3 trillion for the year, and their combined profit amounted to \$ 2.1 trillion (Fortune, 2021). There are 133 companies from mainland China and Hong Kong in the current Fortune 500, thus for the first time in history China bypassed the United States - only 121 American companies were included in the rating. At the same time, American companies still surpass Chinese in total revenue - US corporations account for 30% of the revenue of all Fortune Global 500 companies, and Chinese, although there are more of them, only 25%. In addition, only American companies were in the top three

fast growing - Amazon.com, Centene (health insurance and services) and Facebook (Fortune, 2021).

Table 1.

Top 10 companies by income level (Fortune, 2021)

Company	Revenues (\$M)
Walmart	523,964
Sinopec Group	407,009
State Grid	383,906
China National Petroleum	379,130
Royal Dutch Shell	352,106
Saudi Aramco	329,784
Volkswagen	282,760
BP	282,616
Amazon	280,522
Toyota Motor	275,288

In total, the ranking includes 53 companies from Japan, 31 from France, 27 from Germany, 22 from the UK, 14 each from Switzerland and South Korea. Russia is represented in the Fortune Global 500 by four companies: Gazprom is in 55th place with revenues of \$ 118 billion, LUKOIL - in 57th (\$ 114.6 billion), Rosneft – in 76th (\$ 96.3 billion), and Sberbank – by 240th (\$ 48.3 billion) (Fortune, 2021).

Thus, the relevance of the study of TNCs and their role in the world is confirmed by the presence of certain characteristics of corporations that affect their position in the world. In the modern economy, transnational corporations can be called one of the main elements that determine the directions of development of an individual country and the world economy as a whole (International Trade, 2020; International Logistics, 2020). Transnational corporations play a huge role in shaping the global trade market and creating certain conditions there. Transnational corporations have access to almost all markets in the world; their activities affect many areas and projects (International Trade, 2020). With the help of its organizational structure, TNCs managed to gain a foothold in the world economy. Owning huge capital, they were able to penetrate not only into the economic life of the partner countries, but also into political life, supporting certain parties and movements (Gatsi, 2020; El Amri et al., 2020).

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INTELLECTUAL CAPITAL AS AN DRIVER OF ADVANCED INNOVATIVE DEVELOPMENT³

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The fourth industrial revolution and new technologies stimulate the development of new production technologies and business models that fundamentally transform production. The speed and scale of technological changes, coupled with the emergence of other trends, complicate the task of developing and implementing industrial strategies that promote productivity and inclusive growth. Moreover, recent changes have identified the paradigm of low-cost export competitiveness as a vehicle for growth and development at risk. Awareness of this causes the need of advanced innovative development to address the issue of strengthening existing market positions and support long-term competitive advantages in its activities of the enterprise in this new production paradigm. Besides, the study of the factors and conditions that have the greatest impact on the transformation of production systems, further evaluating their readiness for the future, will enable appropriate measures to be taken to overcome potential gaps in their readiness for future production, increase their competitiveness in the future and increase the level of economic security of enterprises (Shkola et al., 2020a).

Advanced development is defined as a radical, innovative and cyclical process of continuous improvement of the enterprise potential and the search for promising directions of its realization, which results in radical changes of the enterprise (Illyashenko, 2018).

It should be noted separately that in view of the fact that Ukraine, like most other countries of the world, has accepted the course on ensuring sustainable development, it is expedient to introduce innovations that at all stages of their life cycle there will not be ecodestructive impact on the environment or there will be an ecoconstructive impact. Taking into account this, another important characteristic of the leading innovative development is its compliance with the principles of the Concept of Sustainable Development. Consequently, advanced innovative development will be considered as a process of introducing innovations that are ahead of scientific and technological development, the formation on this basis of the production system and enterprise business portfolio of goods and services, which are at different stages of the life cycle and satisfy not only the existing, but also potential needs that in general will ensure the stability of the enterprise competitive position

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in the international market and the possibility of their growth, as well as high level of its economic and ecological security (Shkola et al., 2020a).

According to the report (World Economic Forum [WEF], 2018), the countries' success in the conditions of the current production changes is determined by the production drivers that are explained as the key factors that position the country to take advantages of the fourth industrial revolution for accelerating the transformation of national production systems.

The main factors that position the enterprise for using new technologies and opportunities in the future are technologies, innovations, human capital, global trade and investments, institutional frameworks, stable resources and demand environment (WEF, 2018).

Human capital is the ability to respond to changes in the labor market caused by the Fourth Industrial Revolution, considering both the current workforce and the long-term ability to develop skills and talent in future workforce (WEF, 2018). Given that technologies, innovations, human capital, global trade and demand environment are the components of intellectual capital (Bontis, 2002; Manzary et al., 2012; Shkola & Shcherbachenko, 2018), it is obvious that intellectual capital is the driver of advanced innovative development.

In some studies intellectual capital is regarded as general knowledge and the vital factor of growth and development (Machlup, 1962). Furthermore, Kirwan & Zhiyong (2020) considers intellectual capital as a synergy between knowledge/information, software/hardware, and technical experts. Moreover, Alfred Marshal declared that "it is knowledge that is our most powerful engine of production" (World Bank, 1999).

Intellectual capital management is art of creating value from the intangible assets of an enterprise. Furthermore, it is purposeful process of converting knowledge into value and innovation. It should be noted that effective intellectual capital management is impossible without changing its structure. Moreover, the growth of intellectual capital is ensured through both development of its components (human capital, organizational capital, consumer capital and information capital), affecting each other, and the synergy of intellectual capital at global and national levels (Shkola, et.al, 2020b).

Intellectual capital management is of strategic importance to the competitiveness of the economy as a whole. A detailed profile of country's economy (WEF, 2018), which allows identifying concrete opportunities and challenges for countries, as they are oriented towards the production future, was allowed to conclude that human resources and human capital are a strong position of Ukraine (Shkola & Vavilichev, 2020). At the same time, the possibility of using other growth factors depends on the efficiency of the management system of the economic system and its marketing potential.

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DETERMINING THE DRIVERS FOR RENEWABLE ENERGY ADVANCEMENT IN DEVELOPED COUNTRIES

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Analysis of the current global threats affecting energy development shows that renewable energy (RE) has significant potential for rapid recovery in post-crisis conditions and expanding its share in the world energy mix, thereby creating the preconditions for countries' sustainable development. In this regard, it is expedient to investigate the RE deployment drivers using stochastic factor analysis (statistical dependences of time series). As a resulted indicator, the renewable energy sources (RES) share in a country's energy mix (*RE*, %) can be considered.

The conducted literature review has revealed many recent economic, social, political, environmental, and other factors influencing RE (Kurbatova et al., 2019; Melnyk & Kubatko 2017; Rui et al., 2020; Sineviciene et al., 2017, 2018, 2019; Sotnyk et al., 2014, 2015, 2018, 2020, 2020a; Sotnyk & Kubatko, 2018, 2020; Sotnyk, 2019; Мельник та ін., 2015, 2020; Сотник та ін., 2016, 2019; Сотник & Кріпак, 2019). To reflect the key drivers, we used the indicators of gross domestic product (GDP) per capita (*GDPpc*, \$); energy efficiency (EE) of an economy (*Ef*, \$ of GDP/kg of oil equivalent); gross fixed capital formation (*GFCF*, % of GDP); life expectancy (*LEX*, years at birth); manufacturing, value added (*MVA*, % of GDP); services, value added (*SVA*, % GDP); high technological export (*HTA*, % GDP); European Union (EU) membership (*EU*, 1 for EU members, 0 – otherwise); GDP carbon intensity (*CO2GDP*, CO₂ emissions, th. tons / \$ of GDP) and the inverse indicator – GDP carbon efficiency. For the drivers' identification, the following econometric model was specified:

$$RE = F (GDPpc, Ef, GFCF, LEX, MVA, SVA, HTA, EU, CO2GDP). \quad (1)$$

Based on the World Bank, OECD and EBRD's data, we have formed a sample for 36 developed countries in 2001-2015, covering: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, Great Britain, and the United States. These countries were chosen for two reasons. Firstly, the developed economies have been advancing RE for decades, and many states have an essential RES share in their energy mix. For developing and emerging economies,

the RE share in the overall energy balance often does not exceed 5-10%, making green energy an insignificant factor of energy development at the present stage. In addition, the RE trends' analysis shows that green energy drivers in developed countries determine the contours of RE deployment in developing states. Thus, the simulation results based on developed economies' data can be applied in other states worldwide. Secondly, databases for OECD countries are the most complete, so it allows using these states to obtain reliable modeling data.

The authors have empirically estimated the RE development level in the selected countries regardless of the environmental factor (GDP carbon intensity/carbon efficiency) (Table 1). The results in Table 1 show that the RES share is declining in national economies with higher per capita incomes. That is, wealthier countries have no incentive to invest in RE. However, EE growth in these economies leads to the RE share increase. It confirms that RE is an important component of increasing the EE of states. For example, the RES share rises by 1.8 percentage points with GDP growth per 1 kg of oil equivalent.

Table 1.
Empirical estimation of RE development level in 36 countries
regardless the environmental factor (authors' calculations based on Stata 14.0)

Random-effects GLS regression		Number of obs = 497				
Group variable: id		Number of groups = 36				
R-sq: within = 0.6554		Obs per group: min = 7				
between = 0.0421		avg = 13.8				
overall = 0.1387		max = 14				
corr(u _i , X) = 0 (assumed)		Wald chi2(8) = 803.61				
		Prob > chi2 = 0.0000				
RE	Coef.	Std.Err.	z	P> z	[95%Conf.Interval]	
GDPpc	-0.0002493	0.0000508	-4.91	0.000	-0.0003489	-0.0001497
Ef	1.810662	0.1963814	9.22	0.000	1.425762	2.195563
GFCF	-0.4558509	0.0638419	-7.14	0.000	-0.5809788	-0.3307231
MVA	-0.3067979	0.1093158	-2.81	0.005	-0.5210528	-0.0925429
SVA	0.2100654	0.0603825	3.48	0.001	0.0917178	0.3284131
LEX	1.92623	0.1915169	10.06	0.000	1.550864	2.301596
HTA	0.128216	0.0353659	3.63	0.000	0.0589002	0.1975319
EU	3.778273	2.403089	1.57	0.116	-0.9316948	8.488241
cons	-141.9003	15.07767	-9.41	0.000	-171.452	-112.3486

Gross fixed capital formation has proved to impede RE development due to predominant investment in traditional energy facilities based on fossil fuels. The service sector deployment positively correlates with the RE share growth, while

material production prevents the green energy share increase. RE advancement is more intensive in countries with longer life expectancy at birth and a higher share of high-tech exports. Participation in EU programs proved to be a statistically insignificant factor.

Identification of RE development drivers allows defining and forming tools for the state management of the green energy sector advancement. To predict the RE share changes due to the state regulation policy, we used the results of stochastic factor analysis of the respective drivers (Fig. 1). Fig. 1 shows that the EE growth of national economies leads to the proportional RE share increase.

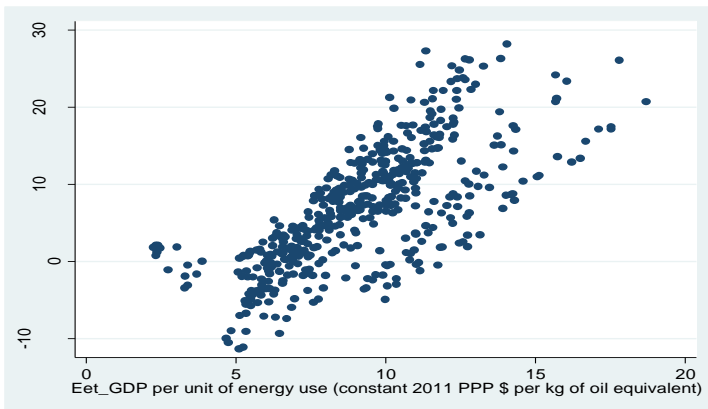


Fig. 1. Forecast of changes in green energy share depending on EE of GDP (authors' calculations based on Stata 14.0)

Similarly, RE share changes can be predicted considering the environmental factor (GDP carbon intensity/carbon efficiency) (Table 2 and Fig. 2). According to the results, the decrease of CO₂ emissions per \$ 1 of GDP leads to GDP carbon efficiency improvement (\$ of GDP / CO₂ emissions, th. tons).

Table 2.

**Empirical estimation of RE development level in 36 countries
regarding GDP carbon intensity (authors' calculations based on Stata 14.0)**

Random-effects GLS regression		Number of obs = 497				
Group variable: id		Number of groups = 36				
R-sq: within = 0.5320		Obs per group: min = 7				
between = 0.0001		avg = 13.8				
overall = 0.0013		max = 14				
corr(u_i, X) = 0 (assumed)		Wald chi2(8) = 469.43				
		Prob > chi2 = 0.0000				
RE	Coef.	Std.Err.	z	P> z	[95%Conf.Interval]	
GDPpc	-.0005794	.0001132	-5.12	0.000	-.0008012	-.0003575
Ef	3.210305	.350801	9.15	0.000	2.522748	3.897862
GFCF	-.4661552	.0946993	-4.92	0.000	-.6517623	-.280548
MVA	.0228675	.1656077	0.14	0.890	-.3017177	.3474526
SVA	.2413929	.0855644	2.82	0.005	.0736898	.409096
LEX	1.545645	.3088093	5.01	0.000	.9403901	2.1509
HTA	.0387373	.0505816	0.77	0.444	-.0604009	.1378755
EU	-19.80211	8.073709	-2.45	0.014	-35.62629	-3.977934
CO2GDP	-330291.2	6317586	-0.05	0.958	-1.27e+07	1.21e+07
cons	-80.28436	25.6463	-3.13	0.002	-130.5502	-30.01854

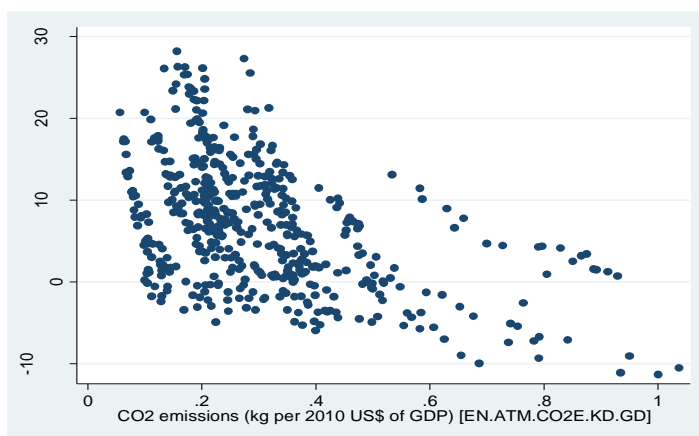


Fig. 2. Forecast of changes in green energy share depending on carbon efficiency of GDP (authors' calculations based on Stata 14.0)

Table 2 shows that the RES share is declining in national economies with higher per capita incomes. In general, the results of both tables correspond to each other. However, an essential difference is the statistical insignificance of GDP carbon intensity since the change in CO₂ emissions per \$ 1 of GDP does not correlate with changes in the RE sector. Fig. 2 presents an individual forecast of changes in green energy share depending on GDP carbon efficiency. It demonstrates that GDP carbon efficiency increase leads to a directly proportional increase in RES share.

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WORLD SUPPLY CHAINS: CURRENT STATE AND PROSPECTS

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Today's world economy is globalized and interconnected. Business from different countries operate together. In these conditions, supply chains become a powerful tool for building a strong and flexible network between all economic agents gained into the process of products manufacturing and distribution in the world scale. As cooperation between different countries becomes deeper and more powerful, the importance of supply chains arises too.

According to the report (Rake, 2020) in 2019, the global supply chain management market was valued at 15.85 billion U.S. dollars and is expected to reach 37.4 billion U.S. dollars by 2027. The expected dynamics of global supply chain management market is shown in Figure 1.

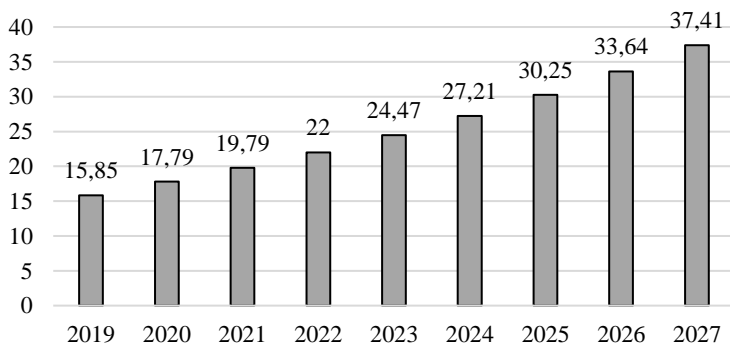


Fig. 1. Size of the global supply chain management market worldwide from 2019 to 2027(in billion U.S. dollars)

Source: Mazareanu, 2020

The large enterprise segment dominated the supply chain management market in 2018, and is expected to continue this trend during the forecast period. The small & medium sized enterprises segment is projected to witness highest growth rate in the upcoming years, mostly thanks to increase in number of SMEs in such countries as China, Japan, and India (Rake, 2020).

The retail & consumer goods segment is expected to maintain its dominance in the upcoming years owing to surge in complexity of retail supply chain networks

over a period of time due to the presence of large number of suppliers & logistics providers, channels, products, and value-added offerings. The automotive industry is expected to witness the highest growth rate during the forecast period (Rake, 2020). World supply chain leaders according to Gartner, Inc. are in Table 1.

Table 1.

The Gartner Supply Chain Top 10 in 2020

Company	Composite Score	Peer Opinion (25%)	Gartner Opinion (25%)	Three-year weighted ROA (20%)	Inventory turns (10%)	Three-year weighted Revenue Growth	ESG Component Score (15%)
Cisco Systems	6.25	470	574	300.7%	12.5	2.9%	10.00
Colgate-Palmolive	5.37	1113	532	68.8%	4.7	1.0%	10.00
Johnson & Johnson	4.65	885	454	77.6%	3.0	3.6%	8.00
Schneider Electric	4.48	567	453	63.0%	5.4	4.2%	10.00
Nestlé	4.44	1084	350	40.0%	4.8	1.2%	10.00
PepsiCo	4.42	857	385	47.9%	8.2	2.7%	10.00
Alibaba	4.39	991	316	106.7%	23.9	54.0%	0.00
Intel	4.12	583	488	37.4%	3.5	5.8%	8.00
Inditex	4.11	737	351	34.7%	4.6	6.8%	10.00
L'Oréal	4.01	677	252	71.1%	2.8	7.4%	10.00

Source: developed by the authors on the basis of (Gartner Announces, 2020)

All companies from Top 10 list showed that they have flexible supply chains and implemented agile strategies. It helped them to overcome problems of COVID-19 pandemic. They were able to respond to changes and adapt fast to new environment. In 2020 just like in 2019 Amazon, Apple, P&G, McDonald's, and Unilever were qualified for "Masters" category. They have exclusive supply chains and demonstrate advanced lessons for the supply chain community (Gartner Announces, 2020). Thus, the importance of supply chains arises every year and they provide strong influence on world economy.

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EDUCATION AND MIGRATION: IDENTIFYING INTERCONNECTIONS

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In today's globalized world, migration is becoming a common and inevitable phenomenon. The International Labor Organization estimates that approximately 164 million people are migrants (ILO, 2018). The movement of people can have different causes: economic, social, political, environmental, and so on. Due to the effects of the spread of COVID-19 in the form of numerous restrictions on movement, migration flows have been significantly reduced and migrants have become more vulnerable. At the same time, migration has a significant impact on economic and social spheres both the host and the country of origin, and the education system is no exception. This paper is devoted to the study of identifying the relationship between education and migration.

Ensuring “orderly, safe, regular and responsible migration and mobility of people” (UN, 2015) is one of the tasks within the tenth goal of sustainable development (SDG 10. Reduce inequality within and among countries). According to the Migration data portal, it is complicated in a pandemic, because migrants, especially in low-paid jobs, fall into the high-risk group. This can be due to poor living conditions or a high percentage of contact, low access to medicine, an unstable situation in the workplace and a high likelihood of redundancies, etc. (Migration, 2021). Scientists estimate that migrants provide activities for critical sectors of the economy – in the European Union, their share is about 13% (Fasani and Mazza, 2020).

In such conditions, the education system can become the key element that will be able to ensure the declared safe migration, by providing “inclusive and equitable quality education and promote lifelong learning opportunities for all” (SDG №4). The connection between the phenomena of “education” and “migration” is quite complex and needs a broader view.

According to the UNESCO Global Education Monitoring Report, there are numerous links between migration and education, depending on the type of country (host or origin) and the type of persons (migrants or locals) (details about migration influence on table 1). In addition, this relationship differs depending on the type of migration: internal or international.

Considering the impact of migration on education, it should be noted that at the state level there is a need for legislative recognition of migrants' rights to quality education, and in turn, its transformation to take into account the needs of migrants, ensuring inclusion and justice. An example is the Global Compact for Safe, Orderly and Regular Migration (UN, 2018).

Educational migration provides more opportunities for immigrants, especially from rural areas or underdeveloped countries, to get a better education and, consequently, a prestigious and well-paid job in the future.

Table 1.

The impact of migration on education

Type of country	Type of persons	Characteristics of impact
Country / community of origin	Migrants	The quality of migrants' education is deteriorating due to the need to interrupt it The need to adapt the education system to the needs of the migrant population
	Locals	Money transfers from migrants are an additional source of funding for education (especially for their children or relatives) The absence of parents negatively affects the educational success of children Emigration prospects undermine incentives to invest in education
Host country / community	Immigrants	The level of education of immigrants is usually lower than that of locals, they need time to adapt Often it is necessary to defend the right on education, especially for free Provides more educational opportunities
	Locals	Mixed classes need more qualified teachers and specialized training programs due to the admission of migrants

Source: (Fasani & Mazza, 2020).

In turn, education also has an impact on migration processes, which are summarized in Table 2.

According to experts, when deciding on migration, the following factors are usually taken into account in the first place: the cost of education, educational experience and its results (UNESCO, 2019).

