UDC 338.1+330.32

JEL classification: G31, O14, O33

DOI: https://doi.org/10.20535/2307-5651.21.2022.254840

Skorobogatova Natalia

Candidate of Economic Sciences, Associate Professor ORCID ID: 0000-0002-2741-7629

Desna Anastasiia

ORCID ID: 0000-0002-3994-4821 National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»

Скоробогатова Н.Є., Десна А.М.

Національний технічний університет України «Київський політехнічний інститут імені Ігоря Сікорського»

FEATURES OF THE FORMATION OF INVESTMENT ATTRACTIVENESS OF UKRAINE IN THE CONDITIONS OF INDUSTRY 4.0

ОСОБЛИВОСТІ ФОРМУВАННЯ ІНВЕСТИЦІЙНОЇ ПРИВАБЛИВОСТІ УКРАЇНИ В УМОВАХ ІНДУСТРІЇ 4.0

The purpose of the study is to improve the scientific and methodological principles and develop practical recommendations for the formation of investment attractiveness of Ukraine in the conditions of Industry 4.0. The following methods were used in the study: generalization, systematization, dialectical and abstract-logical; methods of critical analysis and systematization; methods of grouping, analysis and synthesis, graphic and economic-statistical, elements of economic and mathematical modelling. The scientific novelty of the results of the work is the development of alternative approaches to the formation of investment attractiveness of Ukraine in the conditions of Industry 4.0, the development of recommendations for improving its level in the unstable crisis and post-crisis market. The authors systematize the factors influencing the investment attractiveness of the country, if possible, the management is divided into external (unmanageable) and internal (managed). The practical value lies in providing proposals to increase the level of investment attractiveness of Ukraine in the conditions of Industry 4.0 and developing a model for assessing the level of investment attractiveness of the country, formed on the basis of a multicriterial assessment, considering the provisions of the concept of sustainable development.

Keywords: investment attractiveness, investment climate, Industry 4.0, balanced approach, sustainable development, multicriterial assessment.

Метою дослідження є удосконалення науково-методичних засад і розроблення практичних рекомендацій щодо формування інвестиційної привабливості України в умовах Індустрії 4.0. У дослідженні використано методи узагальнення, систематизації, діалектичний та абстрактно-логічний, методи критичного аналізу та систематизації, методи групування, аналізу та синтезу, графічний та економіко-статистичний. Для вдосконалення науково-методичних засад та розроблення заходів підвищення інвестиційної привабливості України в умовах Індустрії 4.0 застосовано елементи економіко-математичного моделювання та методи аналізу і синтезу. Виявлено причинно-наслідковий взаємозв'язок між інвестиційним кліматом та інвестиційною привабливістю країни. Наукова новизна результатів роботи полягає у розвитку альтернативних підходів до формування інвестиційної привабливості України в умовах Індустрії 4.0, розробленні рекомендацій щодо підвищення її рівня в умовах нестабільного кризового та посткризового ринку. Систематизовано чинники впливу на інвестиційну привабливість країни, за можливістю управління поділено на . зовнішні (некеровані) та внутрішні (керовані). За допомогою статистичного, рейтингового та експертного підходів оцінено рівень інвестиційної привабливості України. Здійснено кореляційний аналіз ступеня впливу обсягу залучених прямих іноземних інвестицій на обсяг ВВП України. Оцінено привабливість України для іноземних інвесторів у галузевому розрізі. Практична цінність полягає у наданні пропозицій щодо підвищення рівня інвестиційної привабливості України в умовах Індустрії 4.0 та розробленні моделі оцінювання рівня інвестиційної привабливості країни, сформованої на основі багатокритеріальної оцінки з урахуванням положень концепції сталого розвитку.

Ключові слова: інвестиційна привабливість, інвестиційний клімат, Індустрія 4.0, збалансований підхід, сталий розвиток, багатокритеріальна оцінка.

Introduction. In conditions of instability and high level of uncertainty in the development of the global economy, the rapid development of information technology, the spread of the COVID-19 pandemic, ensuring the sustainable development of the national economy requires the formation of strategic decisions and ensuring their implementation by financial resources. Anumber of factors, in particular, the military aggression of the Russian Federation, socio-economic tension, political uncertainty in Ukraine and other factors adversely affect the forma-

tion of the investment attractiveness of our country and the formation of investment Climate. Therefore, we believe that the problem of forming the investment attractiveness of Ukraine is especially relevant in the conditions of the Fourth Industrial Revolution, which requires considering the possibilities of using innovative technologies to increase the country's development potential and attract the necessary investments.

