Montenegrin Journal of Economics

Vol. 15, No. 4 (2019), 75-86

Economic and Institutional Conditions for Implementation of Economic Interests in the Countries of the World

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ARTICLE INFO

Received May 20, 2019
Revised from June 20, 2019
Accepted August 15, 2019
Available online December 15, 2019

JEL classification:

A10, K11, P14.

DOI: 10.14254/1800-5845/2019.15-4.6

Keywords:

reproduction,
protection of property rights and interests,
economic relations,
economic interests,
economic environment,
institutional environment in the country.

ABSTRACT

The study investigates economic and institutional conditions for reproduction of economic relations and implementation of economic interests in the countries of the world. A new methodological approach to their estimation has been proposed; it is based on Kohonen's self-organising maps and allows processing a large amount of data, revealing system relationships between them, visualizing the results, grouping the countries of the world and comparing their economic and institutional capacities in the implementation of economic interests of the entities. The study applies both the indicators of the effectiveness of the economic and institutional environment and the entities' perception of the level of protection of their property rights and interests and economic and institutional conditions in the country for the reproduction of economic relations. The analysis is based on macroeconomic statistics, which ensures the relevance and comparability of indicators in the countries of the world. The construction of a neural network has made it possible to identify groups of countries with an extremely low, low, middle and high level of economic and institutional opportunities for the reproduction of economic relations and implementation of entities' interests. The approach is relevant as it provides for a thorough analysis, enables identifying the weak and strong points of the selected groups of countries and relationships between the macroeconomic situation and the economic activity, legal environment and government efficiency. It has been revealed that Ukraine belongs to the group of countries with extremely low potential for the reproduction of economic relations and implementation of entities' interests; these countries are characterized by a low degree of economic freedom, low efficiency of government and regulatory sphere, weak innovation-investment orientation, high inflation rate and governance level, significant barriers to starting a business, problems in protecting property interests and rights. Recommendations for improving (maintaining) the efficiency of the economic and institution-

al environment for each group of countries have been given. The proposed model can be used to assess the opportunities for implementing the economic interests of entities in countries of the world and for decision-making on foreign direct investment by potential investors.

INTRODUCTION

One of the pressing issues of the development of the modern economy is ensuring the reproduction of economic relations and interaction of economic entities in the implementation of economic interests. The above process is objective in its content, but it is supported by the government and other institutions with the aim of formation of an effective economic and social environment. As is known from the economic theory, the efficiency of the latter is determined by the degree of economic freedom and entrepreneurial activity in the economy, the degree of protection of property rights and the level of governance, by opportunities created for easy registration of business entities, prompt starting of their businesses, etc. On the other hand, the degree of implementation of economic interests is determined by the level of income formed and received by economic entities, their resource capabilities, access to public goods, the efficiency of the distribution and redistribution of value added in the national economy. In this regard, there is a need for the scientific justification and analysis of the major indicators of economic and social development, which determine the opportunities of the countries across the world to reproduce economic relations.

The specific form of these opportunities is the economic and institutional conditions available in these countries for ensuring an effective interaction between the entities and implementation of their economic interests. Grouping the countries of the world in accordance with the opportunities for the reproduction of economic relations, and identifying their weak and strong sides opens the prospects for ranking the country's performance among other countries of the world; it allows comparing economic and institutional conditions available for the implementation of economic interests of entities, and comparing the country's performance with that of the top ranking and lagging countries. The solution of this scientific problem is of particular importance for Ukraine that makes the first steps towards integration into the European environment. Today, Ukraine's economic and national security is affected by poor economic and legal protection of the entities' property rights and interests, ineffective governing, limited access of the entities to key economic resources, corruption and lobbying for the interests of large owners. These problems also restrict the opportunities of attracting foreign capital, as well as Ukraine's cooperation with other countries (Smiesova, 2018).