Education is considered one of the driving factors in deciding on migration. According to the UNESCO report, the probability of migration for people with higher education is 4 times higher, and with secondary education 3 times higher than for people without education at all (UNESCO, 2019). Also, education develops a person's worldview, tolerance and openness to "others" in society, including migrants. One of the main negative consequences of migration is the "brain drain", which is the loss of qualified professionals who form the human capital of the

country. This negatively affects the state of the country's economy and its competitiveness in the international arena.

Table 2.

The impact of education on migration

Type of country	Type of persons	Characteristics of impact
Country / community of origin	Migrants	There is a higher probability of migration among more educated people
	Locals	Negative consequences for the economy and society in the form of outflow of qualified personnel and outflow of competencies
Host country / community	Immigrants	Quite often the qualifications of migrants exceed those required in the workplace, due to which their level of knowledge falls
	Locals	Formal and non-formal education can increase the level of inclusion of migrants in society

Source: (Fasani & Mazza, 2020).

Summing up the study, it should be noted that migration and education have many bilateral links. Migration processes require educational systems to adapt to the needs of migrants and locals left behind. On other hand, education can be a decisive factor motivating migration (especially at a young age) to find more educational opportunities, better living and working conditions.

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STATE OF THE ART AND PROSPECTS OF BIOENERGY RESEARCH

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Fundamental and applied research on renewable energy, especially bioenergy, is actively supported both in terms of making a significant contribution to the development of world science and addressing the issue of energy independence and security of different countries. A lot of studies are focused on bioenergy, which means renewable energy resource of biological origin, characterized by certain potential and technologies of production and use. The role and importance of bioenergy for the development of the economy have been repeatedly emphasized in the reports of scientists, experts, practitioners, all those who are in one way or another involved in energy problems.

The aim of our research is to analyze the publications of scientists in the field of “Bioenergy” and to find regularities in the development of this area and determine the prospects for future research. The analysis is based on the results of data published in the international scientific databases Web of Science and Scopus. The most cited papers related to biomass and biofuel are identified, both theoretical and applied works are analyzed, aimed at practical application.

Bioenergy is closely connected with notions “biomass” and “biofuel”. Biomass means an organic matter of plant origin and waste materials obtained through a natural or artificial transformation that can be used for energy purposes. Biofuel is a renewable energy source derived from plant or animal biomass. Although in many studies the terms “biomass” and “biofuel” are used interchangeably, we consider it appropriate to differentiate them. Biomass is a raw material. Whereas biofuel is a product of biomass processing. For the purpose of this research we took into account publications related to all the mentioned above terms.

Nowadays, bioenergy is a field of great interest to the scientific community. We can observe growth in the number of publications, starting from the mid-2000s. The most important reason for that was oil peaking at over \$136 a barrel in 2008. Fig. 1 presents the state of biomass research for renewable energy and biofuels in the world from 1980 to 2018, in Fig. 2 the same trends in Ukraine. All these figures were obtained from the Scopus database.

Simultaneous analysis of h_{glob} / h_{ukr} and N_{glob} / N_{ukr} indicates the absence of a high h-index, but at the same time, an increase in the number of publications in recent years. There are two important reasons for this:

- a large number of agricultural enterprises that want to rationally use waste;
- the need and state support for the widest possible distribution of renewable energy.

Moreover, the issue of rational use of nature in the cultivation and use of resources for bioenergy is important for Ukraine.

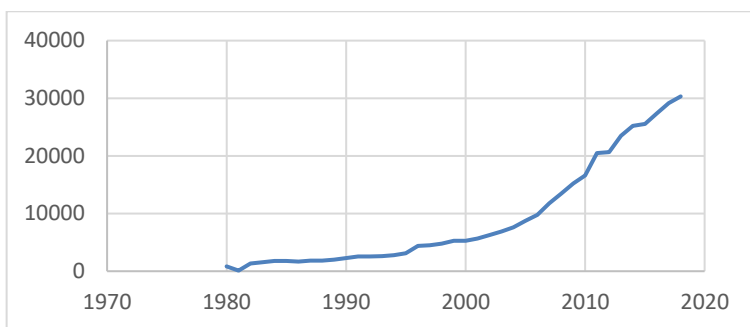


Fig. 1. Trends in publications related to biomass and biofuels in the world for the period 1980-2018



Fig. 2 Trends in publications related to biomass and biofuels in Ukraine for the period 1980-2018

Regarding the advanced world research in the field of Bioenergy, it should be noted research on the development of biofuels, as biofuels today allow to obtain 10% of the world's energy from renewable sources (Kopetz, 2013).

The most cited papers related to biomass and biofuel have been published in the following journals: “Renewable and Sustainable Energy Reviews” (H-index is 193), “Biomass and Bioenergy” (H-Index is 143), “Bioresource Technology” (H-Index is 229), “Renewable Energy” (H-index is 143), “Energy” (H-index is 146).

Also according to the Scopus database, the most prominent and influential scientists in the sphere of bioenergy have been determined. They are Omer, A.M. from the United Kingdom (has 122 publications on biomass as a renewable energy source), Pari, L. from Italy (103 publications), and Kaltschmitt, M. from Germany (102 publications). Analysis of publications shows that from the point of view of

renewable energy, “Bioenergy” includes primarily “Biofuels” as a study of the possibilities of obtaining different types of fuel through the cultivation of certain crops, as well as obtaining fuel as a result of waste processing, including agricultural (Gnansounou et al., 2009; Demirbas et al., 2009). However, there are some publications related to high-tech industries for biofuels, such as methods and approaches of chemistry, biochemistry and biotechnology (Raheem et al., 2015; Lynd et al., 2008) as well as general issues of biofuel development policy in the world, regulatory regulation and environmental improvement (Carrquiry et al., 2008).

The most cited publications with the participation of Ukrainian researchers, as well as the most recent publications, relate to the development of “general rules” in the international market of renewable energy and climate change. There are slightly fewer publications on the prospects of Biofuel Energy. However, for Ukraine the most efficient use of agricultural resources, including biomass, is a practically important issue. In addition, a general analysis of biological resources for biofuel production in Ukraine was carried out in (Panchuk et al., 2017).

Positive trends in bioenergy are emphasized in a number of studies. The estimated energy potential of existing biomass waste is about 25 million tons, and the energy potential of biomass that can be grown on unused agricultural land is about 13 million tons. But many scientists acknowledge the lack of policy tools and institutional measures to increase the use of bioenergy, major problems and conflicts of interest in biofuels (e.g., negative impact on food security; rising food prices; competition for energy crops between food and energy markets etc.). It is noted that full state support is the key to successful development of the bioenergy sphere.

For the effective development and implementation of renewable energy, different factors must be considered simultaneously. In the short term, the introduction of renewable energy sources is determined by the economic factor and the availability of certain investments in green energy. However, the long-term perspective requires the development of new, environmentally friendly and effective research and the creation of opportunities for their implementation.

The quality of research can be proved based on quality scientific publications in peer-reviewed journals. The number and impact of such scientific publications indicate the potential of scientific teams, their relevance and the possibility of implementation.

As we can see, the rational use of the potential of the bioenergy direction in agricultural enterprises is an important alternative for solving the problems of food and energy security in the conditions of unlimited demand for food and energy in modern society. From the analyzed publications we get an important conclusion that legislative initiatives, which must comply with international requirements for emissions or utilization of agricultural waste, are already being actively implemented by large agricultural companies. However, in Ukraine the bioenergy market is being

formed and legal norms are being established. Therefore, there is a scientific problem that needs to be solved, and which concerns the harmonization of international acts with existing internal regional agreements, as well as taking into account regional specifics.

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THE IMPACT OF FOREIGN INVESTMENT IN THE ECONOMY OF UKRAINE

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At the present stage of development of the world economy, an important and urgent issue is the development of investment activities, attracting and using foreign investment. The need to attract foreign investment is met by reducing the investment activity of domestic companies, the need for technical and technological modernization of production and the entire market infrastructure, the need to introduce new management methods in all areas of the economic mechanism. The purpose of this article is to determine the current state of the investment climate in Ukraine, as well as trends and promising areas for improvement. The flow of foreign capital in the context of global economic integration is a component of the integration process, and also reflects the relationship of elements of the socio-economic macrosystem.

As a result of investing in the economy, production volumes increase, national income grows, and industries and enterprises that meet the demand for certain goods and services develop significantly in conditions of economic competition. Foreign investment occurs in the presence of two main factors: motivation and regulation. The unstable economic and political situation in Ukraine, the intensification of the negative consequences of the global financial crisis requires more careful development and attention of the country's leadership to the processes of stabilizing economic growth (Kulinich T.V., Mrychko M.A., 2013). Foreign direct investment can pose a threat to the host country and create structural unemployment through competition between enterprises with foreign capital and enterprises with national financial resources.

The main obstacles to foreign investment in Ukraine are: widespread corruption; distrust of the judiciary (investors are not sure about the safety of their business); monopolization of markets and seizure of power by oligarchs; increasing administrative pressure from law enforcement agencies; general instability of the political situation; military conflict with Russia; burdensome and unstable legislation; common interests of politics and business; growth of labor migration from Ukraine. The European Business Association (EBA), Dragon Capital and the Center for Economic Strategy (CES) conducted a survey in late October 2020, and many businessmen see a high level of corruption in Ukraine (EBA, 2019). That is, bribery hinders a favorable investment climate in Ukraine.

There are difficulties faced directly by foreign investors: the need to regularly renew the temporary residence permit in the country, the impossibility of

unimpeded repatriation of invested capital, difficulties in opening accounts for non-residents, which requires confirmation of each transaction, and so on. Ukraine's economic instability is characterized by an unbalanced economic system and uncertainty in the development of major economic processes, which leads to a decrease in foreign direct investment in the economy, as well as to a slowdown in investment activity in the country. Given the fact that hostilities have begun on the territory of Ukraine, the unstable political situation has changed in a negative direction, the trend of foreign direct investment.

The key expectations of investors from business remain: the actual lifting of restrictions on currency settlement, the fight against smuggling and the shadow economy, judicial reform, political stability, transparent privatization, protection of intellectual property rights and improved infrastructure (Law of Ukraine on Amendments to Certain Laws of Ukraine on Elimination of Regulatory Barriers to the Development of Public-Private Partnerships and Stimulation of Investments in Ukraine № 817 VIII? 2015). Improving the legal and organizational framework to increase the capacity of mechanisms to ensure a favorable investment climate and forming a basis for supporting and increasing the competitiveness of the domestic economy is an urgent issue to further improve the investment climate in Ukraine.

In Ukraine, there are a number of investment-attractive factors that contribute to the expansion of its investment ties: a large capacious and virtually unlimited domestic market from most product positions; geographical location at the intersection of major transport routes between Europe and Asia; relatively cheap and at the same time skilled labor; scientific potential; developed infrastructure (availability of ports, bridges, airports, warehouses, communication systems, water supply) (Khomutenko L.I., Vasylichuk A.Y., 2016). Priority should be given to investments in the development of high-tech and science-intensive industries that contribute to the expansion of export potential and strengthen the competitiveness of Ukrainian goods on world markets.

To attract foreign direct investment, Ukraine offers large investment projects, including: an agricultural complex specializing in fisheries, a complex for processing and storage of grain, livestock complexes, technological lines for continuous steel casting in the metallurgical industry and many others. Ukraine creates a legal basis for investment and the development of public-private partnerships. The legislation of Ukraine defines guarantees of activity for investors, economic and organizational bases of realization of public-private partnership in Ukraine. On the territory of Ukraine, the national regime of investment activity is applied to foreign investors, ie equal conditions of activity with domestic investors are provided.

So, Ukraine's investment activity remains and is risky for European investors, even in the presence of relatively cheap skilled labor. However, according to the study, over the past year there have been a number of positive changes,

noticeable for business. Thus, top managers of European Business Association member companies note the liberalization of currency legislation, the relative stability of the national currency and inflation, the introduction of effective methods to combat raiding, economic recovery and development of electronic services, constant dialogue between government and business.

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DIGITAL MARKETING TOOLS IN BRAND PROMOTION

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Economy digitalization is considered to be one of the main conditions for ensuring business efficiency and competitiveness. Thus, digital technologies significantly increase management efficiency, provide access to reliable data on business processes, expand the communication network between customers and partners, allow managing the business process from anywhere in the world, etc. It worth noting that extensive daily using the Internet and mobile networks provides users with access to a huge information volume, simplifies social communication, provides access to government and local authorities through official Internet portals, and so on.

The rapid development of digitalization of society necessitates the adaptation of business to new conditions and the introduction of modern technologies. Besides, the spread of digital technologies provokes significant changes in personnel management and service, in marketing, financial, logistics and production processes of the enterprise. Therefore, traditional marketing tools undergo the transformation process into digital. In turn, that allows attracting new customers while increasing the level of loyalty and trust in the brand; establishing customer communications; applying an individual approach to each customer, etc. (Njegovanović, 2018; Njegovanović, 2019; Kibaroglu, 2020; Alam & Rashid, 2019; Karintseva, 2020; Urbánné, 2020; Skrynnyk, 2020; Yu, 2019; Alkubaisy, 2020; Ahmmed & Salim, 2019; Taliento & Netti, 2020; Letunovska et al., 2017; Dkhili, 2018; Potapenko et al., 2017; Pimonenko et al., 2019).

It stands to mention that the main advantage of digital marketing is informative value, high efficiency and targeting a specific target audience. Consequently, that allows maximizing contact with potential customers, while traditional marketing tools mainly aimed at reaching a wide audience, which could include disinterested people. Digital marketing capabilities provide the possibilities to collect and analyze customer data to form a customer profiling based on their demographic and behavioural characteristics, search history and queries on the Internet, the relationship with the brand, etc. (Pimonenko et al., 2017; Chygryn & Pimonenko, 2011; Palienko et al., 2017; Lyulyov, 2009; Pimonenko et al., 2018a;)

It is worth noting that the digital marketing infrastructure consists of a combination of a wide range of specialized software and related equipment (Obeid et al., 2020; Halbusi & Tehseen, 2018; Horváth & Balázs, 2020; Lesidrenska, & Dicke, 2012; Ivannikova, 2014; Pimonenko et al., 2018b). Besides, the use of digital

marketing tools involves their implementation on the Internet. In general, the main tools of digital marketing are as follows:

1) Search Engine Optimization (SEO) is a set of measures aimed to increase site traffic, promote the site to the top search results position based on optimizing the structure, content of the site and page codes, increase the relevance of pages to search queries, etc.;

2) content marketing is a marketing strategy that provides creating and distributing useful and relevant content to attract potential customers and retain existing ones. Besides, content marketing is to build a relationship with the customer based on trust;

3) Internet Advertising is a set of tools used to distribute and deliver promotional materials to the target audience. There several types of Internet advertising, while the main are as follows: video advertising, banner advertising, native advertising, mobile advertising, advertising on social networks, etc.;

4) contextual advertising is a type of Internet advertising that allows attracting the potential customers by analyzing their interests, search queries and browsing behaviour, which correspond to the subject and content of advertising messages;

5) e-mail marketing is a digital marketing tool that provides establishing effective communication process with customers through automated sending of commercial messages to the e-mail of existing and potential customers;

6) social media marketing (SMM) is a marketing strategy used for promoting goods and services through social networks (i.e., Facebook, Instagram, LinkedIn, etc.), which are considered to be effective media platforms for interaction with customers;

7) mobile marketing is the digital marketing tool to promote goods and services using mobile devices, distributing advertising through mobile applications, games, QR-codes, voice marketing, Bluetooth marketing, mobile banner advertising, SMS-marketing, etc.;

8) Web Analytics is a tool to collect and analyse data on user activity on the website. That allows optimizing the budget, reducing advertising costs and improving business performance.

Therefore, the systematization of the mentioned above digital marketing tools allowed concluding that the main purpose of digital marketing is increasing profits by attracting more visitors to the website site, reducing marketing costs and increasing the effectiveness of advertising based on accurate targeting of the core market audience.

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DEVELOPMENT OF VOLUNTARY HEALTH INSURANCE AS AN EXTRA-BUDGETARY FUNDING SOURCE FOR HEALTHCARE IN UKRAINE

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In the conditions of political, social and financial crisis, which is typical for Ukraine, the state cannot ensure the stability of social assistance to citizens. The most important aspect of social assistance is ensuring the human right to affordable, qualified and quality medical care, which is provided by the legislation of Ukraine and international standards.

Since independence, the state form of medical financing has prevailed in Ukraine, but it does not objectively justify itself. The lack of financial resources imposes significant constraints on the development of the infrastructure of medical institutions and on the level of quality of medical care. The deterioration of the financial and economic situation in Ukraine has led to a narrowing of the state's financial capacity to provide the population with quality medical services at the expense of budget funds. The contemporary funding system needs urgent reforming. The experience of developed countries shows that insurance medicine is an effective mechanism for social protection of population in market conditions, improving the efficiency and quality of the healthcare system.

Funding for the healthcare system of each country is carried out from various sources: budget funding, compulsory health insurance, voluntary health insurance, direct payments of the population. The level of healthcare expenditure depends on a wide range of economic, demographic and economic factors, as well as on the financing and organizational mechanisms of the health care system. The issue of finding new sources of funding for medicine in Ukraine is currently very relevant for several reasons: medical reform is one of the conditions for Ukraine's European integration into the EU; Ukraine is one of the countries with a high percentage of elderly people in the general population structure; Ukraine is one of the countries with a low level of public health. Insurance-based financing of medicine will reduce the burden on the national economy in the social security sector.

It should be noted that in 2016, healthcare reform began in Ukraine, in the context of which mechanisms are being actively developed to improve the financing of the healthcare system, including those based on the introduction of compulsory health insurance. In the context of the reform, the Law of Ukraine "On the State Financial Guarantees of Medical Care of the Population" 2168-VIII was adopted, which specifies the program of state guarantees of medical care, which determines the list and scope of medical services (including medical devices) and medicines

paid by the state at the expense of the State budget of Ukraine. The amount of funds of the State Budget of Ukraine directed to the implementation of the program of medical guarantees is annually defined in the Law of Ukraine “On the State Budget of Ukraine” as a share of gross domestic product of at least 5% of the GDP (Legislation of Ukraine, 2017). For comparison, on average in developed countries such as the U.S., Canada, Japan domestic government spending on health is 7-9% of GDP, in Eastern and Central Europe the figure varies at 4-6% (Zhuravka et al., 2020).

However, according to Figure 1, we can see that for the entire study period, this indicator in Ukraine had the highest value in 2013 – 3.8%, and in recent years this figure did not exceed 3.3%.

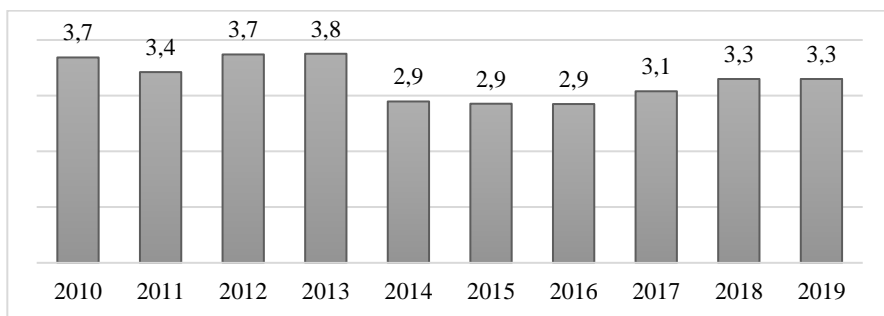


Fig. 1. Domestic general government health expenditure (% of GDP) in Ukraine, 2010-2019

Defining state guarantees of medical care is only the first step towards full-fledged medical reform in Ukraine. The next steps in the reform were to form an optimal model of health insurance through a combination of compulsory and voluntary health insurance. However, it can be stated that today there is no comprehensive approach to reforming the mechanism of financing the domestic healthcare sector on the basis of compulsory health insurance in Ukraine.

The introduction of compulsory health insurance requires the solution of a number of problems at the state level, which depends on the availability of political will, the development of public consciousness, the creation of appropriate financial conditions. The need for compulsory state social health insurance in Ukraine determines the current state and procedure for financing the healthcare sector, the main drawback of which is the use of the only significant source of funding – the budget.

In conditions of insufficient budget funding for healthcare, the importance of extra-budgetary sources of funding is growing, one of which may be voluntary health insurance. In the context of the research topic, we consider the sources and structure of funding for medicine in Ukraine. The World Bank’s 2010-2018 Health Financing

Report was used for analysis, as no data is available at a later date.

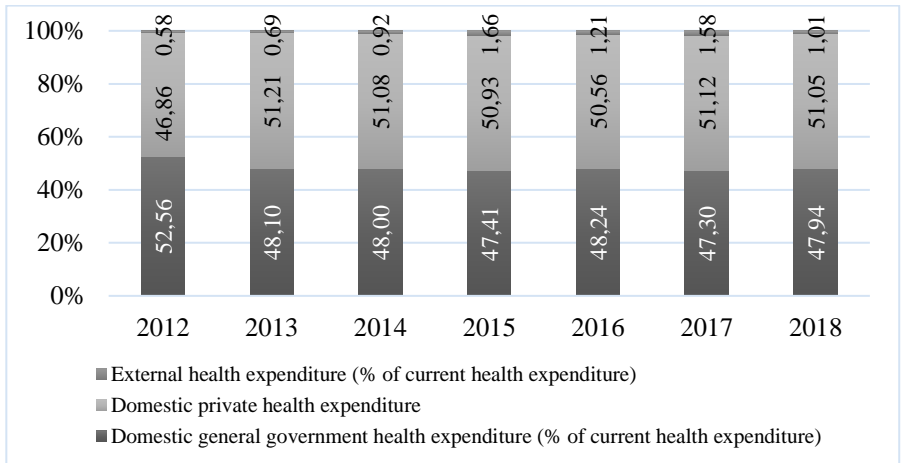


Fig. 2. Structure of current health expenditure by financial resources in Ukraine, 2010-2018 (The World Bank, 2018)

The data in Figure 2 show that in the context of insufficient budget funding for the healthcare system, the share of private and external expenditures is growing every year. Since 2014, extra-budgetary sources of funding for medicine exceed 50%. Therefore, in Ukraine it is important to find effective extra-budgetary sources of medicine funding. Voluntary health insurance can play an important role in financing healthcare, as health insurance payments are a direct cost to households.