Research on the formation of the investment climate and investment attractiveness was carried out by

a number of such domestic scientists as Peresada A. A., Blank I. A., Gavrilyuk O. V., Duka A.P., Mayorova T., Moiseenko I. P., Savchuk V. and others. Among foreign scientists, the research of investments is devoted to the works of L. Gitman, M. Jonk, V. Sharp, etc. The essence and influence of Industry 4.0 on the economy were investigated by Voitko S., Kushnirenko O., Sigida L., Skitsko V., Yurchak O.and others. However, it should be noted that the achievements of scientists do not fully consider the peculiarities of the development of the world economy, and Ukraine in particular, in modern economic conditions, as well as the influence of innovative technologies on the formation of its investment attractiveness.

The purpose of the study. The aim of the study is to improve the scientific and methodological principles and developing practical recommendations for the formation of investment attractiveness of Ukraine in the conditions of Industry 4.0. To achieve this goal, the following tasks were determined and fulfilled:

- 1) theoretical and methodological principles of investment attractiveness of the country and investment climate are investigated, factors affecting them are systematized;
- 2) a dynamic analysis of investment activity in Ukraine was carried out and the impact of Industry 4.0 technologies on it was determined;
- 3) a multifactorial model for assessing the level of investment attractiveness of the country and directions for increasing the level of investment attractiveness of Ukraine in the conditions of Industry 4.0 are proposed.

Methodology. In the study of theoretical aspects and essence of the concept of investment attractiveness and investment climate, the following methods were used: generalization, systematization, dialectical and abstract-logical; for systematization of factors influencing the investment attractiveness of the country in the conditions of Industry 4.0, methods of critical analysis and systematization were used; during analytical research and analysis of investment activity of Ukraine, the method of grouping was used, analysis and synthesis, graphic and economic-statistical. To improve the scientific and methodological foundations and develop measures to increase the investment attractiveness of Ukraine in the conditions of Industry 4.0, elements of economic and mathematical modelling, methods of analysis and synthesis were applied.

Research results. The world economy is experiencing a serious crisis caused by the COVID-19 pandemic. In the long run, the impetus for the stability of the supply chain and greater autonomy in the organization of business processes can have long-term consequences, including affecting the investment attractiveness of countries. Studying the work of scientists allows us to conclude that investment attractiveness should be understood as a set of certain indicators that form a potential investor's positive impression of the feasibility of investing in a particular object, so the ability to obtain desired results, and investment climate the conditions of the investment process. Depending on the conditions in the country, the investment climate may or may not be favourable, which will also indirectly affect the attractiveness of the investment object. The object of this study is the investment attractiveness of the country, which is considered an aggregate indicator, formed by the influence of a number of factors that we consider appropriate to divide into managed and unmanaged (Table 1).

The basis of such a distribution is the possibility of the state's influence on the formation of investment attractiveness: controlled factors are usually internal in relation to the country; uncontrollable factors were those that the state and its economic entities do not directly influence, but they must be considered in order to take appropriate measures in order to increase the level of investment attractiveness of the country. During the study, it was found that today there is no single methodological approach to assessing the level of investment attractiveness of the country. To assess the level of investment attractiveness of the country, different approaches are used, which scientists divide into three groups: statistical (conclusion based on the dynamics of the volumes of investments attracted to the economy of a particular country), rating (conclusion based on the analysis of the country's place in different world rankings), methods using expert assessments (conclusion based on expert evaluation) [13]. In particular, the state of investment attractiveness of the country using the rating approach is indirectly determined by its positions in international ratings. Thus, according to the Doing Business rating [1] in 2020, Ukraine took the 64th place, rising by 7 points against 2019 (Fig. 1).