Analysis of previous research and publications and identifying the previously unsettled parts of the general problem. Today, scholars focus on the study of factors that determine the degree of effectiveness of the entities' interactions, the degree of implementation of their economic interests, and the major indicators for their empirical measurement; they also investigate the economic and institutional conditions that restrict these processes. The researchers, such as A. Gritsenko (2005, 2016), O. Bessonova (2018), S. Kirdina (2016), V. Dementiev (2013), R. Nureev, Yu. Latov (2015), have studied various aspects of the formation of economic and institutional environment, which affect the interaction of interests in the economy. These include transformation of property relations, protection of owners' rights and interests, rent-oriented behaviour, the merger of power and property, corruption and lobbying. On the other hand, at the application level, the researches have analysed the indicators of investment interests of stakeholders and methods of their harmonization, developed possible scenarios of their choice and forecasts for taking management decisions based on them, justified the technique of introducing changes taking into account the economic interests of entities (Oleksiv, 2013; Stetsiv, 2013).

In addition, the scholars have focused on measuring the degree of implementation of economic interests of micro-level entities (households and enterprises of various spheres of economic

activity); they also analysed the resource capabilities of these entities, the impact of the interaction and implementation of economic interests on social reproduction in general and on the innovation-investment process in particular (Novikova, 2015; Bozhchenko, 2017; Teron, 2015). However, one should admit that the scientific analysis still lacks a single and clear methodology for the study of the effectiveness of economic and institutional conditions for the participation of entities in economic relations and, accordingly, for the implementation of their economic interests. The methodological approaches used by the scientists were mostly one-sided. First of all, the methodology used was based either on the assessment of economic results obtained by certain economic entities, or vice versa, on the assessment of the resources available in the economic system for the implementation of economic interests. Secondly, the methodology was based on the indicators obtained by the domestic statistics, which makes it irrelevant to apply to the other countries of the world. Next, the opportunities for the implementation of economic interests were analysed with no regard to the economic and institutional conditions that could restrain or stimulate their effective implementation, since the statistical agencies in Ukraine do not carry out this kind of monitoring. Finally, the attitudes of the economic entities to the economic and institutional environment in the country were not taken into account, although they reflect their perceptions of opportunities for the reproduction of economic relations and economic interests.

In this regard, there is a need for an analysis of international indicators that would take into account the above aspects and which would characterize, on the one hand, the level of opportunities for the implementation of economic interests, and, on the other hand, the efficiency of the economic and institutional environment in the countries of the world and, in aggregate, would reflect their oipportunities for the reproduction of economic relations. Therefore, *the purpose of this article* is to assess the opportunities for the implementation of economic interests in the countries of the world, taking into account their current economic and institutional environment, and to group the countries according to this criterion, with identifying the strengths and weaknesses of each of these groups.

1 RESEARCH METHOD

The research methodology is based on: a) a systematic approach to the selection and assessment of indicators of the economic and institutional environment, measured by international organizations (the World Bank, the Global Institute for Entrepreneurship and Development, the UN, the IMF, etc.), which allows for the analysis and comparison of countries around the world by a unified methodology and, at the same time, for the use of a significant amount of data on their economic and social development; b) the method of neural networks, based on Kohonen self-organizing maps. This method allows clustering and, accordingly, grouping the countries around the world by their economic and institutional opportunities for an interaction between entities and implementation of economic interests; it provides for an identification of explicit and implicit relationships between changes in economic and institutional conditions and the effectiveness of interactions between economic entities; the method may be used to assess the weight and significance of each connection (neuron) in the formed clusters, and its correspondence to the input parameters. In addition, the advantage of this method is the absence of external influence on the process of training neurons, built-in possibilities of organizing (self-organization) of the internal structure, and the possibility of visualizing the results. In addition, the advantage of this method is the absence of external influence on the process of training neurons, built-in possibilities of organizing (self-organization) of the internal structure, and the possibility of visualizing the results.

This methodology was developed in the writings of U. McCulloch, W. Pitts (1956), F. Rosenblatt (1958), who have gone from the creation of the simplest neural dependencies to structuring a network in two-dimensional space. Since the 1990's, the methodology has been developed by T. Kohonen, G. Debor (2001), C. Jain Lakhmi; N. Marti (1998), and I. Chubukova (2008). Today, this methodological approach allows for analysing a large array of statistical data that characterize the

economic processes occurring in countries around the world. The indicators that characterize the conditions for the reproduction of economic relations and implementation of economic interests in the countries of the world, given their current economic and institutional environment, were assessed based on the 2016 reports of the above international organizations for 96 countries with different levels of economic development in accordance with the UN classification (UNDP). The focus on this number of countries was due to the lack of data for those countries that were not included in the sample (both in international and national statistical databases), which increases the accuracy of the results. The neural networks were structured using the Deductor Academic software package.