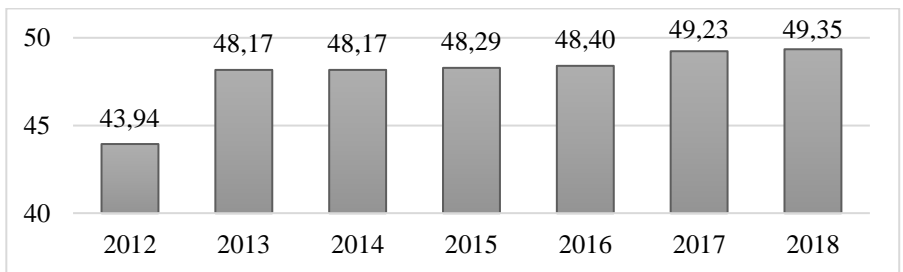


Fig. 3. Change in the share of out-of-pocket expenditure (% of current health expenditure) in Ukraine, 2012-2018 (The World Bank, 2018)

Insurance market data show an increase in demand for voluntary health insurance in Ukraine, the share of which has doubled from 6.1% in 2010 to 12.0%

in 2019 (National Commission for State Regulation of Financial Services, 2020). The relevance of the voluntary health insurance spread for the population in Ukraine is connected with the fact that population already pays more than half of their needs for medical care from their own pockets (Fig. 3). In addition, over the past 30 years, the mentality of the average Ukrainian has changed significantly: if previously it was considered that medicine funding is purely a state affair, nowadays the majority agrees to take responsibility for organizing the level of medical services they need by paying for private medical institutions health insurance policies. All the abovementioned determines the presence of significant potential for the insurance medicine development in Ukraine. The development of voluntary health insurance is a crucial need that can raise the level of public health, ensure the flow of funds into the healthcare system.

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FRAMING DIGITAL TRANSFORMATION IN THE EDUCATIONAL SPHERE OF UKRAINE

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Digitalization is a profound transformation of any field – from the routine life of the civic individual, business landscape till state policy regulation on aspects of economic growth and prosperity (Zakharkin et al., 2017; Rubanov et al., 2012a; Rubanov et al., 2012b; Vasilyeva et al., 2020; Skliar et al., 2014; Samoilikova., 2014a; Karpenko et al., 2015a; Tiutiunyk et al., 2016; Karpenko et al., 2015b; Rubanov et al., 2010a; Rubanov et al., 2010b; Tiutiunyk et al., 2018; Shyshova., 2013). The use of digital technologies directed on optimization of the desired result, where everyone likes the simplicity of the service and a quick response to his questions and problems.

It is worth saying that Digital Age is a generation of people born after the digital revolution and used to receiving information through digital channels. Two main features that describe the current generation (it is also called generation Z): clip thinking, dependence on various digital and mobile devices and they have the desire to change this world (Humenna et al., 2020; Humenna et al., 2019).

People received education both 1000 years ago and now, but even 30-40 years ago the education system was too different from the one we have now. Technology developing rapidly and education for this generation must also, change given the development of skills for generation Z.

In order to clearly understand what actions need to be taken in order to digitalize the existing education system, you need to answer the following questions:

- 1) What exactly needs to be changed?
- 2) Why is this transformation needed?
- 3) How should this transformation take place?

While answering the first question we consider that the education system in Ukraine is very outdated, especially at school, all the same notes, tedious presentation of information, things are better at universities, but again it depends on the teacher (Zakharkin et al., 2018). The following things require changes: 1) presentation of information so that it is interesting and informative, so that from childhood the students do not have the impression that learning is boring and uninteresting; 2) remove the required notes so that the student can decide for himself how to remember information; 3) introduce various techniques into the educational process more, because today a phone, a tablet, a laptop is an extension of the hand of young people; 4) a very important part is computer literacy, which should be talked about both at school and in higher educational institutions, thereby directing students to

use technology and the Internet for their intended purpose ("correct" use of modern technologies provides the opportunity to bring up an even smarter generation than the past, and not to allow the degradation of children, the work of parents should also be present here, who should conduct conversations and indicate to children the importance of using, for example, a telephone for their own development); 5) there is such a problem as clip thinking among modern pupils and students, this is when a person can perceive well the information presented in a short form, based on this, it is necessary to remove "water" from the usual textbooks; 6) the use of various platforms for learning, where the information is animated since the necessary material can be well remembered from the creations of specific associations, and it is easier to learn in a playful way, whether it be 1st grade or 3rd year of the university.

The transformations in the educational sphere are necessary, since it is impossible to allow a gap between the values and habits of pupils and students and teachers, in such a short time of 30-50 years, the world has changed significantly. Such digitalization is needed in order to educate a decent generation, but not robots and the same people, but interesting personalities who will have their own point of view and everyone will use new technologies wisely, is needed to develop not only medicine, technology, for example, but, of course, education, because for a good specialist in any field, great interest is needed initially in the process of studying subjects.

To our opinion, there are several important actions that will help digitalize the existing education system (of course, provided that it is interesting for both students and teachers and supported by the state represented by the Ministry of Education and Science) (Kuznetsova et al., 2020; Tiutiunyk et al., 2019; Kostel et al., 2019; Samoilikova et al., 2020; Samoilikova et al., 2014b):

- of course, providing classes and auditoriums with proper technology completing tasks on different gaming platforms, as in this way it makes the educational process interesting;

- introduction of more practical activities, more examples, not just information use learning platforms where children can communicate with propellants and students will be able to do assignments;

- especially in schools, introduce social networks when studying subjects, this always arouses interest, the same Instagram, Tik Tok, there are also many accounts with very useful information that is presented briefly and interestingly.

Thus, thanks to the implementation of a successful digitalization strategy in the field of education, which will lay the foundation for the formation of modern youth literate in aspects of digitalization, the economic gap both within the country and with other countries will gradually narrow (Humenna et al., 2018; Boronos et al., 2012; Pokhylko, 2012; Illiashenko et al., 2016; Tyutyunyk et al., 2017; Karpenko, 2013; Boronos et al., 2011; Tiutiunyk, 2018; Shishova, 2012a; Karpishchenko et al., 2013; Rzayev et al., 2020; Ilyashenko et al., 2012; Shyshova,

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STATE POLICY IN THE DIGITAL AGE

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Over the last decade, our world has changed globally, in particular – due to the digital transformations. Digitalization affects large-scale, - from individuals lifestyle and micro business activity till large enterprises functioning and state police regulation (Karpenko et al., 2015a; Humenna et al., 2018; Boronos et al., 2012; Tiutiunyk et al., 2016; Karpenko et al., 2015b; Rubanov et al., 2010a; Rubanov et al., 2010b; Tiutiunyk et al., 2018).

Since Internet becomes the main part of all aspects of our life, governments get a far more active role that has an impact on the economy, human rights, freedoms and World Wide Web itself (Shyshova et al., 2013).

Researches demonstrate that the majority of states are lagging behind their corporate associates when it comes to expenditure the whole capacity of digital technologies. Actually, the recent research from the World Economic Forum (WEF) named governments «the dinosaurs of digital age: slow, lumbering and outdated». A fair description after considering the fact that the gap is increasing between the growth in individual's ICT use and government's involvement in the digital economy, according to WEF's 2016 Network Readiness Index (WEF, 2016).

Today as never before, governments must collaborate with confidential sector. By accepting the digital technologies and solutions, state can provide digital services to people (Humenna et al., 2019; Zakharkin et al., 2018).

Furthermore, the government's role is variable; it changes as technology and economy. In other words, innovative economy needs new government. To protect rights of people, expand the area of all spheres of life, create new capabilities, regulate digital market, state should change (Pokhylko et al., 2012).

State has a big role in new economy. The reason of it is that designing digital economy causes the various tasks for government. Six main roles fully explain the acts of state:

1) Constructing governmental policies and precedence (Rzayev et al., 2020; Illyashenko et al., 2012). The first task is forming new policies for digital age. Quick pace of progress of technologies needs the innovations and creation of institutes. Government is instructed to make Internet safe, accessible and provide online data privacy and cybersecurity (Zakharkin et al., 2017; Humenna et al., 2020).

2) Funding in human and organizational additions and institutional learning to provide digital dividends. State plays central role in provision the wide and effective dissemination of digital technologies among growing sectors and poor community. Without state intervention, the digital gap will grow and the increasing

economic gap within and between countries will reinforce (Illiashenko et al., 2016; Tyutyunyk et al., 2017; Karpenko, 2013; Boronos et al., 2011; Tiutiunyk, 2018).

3) Expansion of telecommunications infrastructure. Government can speed up arrangement of networks and increase competition by permitting or even requiring infrastructure sharing.

4) Supporting research. Active, new and adventurous government is mandatory to stimulate searching new technologies, encouraging first users and progressing additional policies for productive absorption.

5) Controlling market forces. Government has several functions, for instance, regulating all spheres, protecting rights, maintaining law, order, etc (Shishova, 2012).

6) Designing government capabilities and institutions (Karpishchenko et al., 2013; Shyshova, 2012; Rubanov et al., 2012a; Rubanov et al., 2012b). Government should create special institutions that are necessary to design, accumulate, and introduce civil digital transformation strategies. Capabilities become more important to form the common view, make ready a durable favor to digital transformation, and consolidate ICT opportunities and investments into political, areal, and sectorial development strategies. The state should collaborate with proprietary sector to provide capital for infrastructure and common digital platforms.

Apart from these tasks, state is obligated to direct the increasing risks of application, imparity, and manage that can disrupt the guaranteed collective welfare (Vasilyeva et al., 2020; Skliar et al., 2014; Samoilikova, 2014a). The destiny of Internet openness will depend on how government cope with the rising pressure to respond to security challenges. New technologies, which form innovate economy, force state to operate differently and extra inclusively. Desire and opportunities of government to be more innovative affect the legality of new economy (Kuznetsova et al., 2020; Tiutiunyk et al., 2019; Kostel et al., 2019; Samoilikova. 2020; Samoilikova. 2014b).

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DISTRUST AND INHERENT INSTABILITY OF THE FINANCIAL SYSTEM

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In the history of development economics, financial crises are a common phenomenon. Although the characteristics of each of the financial crises are never identical, there are often similar patterns. The financial crisis of 2007-2009, caused by the collapse of the residential real estate market in the United States, caused a deep global crisis. Significant economic losses have heightened the need to reconsider the introductory provisions of the financial system's stability.

In the literature on stability of the financial system, the relative importance of financial security (Esmanov., Dunne., 2017), financial shocks (Awujola., Iyakwari., Bot., 2020), economic security of the machine building complex (Bublyk., Koval., Redkva., 2017), military conflicts (Yelnikova., Kuzior., 2020), financial conglomerates (Vasilyeva., Kozyriev., 2017), development of the banking system (Adeyinka., Abdulkarim., Odi., 2019) are debated. There is a growing body of literature that recognizes factors of macroeconomic and financial instability (Zolkover., Georgiev., 2020; Frederick., Kasztelnik., 2020; Palienko., Lyulyov., Denysenko., 2017; Kendiukhov., Tvaronaviciene., 2017; Vasylieva., Harust., Vynnychenko., Vysochyna., 2018).

Studies over the past two decades have provided important information on new economic order for global prosperity (Louis., 2017). Several attempts have been made to explore tools for securing financial and banking systems in the European Union (Holobiuc., 2020; Naser., 2019) and in developing countries (Umadia., Kasztelnik., 2020; Lyulyov., Pimonenko., 2017). Researchers attempted to evaluate the impact of management aspects on economic stability (Levchenko., Kobzieva., Boiko., Shlapko., 2018). A great deal of previous research into financial system's stability has focused on social capital (Muneeb., Chughtai., Anjum., Ma., 2019; Itty., Garcia., Futterman., Austt., Mujtaba., 2019; Mercado., Vargas-Hernández., 2019; Mujtaba., 2019).

The idea of unintentionally ordering chaotic systems and the desire of markets to balance underlies the concept of the "invisible hand" of Adam Smith, which became the basis of an efficient market hypothesis. It was formed by Eugene Pham and is to reflect in the price of the asset all available information about it. All changes immediately affect the market value, leaving prices in equilibrium. Thus, the financial system always strives for stability (Bishop., 2009).

Gary J. Shinazi believes that the financial system's instability is manifested not only in the existence of financial crises. The financial system is considered unstable when it is unable to effectively allocate resources and financial risks, unable

to withstand external threats and shocks, and after surviving them, quickly returns to equilibrium (Shinazi., 2005).

According to Heiman Minsky's financial instability, the supply in the markets stimulates the demand for assets. Moreover, rising prices reflect the amount of credit available and people's unreasonable expectations rather than the asset's base value. Thus, prices steadily deviate from equilibrium, forming a debt bubble, and after periods of stability, the financial system finds itself in a spiral of instability (Minsky., 1992).

Minsky considered the expansion of credit to be the leading cause of financial instability. Lending, in turn, depends on trust (Minsky., 1992). Lenders should consider their borrowers creditworthy, and if there are grounds for distrust, the lender may demand payment of the existing debt or refuse a new loan. However, as memories of the recession fade, the false belief that asset prices can only rise is strengthened, and debt deepens as credit is used to finance investment (Barbera., 2009). It, in turn, continues to rise. Asset prices, inducing speculative euphoria - irrational revelry. Borrowers extrapolate recent trends to the future, become more prone to investment and willing to take on more debt, and lenders have an incentive to lend as much as possible. The dominance of troubled borrowers in the market, who constantly need refinancing and are unable to pay interest on loans, leads to a trust crisis, which provokes the financial system's vulnerability. Changes in investor sentiment attempts by the government to reduce inflation due to monetary constraints or the sudden failure of a well-known company can lead to a severe decline in borrowers' creditworthiness and the transformation of trust into distrust. The financial system becomes unable to withstand external risks and moves away from a state of equilibrium and stability, plunging into an economic crisis.

The issue of financial instability was covered by W. White, who emphasizes that the price equilibrium does not guarantee the absence of imbalances and lags in the financial system and, conversely, might be the cause of their occurrence (White., 2006). This phenomenon is due to the financial system's inherent instability, which acquires specific features to transform trust.

Figure 1 shows how the financial system deviates from equilibrium and finds itself in a spiral of instability. Price stability and the financial system strengthen trust in the financial and banking system and modify inflation in destabilization processes. This process results in a softer response from central banks to shocks, resulting in more favorable conditions for credit expansion in the financial market than if central banks had reacted harshly to the shock by preventing financial risks. The rapid expansion of liquidity allows domestic credit to multiply rapidly, generating false trust that generates aggregate demand that does not focus on consumer prices but spills over into asset value. This leads to an increase in problem loans. Borrowers become unable to pay their obligations, provoking distrust of creditors, which leads to distrust of borrowers in the banking and financial system. Debt growth and distrust

make the financial system shaky and weak, followed by financial instability.

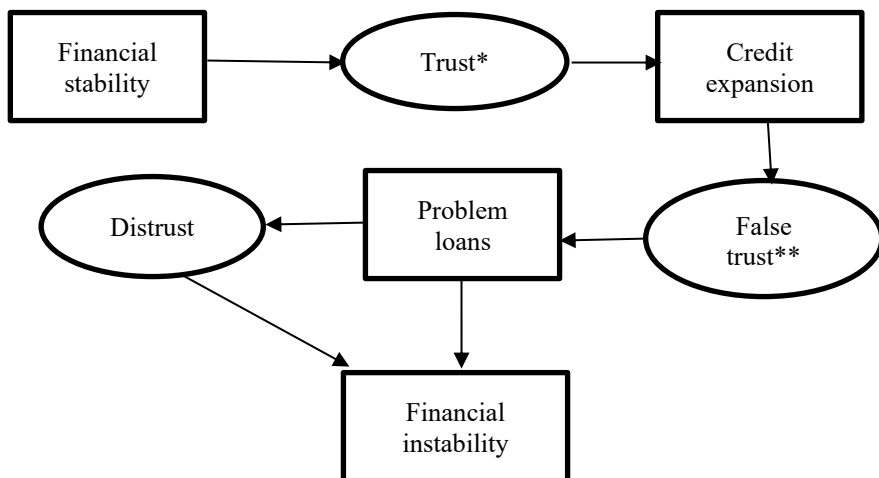


Figure 1. Stages of financial instability due to changes in trust (source: authors design)

* trust formed under the influence of rational factors

**trust, which is based on irrational factors, and therefore has the characteristics of false

The results of this investigation show that the financial system's stability concept depends on the trust or distrust of economic entities. False trust and sometimes euphoria lead to an increase in debt, the financial system's defeat, and a profound trust crisis. At each stage of the transformation of the financial system there is a transformation of trust, so in one case, trust is the cause, and in another consequence. When the financial system collapses, the decline is a mirror image of the previous rise. Thus, the more potent euphoria and trust in the financial system before the collapse, the stronger distrust after. The second significant finding was that re-establishing trust will be difficult, as consumers and companies rely on previous decision-making experience.

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FOREIGN DIRECT INVESTMENT IN UKRAINE

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Foreign direct investments are attractive and important for any country that takes investment because such type of investment exists for the long-term and are significant in volume. By attracting foreign investment, the state has the opportunity to finance budget deficits, pension programs and other liabilities. Attracting foreign direct investment leads to increased productivity by providing new technologies, improving working methods and quality control, as well as staff training (Abeysekera, 2020; Agnihotri, 2019; Bhowmik, 2018; Bublyk et al., (2017 Buchynska et al., 2020).

We can consider investment as foreign in case if investors hold not less than 25% of the company's share capital. Such type of investment provides establishment of new enterprise or joint venture; opening of a foreign subsidiary; the purchase or acquisition of an existing company. Why foreign direct investments are important, because they are regarded as the main source of investment and they are not are not a burden as an external debt of the state, while ensuring the integration of the national economy into the world economy (Kaya & Kwok, 2020; Kendiukhov & Tvaronaviciene, 2017; Levchenko et al., 2018; Lyulyov & Pimonenko, 2017; Sokolov et al., 2018).

Due to implementation of foreign direct investments: joint business activities are developing, new industries and innovative types of production are emerging, production costs are decreasing, sales markets and export opportunities of enterprises are expanding.

Foreign direct investment in Ukraine during 2015-2020 are presented in table 1.

Table 1.
Foreign direct investments in the economy of Ukraine and from Ukraine in 2014–2020, USD million (Rychka & Ilchenko, 2020)

Year	In Ukraine	From Ukraine
2014	53 704,0	6 702,9
2015	38 356,8	6 456,2
2016	32 122,5	6 315,2
2017	31 230,3	6 346,3
2018	31 606,4	6 322,0
2019	32 905,1	6 294,4
2020	38,8053	12,258

According to the State Statistics Service of Ukraine, the volume of FDI increased until 2014, but in 2014-2018 there is a decrease, and from 2019 there is a gradual increase. According to the cumulative total, as of January 1, 2020, the share capital of non-residents in Ukraine amounted to \$ 35,809.6 million (Direct foreign investments in Ukraine).

Accumulated foreign direct investment in the Ukrainian economy as of June 30, 2020 amounted to \$ 50311 billion (Direct foreign investments in Ukraine). Of these, equity participation instruments - \$ 38,053 debt instruments - \$ 12,258. The largest foreign investor in Ukraine is Cyprus. Companies registered in the whole country invested \$ 15.494 billion in Ukraine. In another place is Netherlands, the third –is Switzerland.

Table 2.
Major investor countries (Official website of State Statistics Committee of Ukraine)

	Country	USD, billion
1	Cyprus	15,494
2	Netherlands	10,261
3	Switzerland	3,083
4	United Kingdom	3, 054
5	Germany	2, 316

The largest investments came in industry, finance and insurance, real estate, trade, automotive and motor vehicle repairs, and the IT industry. The highest outflow of investments was in the sphere of Ukrainian industry - almost 1.6 billion dollars.

From the table 3 we can see that the most attractive sphere for investing is industry (mechanical engineering, metallurgical production, production of finished metal products, processing industry).

If we look at the regions of Ukraine, the largest outflow of investments was from Kyiv (53%), Dnipropetrovsk (11%), Kyiv (5%) and Donetsk (4%) regions.

Index of investment attractiveness of Ukraine on 2 quarter of 2020 is 2,4(of the 5 possible on the Likert scale). 78% of entrepreneur think that the current investment climate is unfavorable, 16% consider the investment climate as neutral and only 4% consider the investment climate as suitable (How many foreign investments came to Ukraine in 2020).

There are negative factors that affect investing climate: weak judicial systems (94%), high level of corruption (91%) and shadow economy (75%) (Ukrainian Investment Index).

Table 3.

Structure of foreign direct investment by types of economic activity (Official website of State Statistics Committee of Ukraine)

Types of economic activity	Structure of foreign investments as of January 1, % 2020
Industry	33,0
Wholesale and retail trade	15,8
Financial and insurance activities	12,7
Real estate transactions	12,5
Information and telecommunications	6,8
Professional, scientific and technical activities	6,2
Construction	2,9
Agriculture, forestry and fisheries	1,5
Other types of economic activity	8,6

Important directions of formation of a favorable investment climate in Ukraine today are (Marcel, 2019; Molotok, 2020; Nguedie, 2018; Pavlyk, 2020; Rychka & Ilchenko, 2020; Shkarupa, 2020; Singh, 2019; Taliento & Netti, 2020; Vasylyeva et al., 2018; Yelnikova & Barhaq, 2020; Yelnikova & Kuzior, 2020):

- promoting the development of science,
- active participation in international investment projects;
- infrastructure modernization
- structural reforms in the economy,
- determination of priority areas of the economy for investment and granting them benefits.

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TALENT MANAGEMENT - AN EFFECTIVE FUNCTION OF ORGANIZATIONAL LEADERSHIP PERFORMANCE

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The development of any organization largely depends on a properly selected and formed team of leaders. Evaluating the effectiveness of managers is an important process in the system. But today, there is no single system of criteria for assessing leadership in organizations.

Leadership as a topic can be widely discussed in several specific areas of related research, such as innovative leadership in decision-making (Delanoy et al., 2020), leadership in education as a main indicator of success in certain countries (Dum et al., 2019), leadership in scientific discussion on the problem of knowledge management and their impact on the financial results of business entities (Brimah et al., 2020), leadership as an anthropological component of the digitization of the abduction system (Skrynnyk, 2020), the role of leadership in organizational change (Shvindina, 2017), the study of leadership in terms of gender (Minasyan et al., 2020), leadership in financial innovation as a tool for small business development (Brown et al., 2020).