This rating allows you to assess the ease of doing business in the country, which significantly affects its invest-

Table 1

Factors of formation of investment attractiveness

Direct influence factors	Indirect influence factors
- the level of socio-economic development of the country;	 international relations between countries;
 development of the financial and credit system; 	international legislation and legislative framework of foreign
 functioning of the stock market; 	countries;
- the inflation rate;	market conditions;
 political situation in the country; 	 development strategies of countries;
 regulatory framework in the field of investment; 	 spread of the COVID-19 pandemic;
 availability and access to natural resources; 	 development of information and communication networks;
ecological situation;	 level of education of the population;
socio-political stability;	 the level of well-being of the population
regulatory framework;	- climate change;
 benefits for investors; 	 level of innovative development of the country;
 level of infrastructure development; 	 transparency and effectiveness of the legislative and judicial
 economic freedom of entrepreneurship; 	system;
- the country's place in the world market;	country's involvement in Industry 4.0
- the rate of inflation;	
 strength and reliability of state institutions 	

Source: systematized and improved according to [5; 9; 14]

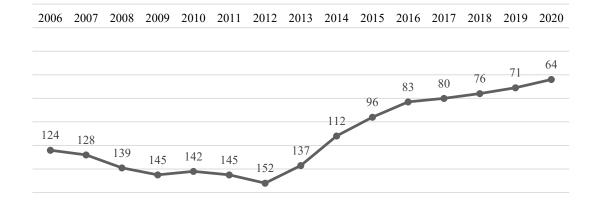


Figure 1. Doing Business Ukraine Index, 2006–2020

Source: created by authors according to [1]

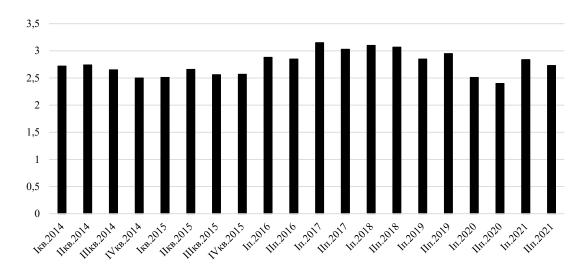


Figure 2. Dynamics of the Investment Index 2014-2021

Source: created by authors according to [7]

ment attractiveness. Ukraine's increase in the rating for 2020 was due to simplification of the process of obtaining construction permits, connection to power grids, simplification of the procedure for registering property rights, protection of the rights of minority investors, simplification of procedures for organizing international trade, facilitating the availability of lending, business registration, taxation, resolving issues of insolvency.

According to the Global Competitiveness Index, Ukraine ranked 81st place in 2017, 83rd in 2018, and 85th in 2019 [2], which indicates a deterioration in the level of competitiveness of the country in the world market due to the state of medicine and protection, low level of institutional development, macroeconomic instability. At the same time, among the strengths there is a significant potential for the development of innovation activity, a large market size, relatively developed infrastructure, the development of skills in professional direction, a significant level of higher education and vocational training.

These competitive advantages correlate with the ranking results of 132 countries according to the Global Innovation Index in 2021, where Ukraine took the 49th place,

entering the top three countries from the low-middle income group [4].

According to the results of the EBA study [7], which determines the Investment Index, reflecting business sentiments regarding the current state of the investment climate in Ukraine and forecasts for the next 6 months, the investment climate in the country is more unfavourable (Fig. 2).

As you can see in fig. 2, index values only 2017 – 2018 crossed the mark of 3 points (out of 5 maximums possible), which characterized the investment climate as neutral, the rest of the time – a negative assessment of the investment climate in Ukraine. Among the main factors that negatively affect the investment climate in Ukraine, respondents attributed the weakness of the judicial system (87% of respondents), high level of corruption (85%), shadow economy (76%). The COVID-19 pandemic, both in Ukraine and the world as a whole, had a negative impact on the development of the economy and investment activity in 2020-2021.

The use of a statistical approach to determining the level of investment attractiveness was carried out according to the State Statistics Service of Ukraine. In particular, the analysis of statistical data showed that over the past decade there has been an unstable dynamic of attracting foreign direct investment to Ukraine (Fig. 3). Relative socio-economic and political stability have a positive impact on the volume of attracting investments (2010-2013), however, military operations in the east of Ukraine, the annexation of Crimea, the COVID-19 pandemic, a high degree of uncertainty clearly had negative consequences for the investment attractiveness of the country and the volume of attracted investment.