2. RESEARCH FINDINGS

The main stages of the analysis of the effectiveness of economic and institutional conditions for the reproduction of economic relations and implementation of economic interests in the countries of the world are presented in Table. 1.

Table 1. Stages of analysis

Stage 1	*Sampling of statistics* on the basis of international reports
Stage 2	F*actor analysis* conducted in order to reduce the feature space; it is based on *the principal component analysis* (the transformation of the matrix of input variables and the calculation of eigenvalues), the use of *Varimax rotation* (reduction of the number of input variables that have high loadings on the result) and *Quartimax rotation* (minimizing the number of variables required to interpret the result)
Stage 3	*Correlation analysis* based on the Pearson correlation coefficient
Stage 4	*Clustering* of multidimensional vectors and their ordering in the Kohonen map
Stage 5	Characterization and analysis of the results in each cluster group

Source: Compiled by the authors

Sampling of statistics (stage 1) was carried out based on indicators that, in our opinion, most clearly reflect the interaction and implementation of economic interests in a national economy. The following indicators were selected:

- GNI per capita, since this indicator characterizes the level of implementation of economic interests in a national economy through the creation of goods and services and use of the factors of production; it also takes into account the size of the population in each individual country;
- Global Entrepreneurship & Development Index (GEDI), which measures the quality of the economic system performance and economic activity of enterprises and households, as well as the degree of institutional support for their effectiveness. GEDI calculation combines indicators for the results of economic activity, indicators for the institutional environment in the country, and attitudes of the economic entities, that is, the perceived effectiveness of the economic and institutional environment. The main indicators underlying GEDI are legal stability, economic freedom, corruption, protection of property rights and interests, market and infrastructure development, ease and risks of business start-ups, motivation of economic entities, the number of enterprises and entrepreneurs, monopolization, tax privileges, the degree of development and quality of human capital, access to education, propensity for investment and innovations, research and development, the economic growth, internationalization, international trading and non-trade barriers;
- net inflow of foreign investment, which determines the level of implementation of economic interests of foreign investors and at the same time characterizes the investment climate and investment risks;

- tax receipts, which reflect, on the one hand, the efficiency of the value added distribution in the national economy, and, on the other hand, the state's ability to implement the public interests;
- government expenditures on education as the basis for changing the quality of labour and qualitative characteristics of the means of production;
- exports and imports, which determine the degree of implementation of economic interests based o the advantages of competitiveness and globalization;
- Gini coefficient, which shows inequality in the income distribution in the country, its deviation from absolute equality;
- the number of Internet users, reflecting the size of the Internet market, the level of internet connectivity of an economy, its access to the implementation of economic interests in the internet ecosystem;
- the coefficient of inequality among individuals, which determines the degree of restrictions in the implementation of property rights and economic interests;
- Consumer price index, which measures the performance of the economic system and constraints to meeting the needs of economic entities, which are necessary to ensure their normal functioning and self-reproduction (Table 2).

Table 2. Key Indicators for the Analysis

Indicator	*On the source official site of*
Gross National Income per Capita – *GNIc*	World Bank, IMF, United Nations Statistics Division, EU
The Global Entrepreneurship and Development Index – *GEDI*	The Global Entrepreneurship and Development Institute
Net inflow of foreign direct investment (*I*)	World Bank
Tax revenues, total amount (*T*)	World Bank
Export and import (*Ex+Im*)	United Nations (UN)
Government expenditure on education (G_E)	World Bank, UNESCO
Gini coefficient (*GINI index*)	World Bank
Number of Internet users (*Web*)	ITU
Consumer price index (*CPI*)	World Bank
Inequality index (average coefficient of inequality in human development) (*Inequality index*)	United Nations (UN)

Source: * Compiled by the authors [1]
[1] Used data from the official websites of organizations

Stage 2 was factor analysis that allowed us to reduce the dimension of the variables used for the analysis, and to take into account the weakly informative variables, which is important in the analysis of a large array of data (Table 3).

