

12. Татаркін А., Романова О., Кукин А., Яковлев В. Экономическая безопасность как об'єкт регіонального исследования. Вопросы экономики. 1996. № 6. С. 78–89.


УДК 339.137.2:339.56(477)

Oksana Ovsak
PhD (in Economics), Docent
Associate Professor of the Department of Management of Foreign Economic Activity of Enterprises
National Aviation University
Kyiv, Ukraine

Овсак Оксана
кандидат економічних наук, доцент
doцент кафедри менеджменту зовнішньоекономічної діяльності підприємств
Національний авіаційний університет
м. Київ, Україна

DIRECTIONS OF STRENGTHENING THE COMPETITIVENESS OF UKRAINE'S ECONOMY

1. INTRODUCTION

In the current conditions of world economic development, the issue of forming and maintaining national competitiveness is particularly relevant. In the actual period, the spread of the COVID-19 pandemic and the use of anti-pandemic measures at the national, international, and global levels, solving the problem of finding sources and national economy’s development directions that can provide a competitive advantage is a complex task. Its solution should be based on the current assessment of the national economic competitiveness and the identified factors of its development. Many scientists, in particular, M. Porter, J. Sachs, who outlined the foundations of national competitiveness, creating the necessary theoretical basis in their works, pay attention to the problems of determining, assessing, and ensuring the competitiveness of the national economy. Later, responding to the existing challenges, both in Ukraine and abroad, scientists began to improve, expand their development. Among the leading domestic studies on this issue should be mentioned in the works of L. Antonyuk, B. Kvasyuk, A. Melnyk, V. Bazylevych, etc., in which a detailed analysis of factors was performed and substantiated different approaches to determining the components of competitiveness. However, despite the wide range of revealed theoretical and methodological aspects, the problem of identifying and studying the factors influencing the international competitiveness of Ukraine and developing recommendations for improving its level in the coming years remains relevant. The purpose of the study is to study the essence and components of the formation of international competitiveness of the national economy, systematization of assessments of the level of competitiveness of Ukraine and the development of recommendations for improving its level.
Research methods. In studying the theoretical and methodological aspects of Ukraine's international competitiveness, methods of abstraction, induction and deduction, comparison, analysis and synthesis, structural and logical analysis were used. During the assessment of Ukraine's international competitiveness, such methods as empirical-scientific, structural-logical analysis, graphic modeling, economic-mathematical modeling, in particular correlation-regression analysis were used.

2. THEORETICAL ASPECTS OF ASSESSING THE INTERNATIONAL COMPETITIVENESS OF THE COUNTRY

In modern conditions of globalization space development, the question of national competitiveness formation and maintenance is especially acute. The rapid advanced technologies development contributes to the fact that innovation is the main factor, and international economic integration covers the components of development, financing, production, and innovations dissemination. So, conducting a study of competitive positions at the national level is currently particularly relevant. In order not to lose their global positions, as well as national identity, during the period of integration, governments must determine the existing competitive advantages and effective ways to achieve them, without losing state sovereignty. For Ukraine, this topic is quite actual, as the technological gap between it and economically developed countries is always growing. Many scientists, in particular Porter M. E. [1], Sachs J. [2], who outlined the foundations of national competitiveness in their work, creating the necessary theoretical basis, pay attention to the problems of determining, assessing, and ensuring the competitiveness of the national economy. Later, responding to the nowadays global challenges, both in Ukraine and abroad, scientists began to improve, expand existing developments. Among the leading domestic studies of this issue, there are works of L. Antonyuk [3], Ya. A. Zhaliilo [4], B. Kvasyuk [5], A. Melnyk [6], V. Bazylevych [7], in which a detailed analysis of factors was performed and proposed, substantiated different approaches to determining the components of competitiveness.