As we see in fig. 3, the volume of investments from Ukraine is consistently significantly less than the amount of funds raised. The main investors in Ukraine are the EU countries. If at the beginning of 2014 the volume of foreign direct investment (FDI) in Ukraine amounted to \$53,7 billion, of which 76,4% were in the EU countries, after 2014, the volume of attracted investments decreased rapidly, continuing the negative trend until the end of 2017. As of the beginning of 2020, the FDI amount is \$ 35,8 billion, of which EU investment is 79,0%. In investments from Ukraine, the share of EU countries is 94,5% at the beginning of 2010 and 97,0% at the beginning of 2020. The main partner of Ukraine in terms of investment activities is Cyprus (22% of the total FDI as of January 1, 2010 and 29% as of January 1, 2019), which is explained by the withdrawal of Ukrainian capital to offshore jurisdiction. The second country in terms of investments invested in Ukraine is the Netherlands, which over the past 10 years, despite the negative impact of external factors, increased investments from \$7,5 billion to \$8,3 billion. The third country in terms of FDI in Ukraine is Germany. Among the EU countries, investors are also the United Kingdom, Austria, France, Poland, etc. The analysis showed that the main part of the involved FDI falls on financial and insurance activities (31,6% in 2019), the information and communication industry (25,4% in 2019), the processing and mining industry (9,4% and 9,8%, respectively). At the same time, activities in the field of service and temporary accommodation and food have reduced the volume of external borrowings. The analysis suggests that the expansion of investment relations of Ukraine is facilitated by other attractive investment factors: high power and almost unlimited domestic market; geographical location at the intersection of major transport routes between Europe and Asia; relatively inexpensive and at the same time skilled labour force; scientific potential; developed infrastructure (ports, airports, railways, warehouses, communication systems and engineering networks), etc.

Attracting investment to the country's economy should lead to its growth. An analysis of statistical data [12; 18] indicates that there is no direct relationship between the volume of attracted investments and GDP dynamics (Fig. 4), which may be the result of several factors.

In particular, there is a time lag between the investment and the results obtained, which is absolutely logical, considering the theory of investment. At the same time, there are a number of other factors that affect the volume of GDP produced, in addition to investment (for example, changes in technology, personnel and resource provision, and others). In addition, the impact of the COVID-19 pandemic has had significant implications for the global economy, and Ukraine is no exception. Accounting for all quantitative and qualitative factors will provide more accurate mathematical calculations. Ukraine has the potential for the availability of resources, staffing, development of the IT sphere, as confirmed by the data of international agencies [18]. The rapid development of innovations inherent in the Fourth Industrial Revolution adjusts the organization of business processes and the possibility of obtaining greater results from investments. In particular, Germany, as one of the pioneering countries and modern leaders of Industry 4.0, will receive a high return on investments in 4.0 technologies.

A study conducted by EY in March and April 2021 involving 550 international decision makers and representatives of both small and medium-sized businesses and multinational companies found that for the first time, France, the UK and Germany are actually the most attractive investment destinations in Europe, attracting 985, 975 and 930 projects respectively. However, thanks to investments in innovative technologies, in Germany, as a result of the COVID-19 pandemic, the decline in economic indicators occurred less rapidly than in France and the UK [10]. According to the survey, four key factors are critical when investors decide where to invest:skills, sustainability,incentives,simplification of business conditions.

Analysing the peculiarities of investing in the Ukrainian economy in the conditions of Industry 4.0, it should



Figure 3. Dynamics of foreign direct investment in Ukraine and from Ukraine, million USD Source: created by authors according to [12]

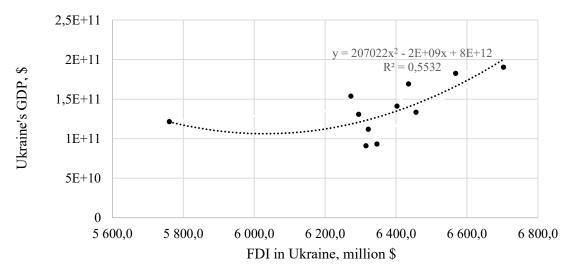


Figure 4. Model of correlation dependence of Ukraine's GDP on FDI volume

Source: Source: created by authors according to [12; 18]

be noted that certain legislative changes have been developed and partially implemented to attract investments, in particular, a preferential tariff, internal processing, benefits for IT specialists, etc. The Law of Ukraine "On State Support of Investment Projects with Significant Investments in Ukraine" provides for the support of projects with investments of more than EUR 20 million, in particular: exemption from payment of certain taxes and fees in accordance with the Tax Code of Ukraine; exemption from import duty of new equipment and components imported exclusively for the implementation of the investment project; it is possible to grant the investor the pre-emptive right of land use of the site. Mandatory requirements for projects are the availability of at least 80 jobs with salaries greater than the average in the region by 15% [11]. At the same time, the improvement of the legislative framework for the intensification of investment activities, including the introduction of so-called "investment nannies", did not have the expected effect. Sectors with the largest growth in recent years and thus the most interesting for investors include the IT industry, agriculture, automotive, processing and renewable energy sectors. Consider the features of each of these areas of investment.