Table 3. Results of factor analysis

	Significance 96%	
	Contribution to the result, %	Total contribution, %
GNIc	43.93	43.93
GINI $_{index}$	16.44	60.37
G_E	12.64	73.01
T	08.11	81.13
P	06.88	88.01
I	04.28	92.29
Web	03.22	95.51
GEDI	02.35	**97.86**

Source: Compiled by the authors

Furthermore, the analysis took into account the correlation dependence of the evaluated variables, and, therefore, the mutual influence of input factors on each other; it takes into account that some of them are common for a number of variables, while others are only connected with one input factor and do not contribute to the result. Our findings show that eight out of the ten inputs make the highest contribution to the result at the significance level of 90%, 95%, 96% and 98%. They are: GNI per capita (GNIc), Gini coefficient (GINI index), government expenditure on education (GE), total tax revenues (T), Consumer price index (P), net inflow of foreign direct investment (If), the number of Internet users (the Web), the Global Entrepreneurship & Development Index (GEDI). For example, with a significance of 96%, they collectively form 97.86% of the result (see Table 3).

Consequently, in order to simplify the analysis, retain the common factors and reject the factors of insignificant influence, we can further use the eight input factors and set aside the two insignificant factors. Stage 3 was correlation analysis; it allows determining the degree of interdependence of input indicators: the Pearson correlation coefficient of 0 to 0,3 indicates a weak relationship between the indicators under study, coefficient of more than 0.6 indicates a strong relationship between the variables. Our findings indicate that the best correlation has been shown with the Web, GEDI, (Ex + Im) indicators (Table 4).

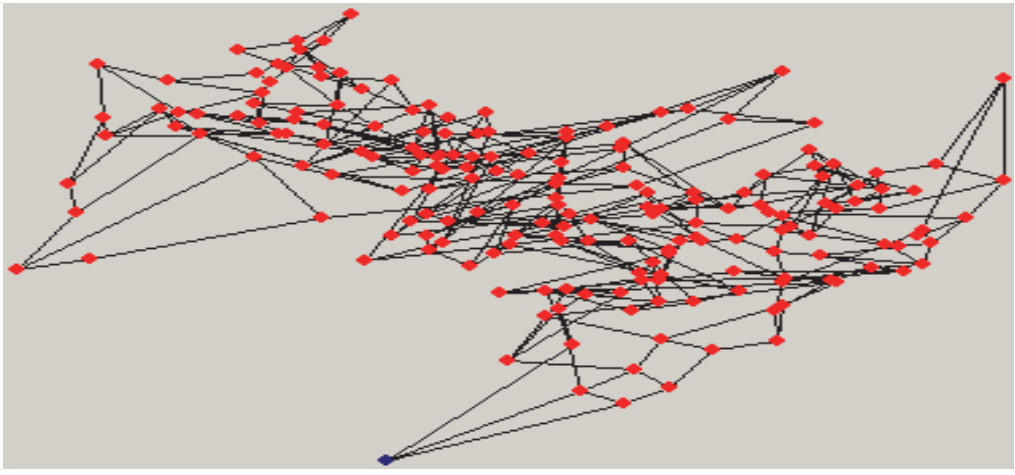
Table 4. Pairwise correlation coefficients between input variables GNIc, GINI index, GE, T, P, If, Web, GEDI, Inequality index and (Ex + Im)

×	*GNIc*	*GINI index*	*GE*	*T*	*P*	*If*	*Web*	*GEDI*	*Inequality index*	*Ex+Im*
GNIc	×	-0.437	0.278	0.217	-0.523	0.232	0.868	0.890	-0.723	0.328
GINI index	-0.437	×	0.095	0.043	0.166	-0.041	-0.445	-0.346	0.679	-0.244
GE	0.278	0.095	×	0.552	-0.110	0.083	0.271	0.334	-0.090	0.186
T	0.217	0.043	0.552	×	-0.235	0.146	0.172	0.189	-0.135	0.285
P	-0.523	0.166	-0.110	-0.235	×	-0.097	-0.532	-0.527	0.439	-0.296
If	0.232	-0.041	0.083	0.146	-0.097	×	0.119	0.142	-0.128	0.518
Web	0.868	-0.445	0.271	0.172	-0.532	0.119	×	0.835	-0.810	0.305
GEDI	0.890	-0.346	0.334	0.169	-0.527	0.142	0.835	×	-0.674	0.224
Inequality index	-0.723	0.679	-0.090	-0.135	0.439	-0.128	-0.810	-0.674	×	-0.319
Ex+Im	0.328	-0.244	0.186	0.285	-0.296	0.518	0.305	0.224	-0.319	×