Many studies are interrelated with the field, for instance, there is a problem of asymmetric information within the pecking order theory that was studied by numerous researchers (Ahmad et al., 2020), the need to implement transformational leadership in small and medium enterprises (Thomas, 2020), studying the level of importance of information management in the formation of a model of leadership and innovation in business (Goncharenko, 2020), identification of the relationship between the audit of the enterprise and the implementation of strategic plans (Kasztelnik et al., 2019).

Many scholars from different perspectives explore leadership issues: the impact of the ethical component of the human resources management system on the effectiveness of the organizations (Hanić et al., 2020; Probst et al., 2020; Kasztelnik, 2019; Chughtai et al., 2020), the impact of optimism on the success of managers (Kaya et al., 2020), businesses need to report not only on profits but on their impact on the economy, society, and environment (Bachoo, 2020), the relevance of using balance sheet maps to achieve productivity (Chakrawal et al., 2018), study of the influence of artificial intelligence on the formation of managerial thought (Obeid et al., 2020).

The study of the quality of corporate governance is another aspect of the research, i.e., management has a high level of influence on the development of the organization (Nur-Al-Ahad et al., 2020; Prusty et al., 2018).

Considering the organization as a socio-technical system, the achievement of

high efficiency is possible only while meeting both the socio-psychological needs of employees in the satisfaction of work tasks and group work, and technical requirements of production (Kupriienko, 2015).

Zheng considers the effectiveness of leaders as a set of components such as organizational structure, organizational culture, and organizational strategy (Zheng et.al., 2013). According to Emerson, high productivity can only be achieved if "the right thing is done properly, by the right person, in the right place and at the right time." (Emerson, 1913). These definitions indicate the manager's key tasks, that need to be well-designed to develop a team.

Purposeful activities aimed at creating a system of recruitment, development, use, and retention of talented employees in the company, who are capable of achieving exceptional results in the organization is called "talent management" (Usheva, 2015). This is a quite new area of activity of managers. Talent management as a concept of system development aims to consider the talent of each employee as part of the success of the organization.

Talent in general, is a combination of qualities that allow a person to achieve significant success in the individual performance in a particular activity (Moliako et al., 2006). Therefore, a leader with such a system of qualities is necessary for a particular organization to increase its activities' efficiency.

Each member of the team needs an individual approach to oneself and comfortable psychological conditions in the workplace. One of the main ideas of profitable activity is the formation of a team of talents because in the end, the degree of success of the enterprise depends on people (Prodius et.al., 2013). The existing and potential leadership of the organization are priority in talent management.

Each organization has its specificity. This specificity is preconditioned by the content of the mission, the features of the field of activity, the chosen combination of leadership styles, the selected system of motivational elements for the staff of the enterprise. Accordingly, the effective operation of the system depends on the degree of compliance of leaders with these specific features.

Managerial talent is a combination of a sharp strategic mind, leadership skills, emotional maturity, communication skills, entrepreneurial instincts, functional skills, the ability to achieve results, and the ability to attract and inspire other talents (Michaels et al., 2005). In his research, McCall concludes that the development of managerial talent should be a priority in the activities of any organization (McCall et al., 1998). It is assumed that if a leader has the described set of qualities and has managerial talent, it positions him as a self-motivated and focused on effective work. Such a manager is a valuable asset in the organization.

There are a large number of methods for evaluating the effectiveness of staff in general and management separately. This study analyzed the 360-degree method as a tool for evaluating the performance of managers (Ward, 2006). This method of personnel evaluation was proposed by P. Ward in 1987. Its essence is to assess the

competencies of the employee by his manager, colleagues, subordinates, customers, and himself. Surveys are conducted completely anonymously. It is crucial to distinguish between performance appraisal and competency assessment. In this context, competence can be identified with talent.

The main stages of the assessment method "360 degrees":

- development of a questionnaire, which should include questions about the quality indicators of the leadership of the organization;
- distribution to groups of respondents;
- collection of questionnaires with answers;
- analysis and development of an action plan in accordance with the obtained results.

The last stage always needs to be supplemented by detailed methods of evaluating the performance of managers. That is, conclusions are made on the basis of a comprehensive study of staff.

The obtained results are necessary for determining the ways of development of the researched employees, identification of leadership potential (personnel reserve), adjustment of the microclimate in the organization. Also, such results make the process of evaluating the effectiveness of quality indicators of managers more complete.

The uniqueness of the "360 degree" feedback method lies in the following aspects:

- good feedback is just information, not an assessment of a person's dignity as a leader or as a person;
- interpersonal feedback is essentially subjective;
- in the process of improvement, development of the leader, the prerogative to make assessments remains with the person who is the recipient of information.

In view of this, the following cases of inefficient use of this method within the company can be named: evaluation for the sake of the evaluation, haste in implementation and rapid integration of all tools into a single system, top managers and key employees are not involved in the evaluation system (Birli et.al., 2009).

The importance of identifying leadership potential also lies in preventing the development of negative processes in the team (conflicts, gossip, sabotage, etc.).

Thus, the method of "360 degrees" may be considered as an effective tool to carefully monitor the staff, develop talents and prevent crises within the team.

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TAX GAPS IN THE ECONOMY: PRECONDITIONS AND CONSEQUENCES

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Imperfect tax legislation, high levels of corruption, and shadowing of the economy lead to a deterioration of the macroeconomic situation in the country and imbalances in the economy. The most acute problem faced by most countries is the mismatch of the actual tax revenues to its potential. The consequence of these processes is a reduction in budget revenues due to the formation of tax gaps.

This is mainly due to the intentional evasion of taxpayers by their taxpayers. Despite the development of effective mechanisms for de-shadowing the economy, the number, and variety of income shadowing schemes is rapidly increasing and leads to significant economic consequences:

- reduction of budget revenues, the country's potential to finance economic, environmental, social programs (Boronos and Karpenko, 2012; Karpenko, 2013; Karpenko and Shyshova, 2015; Rubanov and Shyshova, 2010; 2012);
- increasing social inequality and tension in the country;
- reduction of material protection of the population;
- reducing the effectiveness of ongoing reforms (Illiashenko et al. 2016; 2012);
- reducing the level of investment attractiveness of the country (Polchanov, and Zakharkina, 2020; Rzayev and Samoilkova, 2020; Tiutiunyk and Reshetnyak, 2017).

Tax gaps are difficult in terms of forecasting and managing the phenomenon. It is the result of the influence of a large number of exogenous and endogenous factors on the economic agents, represented by a wide range of schemes and channels, some of which are quite difficult to identify (Samoilkova, 2020).

All determinants of a country's tax gaps can be divided into the following groups:

1) Economic. The deterioration of the country's economic development, reducing the level of its macroeconomic stability, exacerbation of imbalances in the economy lead to shortfalls in the budgets of different levels of a significant share of tax revenues. The impact of economic indicators on the number of tax revenues can occur in two directions:

- the transition of economic entities into the shadows as a reaction to the aggravation of the economic situation (Shyshova, 2012; 2013; Shishova, 2012; Vasilyeva et al., 2020).

– the reduction of tax revenues due to the reduction of sales, bankruptcy, and liquidation of many enterprises, which under other conditions took part in filling the state budget.

Table 1.

Methods of formation and mechanisms for counteracting tax gaps

Inhibitor	Manifestation	Prevention measures
Inconsistency of regulations	contradictions between individual provisions of regulations	elimination of contradictions between normative acts, bringing them in line with international law
Imbalance in the delimitation of areas of responsibility and rights between institutions	exceeding their official powers, the concentration of most areas of responsibility within one person	harmonization of real and formal powers of officials, revision of their job responsibilities, delimitation of areas of responsibility between them, the introduction of e-government
Low level of tax morale in society	not realizing the importance of implementing measures to de-shadow the economy	increasing the financial inclusion, tax morale and culture of the population, popularization of observance of tax legislation
Low level of liability for violations of tax legislation	evasion of responsibility, awareness of their impunity	strengthening liability for violations of tax legislation, increasing the effectiveness of financial monitoring and control, reducing the duration of proceedings for tax evasion
Level of tax burden	the high tax burden is an excessive burden	determining the effective tax rate and establishing the optimal burden, reviewing the preferential tax regimes
Instability of economic development indicators	distrust of the government, lowering the level of deposit activity	increasing the level of economic stability and investment attractiveness of the country

Source: generalized by the author on the basis of (Kuznetsova and Humenna, 2020; Samoilikova and Tkachenko, 2020; Tiutiunyk and Humenna, 2018; 2016).

2) Political. The instability of the country's political situation, leading to a reduction of its investment attractiveness and, consequently, a decrease in capital investment, the adoption of unpopular economic decisions, and so on. In this context, the existence of the tax gaps may be due to both deliberate actions of

economic entities and the results of decisions of individual state institutions. For example, the restrictions on the volume of production of certain goods, places of their sale lead to tax gaps in the economy.

3) Social - a low level of tax morale and responsibility (Zakharkina and Katerynina, 2014) of the taxpayer, the deterioration of the quality of life, the inability to meet basic needs due to the mismatch of real incomes and expenditures.

At the same time, the investigation of tax gaps should be taking into account the number of unpaid payments due to errors in tax reporting, forecasting the main indicators of the country's development, and so on (Boronos and Karpenko, 2011). If the first component of the tax gaps formation can be compensated by taxpayers in subsequent tax periods (self-identification and subsequent payment of such obligations), the low quality of forecasting macroeconomic development indicators at certain stages of the budget process can cause significant budget losses due to inability to implement planned programs and measures.

The above necessitates the development of a set of measures aimed at counteracting the impact of tax gaps on the development of the country (table 1).

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THE IMPACT OF THE IMPLEMENTATION OF INNOVATIVE TECHNOLOGIES ON THE COMPANY'S PROFITABILITY

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In modern economic conditions, the development of any enterprise is impossible without the introduction of innovation policy, development of science and technology, modernization of equipment and facilities, etc. Innovation has become crucial for all organizations and companies. With the purpose of being competitive, a company must differ from others in the market, which means, introduce a differentiation policy, or be a price leader, in other words, offer goods of the proper quality but at a lower price. Innovation is essential in both cases. Speaking of companies that have chosen a differentiation strategy, with the aim of offering the product that differs from similar ones on the market, the companies have to apply an innovative approach and improve a product that stands out from the rest. Those companies that have chosen to be price leaders must constantly innovate primarily in production technology in order to minimize costs. In addition, there are companies that have achieved success and become world leaders by launching an innovative startup. The problems of this research are considered in the works of domestic and foreign scientists (Santa, R. et al., 2017; Birdi, K. et al., 2008; Levchenko, V. et al., 2018; Kendiukhov, I. et al., 2017; Vasylieva, T. et al., 2018; Lyulyov, O. et al., 2017; Bublyk, M. et al., 2017; Domashenko M. et al., 2020; Njegovanović, An., 2019; Obeid, H. et al., 2020; Thomas, G., 2020;. Yelnikova, Yu. et al., 2020; Abolfazl Akhondzadeh, 2019; Kandel, B.K. et al., 2018; Khan, Md et al., 2018; Delanoy, N. et al., 2020; Brimah, B. A. et al., 2020; Tran, C. et al., 2020; Karaoulanis, A. et al., 2020; Skrynnyk, O., 2020).

One of the main goals of every enterprise is development and introduction to the market of new goods. Obviously, new products are the relative concept. Thus, according to global estimates, only 10% of products that appear on the market can be referred to the global novelties. Accordingly, these goods and services set the trend and create a new market. For most products, innovation is primarily a modification of existing products, rather than absolute functional changes.

Nowadays it is extremely important for companies to invest in Research & Development (R&D) of their enterprises in order to conduct researches to identify the directions of future growth and the ways of improvement of existing products that can be interesting for their shareholders. In scientific works (Gu, L., 2016; Alam, A., 2020) the authors represent the role of R&D investments in the performance of companies. Innovation can influence the company's profitability in different ways. Firstly, by implementation of innovation, firms can improve existing products and

services. Customers are no longer interested only in cheap products, they pay attention on global problems and how the companies react to them. That is why companies try to develop their products in a way it can benefit and contribute to both its profitability and sustainable development. For instance, the automobile manufacturer BMW is famous for its innovative measures towards sustainability, and in 2019 the company reduced the CO_2 emissions by 70% in comparison to 2006, which corresponds to annual reduction of more than 40 million tons of CO_2 (Official, 2021). Another example is world leader of tobacco industry - British American Tobacco (BAT). Working in a quite controversial industry, the company invests in innovation in order to offer new products to the market that are less harmful to both human health and the environment. According to its Sustainability Report 2020 (Sustainability, 2020), BAT has introduced a wide variety of non-combustible products like vapour products, tobacco heating products as well as modern oral products, which have less negative effect on the deforestation, carbon emissions and human health in comparison with ordinary tobacco products. Innovation helps companies to become more competitive and to attract new customers that accounts for growth in profitability.

Second of all, introduction of innovative technologies in the business is not something voluntary, it is a necessity business need to follow in order to stand out from the rest of the competition. Technologies are developing so fast and product can be out-of-date quite rapidly. For this particular reason such companies as Nokia and Kodak failed to catch up with time and competition and in the end went out of business. On the other hand, it is simple to distinguish Tesla among other car manufacturers and Tesla's innovative technologies account for it. Being competitive and innovative causes the rise of prices and thus the increase of revenue.

Moreover, innovative technologies in marketing can attract an immense amount of new customers. Marketing innovations, or innovations in marketing, can be described as the use of improved or new marketing methods and tools during the process of creating or distributing goods (technologies, services, management decisions) in order to more effectively meet the needs and demands of consumers and producers. Speaking of marketing of new products on the market, the launch of a new product on the market should be supported by appropriate marketing measures, which have certain different features in comparison with the marketing of a known product. Marketing innovations are aimed at better meeting the needs of consumers, expanding their list and quality, opening new markets to increase sales and ensure the effectiveness of marketing activities of industrial enterprises in today's changing environment. Speaking of new technologies in marketing, it is becoming widely popular to use Virtual Reality or Augmented Reality with the aim for representing products in a new creative way. For example, several years ago a Spanish clothes retailer Zara launched Augmented Reality App for shoppers, by using which consumers can check in advance how that particular clothes would

appear which can significantly influence the sells and as a result the profit of company. One of the examples is the creation of innovative packaging for goods, namely, eco-friendly packaging, which is less harmful to the environment. Examples of such innovative policies in attracting buyers are many companies such as PUMA, H&M, Danone etc.

Finally, innovation affects also operational management and employees in general. In scientific works (Santa, R. et al., 2017; Birdi, K. et al., 2008); the authors describe the role of innovation in operational management. New technologies help to facilitate the process of division of responsibilities and tasks as well as to control different business processes. It is no longer necessary to spend hours on attending staff meetings, where workers just waste their time. There are a lot of online platforms where it is easily to divide and control certain process. By using it, workers can concentrate more on their responsibilities, which influences both the productivity and the profitability. The main functions of innovation management include: planning, marketing, organization, control and analysis of the effectiveness of innovation. Based on the listed functions, the main stages of the implementation of innovation management can be distinguished as collection and analysis of information; setting goals for the innovation process; development of common innovation strategies as well as making management decisions.

To conclude, innovation has a big influence on the business and it can enhance its profitability by multiple ways: from increasing attractiveness of the products to improving operational management. The main goals of innovation are improving competitive positions in the market, improving production and sales activities, increasing the efficiency of organizing workplaces, as well as reducing the negative impact on the environment. In order for a business to be successful, companies need to constantly improve products and services, and also offer new products on the market. That is the reason why it is extremely essential for companies to implement innovative technologies otherwise business would collapse.

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UKRAINE'S PARTICIPATION IN THE INTERNATIONAL COMMODITY MARKET

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Globalization of human activity is the most important feature of the modern world economy. Due to the comprehensive transformation, the impact of new information and technologies, the level of investment, productivity and welfare of countries has increased. This increase has opened up a wide range of opportunities, including the prospects for cooperation, as well as the opportunity to enjoy the achievements of civilization. The problems of this research are considered in the works of domestic and foreign scientists (Levchenko, V. et al., 2018; Kendiukhov, I. et al., 2017; Vasylieva, T. et al., 2018; Lyulyov, O. et al., 2017; Bublyk, M. et al., 2017; El Amri et al., 2020; Domashenko M. et al., 2020; Weldeslassie, H. et al., 2019; Jiang, Yu. et al., 2017; Karintseva, O., 2020; Kotenko O. et al., 2019; Vargas-Hernández, J. et al., 2018; He Shuquan, 2018; Miller, A.D., 2019; Chughtai, M.S. et al., 2020; Rajan, D., 2019; Skrynnyk, O., 2020; Stavrova, E., 2020).

International trade has opened wide borders for countries, leading to larger markets, which in turn disciplines national producers to healthy competition. This leads to an increase in living standards and also gives the consumer a wide choice. It is difficult to call the entry of the shaky Ukrainian economy into international trade painless. Even now, Ukraine is not one of the leading countries because, unlike Central European countries, it is predominantly a supplier of raw materials or semi-finished products.

Export. According to the statistics of 2019, the most popular goods of Ukraine for export were: vegetable products - 30.6%, metals and metal products - 10%, mineral products - 13%, food products - 3%, chemical products - 8%, wood - 1.5 %. And the most popular areas of sales were China-3.6., Russia-3.2, Poland-3.3, Turkey-2.6 and Italy-2.4 billion dollars. Import. The most popular importers in Ukraine were China-9.2, Russia-7, Germany-6, Poland-4.1, Belarus-3.8 billion dollars. Products: textiles and textile products, polymers, plastics and plastic products, vehicles, information technology devices (Ukraine's, 2021).

In general, in 2019, Ukraine's exports amounted to 50.1 billion. dollars, and Imports - 60.8 billion dollars. Concluding from this, we can say that the country's imports significantly exceed exports, which leads to a negative trade balance of the country. As a conclusion of the above material, I would like to note that Ukraine should develop into a standard for the export of finished products, and not raw materials or semi-finished products (Foreign, 2021; Bouazizi, 2020).

Also a particularly important issue for our country is to change the direction

of interests, change the pro-Russian direction of trade to European. Therefore, the government should drastically change the internal economic and political climate of the country, namely: the level of corruption, improving the business climate, developing democracy, reforming the judiciary and strengthening self-government.

These steps will increase the flow of foreign capital and investment in the country. Which in turn will give more opportunities for the country's development in various directions.

Ukraine became a member of the World Trade Organization on May 16, 2008. On its way to membership in the WTO, Ukraine has made a number of structural and economic reforms, transformed the economy from administratively planned to market, as well as held a number of negotiations with the member countries of the organization.

Ukraine's accession to the worldwide trade organization meant an improvement in the terms of trade with more than 150 countries of the world, a decrease in non-tariff and tariff regulations.

For 12 years of Ukraine in the status of a WTO member, we can draw the following conclusions. Ukraine has ceased to depend on exports to the countries of the former USSR, and this is confirmed by the increase in the number of sales markets.

But all the same, the cardinal reversal of the country's landmarks is tangible. This was felt in the metallurgical sector, since the bulk of the production was built during the Soviet era.

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THE ROLE OF FINANCIAL INTERMEDIARIES IN SHADOW SCHEMES OF CAPITAL WITHDRAWAL: MODELING THE TRAJECTORIES OF THEIR INTERACTION

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In a crisis of economic development, income shadowing operations are a serious threat to the stable functioning of any economy (Boronos and Karpenko, 2011; Ilyashenko et al., 2012; Tiutiunyk and Humenna, 2018; Vasilyeva et al., 2018). Currently, the shadow component is present in all spheres of economic development, and the list of income shadowing schemes is growing every year. At the same time, existing methods of detecting shadow transactions have many shortcomings and are therefore unable to ensure the effectiveness of financial monitoring and control processes (Kuznetsova and Humenna, 2020; Samoilikova, 2020; Samoilikova and Tkachenko, 2020).

The system of public financial supervision needs constant improvement in terms of bringing it in line with the realities of the shadow sector (Tiutiunyk and Reshetnyak, 2017; Rubanov and Shyshova, 2010; 2012; Tiutiunyk and Humenna, 2016; Karpenko and Shyshova, 2015). One aspect that deserves more in-depth research is the analysis of the role of financial intermediaries as the economic entities with the largest percentage of financial sector assets in shady income concealment schemes.

Today, the most active in the shadow schemes of capital withdrawal are the subjects of banking, insurance in the investment market of Ukraine.

Over the past 10 years, they are the first to show the highest growth rates of their assets. One of the reasons for this growth is their active participation in shadow schemes. Every year, the number of transactions carried out in the banking market and subject to enhanced financial monitoring increases significantly.

In 2012, the European Commission introduced the concept of "shadow banking" as a system of credit intermediation that unites entities operating outside the traditional banking system.

Shadow banking is a universal phenomenon that takes different forms depending on the level of development of the financial system. In Ukraine, the functioning of shadow banking is due to two components:

- shadow activities due to the implementation of deposit operations; manipulating the maturities of liabilities or the level of liquidity of assets; carrying out risk transfer operations; lending to economic entities through financial leverage operations;

- activities of asset securitization, the use of securities as the object of the loan and repo transactions (European Commission, 2012).

At the same time, a significant number of scholars consider shadow banking as a tool to stabilize the traditional banking system. Thus, according to S. Luck and P. Schempp, along with significant threats, the existence of shadow banking has many external effects. A small share of shadow transactions in the banking market contributes to the stability of the financial system. At the same time, the excess of the share of these transactions over their optimal value leads to instability of the country's financial system (Luck and Schempp, 2014; Caruana, 2014; Zakharkina, 2014).

If a few years ago the most active participants in shadow transactions among financial intermediaries were banking institutions, since 2014 the practice of concealing income through insurance operations has been widespread. Today, insurance transactions are often used by members of the shadow sector as a tool to minimize the number of their tax liabilities. According to experts, only 30% of insurance assets circulate in the formal sector of the economy, while most of it is used in shadow transactions. Of the 22 representatives of the insurance market of Ukraine, which accumulate more than UAH 100 million in insurance premiums, only 8 of them pay taxes in full. The rest of the companies fulfill their tax obligations at the level of 1-2%. In addition to the direct economic consequences, these trends lead to a decrease in public confidence in the insurance market and serve as inhibitors of the development of scheme insurance or pseudo-insurance.