The Ukrainian IT industry has experienced the largest growth spurt in the last 10 years and has become the centre of most investments. In 2018, the IT sector accounted for 4% of GDP. Ukraine has the largest IT outsourcing and software development industry in Central and Eastern Europe. Improved economic conditions and financial incentives encourage local and foreign investors to invest more in Ukrainian IT firms. Thus, in 2018, Ukrainian tech start-ups collected a record \$ 323 million. Investments in the Ukrainian IT industry increased by 22% compared to 2017. In 2017, Ukrainian high-tech companies received \$ 265 million. This means that local start-ups have raised a total of USD 1 billion over the past five years, which makes Ukraine one of the most important investment destinations in Central and Eastern Europe. About 90 percent of the funding comes from foreign investors, with U.S. companies contributing the largest share. More than 50% of Ukrainian technical specialists work in outsourcing software companies [6].

In addition, the agro-industrial complex today is one of the key sectors of the economy. In particular, Ukraine accounts for about 25% of the world's high-fertile black earth soils. Our country is one of the leaders of the world exporter of sunflower oil and grain, supplies large volumes of fruits and vegetables. Producing 90-100 million tons of grain crops annually, Ukraine holds a leading position in the world. Agriculture today is one of the main customers of innovative technologies of Industry 4.0, allowing to increase economic effects while complying with environmental requirements. Due to its potential, domestic agriculture continues to be a key sector for investment. There is experience in implementing joint projects with the support of the EBRD, in particular, on the implementation of sustainable production [6].

According to experts, the domestic automotive industry has the potential to expand the production of automotive spare parts, in particular, to foreign markets: today the sale of spare parts is about 60% of the turnover of automotive components. In addition, Ukraine also announced its intention to attract electric vehicle manufacturers to the country. Favourable geographical location, the presence of relatively cheap skilled labour gives Ukraine significant potential for the development of the processing industry using mechanisms based on tolling raw materials, production sharing agreements, etc. We also believe that the country's logistics potential should be developed, considering the borders with the European Union. The development of alternative energy is also one of the directions of stimulating clean production and economic growth. In particular, the so-called "green" tariff in Ukraine is one of the highest in the world, which makes investments in this sector very attractive. Ukraine has set an ambitious goal of producing 25 percent of its energy from renewable sources by 2035. In addition, the country has significant potential in the production of electricity from biogas. In 2018, investments in the renewable energy sector amounted to about EUR 730 million, a number of large foreign investors began the implementation of 104 renewable energy projects in Ukraine. The total amount of investment in the industry should be about 4 billion euros. In particular, renewable energy projects in Ukraine will be implemented by Finnish, Danish and German companies. The projects are at different stages of readiness and should be put into operation in the near future [14]. At the same time, it should be noted that in order to form the investment attractiveness of the country in modern economic conditions, an assessment of the real situation, determining development prospects based on the existing potential and possible threats is necessary. Of course, the decisive step is to prove to potential investors the attractiveness of objects that require the development of appropriate methodological support.

Based on the generalization of existing approaches to defining the concept of investment attractiveness, we propose the following definition: the investment attractiveness of the state is an economic category that combines the analysis of such characteristics as natural resource potential, the level of economic development of the country, social and political stability, human and innovative potential, during the use of which the investor can assess the feasibility of investing in this country and the availability of opportunities for further Activity.

In order to rapidly adapt Ukraine to changing environmental conditions, we consider it necessary to intensify the introduction of Industry 4.0 technologies into the national economy. According to the results of the research [15], Industry 4.0 technologies can significantly increase the economic and technological efficiency of production, at the same time, having a mixed impact on the social development of society, namely: reducing the need for human personnel (especially in low-skilled ones), which in turn will cause an increase in the unemployment rate; the disappearance of existing professions and the emergence of new ones, etc. We believe that it is necessary to pay attention to one of the largest components of the domestic innovation and investment potential - human capital. It is appropriate to apply the experience of the Netherlands, Denmark, Sweden, Finland in the preparation and retraining of workers necessary to work in the "markets of tomorrow", the use of new talent management technologies to adapt to the new needs of the workforce [8].