Competitiveness is a significant category of a modern market-oriented economy. There were attempts to investigate and objectively characterize its essence made at the beginning of economic relations. While the world economy picture was changing, the meaning of this term was improving detailing and expanding. After a certain period of evolution, the understanding of the category of "competitiveness" gradually became broader and more multifaceted. The latter influenced the fact that in the 1980s the concept of "competitiveness of the national economy" became commonplace. In the international scientific literature, competitiveness as a concept has different meanings. According to Rapkin et al. [8], the reason for this is the linguistic ambiguity of the concept under consideration. For example, the title of the most famous and authoritative scientific development of M. Porter: "The Competitive Advantage of Nations" [1] was devoted to the problems of international competitiveness and was published in the United States in 1990. Three years later, this work appeared in a translation called "International Competition". As we can see, this title could also be translated as well as "Competitive Advantages of Countries", and as "National Competitive Advantages", as well as "Competitiveness of Nations". Namely, there is always a semantic space for translation, which makes it possible to identify the concepts of "competitive advantage" and "competitiveness".

The comparative competitive advantage is the ability of the national economy to produce a product with lower opportunity costs than in other countries. An analysis of absolute and comparative advantage provides an important conclusion: "In both cases, the benefits of trade are because the cost-effectiveness ratios in different countries are different". Thus, foreign trade flows are determined by relative costs, regardless of whether a country has an absolute advantage in the production of a particular product or not [9].

In general, the reason for the ambiguity of the concept of "competitiveness" is that this concept is considered and analyzed depending on the economic object to which it applies. Thus, this concept can be considered at several levels, namely: product competitiveness, enterprise competitiveness (corporations or firms), industry competitiveness, the competitiveness of the
national economic system. The term "product competitiveness" means the compliance of products with the requirements of a competitive market and customer demand compared to other similar products that are on the market. The concept of "enterprise competitiveness" describes the ability of the enterprise to use its competitive advantages in the production and sale of goods and services compared to other producers and suppliers of such goods or services [9], [10]. Accordingly, the concept of "competitiveness of the industry" defines the ability of enterprises that are part of the industry to respond quickly to changes in its structure, but be able to restore their socio-economic systems and maintain the already achieved level of competitiveness of production [6], [11]. In turn, a country's competitiveness determines a country's ability to produce goods and services that meet the requirements of world markets in a free and fair market, while maintaining or increasing the incomes of its citizens [1], [4], [11], [12].

Existing relationships between the above categories of competitiveness, depending on the object provided are presented in Figure 1.

![Components of the national economy competitiveness formation](image)

Figure 1. Components of the national economy competitiveness formation

The presence of a synergy effect on the overall individual market competitiveness participants contributes to the international one. After analyzing global trends in the evolution of the national economic competitiveness concept and clarifying its main features, we concluded that it is a complex category that includes the ability of a country to compete with other countries through efficient use of available and borrowed resources, ensuring economic growth of the country.

### 3. METHODOLOGICAL ASPECTS OF ASSESSING THE INTERNATIONAL COMPETITIVENESS OF THE COUNTRY

Qualitative and quantitative characteristics of competitiveness are of fundamental importance for assessing national economies effectiveness functioning as part of the world economy. Quantitative characteristics are based on mathematical and statistical methods of indicators’ analysis usage. For the most part, these applies to market volumes in monetary or physical terms, prices, costs, as well as factors influencing them. In such researches, this method is used, for example, by consulting firms, whose main task is to assess the competitiveness of different countries, put forward specific feasibility studies for different methods and approaches to improve them. It is also important to add that quantitative analysis is always complementing by the qualitative one, because not all factors and mechanisms of competitive advantages growth and
accumulation of competitiveness potential can be measured quantitatively.

Studies have shown that in international practice, two main schools of national competitiveness rating have been formed, namely: "Harvard-Davos" (The World Economic Forum, WEF) and "Lausanne" (International Institute of Management). The actual ranking of countries by their level of competitiveness was initiated by The World Economic Forum in 1979. Since then, global development has contributed to a rethinking of different approaches and methods for assessing national competitiveness. The Global Competitiveness Report and the World Competitiveness Report (WEF, IMD) are published annually [13,14]. Indicators such as the index of ease of doing business and the index of economic freedom (WBI, HFI) are informative in determining the economic and legal conditions for the development of national economies » [15,16].