Reinsurance operations play an important role among insurance operations - tools for shadowing income. As the only legal tool to reduce the tax base, insurance companies increase the number of these transactions every year, thereby reducing the number of tax revenues to the budget.

Venture funds are no less active participants in the shadow sector of the economy. These funds operate by investing in risky innovation projects, thus completely evading tax liabilities (Skliar and Samoilkova, 2014; Zakharkin et al., 2017).

Thus, the analysis allows us to conclude about the important role of financial intermediaries in the shadow schemes of income concealment. This updates the issue of strengthening control over their activities (Shishova, 2012; Shyshova, 2012; 2013; Boronos and Karpenko, 2012; Karpenko, 2013; Kostel and Samoilkova, 2019) and improving the efficiency of financial monitoring and control over the movement of their assets.

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MAXIMUM COVERAGE LIMITS OF DEPOSITS IN UKRAINE AND IN OTHER COUNTRIES

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Following the first part of Article 26 of the Law of Ukraine "On Households Deposit Guarantee System" the Deposit Guarantee Fund guarantees each depositor of the bank reimbursement of funds on his deposit. The Fund reimburses the amount of the deposit, including interest, as of the date of the Fund's withdrawal from the market, but not more than the amount of the deposit reimbursement limit set on that day, regardless of the number of deposits in one bank. The amount of the maximum amount of reimbursement on deposits may not be less than 200,000 hryvnias.

Thus, as of today, the state of Ukraine guarantees to each depositor compensation for the unreceived deposit in the insolvent bank within 200,000 hryvnias. How much does this amount differ from the coverage limits of deposits in other countries and is it sufficient in today's Ukrainian realities?

Let's start with the analysis of the amounts of insurance coverage in different countries.

Table 1
Review of insurance coverage amounts in OECD, EU, BRIC countries
and in Ukraine as of the end of 2020

Country	Maximum coverage limit, USD	Coverage of the insured sum to the country's GDP per capita
Australia	174825	3,18
Belgium	112208	2,42
Brazil	62033	7,12
Bulgaria	112644	11,46
Canada	76923	1,67
Chile	Unlimited	Unlimited
China	99900	9,78
Czech Republic	112208	4,78
Denmark	118245	1,97
Estonia	112208	4,73
Finland	112208	2,3
France	112208	2,77
Germany	112208	2,42
Greece	112208	5,73
Hungary	112041	6,7

Continued Table 1

India	7004	3,34
Ireland	112208	1,43
Italy	112208	3,38
Japan	92081	2,29
Korea, Rep.	43185	1,36
Lithuania	112208	5,72
Luxembourg	112208	0,98
Malta	112208	3,76
Mexico	135222	13,6
Norway	227783	3,02
Poland	112134	7,15
Romania	112169	8,68
Russian Federation	22615	1,95
Slovenia	112208	4,32
Sweden	101963	1,98
Switzerland	103359	1,26
Turkey	25253	2,77
Ukraine	7073	2,07
United Kingdom	112732	2,66
United States	250000	3,83

**Source: (IADI Annual Survey, 2020; GDP per capita)*

It is determined that the level of insurance coverage of deposits is the lowest in the amount of compensation in India: only \$ 7004. It was followed by Ukraine – \$ 7073, Russia – \$ 22615 and Turkey – \$ 25253. In the countries of the European Union, the amount of compensation is the same and is € 100,000. The largest is the amount of coverage in Norway and the United States - \$ 227,783 and \$ 250,000. respectively. At the same time, a comparison of the guaranteed amount with GDP per capita allowed us to determine that, as a rule, the guaranteed amount of compensation exceeds the level of GDP per capita. Interestingly, in 1-5 places are highly developed countries: Luxembourg – 98%, Switzerland – 126%, South Korea – 136%, Ireland - 143%, Canada - 167%. Ukraine with a rate of 207% ranks 9th. Some of the highest levels of coverage are observed in the countries that have recently joined the European Union. Among them: Bulgaria – 1146%, Romania - 868%, Poland - 715%, Hungary - 670%. This is not surprising, as these countries have much lower GDP per capita, and the amount of the guarantee is the same as in developed EU countries.

Let us turn to the historical aspect of the issue of the guaranteed amount of

compensation in Ukraine. Development of the deposit insurance system in Ukraine began in 1998 with the signing of the Decree of the President of Ukraine "On measures to protect the rights of individuals-depositors of commercial banks of Ukraine" (Informatsiia pro Fond harantuvannia vkladiv fizychnykh osib). This normative act provided for the establishment of the Deposit Guarantee Fund (hereinafter - DGF or the Fund) as a specialized state institution, whose functions are to ensure the property interests of individuals who have placed their deposits in banks, from the standpoint of reimbursement in case of impossibility, return by a bank (Nishchymna S. O., 2017). This Decree established a guaranteed refund on the deposit together with interest for not more than UAH 500. Since then, the DGF's administrative board has increased this amount 11 times:

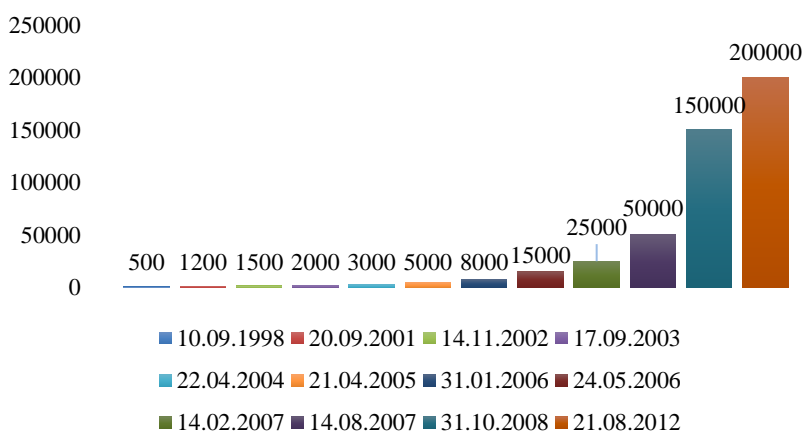


Fig. 1. Stages of increasing the guaranteed amount of compensation
(Informatsiia pro Fond harantuvannia vkladiv fizychnykh osib)

Table 2.

Calculation of the guaranteed amount of compensation taking into account the inflation index

Period	Guaranteed amount of compensation before increase (UAH)	Aggregate inflation index for the period ¹	Inflationary increase in the guaranteed amount of compensation ²	Guaranteed amount of compensation, taking into account the inflation index ³
31.10.2008 - 21.08.2012	150,000.00	1,322	48,347.97	198,347.97

¹The aggregate inflation index for the period is calculated by the formula: $II\ cf. = II1 \times II2 \dots \times IIX / 100 ^ n$, where II1 is the inflation index for the first month of the period; II2 - inflation index for the second month of the period; IIX - inflation index for the last month of the period; n is the number of months in the period.

²Inflation increase in the guaranteed amount of compensation is calculated by the formula: $C\ infl. = C \times IIag.$, where C is the guaranteed amount of compensation before increase; IIag.- aggregate inflation index.

³The guaranteed amount of compensation, taking into account the inflation index, is calculated by the formula: $C\ total. = C + C\ infl.$, where C is the guaranteed amount of compensation before increase; C infl. - inflationary increase in the guaranteed amount of compensation.

As you can see, more than 8 years have passed since the last increase in the guaranteed amount of compensation. Despite such significant growth, attention should be paid to the level of purchasing power of the national currency in 2012 and 2021. If we analyze the recent increase in the guaranteed amount of compensation, we can conclude that one of the criteria used by the legislator in determining the maximum amount of compensation for deposits was the level of inflation.

That is, for the period 31.10.2008 - 21.08.2012 the inflation increase of the current at that time guaranteed amount of compensation (UAH 150,000.00) amounted to UAH 48,347.97, and the rounded value of the guaranteed amount of compensation taking into account the inflation increase as of August 21, 2012, amounted to UAH 200,000.00.

Taking into account the previous logic of the legislator, we calculate the amount of the guaranteed amount of compensation, taking into account the inflation index for the period 21.08.2012 - 01.03.2021. This calculation will look like this:

Table 3.

Calculation of the guaranteed amount of compensation taking into account the inflation index

Period	Current guaranteed amount of compensation (UAH)	Aggregate inflation index for the period ¹	Inflationary increase in the guaranteed amount of compensation ²	Guaranteed amount of compensation, taking into account the inflation index ³
21.08.2012 - 01.03.2021	200,000.00	2,824	364,813.63	564,813.63

¹The aggregate inflation index for the period is calculated by the formula: $II\ cf. = II1 \times II2 \dots \times IIX / 100 ^ n$, where II1 is the inflation index for the first month

of the period; I_{I2} - inflation index for the second month of the period; I_{IX} - inflation index for the last month of the period; n is the number of months in the period.

²Inflation increase in the guaranteed amount of compensation is calculated by the formula: $C_{infl.} = C \times I_{ag.}$, where C is the current guaranteed amount of compensation; $I_{ag.}$ - aggregate inflation index.

³The guaranteed amount of compensation, taking into account the inflation index, is calculated by the formula: $C_{total.} = C + C_{infl.}$, where C is the current guaranteed amount of compensation; $C_{infl.}$ - inflationary increase in the guaranteed amount of compensation.

That is, for the period 21.08.2012 - 01.03.2021 inflation increase of the current guaranteed amount of compensation (UAH 200,000.00) amounted to UAH 364,813.63, and the rounded value of the guaranteed amount of compensation taking into account the inflation increase as of 01.03.2021 is UAH 565,000.00.

Finally, it should be noted that according to the results of an online survey conducted recently on the website minfin.com.ua, almost all respondents (more than 95% of 3496 respondents) supported the need to increase the guaranteed amount of compensation in Ukraine to UAH 400,000.00 or up to an amount equivalent to EUR 100,000.00 (votes for the increase were divided equally) (Harantovanu sumu vidshkoduvannia za bankivskymy depozytamy chas pidvyshchuvaty — rezultaty opytuvannia, 2021).

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UKRAINE IN INTERNATIONAL MIGRATION PROCESSES

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International labor migration is part of the world system management, it is the result of the evolution of labor, the system international division of labor and integration. Today Ukraine on international markets mainly acts as a labor-exporting state forces, although there is a tendency to increase the number of foreign citizens working in Ukraine. The problems of this research are considered in the works of domestic and foreign scientists (Kvitka, S. et al., 2019; Cosmulese, C.G. et al., 2019; Lekashvili, E., 2019; Domashenko M. et al., 2017; Zolkover, A. et al., 2020; Yelnikova, Y. et al., 2020; Bhowmik, D., 2020; Moskalenko, B. et al., 2020; Borella, C. et al., 2017; Sysoyeva, L. et al., 2017; Kotenko O. et al., 2018; Singh, S.N., 2020; Andreas Karaoulanis et al., 2018; Constantoglou, M., 2020; Singh, S., 2019; Nagy, Z. B. et al., 2018; Bardy, R. et al., 2017; Zolkover, A. et al., 2020).

Ukrainian's first opportunity to enjoy the right to freedom of movement coincided with the deep structural transformation of the economy, accompanied by falling living standards and increased unemployment. Due to the degradation of the free healthcare and education systems, the population had to cover these expenses itself. In the absence of a developed credit system, those willing to start a business needed start-up capital. The transition to a market economy created a new consumer demand for high cost products like housing, cars, and household appliances. This stimulated labour migration, which in the late 1990's became a mass phenomenon and a source of income for many families.

According to the same study, the majority of Ukrainian migrant workers are men, over 40% are 30-44 years old; most migrants come from the Western regions of the country. Forty-one (41%) per cent of migrant workers have a secondary or vocational education, 36% have a higher education. The main countries of destination for Ukrainian labour migrants are Poland, Russian Federation, Czech Republic, and Italy. The sectors of employment of the Ukrainian migrant workers are primarily construction (men) and domestic care (women), as well as the service sector and agriculture.

Due to the military conflict and a deep economic crisis, the pro-emigration sentiment is growing among the population. The attempts to solve problems by finding a job abroad are facilitated by Ukrainians' labour migration experience, and powerful migration networks that emerged in recent decades.

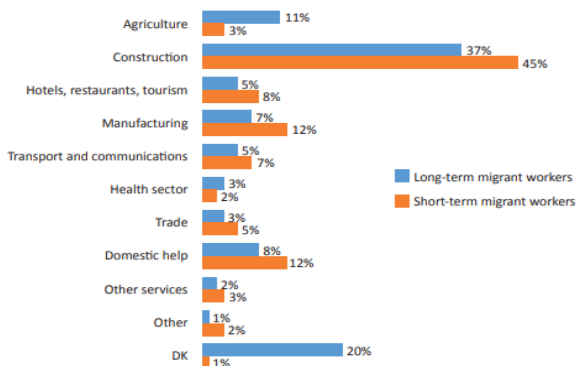


Fig. 1. Sectors of employment of the Ukrainian migrant workers abroad

According to UNESCO, in 2000 – 2012, the number of Ukrainian students abroad increased by more than four times and reached 37,000. The main growth was in the countries to which the labour migration flows from Ukraine have been directed. Over the past two years, the growth of the number of Ukrainians who went to study abroad accelerated. According to the annual monitoring of the number of Ukrainian citizens studying full-time in foreign universities, conducted by the analytical centre CEDOS (covering 34 countries), in the 2013/2014 academic year, 47,724 citizens of Ukraine were studying abroad¹⁹. The majority of them were studying in Poland (15,000), Germany (9,000), Russia (6,000), Canada (2,000), Czech Republic (2,000), Italy (1,900), the USA (1,500), Spain (1,400), France (1,300), and the UK (1,000).

International labor migration is based on the opportunities, conditions and aspirations of the able-bodied economically active population to work in any region, countries of the world community in order to meet their living needs. One of the main motives for emigration is still the higher level of wages in the countries of arrival. One of the main motivations for migration is the high level of wages in the countries of arrival. The goal of interstate movement of labor potential-the desire to improve the material condition-remains unchanged in the long historical perspective.

World experience shows that labor migration provides undoubted obstacles to both the countries receiving labor and the countries that supply it. At the same time, international labor migration generates acute social and economic problems. However, let us consider at first the positive consequences of this phenomenon. The receiving countries (recipient countries) obtain the following benefits: – due to the reduction of production costs, the competitiveness of domestic goods increases, which is associated with a lower price of foreign labor, which, in turn, affects the cost of production; – foreign workers, presenting additional demand for goods and services, stimulate the growth of production and additional employment in the host

country; – import of skilled workforce saves the cost for education and training of local people; – foreign workers are often seen as a certain shock absorber in the event of crisis and unemployment, as the first to fall under the exemption; – foreign workers are not provided with pensions and are not taken into account in the implementation of various social programs.

The current situation in Ukraine requires the government weighted legislative, organizational and economic measures in the field of demographic policy, aimed at creating new jobs with adequate wages and appropriate social security, improvement of the existing education system, raising the level health care and birth rate growth, promotion of healthy lifestyle, etc.

"Scientific work presents the results of the research project "Reforming the lifelong learning system in Ukraine for the prevention of the labor emigration: a cooperation model of institutional partnership" (No. 0120U102001)"

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REGIONAL ECONOMIC SECURITY AND THE FIGHT AGAINST CORRUPTION

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Today, Ukraine is facing the problem of ensuring the security of economic entities' activities and the whole country due to unfavorable external and internal factors that have led to a significant undermining of its economy. Therefore, now there is a need for strengthening Ukraine's regional economic security.

The economic security system's main direction is creating a permanent economic development of the country and its regions. Economic security is a complex structure, so it has many subsystems to ensure the entire system's sustainable development as a whole. Economic security performs well-defined functions and assumes a significant functional load in the system of national security. The essence is that it is the material basis of national sovereignty, and it determines the real possibility of other types of security. In other words, economic security is the basis for the functioning of all other elements of the system (social, technological, food, ecological).

Ensuring a country's economic security means creating a self-protection system that automatically activates a mechanism for protecting it from specific threats. Economic security is a complex and multifaceted category. Through the analysis of the actual process and the understanding of the experience of adopting problems, the authors distinguished three crucial elements:

- economic independence, which, firstly, means the ability of the state to control national resources and use the competitive advantages of the country to enable equal participation in international trade;
- stability and sustainability of the national economy ensures the strength and reliability of all elements of the economic system, protects all forms of property, creates a guarantee of effective business development and restrains unstable factors;
- the ability for self-development and progress, i.e., ability to independently realize and protect national economic interests, carry out continuous modernization of production, adequate investment and innovation policy, and ability to develop knowledge and labor potential in the country and its regions.

At this stage, the main threats to Ukraine's economic security are declining GDP, low competitiveness of products, corruption, depreciation of fixed assets due to unbalanced territorial development, low living standards of many people. Corruption in Ukraine is the main obstacle to implementing the country's European

integration intentions. It is one of the main factors creating a negative country image.

Many experts reasonably point out that if it were possible to change the rules of conduct common to all by individual rules, corruption would disappear along with the legal norms because there would be no need to apply them. One of the most complex issues of organizing the fight against corruption is the question of how to balance preventive and punitive measures. The need to prioritize prevention over punishment for corruption is usually only declared. Most countries spend far more on prosecuting corruption than they do on preventing it. The idea that it is easier to prevent corruption than to be forced to punish it is valid only if there are unlimited resources. Preventing corruption by eliminating or mitigating its criminogenic factors costs far more than regular criminal repressive measures.

Today, Ukraine spends about 9 % of its annual budget on fighting crime. It is the money spent on solving and investigating about 3.5-3.9 million crimes a year. The prevalence of corruption depends mainly on their solvability, or, more precisely, on the inevitability of responsibility for them. The first and the second are not the same things. According to statistics, almost all of the revealed facts of bribery are disclosed. Punishment is imposed only in every fourth to the fifth case. The penalty is imposed in about one in 100 thousand cases of giving and taking bribes. The "funnel effect" as applied to other corruption offenses, probably looks even more striking. As a result, liability for corruption is an absolute utopia from a theoretical and practical point of view. Moreover, the legislation itself provides several grounds for non-application of punishment, even in cases of conviction. Ensuring the inevitability of responsibility for corruption requires the support of a critical level of punishability.

Many foreign countries' experience demonstrates that despite the strict control mechanisms and punitive measures envisaged by law, a significant part of civil servants, especially high-ranking ones, often manages to avoid responsibility for the offenses they have committed. Achieving a level of regional development where corruption is not a decisive factor hindering the development of investment projects, starting new businesses and implementing creative ideas for the development of territories is a goal that can be called local rehabilitation. Further prospects of the authors' research are forming a list of tools for regional rehabilitation, which, combined with improving the region's economic security, can provide a leap in regional life quality.

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MANAGEMENT OF ORGANISATION IN CONDITIONS OF UNCERTAINTY

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In the modern market, Ukrainian enterprises are faced with a relatively high uncertainty in the external environment caused by a complex of macroeconomic, sectorial, political and other factors. Effective organization management in modern conditions is focused on innovation management, and, as you know, any change introduces a risk to the organization's activities. To minimize possible losses in the course of organizational changes, the reformation risks that may affect the quality of products and services provided must be identified and assessed. For the most effective result, all possible threats to the organization must be taken into account when designing and implementing the general management system of the company. Uncertainty is an objective phenomenon, which, on the one hand, is a component of both the external and internal environment of any organization, on the other hand, it is the cause of the constant "headache" of any manager. The complete elimination of uncertainty, that is, the creation of unambiguous conditions for the flow of business is as desirable for each entrepreneur as it is impossible.

The first to investigate the problem of uncertainty in the framework of economic theory was the American economist Frank Knight (1885-1974). One of the innovations proposed by the scientist is the distinction between the concepts of "uncertainty" and "risk". The risk arises in a situation when all possible outcomes of events and the probability of their occurrence are known, i.e. risk is a probability assessed in any way. Uncertainty is understood as the case when the probability of the occurrence of an event cannot be established. Thus, in the study of risk and uncertainty, the concept of "probability" is of key importance (Knight & Frank, 2012).

Uncertainty can be assessed in different ways:

1. In the form of probability distributions (the distribution of the random variable is known exactly, but it is not known what specific value the random variable will take).
2. In the form of subjective probabilities (the distribution of random variables is unknown, but the probabilities of individual events, determined by an expert method, are known).
3. In the form of interval uncertainty (the distribution of a random variable is unknown, but it is known that it can take any value in a certain interval).
4. In addition, it is known that the nature of uncertainty is shaped by various factors.
5. Temporal uncertainty is due to the fact that it is impossible to predict the

significance of one factor or another in the future with an accuracy of one.

6. The uncertainty of the exact values of the parameters of the market system can be characterized as the uncertainty of the market situation (the ratio of supply and demand).

7. The unpredictability of the behavior of participants in a situation of detection of a conflict of interest also generates uncertainty, etc. (Constantoglou, 2020; Obeid et al., 2020).

Kravchenko T.K., Babkin A.E. and Golov N.I. Uncertainty is classified according to its origins and its nature (Kravchenko et al., 2012).

1) According to the source of uncertainty, the following factors are distinguished.

- Uncertainty of the environment may arise due to a lack of information about the state of the internal or external environment of the organization of the decision maker, about the phenomena in respect of which the decision should be implemented due to the actions of other economic agents.

- Personal uncertainty arises in the event of contradictions in the actions of a decision-maker. It may be due to the fact that different people perceive different phenomena differently or have discrepancies in the formulation of goals and objectives. As a result, decisions made can be unclear and ambiguous.

2) The second classification given by the authors mentioned above is based on the nature of uncertainty. On the basis of the nature of uncertainty, probabilistic uncertainty and uncertainty of confidence are distinguished.

When conducting a risk analysis, uncertainty negatively affects the reliability of the results obtained and the validity of the resulting conclusions and decisions. Because of this, the effectiveness of measures to protect and manage risk decreases, and the total costs of organizations operating in conditions of uncertainty increase (Thomas, 2020).