Since the Fourth Industrial Revolution is based on the use of digital technologies that penetrate all spheres of life and require rapid adaptation of economic entities, we consider it necessary to stimulate government investment in research and development of innovations aimed at creating markets of tomorrow. This direction of enhancing investment activity is widely used in Finland, Japan, the USA, South Korea, Sweden [8], which makes it possible to increase the level of international competitiveness of countries, while improving their investment attractiveness. Unfortunately, in the Global Digital Competitiveness ranking [17], which assesses the speed of technological transformation in countries, Ukraine ranked 58 out of 63 countries in 2020 (down 2 positions compared to the previous year). Weaknesses include problems of protecting intellectual property rights, high investment risks, and an unsatisfactory level of cybersecurity. However, as in other ratings, the high level of personnel training, the ease of starting a business, and the use of information technologies are confirmed. In order to increase the level of investment attractiveness of Ukraine in the context of Industry 4.0, we consider it necessary to provide digital infrastructure, which will attract additional investment to the country, and will also contribute to the development of related industries and activities, while increasing their efficiency. This requires the use of a systematic approach that involves the development of a country development strategy in the conditions of Industry 4.0, one of the components of which should be investment. To date, the Government has approved the Concept for the Development of Digital Competences, the Association of Industrial Automation Enterprises of Ukraine has developed a draft National Strategy for Industry 4.0, EY in Ukraine, at the request of the Government of Ukraine, has developed a National Strategy for Increasing Foreign Direct Investment in Ukraine, but, unfortunately, they highlight certain areas of growth in isolation, not counting the integrated results and opportunities. Based on the conducted SWOT analysis, measures were proposed to improve the investment climate in Ukraine and increase the level of its investment attractiveness (Fig. 5). The World Economic Forum [3] identified 11 economic transformation priorities needed to restore the global economy in the post-COVID period, the main of which are: the revival and transformation of an enabling environment; the revival and transformation of human capital; the revival and transformation of markets; revival and transformation of the innovation system.

We also consider it necessary to improve the methodological support of the process of assessing the level of investment attractiveness of the country, which will unlock the potential of its development based on the concept of sustainable development, namely, to meet the needs of the current generation without jeopardizing the development of future generations. An analysis of existing scientific developments and approaches has proved that today there are various approaches to assessing the investment climate and investment attractiveness, on the basis of which experts try to make an informed decision on the attractiveness and, accordingly, the expediency of investing in a particular country. Since the concept of sustainable development implies the harmonious development of society in three directions: economy, ecology, social sphere, we consider it necessary to consider these three directions to assess the attractiveness of the country. In addition, as the results of the study proved, countries that are leaders in Industry 4.0 innovations get a greater return on investment than countries that follow or do not implement Industry 4.0 technologies [16]. Since scientific and technological progress is relentless, we consider it appropriate to expand the basic directions for assessing the investment attractiveness of the country, namely: to consider the economic, environmental, social and innovative components. It is this approach, from our point of view, that will allow us to apply the principle of balanced development of society. The legislation of the EU, the main investor in Ukraine, introduces regulatory requirements for considering the principles of sustainable development when financing investment projects. Thus, the model of formation of the investment attractiveness of the state in Industry 4.0 in the conditions of high uncertainty of further development will look like this:

$$IAS = f(\Sigma C; \Sigma UC), \tag{1}$$

IAS – investment attractiveness of the state;

 $\sum C$ – set of controlled indicators;

 \sum UC – set of uncontrolled indicators.

$$\sum C = NRP_C + LED_C + SC_C + PS_C + HP_C + IP_C, \quad (2)$$

$$\sum UC = NRP_{UC} + LED_{UC} + SC_{UC} + PS_{UC} + HP_{UC} + IP_{UC}, (3)$$

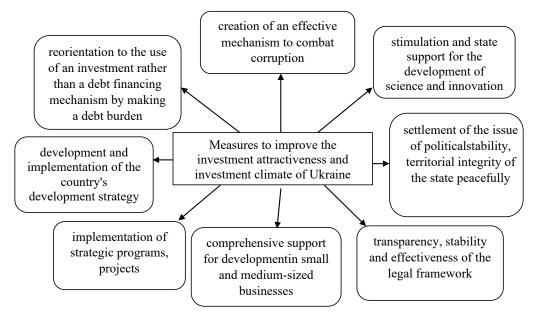


Figure 5. Main measures to improve the investment attractiveness and investment climate of Ukraine