The World Economic Forum now uses a summary indicator, which was introduced in 2004. - Global Competitiveness Index (GCI), developed by American researcher H. Sala-Martin (Columbia University) (WEF). The Global Competitiveness Index (GCI) identifies and compares the competitiveness of 144 countries in 12 components of competitiveness: "Institutions", "Infrastructure", "Macroeconomic environment", "Health and primary education", "higher education and training", "Goods market efficiency", "Labor market efficiency", "Financial market development", "Technological readiness", "Market size", "Business sophistication", "Innovation" [17]. To compare the competitiveness of countries with different levels of development, the index integrates the concept of stages of economic development. In addition, the importance of each of the 12 components depends on the stage of economic development of each individual country, the weight and threshold values are used for the stages of development. In total, the GCI consists of one hundred and thirteen variables, the analysis of which allows us to characterize the state of competitiveness of national economies that are at different stages of their systemic development. The set of such variables by 2/3 consists of the resulting responses of top managers of business structures to reflect the reflection of the factors shaping the development of the business environment in countries. 1/3 of the GCI is formed from open statistical sources of well-known international evaluation structures [13], [17]. The main focus is to determine the potential for economic growth of countries in the long and medium term, taking into account their level of development. In essence, the GCI is a unique means of objectively assessing the peculiarities of economic development and determining directions reforms to be provided, implementation of which will work to increase the national economy' level compared to the previous year.

The Competitiveness Index is developed by the Center for Global Competitiveness at the Institute for Management Development [14]. The index is based on more than 320 indicators, grouped into four components of competitiveness: "Macroeconomic indicators" (78 indicators), "Government efficiency" (70 indicators), "Business efficiency" (67 indicators) and "Infrastructure" (114 indicators). Two-thirds of the indicators used are statistics from international organizations, such as the United Nations, the OECD, the WTO, and the ILO, and one-third are the results of a survey of business leaders [14].

The Ease of Doing Business Index aims to ensure the performance of national small and medium-sized enterprises and to assess the regulations governing their activities throughout the life cycle. It reflects the results of an annual study by the World Bank Group [15]. The Ease of Doing Business Index has been calculated since 2003 and provides objective information for understanding and improving the regulatory framework for doing business. To determine it, an analysis of 11 categories of indicators in 185 countries is used [15]. Categories of indicators are divided into two types:

1) indicators that reflect the complexity and cost of business regulation procedures in the country (registration of enterprises, obtaining building permits, connection to the electricity supply system, property registration, taxation, international trade);

2) indicators that reflect the level of strength of legal institutions and are related to the regulation of business (lending, investor protection, enforcement of contracts, insolvency of enterprises).
The Heritage Foundation index, compares the constraints and obstacles to economic activity faced by different governments [16]. The logic of the index is based on the idea of A. Smith, according to which the welfare of the country depends on the degree of freedom of the market and freedom of economic activity in it. The index has been calculated since 1995 by The Heritage Foundation in collaboration with The Wall Street Journal. Based on the fact that economic freedom is a fundamental right of everyone to control their work and property, so the index analyzes 10 components of economic freedom, grouped into 4 categories: rule of law (property rights, freedom from corruption), limited government, fiscal freedom, government spending), regulatory efficiency (freedom of business, freedom of the labor market, monetary freedom), open markets (freedom of trade, freedom of investment, financial freedom). In general, the Heritage Foundation index combines quantitative and qualitative indicators and is calculated as the arithmetic mean of ten economic freedoms. The rating of economic freedom is determined on the basis of the index and compares up to 185 countries. According to the evaluation of the country, there are up to five groups: "free" - with an index of 80 to 100; "Mostly free": 70-79.9; "Moderately free": 60-69.9; "Mostly lap": 50-59.9; "Depressed": 0-49.92 [16].

4. RESULTS

Based on the use of data from open sources on the values of indices: competitiveness of the world (IMD), global competitiveness (GCI), ease of doing business (The World Bank index), economic freedom (The Heritage Foundation index) for Ukraine from 2016 to 2019 the analytical table 1 was made, which contains both the values and the positions of the indices of Ukraine among all countries in the world. Fig. 2 shows the dynamics of integrated indices of international competitiveness of Ukraine for 2016-2019.