Evaluation of the effectiveness of managerial decisions is one of the most crucial stages in the implementation of a number of strategic objectives that are characteristic of the stage of implementation of the organization's strategy. The validity of the decision made directly depends on how objectively and comprehensively this assessment is carried out. The assessment of the effectiveness of a management decision is based on a system of indicators that measure the effect obtained from the implementation of the decision with its costs. The key issue is the impossibility of expressing uncertainty in a numerical indicator, but the following methods can be applied to analyze situations associated with uncertainty.

- Scenario analysis. This method is used for the strategic management of processes with a high level of uncertainty. The scenario analysis should provide a set of detailed descriptions of the sequence of events that, with a predicted probability, can lead to the desired or planned end state or to possible outcomes, given the scenarios of development. Three development options are often developed:

optimistic, pessimistic, and medium-probability. The optimistic and pessimistic variants should, as it were, form a trajectory tube, within which the real variant is located (Halil et al., 2020; Leśniewski, 2019).

One, the most probable scenario, is usually considered as the baseline, on the basis of which decisions on the choice of a development strategy are made. Others, considered as alternative ones, are launched into implementation if reality begins to correspond to their content to a greater extent, and not to the basic version of the scenario.

- A decision tree is a method that is used to make decisions under conditions of uncertainty and risk. This method is used when you need to make a series of sequential decisions. A decision tree is a graphical method that allows you to coordinate the elements of decision making, probable strategies, their consequences with probabilistic conditions and environmental factors of influence.

The construction of the decision tree begins with the earliest decision, then the possible results and consequences of each of the actions (events) are developed, after that the choice of the direction of action is again determined (a decision is made) and so on until all the consequences of the decision results are determined (Greenwood & White, 2006).

The decision tree is based on 5 consecutive elements:

- 1) The moment of making a decision;
- 2) Point of occurrence of the event;
- 3) The relationship between decisions and events;
- 4) The probability of the occurrence of the event;
- 5) Expected value (consequences) - a quantitative expression of each alternative located at the end of the branch.

The most effective solution for analyzing risks and uncertainty is the use of methods in a complex, which will minimize the influence of inaccuracies characteristic of each of them, and in the analysis process it is necessary to take into account the influence of as many factors as possible. The most comprehensive detailed analysis in conditions of a large number of influencing factors will increase the efficiency and competitiveness of enterprises and avoid financial losses.

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IMPROVEMENT OF THE LEGAL BASIS OF INSURANCE OF EMPLOYEES OF MEDICAL INSTITUTIONS IN UKRAINE

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In the system of measures to improve the social protection of citizens, it is important to ensure their ability to receive the necessary, timely and quality medical care.

Health insurance is a type of insurance against the risk of costs associated with receiving medical care. In most countries, this is a form of social protection of the interests of the population in the health care system.

The object of health insurance is the life and health of citizens, and its purpose is to reimburse the costs of the insured for the restoration of health, by treatment. Thus, insurance risks are the insured's illness, and the insured event is the insured's application to a medical institution and provision of medical services. According to Ukrainian insurance legislation, unlike accident and life insurance, health insurance does not provide for the risk of death or survival until a certain age or until the expiration of the contract (Alexandrov et al., 2003).

The effectiveness of protection of medical workers from accidents and various diseases in the performance of their professional duties and the population as a whole is today the most important problem and priority of the state. Therefore, the state should offer employers (enterprises, institutions, organizations) who are interested in the high efficiency of their employees, programs of cooperation with health care institutions. This could be the development of several models of legal partnership at an early stage, among which employers will choose the best optimal models for them, which are discussed with the workforce. This will not only stimulate the development of public-private partnership as such, but also increase the competition of health care facilities and doctors and, finally, improve the quality of medical services (Kaminska, 2016).

Since 2002, the legislative interest in the introduction of compulsory health insurance in Ukraine has significantly increased, and 13 bills have been proposed for consideration in one way or another.

The Draft Law "On Compulsory Social Health Insurance in Ukraine" (hereinafter - the Draft), registered in the Verkhovna Rada of Ukraine on July 14, 2016 for № 4981 (Draft Law, 2016), deserves attention, although it does not completely solve the problem of regulatory support of the industry as a whole and regulating the full range of health insurance relationships. However, in the future this Law may become a reliable legal basis for attracting financial resources. The presence of two more registered bills regulating relations in this area causes a sense

of contradiction in the work of state bodies of the country and, in particular, the Verkhovna Rada. To date, none of these projects has been adopted.

Having studied the principles of construction of compulsory health insurance, the principles of its financing in accordance with the provisions of the proposed bill, we can find a number of comments on some of its provisions. In particular, Part 2 of Article 2 of the Draft, which stipulates that «compulsory social health insurance is a form of financial support for the costs of the population of Ukraine that can be made for treatment, diagnosis, prevention, rehabilitation, provision of medicines and medical supplies, etc. in case of illness, accident within the limits specified in the contract and the Program of compulsory social health insurance, at the expense of funds (insurance reserves of insurers and funds of the fund of guarantee of compulsory social health insurance), formed by insurers who pay insurance premiums (insurance premiums, insurance contributions) under contracts of compulsory social health insurance, income from the placement of these funds and from other sources provided by this law» (Draft Law, 2016)

The bill already provides for the implementation of compulsory health insurance at the expense of the Fund for Guaranteeing General Social Health Insurance. Today, such a fund does not exist, and its creation at the expense of health insurance is considered appropriate - this is very important, because none of the funds of general state social insurance to date has not shown the effectiveness of work. Another problem with the introduction of health insurance is the weak development of the insurance market in Ukraine. There are many reasons for this development - the instability of the economic and political situation, corruption at all levels, low living standards and distrust of insurance, and so on.

Thus, it is especially important for Ukraine to first solve these problems of development and dissemination of the idea of general insurance in the field of medicine. For the successful functioning of the system of compulsory health insurance in the first place, you should start with the following steps:

1. Formation of new financial flows to obtain additional financial income in the field of health insurance, in particular and in the health care system in general.

2. Minimization and eradication of the corruption component both in the financing of the industry and in the procedures for providing medical services to consumers.

3. Improving the quality of medical services through the free choice of a doctor and a health care institution in case the consumer receives medical services.

This is especially relevant in the context of the signing of the Association Agreement between Ukraine and the European Union. With the choice of the European integration path of the state development in the field of insurance and own health insurance, as well as the health care system, which in general means the acquisition of a fundamental, systemic character (Shevchuk, 2017).

Despite the fact that in recent years the fundamental nature of the approach

to health care reform, draft laws developed by representatives of the legislative initiative continue to have systemic gaps. In our opinion, further steps are needed for the full implementation of health insurance, its financing and gradual accession to European standards in the field of health care: the introduction of a systematic approach to health care reform; development of the relevant legal framework, the possibility of reducing restrictions on the activities of all economic entities of the country, the introduction of conditions and the involvement of foreign economic entities, which ultimately improves the movement of capital and investment climate in Ukraine. Supporting this position, a practical guarantee of health insurance financing can be considered the proposal to introduce compulsory health insurance through the adoption of the Law «On Compulsory Social Health Insurance in Ukraine», but its analysis also points to the shortcomings of the insurance system that need further improvement.

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FOREIGN EXPERIENCE OF INSURANCE OCCUPATIONAL RISKS

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Every day, health workers risk their lives to save dozens, if not hundreds, of others. Today, it is not possible to accurately measure the level of risk for medical staff who are constantly in a viral environment. Nowadays, in the fight against coronavirus disease, medical professionals around the world pay a high price. Thousands of health workers have been infected with the virus, and the number of dead doctors is growing.

In developed countries, as well as in the CIS countries, it is the state model of social insurance of occupational risks that has become the most widespread. This model determines the supervisory and financial authorities that accumulate insurance premiums and pay compensation to victims. Most often, all these functions are entrusted to the state extra-budgetary fund. This model is typical of Germany, Iceland, Sweden, Ireland and others.

Only the improved legal framework of Ukraine on compulsory health insurance will have positive social consequences, as it will significantly increase the level of social guarantees for the rights of medical and other workers engaged in the protection of the population from infectious diseases and their families.

In that case, if the state has adopted a state model of occupational risk insurance - all responsibility for this process lies with the authorized state bodies. If the state has established a mixed (private-public) model of occupational risk insurance, the responsibility is divided between public authorities and private insurance companies. But even in this case, the state retains control over the activities of private insurance companies.

Private or private-public (mixed) insurance model is less common at present, and studies aimed at comparing public and private occupational risk insurance model show that it is more effective.

In a private occupational risk insurance system, the state reserves the right to solve a number of problems:

- insurance against occupational diseases.
- insurance against accidents during the process of manufacture and occupational diseases for civil servants, police officers and military personnel.
- creation of a guarantee fund for organizations with a high level of professional risk in case of their bankruptcy.

Occupational risk financing combines three main elements:

- compensation payments to the victim or the family of the deceased employee;

- the cost of rehabilitation of the employee;
- costs of accident preclusion and preclusion of occupational diseases.

Table 1 shows the share of cost elements of some countries (International, 2021).

Table 1

Cost allocation in the system of occupational risk financing in some developed countries

	Germany	United Kingdom	USA	Denmark	Finland
Compensation costs	0,54	0,32	0,45	0,45	0,39
Costs for rehabilitation and preclusion of NSAIDs	0,46	0,68	0,55	0,55	0,61

As can be seen from Table 1, in developed countries the largest share of expenditures belongs to the costs of rehabilitation and preclusion of accidents and occupational diseases, while in Eastern Europe still, despite the active steps taken towards preventive measures to avert accidents and occupational diseases, as well as the earliest possible rehabilitation of the injured worker, compensation payments predominate in the cost structure.

According to some studies, the private system of occupational risk insurance is more efficient (Butler & Worrall, 1986), fair (LaDou, 2013), but at the same time more complex and requires a developed financial system and the system of public administration of the financial market (Klein & Krohm, 2006).

Norway followed the path of private insurance. The main advantages of the Norwegian system are cost control and a special approach to preventive measures. In addition, a "transparent" system is built when everyone knows what he is paying for. Trade unions, the Union of Employers and the state have full control over the functioning of the system.

An overview of foreign models of occupational risk insurance can serve as a starting point for further empirical research aimed at assessing the effectiveness or adequacy of payments to victims in terms of a particular insurance model. Compulsory state health insurance is the most effective method of protecting healthcare workers from occupational diseases (and personally from COVID-19).

There is a need to comprehensively determine the optimal size of the insurance premium, it is necessary to study the international experience in the field of compulsory health insurance and develop a new draft law on compulsory health insurance. Its task should be:

- a) delineation of sources of financing of health care and determination of

directions of their use;

- b) introduction of compulsory health insurance in Ukraine;
- c) creation of conditions for the development of self-government of health care institutions of state and communal property;
- d) promoting the further development of market relations in the field of health care;
- e) identifying ways to increase health funding;
- f) withdrawal from the shadow circulation of funds paid by citizens of Ukraine for medical services;
- g) creating conditions for the development of voluntary health insurance as an additional source of health care financing;
- h) improving the quality of medical services;
- i) regulation of public relations in the health care system and establishment of rules for financing medical services.

Summarizing the above, we can say that none of the bills has been sufficiently developed and balanced to ensure the effective implementation of a new insurance system, which would be characterized by financial stability and based on the principle of transparency in the decision-making process on the amount of assistance guaranteed. insured persons. Therefore, it is necessary to find a single way to reform health care and develop a new single coherent bill.

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ANALYSIS MECHANISMS OF FINANCIAL MARKETS. FUNDAMENTAL ANALYSIS AND TECHNICAL ANALYSIS

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The financial market is a set of forms of trading in financial assets: foreign exchange, securities, loans, deposits, financial derivatives. The financial market includes the stock market (stock exchanges), the credit market (banks, investment and dealer companies, pension funds), capital markets (insurance, mortgage, interbank capital), and the world currency financial market. On the other hand, the financial market is a certain trading mechanism and a certain organized trading platform where various financial instruments are bought and sold.

A financial instrument is any standardized financial contract, or, for example, a stock or a bond. There are several types of financial markets. For example, the stock market is for trading stocks, or the foreign exchange market is for trading currencies. In any financial market, there are quotes (prices) that reflect the value of certain traded financial instruments. Quotes are constantly changing in accordance with the macro- and microeconomic factors acting on them. It is these changes in quotes that allow traders to make money by buying and selling traded contracts at a selected time.

The most interesting of the financial markets, the most accessible and the easiest to understand for many people is the foreign exchange market.

In order to find out what will happen to the currency tomorrow, or, in other words, to predict its value for a certain period of time in the future, you need to know and understand the basic methods of analyzing foreign exchange markets. At the moment, the main and confirmed by practical use of two methods are fundamental analysis and technical analysis.

Obviously, fluctuations in the value of currencies arise as a result of the impact of certain specific factors and these fluctuations have a certain specific form of their change, that is, they have a structure of fluctuations in value, or rather, fluctuations have a certain "picture" of price fluctuations.

So, the factors that affect the currency are studied by fundamental analysis, and the structure of price fluctuations is studied by technical analysis.

Fundamental analysis examines the factors that affect exchange rates. Fundamental analysis is the study of the influence of the politics and economics of countries on the exchange rates that interest us. Within the framework of fundamental analysis, various messages of monetary and financial events in the world, the phenomena of political and economic activity, both in individual countries and the world community as a whole, are studied. The study examines such factors

that may have an impact on the development of the foreign exchange market. Fundamental analysis is an analysis of the above factors in order to predict the exchange rate.

Here information about the work of stock exchanges and large commercial banks, interest rates of central banks, the economic course of the government, possible changes in the political life of the country, as well as all kinds of rumours and expectations are important. All of the above is called fundamental factors, and you can learn about them from the news or various economic statistics.

Fundamental analysis is one of the most difficult and at the same time one of the key ones for forecasting in the foreign exchange market. It is much more difficult to carry out fundamental analysis than any other, since the same factors in different conditions have an unequal value on the market or can turn from the main ones into absolutely insignificant ones. In addition, fundamental analysis is very voluminous in terms of the processed information base, as it requires knowledge of economic theory. That is why fundamental analysis is difficult for many people or inaccessible because they do not have in-depth knowledge of the market economy.

Fundamental analysis makes it possible to identify both long-term and short-term changes in exchange rates. Example: one option, if there is news about an increase in inflation in the country. Inflation is the actual depreciation of the national currency (Zaitsev, Monetary Inflation..., 2016). After the release of such news, this news becomes a fact and the rate of the national currency in relation to other world currencies will fall within usually 1–3 hours. The second option, if we take in aggregate various factors and understand that all of them, in one way or another, have a negative character for the country's economy, then we can safely conclude that in the long term, and this is from a week or more, the rate of the national currency will also decline. In fundamental analysis, four types of fundamental factors are distinguished: 1) economic factors; 2) political factors; 3) rumours and expectations; 4) force majeure circumstances.

Technical analysis is the study of the price structure of the markets. But then you need to know how to understand and "see" this structure, how is it displayed? What is there in the market that responds to any changes or events related to the markets? Of course, this is the price of the product. In the case of the International Foreign Exchange Market, it is the value of one currency denominated in another. But the price at a particular point in time says little. But if we consider the price in different periods of time, then we will see a change in the history of prices, and this is the structure of the foreign exchange market, and these are the facts about how the price has changed over time. This is what gives us the ability to predict the price in the future. It is also necessary to determine how prices are formed in the foreign exchange market or the financial market in general? The price of a commodity is the value at which the buyer and the seller on the trading floor (financial market) agree on a deal, and this deal takes place. Based on this, we can say that the price reflects

the balance between supply and demand at a certain moment. Moreover, the most important thing in this definition is that it is absolutely not important for a technical analyst, namely, it does not matter what caused this equilibrium and what factors influenced this equilibrium, it is only important how the price changed in comparison with the value that was fixed before.

For the greatest clarity, analysts and speculators use various charts when conducting technical analysis. This is the easiest, most affordable and most reliable way to compare prices over time. Thus, technical analysis is the study of price changes by studying charts in order to further predict future price changes. Types of charts:

a) Linear Chart. At a certain time interval, the price has its price, so we get points that are connected by lines and get a line chart.

b) Bar's Charts. Bars represent not a single price display at a certain time interval, but several prices in this time interval. The bar fixes the highest price for a certain time interval (High price). The lowest point of the bar displays the lowest price for a certain time interval (Low price). The bar displays the Open price, it is the very first price fixed in the given time interval. The bar displays the Close price, it is the most recent price fixed in the given time frame.

The Line chart does not show if the price rose or fell within the time frame, but the line chart shows the change from previous prices. But the bar's chart shows what happened within the interval. If the opening price is lower than the closing price, then within the time interval the prices grew, if on the contrary, then the prices within the time interval fell.

c) Candlesticks Chart. These charts display prices in the same way as the bar's chart, but with a different symbol, which is named candlestick.

The founder of technical analysis is the famous Charles H. Dow, (1851–1902), the creator of the Dow Jones's index and the company of the same name, which still exists and works in the field of financial markets. He laid out the basic ideas of technical analysis in the Wall Street Journal, published in the late 1890s. And after his death, the followers gathered together Dow's ideas, and technical analysis appeared on their basis.

Technical analysis has three postulates. Just as Euclidean's geometry is based on axioms, so technical analysis is based on three postulates. These are postulates about price changes.

Postulate 1. Prices take into account everything. All factors, all events that are associated with the product or with the currency, will be displayed in the price. Such a mapping will take into account all factors in their mutual influence. This is what the postulate says in technical analysis.

In this postulate, in our opinion, there is a hidden error. We agree that “prices take into account everything,” however, money itself changes its value over time and, therefore, a change in the value of a commodity or currency in monetary prices

does not always indicate an actual change in the value of a commodity or currency. Postulate 1 assumes that the value of money is unchanged and constant, but this is far from the case (Zaitsev, 2015; Zaitsev, Objective value..., 2016; Zaitsev, Obiektivna vartist..., 2016; Zaitsev, 2017; Zaitsev et. al., 2017). It is advisable to supplement the postulates of technical analysis with the new postulate "zero". **Postulate "zero"** is formulated as follows: monetary units that participate in price indicators have their own internal exchange value, which is constantly changing.

Regarding postulate 2 (see below), there is no objection. However, one must understand that the price trends that are displayed on the charts are influenced by the intrinsic value of money as well.

Postulate 2. Price movement is subject to trends. A trend is a directional movement in price. The concept of trend is one of the fundamental concepts in technical analysis. It is necessary to learn that everything that happens on the market is subject to certain trends. The main purpose of charting and studying price charts is to identify these trends in the early stages of their development and trade according to their direction.

Postulate 3. History repeats itself. Trading in the foreign exchange market is mainly the psychology of its participants, and since the psychology of people does not change over the years, it can be assumed that the way the participants behaved in the past, so they will behave in the present or in the future.

Accordingly, the actions of the participants are reflected in the price, which means that certain price behaviour in the past will be repeated in the present and in the future.

Recently, there have been many publications of the following content: "Why technical analysis doesn't work" (Ken, 2017; Bailey, 2019) or "Debunking 8 myths about technical analysis" (Seth, 2020). Such publications talk about many problems of technical analysis, but nowhere and no one paid attention to the correctness of plotting price changes. Everyone thinks that when building a price chart, prices are taken at a given moment in time and is considered as another postulate that money does not change its intrinsic value over the course of its functioning. It is believed by tacit agreement that each of all monetary units that form prices show the same value as a year ago, as now, and a year in the future. But this is not the case. Monetary units change their value in every transaction in which they participate. We draw your attention to the fact that charts of price changes for technical analysis must be built taking into account the intrinsic value of money. Price charts constructed in this way will differ from existing price charts and, therefore, may show other trends compared to traditional charts.

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COMPARATIVE ANALYSIS OF E-COMMERCE VS BRICKS AND MORTAR STORES ATTRACTIVENESS TO CUSTOMERS

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In last two years, more customers prefer to buy products online than get them in brick-and-mortar stores. It is so due to the worldwide pandemic, digital development in developed, developing and undeveloped countries. The works of the following professors were analyzed in order to get closer to the theme (Tiutiunyk & Humenna, 2016; Tiutiunyk & Humenna, 2018; Illiashenko, 2016; Pokhylko et al., 2015; Pokhylko, 2008; Pokhylko, 2012a; Pokhylko, 2012b; Zakharkin & Zakharkina, 2017; Zakharkin et al., 2019; Zaitsev, 2019; Pokhylko, 2012c; Rubanov et al., 2019)

In USA, consumers spent online \$861.12 billion in the last year, that is a significant increase in 44.0% (Digital, 2021). That was the highest annual U.S. e-commerce growth in at least 20 years, it is also barely three times as the 15.1% jump in 2019. According to the statistics, Digital Commerce 360 estimates that e-commerce sales almost doubled in 2020 comparing to 2018, \$523 B and \$861 B respectively. Neglecting total growth in \$400 M throughout the period of three mentioned years, the number of online buyers increased considerably. Amazon, Walmart and Apple are US leaders' retailers. Similarly, in Ukraine, Ukrainians bought goods and services online for UAH 65 billion. People between the ages of 25 and 34 prefer online shopping the most (Susan, 2021).

There are several reasons why online buying is more liked by customers. First of all, it is the safety. The way in which they get the products without even going outside, just opening the door and taking the parcel from a carrier or just in front of the door. Hence, people do not have to encounter any infectious individuals and run into trouble.

Another crucial thing is time. It is believed by many that time is vital in today's world when everyone has lots of things to complete and feel overwhelmed most of the time. Thus, food delivery saves a couple of hours for the human that can be used for cooking the scrumptious meal. In contrast, going to the shops can be really exhausting and even dangerous due to the pandemic statistic.

Last, but not least, is people's laziness. Humans by nature are lazy bones and it is the easiest to just click a few buttons and get what they want during the day without an input. We are sure that these exact points are essential in deciding whether to order products online or get dressed, get to a shop, choose the items, wait in a queue for a while and with all the packages go back home.

On the other hand, while virtual stores can accept several forms of payment,

including credit cards, gift cards, PayPal, debit cards or cryptocurrency, they can't arrange for cash, which could deter some budding customers. Moreover, some clients worry about whether online transactions are safe or some frauds might access to clientele personal information Kostel & Samoilkova, 2019; Samoilkova, 2014; Pokhylko & Eremenko, 2020a; Pokhylko & Eremenko, 2020b).