 NRP_C , NRP_{UC} – natural resource potential, managed and unmanageable, respectively;

 LED_{C} , LED_{UC} – the level of economic development of the country, managed and unmanageable factors, respectively;

 SC_C , SC_{UC} social stability, managed and unmanageable components;

 PS_C, PS_{UC} – political stability, managed and unmanageable components;

 HP_C , HP_{UC} – human potential, managed and unmanageable elements;

 $\mathit{IP}_{\mathit{C}}, \mathit{IP}_{\mathit{UC}}$ – innovative potential, managed and unmanageable elements.

The choice of such areas of assessment is expedient and justified, since they cover all areas of the country's activities. They can reflect the real state of the country in different areas of activity and allow identifying problem areas in development for the adoption of managerial decisions by state authorities.

Natural resource potential indicates the provision of the country with energy resources, raw materials, natural resources, etc. and describes the level of environmental protection, its pollution. The development of technologies and the use of alternative sources make it possible to single out a manageable part in it and contribute to its restoration in size, at least not less than that consumed by society.

Since the level of development of the country is determined not only by the current values of macroeconomic indicators, but is also formed due to the existing image of the country, we also consider it necessary to single out managed and unmanaged components.

At present, due to the influence of modern information and communication technologies, the openness of countries and, accordingly, the openness of forms of communication, we also consider it appropriate to single out the managed and unmanaged components in social and political stability.

Human potential is formed under the influence of many factors, some of which are controlled by the state (national

education system, national health care system, etc.). Other factors do not completely depend on one state (for example, the grant system for financing education, training and employment opportunities in other countries, etc.).

The innovative potential is based on the development of the technological base of Ukraine, which determines the efficiency of its industry, agro-industrial complex, services and the degree of innovation, which is a significant factor for an investor who seeks to make a profit and develop his business.

In the conditions of Industry 4.0, production, management, and communication technologies have changed significantly, and existing technologies are constantly being improved and new ones are being developed. The level of innovative development and innovative activity of subjects, the stimulation of innovative activity by the state, the possible unification of the efforts of scientists from different countries - this allows us to distinguish managed and unmanaged components.Of course, the distribution of elements into managed and unmanaged is conditional and requires detailing within each country, considering the specifics of its development, the system of public administration, the degree of involvement in the foreign market, etc. Thus, we believe that the application of the proposed solutions will make it possible to form the investment attractiveness of Ukraine and maintain it on the basis of a balanced approach.

Conclusions. Formation of investment attractiveness of Ukraine in the conditions of rapid innovative transformations of Industry 4.0 and a high degree of environmental uncertainty is a strategically important component of ensuring the existence of the country and its sustainable development. The purpose of forming the investment attractiveness of the country is to strengthen its competitive position in foreign markets and attract the financial resources necessary for the harmonious development of the state, create mutually beneficial relations with foreign partners and ensure stability within the country. Under the investment attractiveness of the country, we propose to understand

the economic category that combines the analysis of such characteristics as the natural resource potential, the level of economic development of the country, social and political stability, human and innovative potential, using which the investor can assess the feasibility of investing in this country and the opportunities for further activities.

Based on the analysis of the dynamics of attracting investments in the country's economy in the sectoral context and by countries of the world, the main factors determining the attractiveness of Ukraine for foreign investors are identified and the impact of investments on the country's macroeconomic indicators is analysed. In the course of the study, the factors of influence on the investment attractiveness of the country were proposed to be divided into state-controlled (internal) and not controlled (external). The proposed distribution of factors will make it possible to develop a strategy for the development of the state, contributing to the formation of its investment attractiveness and positioning as a reliable and promising partner in the international market. Systematization of data on priority areas of investment, as well as the problems and potential of the country, made it possible to identify measures to improve the investment attractiveness of the country and improve the investment climate, namely: improving the legal framework to ensure its transparency and stability, the effectiveness of the judicial system; settlement of the issue of political stability and territorial integrity of the country by peaceful means; reorientation to the use of an investment, rather than a debt mechanism for financing the state; development and implementation of the country development strategy 4.0; state support for the development of science and innovation in both the public and private sectors; comprehensive support for the development of small and medium-sized businesses.