As presented in Table 1, Ukraine showed a slight improvement in the competitiveness indices for the period 2016-2019, in particular, the values of the index of ease of doing business Ukraine provided steady growth over the period from 63 to 69. Economic freedom in 2018, Ukraine ranked 150th out of 180 countries, receiving 51.9 points out of 100 possible, falling into the category of "mostly in the lap". According to 2019 data, the index of Ukraine increased slightly - amounted to 52.3 points, respectively, the country took 147th place.

Table 1

<table>
<thead>
<tr>
<th>Integrated international competitiveness indices</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Competitiveness Index (IMD)</td>
<td>46.51</td>
<td>56.13</td>
<td>56.76</td>
<td>57.1</td>
</tr>
<tr>
<td>The World Bank index - WBI</td>
<td>63.04</td>
<td>63.90</td>
<td>65.75</td>
<td>69.1</td>
</tr>
<tr>
<td>Global Competitiveness Index (GCI)</td>
<td>4.0</td>
<td>4.11</td>
<td>5.70</td>
<td>57.9</td>
</tr>
<tr>
<td>The Heritage Foundation index - HFI</td>
<td>46.8</td>
<td>48.1</td>
<td>51.9</td>
<td>52.3</td>
</tr>
</tbody>
</table>

32
Figure 2 presents the very value of Ukraine's competitiveness indices in dynamics. IMD was stable after growing in 2017. GCI increased slightly in 2017 and 2019. WBI and HFI values gradually increased from 2016 to 2019.

GCI Ukraine's Global Competitiveness Index in 2016 was 4.0 points out of 7 possible, according to which the country ranked 85th in the ranking of 138 countries. During the evaluation period in 2017–2018, Ukraine ranked 83rd, as shown in Table 1, slightly improving its position in the ranking. However, according to the results of 2019, Ukraine took 85th place again. Since 2018, the method of calculating GCI has changed. From this year, the final scores for the country are assigned in the range from 0 to 100, and the score "100" corresponds to the first place in the world.

As shown in Table 1, the value of GCI of Ukraine according to the new methodology was equal to 57 points out of 100 possible in 2018, in 2019 - almost 58, which indicates an improvement in the result. In general, Ukraine's indicators in this ranking are inferior to those of most of the compared countries in the region (countries - new EU members and CIS members, including neighboring countries), as shown in Fig. 3.

From the analysis of Fig. 3 it becomes obvious that in comparison with other neighboring countries in the competitiveness rating of the world (IMD) Ukraine's position is not strong.

In order to determine the directions for improving the level of international competitiveness...
of Ukraine in Fig. 4 developed a diagram of the components of international competitiveness of Ukraine for 2016-2018, according to the elements of GCI calculation, based on the analysis of "Global Competitiveness Report" for 2015-2018.

The analysis of the chart provides an opportunity to get an idea of the state of Ukraine's economy in comparison with the scale and other countries. Thus, the weakest positions of Ukraine in 2015 were on the criteria of "Technological readiness", "Development of business operations", "Innovation" and "Institutions". Ukraine's strong positions are available on the criteria of "Health and Primary School" (6 out of 7 points), as well as "Higher Education" (5 out of 7 points), "Market size" - 4.5 out of 7. According to the criterion "Macroeconomic environment" in 2015 - there was an average score - 4 out of 7. As you can see, in 2016 there was a deterioration in the criteria of "Macroeconomic Environment" and "Technological Readiness". According to the results of activities in 2017-2018, estimates of the "Macroeconomic situation" improved slightly (to 3.5 out of 7), the score on the criterion of "Innovation" increased to 3 out of 7. Fig. 5 presents a diagram of the GCI calculation elements of 2018 in Ukraine, Poland and Romania.
As can be seen from the analysis of the chart presented in Fig. 5, Ukraine has a slightly lower competitiveness rating among the neighboring countries in the region in terms of "Technology Readiness", "Business Development", "Institutes", "Financial Market Development". At the same time, Ukraine, Poland and Romania have the same positions in terms of Health and Primary School (6 out of 7 points) and Higher Education (5 out of 7 points).