Physical retailers take a considerable advantage communicating to customers in private. Despite they also use online methods such as social media and email, when it comes to making customer connections it seems to be easier to obtain consumers loyalty building face-to-face relationships. (Pokhylko & Eremenko, 2020).

There are more reasons why people might prefer stores with physical actives. The main of them, in our opinion, is that consumers can touch and observe a product and can try it on getting feedback from consumer service immediately. Although modern technologies allow us to use Augmented & Virtual Reality bringing this exciting innovative shopping experience to people buying online. Talking about fast and effortless return, which might also contribute in forging buyers' preferences, getting stuff from a brick-and-mortar store is far easier. Finally, there is no need to wait for products to be shipped to a customer and there is no shipping expenses buying in-person. But due to rapid development of modern technologies, using Drones & Droids would bring current delivery system to the absolutely new level.

Table 1

Increase in e-commerce sales from 2019 to 2020

	retail sales, trillion	e-commerce sales, billion	e-commerce sales, % of total retail sales
2019	\$1.38	\$156.39	11
2020	\$1.47	\$206.66	14

*Source: (Susan, 2021).

To conclude with, which forms is more attractive to clientele, some statistics were analyzed. As we can see from Table 1, total retail sales rose from \$1.38 trillion in 2019 to \$1.47 trillion in 2020, a 6.9% increase. E-commerce sales rose from \$156.39 billion in 2019 to \$206.66 billion in 2020, a 32.1% increase. As a percentage of total retail sales, e-commerce sales have risen from 11.3% in 2019 to 14% in 2020.

So, electronic commerce is used to buy, sell, transfer or exchange products, services and information via computer network and internet. It is expected that business e-commerce provides the most economic gains within the sector. In our opinion, e-commerce is more profitable and will be more and more popular from year to year.

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INTERACTIVE TECHNOLOGIES IN FOREIGN LANGUAGE TEACHING

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The positive impact of implementing principles of blended learning approach has in teaching foreign languages to students of economic specialties cannot be overestimated, as far as it includes using open educational resources and authentic materials, creating a positive and inspiring learning environment as well as providing multi-levelled groups with appropriate tasks. The last issue seems to be crucial, taking into consideration the fact, that foreign language competence is an integral part of future economists' preparation, while the actual levels in a group may vary from A1 to B2, causing certain difficulties, misunderstandings, and even psychological barriers. Using interactive technologies can be one of the ways to overcome this problem, not only during the period of quarantine restrictions, but in terms of the concept of life-long learning.

In fact, students who have different levels of language competence have different needs as well as different expectations of a language course, such as getting the basic understanding of grammar rules, having an opportunity to practice speaking, getting ready for an exam, preparing for their future job, etc. This may lead to some kind of misunderstanding and embarrassment if all of them have to study in the same group.

Information and communication technologies (ICT) make students' common work mutually beneficial, for instance by giving access to multi-levelled interactive exercises (learnenglish.britishcouncil.org can be a good example of such a platform). Students of any level can benefit from practicing grammar or vocabulary as many times as they can without getting bored, seeing the results immediately without having to wait for checking, receiving a feedback etc. The platform also provides students with huge amount of authentic materials (video and audio podcasts, reading materials) which make the learning process relevant, efficient and interesting for students.

Reading, of course, is present in our lesson plans both for classroom (now distant) lessons and as self-study materials. It can be "updated" by using hyperlinks instead of glosses or just encouraging students to use online dictionaries, e.g. Cambridge Dictionary.

It should be mentioned that open educational resources are not limited with the usage of educational platforms (British Council, BBC, Cambridge English, etc.). The thing is that information and communication technologies let the users create their own content. This is a valuable opportunity for both a teacher and a student.

A teacher should get the attention of the audience, so a well-chosen ice-breaking activity, an original design of a padlet board, and/or a relevant video can be

effective. Using such tools as Spark Adobe Canva, PowerPoint or an interactive tool Quizlet or a game platform Flippity can be of great help in explaining grammar, introducing new vocabulary or a topic for brainstorming discussion. Such online applications as Quizizz can make formative assessment less stressful and more effective. Any video can be turned into a language learning tool, an interactive exercise, with the help of such platforms as Visia (Visia, 2021). Speaking about students', creating their own content is an issue of great importance, as far as it turns an exercise into a task. Tasks seem to be an essential part of second language teaching. By a "task" we mean a clearly formulated, meaningful situation based on some everyday or professional activities when learners need to use their second language competences in order to achieve a certain result (Rodríguez-Bonces et al., 2010). We can distinguish between task-based and task-supported teaching as two main approaches towards organizing the learning process. In terms of the first one a task itself is the aim to be achieved and all the language competences which the students possess or are acquiring at the moment (e.g. grammar and vocabulary) are considered to be instruments for achieving this aim. In this case communication process is more important than, for example, grammar rules. The second approach, in its turn, means that language competences are considered to be the most important part of language acquisition, like, for instance, some groundwork, bricks and concrete for building a house, and a task is just a final step in acquiring these competences. The choice of approach can be rather difficult, as far as both of them have their strong and weak points. In the task-based approach some students may just skip the part of learning and stay on the same level. On the other hand, the task-supported approach may not be challenging enough for some students.

Still, it seems obvious that tasks are crucial for the process of a second language acquisition being both a goal and a source of motivation. Firstly, it goes without saying that learning grammar rules or enlarging one's vocabulary (no matter, online or offline, using an old paper book or playing games like quizlet.com or any other) without actually using the language is pointless. Students have to see where they go and what they need to get there, if it is possible to say so. Secondly, if a task is relevant, if students see the use of it in their real life, they will have the intrinsic motivation to do it. And, last but not least, there are students who have a psychological barrier, who are afraid of making a mistake in speaking or writing. The task-based approach can be a way to solve this problem.

For example, speaking about nature protection may seem a bit trivial, but making a video project about protecting the environment of a native place (after having worked with textbook materials) appeared to be an exciting activity for our first year students.

Moreover, information and communication technologies make interaction possible not only in the classroom but online as well. Of course, video conferences via Zoom, Google Meet or Microsoft Teams are of great help, but it is important for

language learners to be able to share their works with the others, for instance, using padlet “boards” (Padlet, 2021a; Padlet, 2021b).

In conclusion, it is necessary to mention that, as practice shows, using ICT in foreign language teaching (to the students of economic faculties in particular) has a positive impact on students motivation, which, in its turn, improves their learning results.

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MARKETING IN COMPANY MANAGEMENT: MAIN DIRECTIONS

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During many decades, the most important task of management is to establish and maintain the dynamic interactions of organizations and environments designed to ensure the competitive advantage achieved by providing an enterprise's products to consumers.

Therefore, marketing objectively takes the place of one of the main functions of management. Depending on the goals and strategies they implement in many organizations, marketing is a key function that ensures successful functioning.

Marketing is increasingly becoming a business entity that spreads across all areas of the company.

Peter Drucker described marketing as follows: «It's the whole business that is presented in the end result, the way it looks from the customer side». In this case, marketing plays a special role in management that goes far beyond product sales and demand research functions (Butko, 2019).

It is impossible to imagine the successful company without using marketing in management. Marketing management is a systematic program target mechanism for interaction of marketing tools and management to the company's adaption to changes in the marketing environment in order to best satisfaction the needs of consumers and to best satisfaction the purpose of the limited organizational resource.

The tasks of marketing in the system of management are:

1. Analysis of market;
2. Organization, planning, motivation, realization of the set tasks;
3. Monitoring and analysis of marketing activities.

The marketing tools in management are:

1. Conducting marketing research;
2. Implementation of product and price policy
3. Selection of optimal sales channels.

The marketing functions of management are:

1. Development of a set of tasks and goals of the firm, a strategic program for the development of the organization;
2. Definition of oriented markets and market positions for the company;
3. Planning, development and product promotion and sales;
4. Development of a planning process for procurement of material and technical resources;
5. Formation and implementation of methods of leadership influence;

6. Formation of marketing structure and levels of distribution channels (Kurbatska, 2013).

The main directions in modern company that regulate management are as follows:

1. Marketing formation as a dominant concept that presupposes the company's strategic development direction for the needs of the most important consumer groups.

2. Providing initial empirical facts for the development of strategic plans for the development of production and sales activities of economic entities, enabling us to identify opportunities and priorities of company actions in the market and objectively assess company's potential.

3. Provide support in the process of developing the company's long-term development strategy in term of each department and include the marketing component in its activities.

The main direction of a company's marketing activities related to the strategic marketing planning process includes the following major steps:

1. Performing marketing analysis by identifying the target market – the group of consumers the company wants to attract and the economic needs to meet as much as possible.

2. The development of the company's mission – the socially important socio-economic objectives of the company's activities or in other words the company role in the business system and its relationship to employees, customers, competitors, governments, etc.

3. Determining the company's goals – the short and long-term results of the activities you want to achieve can transform your company's mission into concrete actions.

4. The formation of a general marketing strategy for the development of the company – a set of basic solutions aimed at achieving general goals and evaluating the market situation and its own capabilities.

5. Create an effective mechanism for auditing and monitoring the company's activities. This implies a systematic study of the external and internal economic environment, the degree of implementation of strategies and tactics to identify problems and opportunities, and the development of proposals aimed at improving the efficiency and timely coordination of the company's marketing activities (Ketova, 2009).

Therefore, to form a marketing management in the enterprise it is necessary to determine the basic functions of marketing management and algorithms by which this activity will be formed. Marketing management usually facilitates the process of analysis, development and implementation of measures aimed at ensuring the activities of the enterprise on the principles of optimal use of available potential and maximizing profits, taking into account the needs of consumers.

Marketing in the management system of the organization fulfills a huge mission, helps to increase the internal and external efficiency of the enterprise, which at the level of using a strategic approach to management will strengthen their market position and obtain long-term competitive advantage.

Marketing today is called "business philosophy". It is impossible to imagine a successful commercial enterprise that would develop, improve and function without the use of marketing principles, tools, concepts. It covers a wide range of tasks facing managers: the development of firm tactics, implementation of pricing and sales policies and product promotion in the market.

It's no secret that marketing is one of the most effective measures to increase business efficiency. Functions are a means of marketing activities. They have a fairly large influence on the formation and definition of strategic activities of the marketing department at the company and its main tasks.

A wide range of issues falls within the competence of marketers, they are forced to study consumer behavior, marketing environment and develop a marketing mix. No strategic decision can be made without consulting experts in this field (Kurbatska, 2013). The marketing management of the company contributes to the process of analysis, development and implementation of measures to establish, strengthen and maintain mutually beneficial relationships with customers.

Taking into account the needs of consumers, it provides an opportunity to organize corporate activities according to the principles of optimal use of existing potentials and maximizing profits. The marketing of the company management system carries out its concomitant duties, starting with the organization and preparation phase and ending with control.

In this case, in the formation of marketing management, it is necessary to identify the main functions of marketing management and determine the algorithm by which marketing activities are formed. So, research and analysis of the theoretical foundations of marketing management is a prerequisite for the effective functioning of the enterprise, its competitiveness and development in the future.

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PROSPECTS OF GREEN CONSUMPTION

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According to the Millennium Ecosystem Assessment (IEA) (Ecosystems, 2005), 60% of natural resources have been destroyed or used irrationally, and the improvement of ecosystem services over the last 50 years has mainly affected food production: crops, livestock and aquaculture (World, 2005).

Current environmental challenges (climate change, depletion and degradation of natural resources, environmental pollution) are related to such key factors as the growth of wealth and consumption. Solving these problems requires integration into social processes of discussion about values, consumption culture, and so on. Relevant today is the use of behavioural tools that are based on incentives to change consumption traditions, motivate the transition to environmentally balanced and harmonious consumption.

With this in mind, the aim of the study is to identify key guidelines in promoting policies to ensure "green" consumption in various sectors and areas of the economy and social life.

The generalization and systematization of modern experience in promoting "green" consumption has made it possible to outline the traditional tools used to promote environmentally friendly consumption principles. These include the following groups of tools for consumers

- behavioural: aimed at changing consumer behaviour through the techniques of psychology, sociology and culturology. Certain behavioural tools are known as "nudge" (inspired by the work of Thaler and Sunstein) (Thaler et al., 2008);

- information and communication: environmental labeling, providing additional information about the product, marketing policy for eco-products, promotion of "green" consumption. It should be noted that information tools, such as eco-labels, require a quantitative assessment of the impact of consumption, which allows in the future to explore prospects for the promotion of "green" goods, identify potential areas for improvement, thus preparing the ground for other ways of promoting and improving market perception;

- economic: used as a key factor in influencing people, their choice, as the price of goods, quality and income are often a significant factor in purchasing decisions (for example, the French system "bonus / malus" for environmentally friendly cars has led to an increase of 30% purchase of fuel-efficient cars in 2007, 45% in 2008 and 56% in 2009) (Öko-Institut, 2001). Economic instruments are used to enter price signals and can be used to implement the cost of pollution to the price of the product. At the same time, the regressive consequences of rising prices for

eco-goods can be mitigated by providing households (individuals) with appropriate benefits (temporary or permanent) in taxation (Chygryn et al., 2020).

- regulatory: have largely prohibitive character (for example, in the US effectively use bans on plastic bags).

Note that the set of tools to promote environmentally friendly consumption should be differentiated to some extent in accordance with the areas of "green" consumption, which include the following areas (Tripathi et al., 2016) urban transport, air transport, residential infrastructure, household energy consumption, household water consumption, food consumption food, consumption of clothing (textiles), tourism, community activities.

The use of certain tools to promote environmentally friendly consumption requires identifying the characteristics of each area of their application. Let's dwell briefly on each of them.

Public transport. Modern development of transport is characterized by large-scale impact on the environment, especially in terms of greenhouse gas emissions. The expected growth of vehicles by 2030 will also lead to an increase in the use of related energy. In addition, developed countries are focusing on technological improvements rather than redistributing traffic flows. It is also important to bring the transport infrastructure in line with modern environmental and social needs (Gartner, 2007).

Air transportation. It is a major pollutant in terms of greenhouse gas emissions, with a significant increase in air traffic. At the same time, the EU has primarily focused on market-based regulatory instruments and innovation (for example, the EU's Clean Sky Joint Initiative), rather than influencing consumer behavior (Gartner, 2007). In addition, systemic international measures that limit air transportation, formulate and promote initiatives in this direction are relevant.

Infrastructure of the residential complex. Has a significant impact on the environment, especially through the use of energy, materials, water consumption, land resources. At the same time, according to forecasts, the growth of demand for living space per person continues until 2020 (Valant, 2015). There is no promotion policy to change consumer needs.

Household energy consumption. The growing impact of the middle class on the environment due to increased demand for utilities (personal computers, mobile phones). EU regulatory tools focus on producers, and the use of voluntary media is not widespread and has a limited effect (Valant, 2017; Chygryn et al., 2015). It is important to forecast the number and type of appliances consumed, change the schemes of their use, improve eco-design, limit the sale of inefficient goods and encourage the purchase of energy-efficient devices.

Household water consumption. With water scarcity, the trend of increasing water consumption by small households persists. There is a focus on improving water quality, the need to meet demand (Stenmarck, 2018; Pimonenko, et al., 2019).

The need to raise consumer awareness, improve the technical characteristics of water supply systems, water demand management.

Food consumption. Significant impact on the environment, especially from the consumption of meat and dairy products. The EU continues to tend to increase food imports. The EU focuses on production, quality improvement, and consumption is limited to soft measures such as education and awareness-raising. There is a reluctance of politicians and producers to break the supply chain of the food industry (Chygryn et al., 2011).

Consumption of clothing (textiles). Significant impact on the environment, exacerbated by rising consumption. The EU focuses on the production phase, but most textiles are imported, so regulation of consumption policy is limited. The influence on consumer behavior is relevant (Chygryn, 2018).

Tourism. Significant impact on the environment worldwide. Experimental tourism, which includes ecotourism, rural and public tourism, has been growing rapidly in recent decades. EU policy focuses on voluntary and informational initiatives, although there is a need to address social and resource scarcity issues, and to provide infrastructure (Chygryn et al., 2014; Plepys, 2018). There is a need to take into account the "capacity" of tourist areas to visit and its impact in the development of relevant tourism initiatives.

Community activities. Involving communities in the problems of greening consumption through the implementation of environmental values and sustainable consumption norms is effective.

Promoting and promoting green consumption must be a systematic and holistic approach to preventing the spread of a global destructive consumption culture.

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DIGITAL ECONOMY: CURRENT CHALLENGES AND FORECASTS

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The fourth industrial revolution (Industry 4.0), the beginning of which was announced, gave impetus to the development of a number of innovative technologies: mobile tools, location technologies, 3D printing, customer authentication, and profiling, data visualization, etc. During the exhibition in Hanover in 2017, the Prime Minister of Japan, Shinzo Abe, made a presentation of a new concept of innovative development and proclaimed the beginning of Society 5.0 [2] as a new social paradigm that involves the spread of the Internet of Things (IoT) technology, the use of large data and artificial intelligence. The list of countries where the active use of these and other digital technologies was primarily planned included Japan, Germany, and the United States.

The International Data Corporation (IDC), a leading global provider of market analysis, advisory services, and information technology, telecommunications, and consumer technology developments, has compiled a list of forward-looking solutions that await today's digital economy. Systematized forecasts are presented in the following table (Table 1).

Table 1

IDC Global Forecasts for the Digital Economy [3]

Short forecast	Contents of the forecast	Year of forecast
Development of business innovation platforms	60% of Global 2000 companies need to create platforms for digital business transformation to support innovation.	2023
Development of digital culture	To adapt to the dynamic development of the digital economy, it is necessary to transform the corporate culture of organizations.	2023
Transformation of business models	At least 30% of organizations must accelerate the implementation of innovations in order to improve operational and business models.	2021

Introduction of digital technologies and development of ecosystems	75% of managers will use digital platforms and ecosystems to adapt business strategies to new markets, ecosystems and industries.	2025
Establishment of digital organizational structures	75% of organizations will implement comprehensive digital transformation programs, which will lead to changes in both the structure of business and public life.	2023
Expanding the digital experience	70% will expand the use of digital technologies in order to establish better interaction with customers and employees.	2021
Rational use of natural resources	Combining digitalization of the economy and strategy of rational use of natural resources.	2022
Introduction of digital first technology	60% of organizations invest resources in shaping the digital experience of employees through the transformation of experience between other employees and employers.	2021
Development of digital control systems	60% of Global 2000 executives will not focus on the process, but on the result by using more flexible, innovative and empathetic operating models.	2023
Formation of the digital course of economics	65% of world GDP will be provided by companies focusing on the concept of "digital".	2022

As you can see, the development of the digital economy in the coming years is accompanied by active investment in this area, the use of cloud technologies, and constant interaction between customers and employees.

Free access to cloud technologies opens up new opportunities for additional profits. This technology opens up a number of opportunities, including training, consulting, implementation, migration, support services. A new approach to management is being updated. Now it will be more profitable to use than to own. In the context of the digital economy, it is not the product itself that is monetized but

the ability to use it. There is a model of flexible consumption, the essence of which is that it provides income from the so-called renewable flows - when the consumer pays solely for what he actually consumes. This approach allows modern manufacturers of goods and services to analyze customer consumption patterns in more detail and reduce their operating costs. In addition, the customer avoids the risks associated with owning the product, passing them entirely to the manufacturer. Such a model belongs to the category of "peer-to-peer" models. This category of models includes the creation, production, distribution, trade, and consumption of goods and services by different categories of consumers [1].

In the context of digital economy transformation, a combination of hybrid human resources is also an important element. The essence of this method is that a team of specialists works on the project, some of whom work locally in the office and some - remotely. It is proved that this way of organizing the work of the team allows you to work effectively in real-time.

It is necessary to optimize the decision-making process to implement all the plans related to the transformation processes in the economy, within which innovative products and services are dynamically developing. The introduction of modern digital solutions requires the adaptation and development of existing ecosystems in enterprises. The best scenario is to work with partners who have a wide range of competencies and resources to speed up this process.

Given the high rate of digital transformation, not all modern companies will be able to adapt to these changes and will be forced to leave the market—the rapid development of technology increase the level of importance and complexity of the innovation process in companies.

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INTERDEPENDENCE BETWEEN FINTECH INNOVATION, FINANCIAL CRIME, CYBERCRIME AND MONEY LAUNDERING THROUGH FINANCIAL INSTITUTIONS

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FinTech innovations have gained special development and distribution in recent years. The use of FinTech innovations presupposes the development of the most modern technological capabilities: built-in mobile systems for accounting and data computing, cloud resources and computing, mobile work with large databases, systems for fast and complex analysis of large data arrays. However, one should not forget about the emerging adverse consequences of using FinTech in the financial sector. Innovative achievements can be used by criminals and fraudsters to commit financial and economic offenses. Under such conditions, the issue of determining the existing interdependencies and interrelationships between FinTech innovations, financial crime, cybercrime and money laundering becomes especially relevant to be able to take appropriate regulatory measures.