In order to form the investment attractiveness of Ukraine in the conditions of Industry 4.0, a multi-criteria assessment model is proposed based on the expanded concept of sustainable development, considering the economic, social, environmental and innovative directions of the country's development. We believe that this approach will allow not only to assess the current state, but also to determine the tools for managing the country's balanced development and ensure its investment attractiveness.

The developed model for assessing investment attractiveness can be adapted to any level of government, considering the peculiarities of its territorial development, resource provision, the level of innovative development and socio-economic relations in the country.

References:

- 1. Doing Business 2020. Economy Profile of Ukraine. Available at: https://www.doingbusiness.org/content/dam/doingBusiness/country/u/ukraine/UKR.pdf
- 2. Global Competitiveness Index 2019. Available at: https://gtmarket.ru/files/research/global-competitiveness-index/Global_Competitive-ness Report 2019.pdf
- 3. Global Competitiveness Report Special Edition 2020: How Countries are Performing on the Road to Recovery. World Economic Forum. Available at: https://www.weforum.org/reports/the-global-competitiveness-report-2020
 - 4. Global Innovation Index 2021. Available at: https://www.globalinnovationindex.org/Home
 - 5. Haidutskyi A.P. (2004) Otsinka investytsiinoi pryvablyvosti ekonomiky. Ekonomika i prohnozuvannia. № 4, pp. 3–7.
- 6. Investing in Ukraine: overview. 2020. DLF Attorneys at Law. Available at: https://dlf.ua/ua/mozhlivosti-dlya-investoriv-v-ukrayini/
 - 7. Investment Index. European Business Association. Available at: https://eba.com.ua/research/doslidzhennya-ta-analityka/
- 8. Konkurentospromozhnist Ukrainy 2020-2021. Kyiv: Administratsiia Derzhavnoi sluzhby spetsialnoho zviazku ta zakhystu informatsii Ukrainy. 2021. Available at: www.dstszi.dov.ua
 - 9. Matsybora T.V. (2019) Otsinka investytsiinoi pryvablyvosti silskohospodarskykh pidpryiemstv. Ekonomika APK. № 1, pp. 50–55.
- 10. National Strategy to Increase Foreign Direct Investment in Ukraine. 2021. Available at: https://ukraineinvest.gov.ua/fdi-strategy/
- 11. Novikova I. Government opens floodgates of the bill on "investment nannies". 2021. Available at: https://www.kmu.gov.ua/en/news/uryad-nadav-zelene-svitlo-zakonoproektu-pro-invest-nyan-irina-novikova
 - 12. Ofitsiinyi sait Derzhavnoi sluzhby statystyky Ukrainy. Available at: http://www.ukrstat.gov.ua/
- 13. Ripa T.V. (2021) Napriamy pidvyshchennia investytsiinoi pryvablyvosti krainy na svitovii areni. *Prychornomorski ekonomichni studii*, vol. 66. Available at: http://bses.in.ua/journals/2021/66 2021/13.pdf
- 14. Semenchuk L.I., Moroz S.O. (2016) Investytsiina pryvablyvist pidpryiemstva ta metody yii otsiniuvannia. *Hlobalni ta natsionalni problemy ekonomiky.* № 11. P. 898–901.
- 15. Skorobogatova N. (2019) Conceptual basis for formation of sustainable development of society in the context of Industry 4.0. *Economic Bulletin of NTUU "Kyiv Polytechnical Institute"*, pp. 388–400. Available at: http://ev.fmm.kpi.ua/article/view/182748/182675
- 16. Skorobogatova N., Desna A. (2021) Components of the investment attractiveness of the state in the context of Industry 4.0. *Innovations and prospects of world science*. Proceedings of the 5th International scientific and practical conference. Perfect Publishing. Vancouver, Canada. Pp. 868–872. Available at: https://sci-conf.com.ua/wp-content/uploads/2021/12/INNOVATIONS-AND-PROSPECTS-OF-WORLD-SCIENCE-29-31.12.21.pdf
- 17. The future of the world will depend on digitalization. 2020. Available at: https://www.imd.org/news/updates/future-of-the-world-will-depend-on-digitalization/
 - 18. World Bank Open Data. Available at: https://data.worldbank.org/