Since 2019, modifications have been made to the calculating method of GCI, respectively, for Ukraine, the diagram is as shown in Fig. 6. The modifications also affected certain components of the index, which are assessed: "Health and Primary Education", "Higher Education", "Infrastructure" and “Technological readiness”. In particular, instead of the latter, the level of information computer technology (ICT) is assessed, "Health" is assessed separately, and primary and higher education have become components of "Skills".

The analysis of the dynamics of Ukraine's competitiveness indices and its position in world rankings revealed a slight improvement in the competitiveness indices themselves for the period 2016-2019. The assessment of the level of Ukraine's international competitiveness according to the components of the GCI calculation made it possible to see the areas in which the country has advantages that increase the overall value of the index, as well as areas in which to improve Ukraine's economic system (Fig.7).

Figure 5. Diagram of GCI calculation elements for 2018 of Ukraine, Poland and Romania.

As can be seen from the analysis of the chart presented in Fig. 5, Ukraine has a slightly lower competitiveness rating among the neighboring countries in the region in terms of "Technology Readiness", "Business Development", "Institutes", "Financial Market Development". At the same time, Ukraine, Poland and Romania have the same positions in terms of Health and Primary School (6 out of 7 points) and Higher Education (5 out of 7 points).

Since 2019, modifications have been made to the calculating method of GCI, respectively, for Ukraine, the diagram is as shown in Fig. 6. The modifications also affected certain components of the index, which are assessed: "Health and Primary Education", "Higher Education", "Infrastructure" and “Technological readiness”. In particular, instead of the latter, the level of information computer technology (ICT) is assessed, "Health" is assessed separately, and primary and higher education have become components of "Skills".

The analysis of the dynamics of Ukraine's competitiveness indices and its position in world rankings revealed a slight improvement in the competitiveness indices themselves for the period 2016-2019. The assessment of the level of Ukraine's international competitiveness according to the components of the GCI calculation made it possible to see the areas in which the country has advantages that increase the overall value of the index, as well as areas in which to improve Ukraine's economic system (Fig.7).
The analysis of the components of the calculation of the indicator "Infrastructure" showed that Ukraine in 2019 has a value of 65% due to the provision of electricity to the country's population by 100% and the development of transport infrastructure of the country, in particular, aviation (availability of airports).

If over the past four years Ukraine has improved its position on the "macroeconomic stability" component, our analysis showed that in order to increase Ukraine's competitiveness rankings, it is necessary to innovate, to develop the financial market, to implement information computer technology, to develop market institutions and macroeconomic stability.

The underdevelopment of the country's financial market, as shown by recent studies of the economies of Pakistan, the Philippines, Indonesia, Singapore, Thailand, China, Latin America, etc., may be the reason that the economy of such a host country does not benefit from foreign direct investment, even if their volumes are significant, as it is necessary to ensure institutional development [21 - 25]. Below, Table 2 presents summary statistics on Ukraine's GDP and the amount of foreign direct investment received in Ukraine in 2010-2019 [26]. Accordingly, Fig. 7 presents the results of correlation and regression analysis of the ratio of foreign direct investment of Ukraine to GDP.

Thus, the assessment of the level of Ukraine's international competitiveness according to the index of global competitiveness made it possible to determine areas for improvement: macroeconomic stability, innovation, financial market development, development of institutions.