The following scientists studied modern issues of innovation processes and FinTech innovations: Rupietta C., Meuer J., & Backes-Gellner U. (Rupietta C., Meuer J., & Backes-Gellner U. (2021). How do apprentices moderate the influence of organizational innovation on the technological innovation process? *Empirical Research in Vocational Education and Training*, 13(1) doi:10.1186/s40461-020-00107-7., Razak M. I. A., Dali N. A. M., Dhillon G., & Manaf A. W. A. (Razak M. I. A., Dali N. A. M., Dhillon G., & Manaf A. W. A. (2021). Fintech in malaysia: An appraisal to the need of shariah-compliant regulation. *Pertanika Journal of Social Sciences and Humanities*, 28(4), 3223-3233. doi:10.47836/PJSSH.28.4.40. The following scientists are investigating the issues of financial crime, cybercrime, and money laundering: Achim M. V., Borlea S. N., & Văidean V. L. (Achim M. V., Borlea S. N., & Văidean V. L. (2021). Does technology matter for combating economic and financial crime? A panel data study. *Technological and Economic Development of Economy*, 27(1), 223-261. doi:10.3846/tede.2021.13977., Hasan S., Ali M., Kurnia, S., & Thurasamy R. (Hasan S., Ali M., Kurnia, S., & Thurasamy R. (2021). Evaluating the cyber security readiness of organizations and its influence on performance. *Journal of Information Security and Applications*, 58 doi:10.1016/j.jisa.2020.102726., Gupta A., Dwivedi D. N., & Jain

A. (Gupta A., Dwivedi D. N., & Jain A. (2021). Threshold fine-tuning of money laundering scenarios through multi-dimensional optimization techniques. *Journal of Money Laundering Control*, doi:10.1108/JMLC-12-2020-0138.. When studying various processes, determining certain interdependencies, the world scientific community tends to use modeling techniques, among which structural modeling deserves special attention. It is described in the works by the following researchers: Hasan R., Rony M.N.H., & Ahmed R. (Hasan R., Rony M.N.H., & Ahmed R. (2021). In silico characterization and structural modeling of bacterial metalloprotease of family M4. *Journal of Genetic Engineering and Biotechnology*, 19(1) doi:10.1186/s43141-020-00105-y, Qarnain S. S., Muthuvel S., & Sankaranarayanan B. (Qarnain S. S., Muthuvel S., & Sankaranarayanan B. (2021). Analysis of energy conservation factors in buildings using interpretive structural modeling methodology: An indian perspective. *Journal of the Institution of Engineers (India): Series A*, 102(1), 43-61. doi:10.1007/s40030-020-00483-z..

Although taking into account the studies, the issues of FinTech innovations, financial crime, cybercrime, and money laundering receive considerable attention from the world scientific community. Still, an effective model for establishing the relationship between these categories, such as structural modeling, has not yet been suggested.

Structural modeling involves a methodology for testing a significant number of possible parallel existing hypotheses about the cause-effect relationships, forming various elements into an interconnected, complex, systematized structure. Moreover, the structural model is designed to analyze complex relationships between the categories defined for research.

Stage 1. Formation of input indicators for assessing the interdependence between FinTech innovations, financial crime and cybercrime mediated by financial institutions in the context of the following groups: Fintech component, financial crime, cybercrime, and money laundering, given that the description of each of these groups will include the ratio of financial assets to GDP (FA/GDP). Thus, the following two indicators have been selected to describe the Fintech component: Fintech1 – the number of mobile subscribers per 1,000 of the population; Fintech2 – Fintech indicator, the share of Internet subscribers in the population of Ukraine; financial crime, respectively: FC1 – registered financial crime in the reporting period (Articles 222 and 222-1 of the Criminal Code); FC2 – financial crime brought to court with an indictment; cybercrime: CC1 – registered cybercrime in the reporting period (Articles 361,361-1, 361-2, 362, 363, 363-1 of the Criminal Code); CC2 – cybercrime cases brought to court with indictment; as well as money laundering – indicators such as; AML1 – registered crimes related to money laundering (Article 209 of the Criminal Code); AML2 – indictments in money laundering cases brought to court.

Stage 2. Structural modeling of the interdependence between FinTech

innovations and financial crime and cybercrime through financial institutions. Based on the use of the variables introduced at the first stage when formalizing the input base of the study, it becomes necessary to classify them into exogenous and endogenous, as well as to determine, based on the introduced variables, latent (implicitly specified) variables, which will allow describing the interdependence between FinTech innovations and financial crime and cybercrime through financial institutions. Thus, all the variables given at the first stage are observable (explicit) variables. However, the model should also contain latent variables, and it is proposed to use the following: Fintech – the level of development of FinTech innovations, FC – the level of development of financial crime, CC – the level of development of cybercrime, AML – the level of development of the system of combating money laundering. Explicit variables Fintech1, Fintech2, FC1, FC2, CC1, CC2, AML1, AML2 are endogenous. Since Fintech innovations affect financial crime, cybercrime, and money laundering, cybercrime affects financial crime and money laundering, and money laundering affects financial crimes, the Fintech latent variable can be considered exogenous, and the FC, CC, AML latent variables – endogenous.

To build a structural equation model for the interdependence of FinTech innovations and financial crime and cybercrime through financial institutions, we will use the Statistica Portable software package – Statistics/Advanced Linear/Nonlinear Models/Structural Modeling.

Based on the parameters of linear univariate and multivariate regression models of the relationship between latent variables, as well as the relationship between explicit and latent variables, we construct the system of structural equations (1):

$$\left\{ \begin{array}{l}
 \frac{FA}{GDP} = -16.622 \cdot Fintech \\
 Fintech1 = -0.047 \cdot Fintech + 0.002 \\
 Fintech2 = 0.252 \cdot Fintech + 0.003 \\
 \frac{FA}{GDP} = FC + 6.146 \\
 FC1 = 556.553 \cdot FC \\
 FC2 = 290.105 \cdot FC + 292.109 \\
 \frac{FA}{GDP} = CC + 6.146 \\
 CC1 = 58.179 \cdot CC + 220119.130 \\
 CC2 = 35.761 \cdot CC + 66949.988 \\
 \frac{FA}{GDP} = AML + 6.146 \\
 AML1 = 0.312 \cdot AML + 939.984 \\
 AML2 = 0.431 \cdot AML + 7.568 \\
 FC = -7.660 \cdot Fintech + 0.274 \cdot CC + 0.823 \cdot AML + 0.013 \\
 CC = 10.055 \cdot Fintech + 0.234 \\
 AML = 7.444 \cdot Fintech - 0.156 \cdot CC + 0.001
 \end{array} \right. \quad (1)$$

Stage 3. Verification of the adequacy and accuracy of the model of interdependence of FinTech innovation and financial crime and cybercrime through financial institutions. To implement this stage, the basic summary statistics, the reflector matrix were determined, and the correspondence of the model's residuals to the normal distribution law was verified.

The remarkable thing is that structural modeling is just such a method of studying and analyzing an established set of constituent factors, the relationships between them, which ultimately gives various options for solving problematic issues, taking into account the individual characteristics of the combination of various components. Structural modeling as an effective tool for studying, analyzing, testing, modifying, and comparing certain hypotheses is a unique, effective technique that opens up new possibilities for efficient processing of a data array, data analysis, including the financial and economic sphere. In combination with the use of the latest software, it will allow specialists of financial institutions to quickly and easily carry out analytical work, interpret the results obtained qualitatively and meaningfully, and then formulate well-grounded management decisions.

The work was carried out within the framework of the research topic “Data-Mining for Countering Cyber Fraud and Money Laundering in the Context of Digitalization of the Financial Sector of the Ukrainian Economy” (state registration No. 0121U100467) and state budget research work No. 0121U109559 “National Security Through the Convergence of Financial Monitoring Systems and Cybersecurity: Intelligent Modeling of Financial Market Regulation Mechanisms”.

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CRISIS MANAGEMENT IN THE CONTEXT OF THE COVID-19 PANDEMIC

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In the context of the global pandemic, the formation of a risk management system plays an increasingly important role in order to reduce and prevent future risks. The main works of foreign and Ukrainian scientists [1-20] relate to the development of effective tools for risk management in global crises.

In countries with developed economies, as of January 1, 2021, we have the next level of vaccination. The overall vaccination rate in Israel – 11,55 doses per 100 people - is well ahead of other countries where vaccination has started. In second place is Bahrain with an index (3,49), in third place - the United Kingdom (1,47). This is followed by the United States with an indicator (0,84), but these are data as of December 30, 2020, while all the above data are valid as of January 1, 2021 [21].

Let's study the work of the financial institution of the Bank for International Settlements (BIS) during the pandemic COVID 19 in terms of the formation of positive and negative factors for the functioning of this institution and crisis management tools in this period.

The negative factors influencing the functioning of the BIS include: limited financial resources from developing economies and the inability to purchase more expensive vaccines; slowing down the lending process by the banking system due to reduced solvency of borrowers; increase in financial risks on the part of developing economies to cover credit lines for the purchase of vaccines; an increase in the discount rate of central banks, which leads to an increase in lending rates to commercial banks and there is a threat of a decrease in credit borrowing.

The positive factors influencing the functioning of the BIS include: change in the policy of central banks to provide soft loans at low interest rates to finance anti-flood measures; formation of a system for preventing financial risks for the central banks of the BIS member states through the formation of financial reserve funds; provision of financial guarantees by governments to repay credit lines for anti-flood measures, including through the organization of a system of issuing government bonds and the allocation of funds under state guarantees; a large percentage of central banks in countries with developed economies of the BIS have

sufficient financial potential to address the issue of financing the vaccination of the population.

Among the tools of crisis management of BIS, it is necessary to propose the formation of a balanced policy by BIS on anti-flood measures, which will be aimed at including financial assistance to economies, which includes: investment, charity, financial donations and low interest rates by BIS for BIS member countries and countries with developing economies.

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ANALYSIS OF THE ADEQUACY OF THE RESOURCE BASE OF BANKS IN UKRAINE IN THE CONTEXT OF THE CORONAVIRUS COVID-19 PANDEMIC CRISIS

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The problem of financial support of banking in modern conditions is particularly acute. It is a reflection of changes in the saving behavior of the population, which against the background of falling real disposable income is replaced by consumer behavior, but also the transformation of the structure and volume of accumulation. Banks' classic threat is the probable outflow of funds raised on a debt basis due to the lack of financial resources of economic entities - bank customers, low customer loyalty, the differentiated structure of banking market participants, and other factors (Rubanov & Lyeonov, (2018); Vasilyeva, Boronos, & Humenna (2020); Shyshova, (2012)).

Analysis of the number of banks during 01.01.12-01.01.2020 (Fig. 1) shows a stable trend of decreasing the number of banks in Ukraine from 176 on 01.01.2012 to 75 on 01.01.2020 (falling amounted to 57.4% compared to 2012).

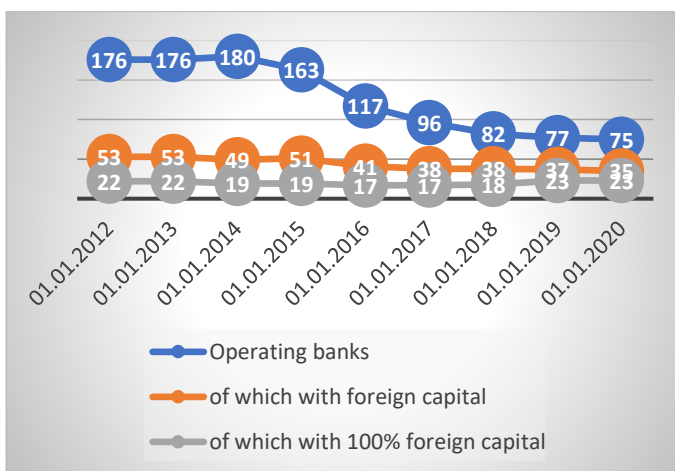


Fig. 1. Structural and dynamic analysis of the number of banks in Ukraine in 01.01.2012-01.01.2020 (composed by the author on the basis of (Key performance indicators, (2020))

Detailed analysis of data of fig. 1 shows that banks with foreign capital are more financially stable than banks with only domestic capital, so the decline in such banks' number was less sharp and amounted to only 33, 96% (from 53 units on 01.01.2012). To the 35th on 01.01.2020). The most stable are banks with 100% foreign capital. Thus, their number was more or less stable over the analyzed years and even increased by 4.55% (from 22 units on 01.01.2012 to 23 on 01.01.2020-2021).

This analysis shows that banks' resource base with foreign capital is more balanced and therefore more reliable, which allows this bank to be more resistant to various stresses: market challenges, changes in market conditions, pandemic crises, and more.

In the current conditions of the coronavirus pandemic crisis, the adequacy of the resource base and effective management of these resources in Ukraine are becoming even more relevant. Thus, the data from the NBU report "On Financial Stability" (as of June 2020) show that the pandemic crisis and its consequences have provoked and continue to provoke an increase in the level of capital adequacy risks and credit risk. These two risks increased the most compared to other risks for Ukrainian banks. Thus, the level of capital adequacy risk according to the NBU rating scale increased from 4 points in December 2019 to 7 points in June 2020 (Fig. 2). Note that 10 points is the highest level of risk, and 0 is the lowest.

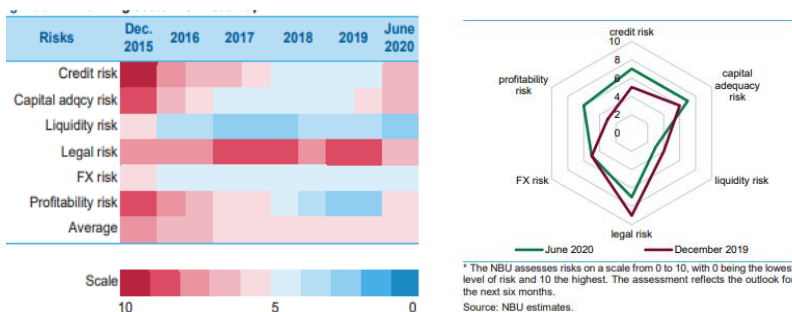


Fig. 2. Banking sector risk heat map
(Source: Financial Stability Report (2020))

From Fig. 3 shows that in absolute terms, the liabilities of Ukrainian banks in 2016-2020 are growing, but the growth rate is slow. So for 5 years and 10 months, their value increased only by 36% (from 1254385 UAH on 01.01.2016 to 1707732 UAH on 01.10.2020).

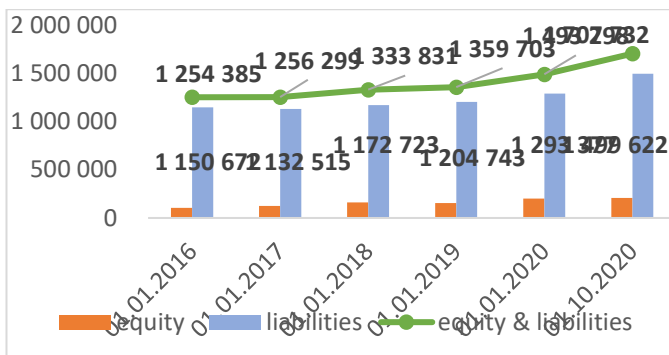


Fig. 3. Structural and dynamic analysis of banks' liabilities, UAN (composed by the author on the basis of (Key performance indicators, (2020), Financial Stability Report (2020))

Simultaneously, the structure of liabilities of Ukrainian banks in 2016-2020 (Table 1) is more or less stable with positive growth trends, the share of banks' capital compared to banks' liabilities. Thus, as of October 1, 2020, the share of capital in banks' liabilities amounted to 12.2%, which is 47% more than January 1, 2016 (8.3%).

Table 1. Structural and dynamic analysis of banks' liabilities, % (own calculations on the basis of (Key performance indicators, (2020), Financial Stability Report (2020))

	01.01.2016	01.01.2017	01.01.2018	01.01.2019	01.01.2020	01.10.2020
Equity, %	8,3	9,9	12,1	11,4	13,4	12,2
Liabilities, %	91,7	90,1	87,9	88,6	86,6	87,8

Table 2 and Table 3 present the Structure of banks' liabilities 2016-2020. The data in the tables clearly show that in the Structure of banks' liabilities, Funds (deposits) of individuals (with savings (deposit) certificates) and Funds of business entities consistently prevail. These commitments are fundamental to the overall structure of the commitments. Funds (deposits) of individuals (with savings (deposit) certificates) account for 43% of total liabilities as of October 1, 2020, Funds of business entities - 40%. From the data in Table 3 it is clear that Funds (deposits) of individuals (with savings (deposit) certificates) and Funds of business entities tend to grow annually.

Table 2

Structure of banks' liabilities 2016-2020, UAN (own calculations on the basis of Key performance indicators, (2020), Financial Stability Report (2020))

A	B	C	D	E	F	G
LIABILITIES	01.01.2016	01.01.2017	01.01.2018	01.01.2019	01.01.2020	01.10.2020
Time deposits (deposits) of other banks and loans received from other banks	122 592	73 938	50 240	42 178	23 912	25 107
Funds of business entities	318 568	369 913	403 955	406 367	498 157	592 459
Funds (deposits) of individuals (with savings (deposit) certificates)	402 137	437 152	478 100	508 457	552 115	649 223
Funds of non-bank financial institutions	30 474	42 813	22 907	23 794	26 885	33 630

Table 3

Structure of banks' liabilities 2016-2020, % (own calculations on the basis of Key performance indicators, (2020), Financial Stability Report (2020))

	01.01.2016	01.01.2017	01.01.2018	01.01.2019	01.01.2020	01.10.2020
Time deposits (deposits) of other banks and loans received from other banks	11	7	4	4	2	2
Funds of business entities	28	33	34	34	39	40
Funds (deposits) of individuals (with savings (deposit) certificates)	35	39	41	42	43	43
Funds of non-bank financial institutions	3	4	2	2	2	2

Such a structure, on the one hand, indicates the restoration of confidence in the banking system, but on the other hand, with such a structure of borrowing and a constant reduction in deposit rates, there is a risk of stable attraction of deposits in the future in sufficient quantities.

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ROLE OF DIGITAL INCLUSION IN ENSURING OF INFORMATION SECURITY: BIBLIOMETRIC APPROACH

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Current conditions for world economic relations are characterized by the intensification of a number of transformational processes due to rapid digitalization of the economic system and social life and rapid technological development. The effectiveness of digitalization largely depends not only on how much these technologies are used by business giants but also on how comprehensive knowledge and skills of the average citizen in the field of information and communication technologies are. Thus, the digital inclusion of the population is essential for the sustainable development of the economy and society. It is also a necessary determinant of the country's information security and should be a strategic target for the further development of society.

In order to reveal how digital inclusion is important in ensuring country information security, a bibliometric analysis with VOSviewer (VOSviewer, 2021) is realized based on 935 Scopus (Scopus, 2021) publications on the relevant topic in 2006-2021. The dynamics of these publications are presented in Figure 1.

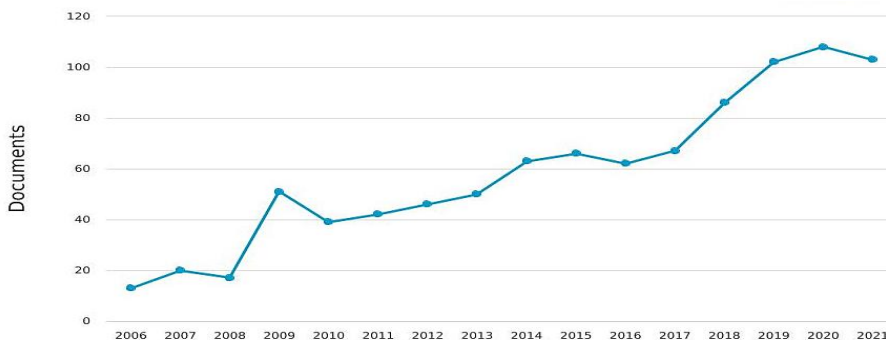


Figure 1. The dynamic of articles on digital inclusion published in Scopus in 2006-2021, amount of documents

Source: Scopus, 2021

As we can see from Figure 1, rapid intensification of publication activity on digital inclusion began from 2010-2011. The number of documents (articles, conference papers, reviews, books, etc.) in 2021 compared with 2006 increased almost eight times.

Further analysis of the publicatio on digital inclusion allows building

network visualization based on the co-occurrence criterion using VOSviewer (VOSviewer, 2021). Results of the bibliometric analysis are presented in Figure 2.

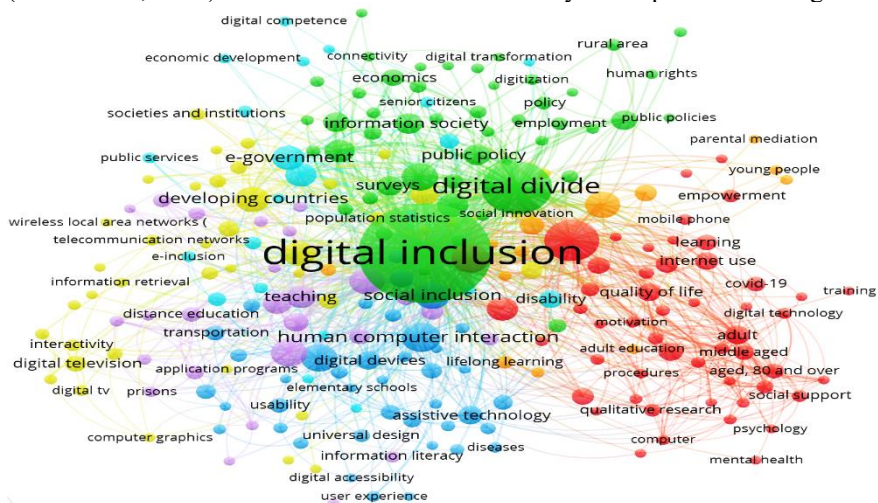


Figure 2. Results of VOSviewer analysis (network visualization) of co-occurrence in Scopus publications on digital inclusion in 2006-2021

Source: VOSviewer, 2021

Considering bibliometric results, it might be concluded that there is 7 clusters of scientific research on digital inclusion, namely: cluster 1 (red, 51 items) – covers publications focused on social consequences and preconditions of digital inclusion; cluster 2 (green, 50 items) – covers papers aimed at clarification of economic benefits of digital inclusion at personal, corporate, municipal and country levels, and information security; cluster 3 (dark blue, 41 items) – covers documents on technological (software, hardware, ICT infrastructure etc.) preconditions of digital inclusion; cluster 4 (yellow, 41 items) – covers researches on cohesion of innovation and digital inclusion; cluster 5 (violet, 26 items) – covers publications on the role of digital inclusion in education and population literacy; cluster 6 (light blue, 21 items) – covers papers on the role of digital inclusion in public service provision; cluster 7 (orange, 13 items) – covers articles on digital literacy and social capital. Thus, we can see that research on digital inclusion and information security is closely connected with economic issues and is an urgent topic.

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Наукове видання

СОЦІАЛЬНО-ЕКОНОМІЧНІ ВИКЛИКИ

Матеріали Міжнародної науково-практичної конференції

(Суми, 22–23 березня 2021 року)

Стиль та орфографія авторів збережені.

Організаційний комітет і редакційна колегія можуть не поділяти точки зору авторів.

Автори відповідають за точність, достовірність і зміст матеріалів.

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