If over the past 4 years Ukraine has improved its position on the "macroeconomic stability" component, our analysis showed that to increase Ukraine's competitiveness rankings, it is necessary to ensure macroeconomic stability, innovations, develop the financial market, business operations and market-developing institutions. Ukraine's macroeconomic policy should be aimed at ensuring these components of the business environment. The underdevelopment of the country's financial market, as shown by recent studies of the economies of Pakistan, the Philippines, Indonesia, Singapore, Thailand, China, Latin America, etc., may be the reason that the economy of such a host country does not benefit from foreign direct investment, even if their volumes are significant, as it is necessary to ensure institutional development [21 - 25]. Below, Table 2 presents summary statistics on Ukraine's GDP and the amount of foreign direct investment received in Ukraine in 2010-2019 [26]. Accordingly, Fig. 7 presents the results of correlation and regression analysis of the ratio of foreign direct investment of Ukraine to GDP.
Table 2

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP of Ukraine,</td>
<td>136419</td>
<td>163160</td>
<td>175781</td>
<td>183310</td>
<td>131805</td>
<td>90615</td>
<td>93270</td>
<td>112154</td>
<td>130832</td>
<td>134890</td>
</tr>
<tr>
<td>The amount of FDI involved in Ukraine,</td>
<td>5851</td>
<td>6033</td>
<td>5290</td>
<td>5462</td>
<td>2451</td>
<td>4321</td>
<td>4406</td>
<td>2511</td>
<td>2869</td>
<td>2531</td>
</tr>
</tbody>
</table>

Figure 7. The relationship between the volume of FDI attracted to Ukraine and GDP

According to the results of the analysis, the correlation coefficient is equal to 0.466, which indicates a weak relationship between FDI and GDP of Ukraine. It can be stated that according to the built regression model, GDP is only 25% dependent on FDI in the economy of Ukraine \( R^2 = 0.2557 \). Thus, to ensure economic growth in Ukraine, it is advisable to develop the domestic financial market, attract foreign investment, which, combined with macroeconomic stability, innovation and development of market institutions will help increase the international competitiveness of the national economy.

5. CONCLUSIONS

Based on the analysis of general trends in the evolution of the concept and systematization of the main features, it was found that the competitiveness of the national economy is a complex category that includes the country's ability to compete with other countries through efficient use of available and borrowed resources. The analysis of the dynamics of Ukraine's competitiveness indices and its position in world rankings revealed a slight improvement in the competitiveness indices themselves for the period 2016-2019. The assessment of the level of international competitiveness of Ukraine on the components of the calculation of the Global Competitiveness Index (GCI) made it possible to identify areas in which to improve the country's economic system. If over the past four years Ukraine has improved its position on the "macroeconomic stability" component, our analysis showed that to increase Ukraine's competitiveness rankings, it is necessary to ensure more macroeconomic stability, innovate, develop the financial market, business operations and market-developing institutions. Ukraine's macroeconomic policy should be aimed at ensuring these components of the business environment. The modeling of the impact of foreign direct investment on GDP showed that the economy of Ukraine, as a host country, does not receive the desired effect from foreign direct investment. Our study on Ukraine confirmed the feasibility of ensuring the development of its market infrastructure and domestic financial market, which will create conditions for economic growth of the country's economy and in combination with
macroeconomic stabilization, innovation will help increase the international competitiveness of the national economy.

References:
13. WEF World Economic Forum. Available at: https://www.weforum.org/
14. IMD. IMD WORLD COMPETITIVENESS ONLINE. Available at https://worldcompetitiveness.imd.org/countryprofile
15. WBI The Doing Business Reports, 2016-2020 (The World Bank Index). Available at: https://www.doingbusiness.org/
The COVID-19 pandemic is a public health emergency — but it is far more. It is an economic crisis. A social crisis. And a human crisis that is fast becoming a human rights crisis.”

Secretary-General of the United Nations, Antonio Guterres

The world has changed significantly within the past year. COVID-19 has impacted all spheres of people lives: personal, business activities, national economies and global economy. It has also affected on the implementation of UN sustainable development goals (SDGs) as what was planned many years ago is far more difficult to achieve now because of unpredicted circumstances to have appeared. International meetings agendas within the past year always include two issues: sustainability and the pandemics. As we are still facing challenges caused by the pandemics and have to adapt to governments’ interventions, it is important to understand main tendencies of pandemic impact on countries’ growth and development to assume how sustainability will look like after the pandemics and whether it should be vital in global recovery helping to achieve strategic