Source: Compiled by the authors

However, given the goal of our analysis, which is to reveal the effect of the economic and institutional environment on the interaction of entities and implementation of economic interests, we assume that the Web and GEDI indicators have a significant impact on the integral indicator of the implementation of economic interests. Therefore, we include them in a further analysis, and accordingly reject the (Ex + Im) and Inequality index indicators. Stage 4 is clustering of high-dimensional vectors; it implies constructing a neural network and Kohonen maps; based on the initializing of weight vectors and formation of the sample vector, SOM "search for" vectors similar to the input vector; they are ordered into a certain organizational structure and form a single 2D space. Kohonen maps, formed on the basis of this self-organization, show the clusters of countries grouped under the "similar" scenario of the interaction of economic interests and characteristics of the economic and institutional environment; they are presented in Figure 1. Apart from the vector maps, we constructed the matrices of distances, quantization errors, hit density, and Sammon projection. The findings confirm the correctness and accuracy of the proposed model. The fourth stage of the analysis was based on the SOM algorithm, which allows a visualization of the results of the constructed matrices.

a) Sammon projection



b) clusters of countries of the world

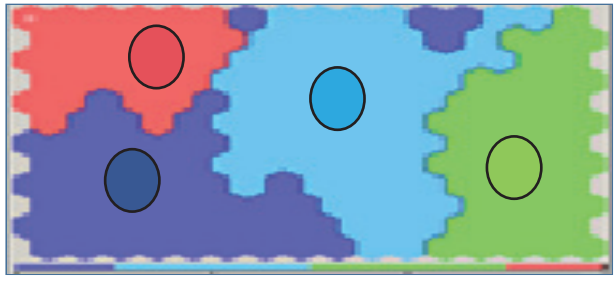


Figure 1 Results of clustering the countries

Source: Compiled by authors

where cluster 0 is countries with extremely low and limited opportunities for the implementation of economic interests; cluster 1 - countries with a medium level of opportunities for interaction and implementation of economic interests; cluster 2 - countries with a high level of opportunities for interaction and implementation of economic interests; cluster 3 - countries with a low level of opportunities for interaction and implementation of economic interests

3. RESULTS

Thus, the performed analysis provided an identification of clusters of the countries of the world, which feature similar levels of interaction and implementation of economic interests, depending on their current economic and institutional conditions. The distribution and structure of cluster data is presented in Table. 5. The main parametric characteristics of the obtained clusters are (i) their weight in the self-organized structure, (ii) the significance of each input indicator for the country's position and location on the Kohonen map and (iii) the country's deviation from the average input vector for this cluster. The calculated values of these characteristics for the groups of countries are shown in Figure 2

Table 5 Structure of clusters obtained using the neural network approach

Cluster 0 - countries with extremely low and limited opportunities for the implementation of economic interests
Sri Lanka, Ukraine, Peru, Thailand, China, Mongolia, Indonesia, Philippines, El Salvador, Kyrgyzstan, Nicaragua, Guatemala, Tajikistan, India, Laos, Bangladesh, Ghana, Cambodia, Nepal, Pakistan, Angola, Tanzania, Nigeria, Madagascar, Senegal, Uganda, Togo, Benin, Ethiopia, Mali, Congo
Cluster 1 - countries with a medium level of opportunities for interaction and implementation of economic interests
Italy, Spain, Czech Republic, Greece, Cyprus, Poland, Lithuania, Chile, Slovakia, Portugal, Hungary, Latvia, Croatia, Russia, Romania, Belarus, Uruguay, Bulgaria, Kazakhstan, Mauritius, Serbia, Georgia, Turkey, Azerbaijan, Macedonia, Armenia, Tunisia, Moldova, Morocco
Cluster 2 - countries with a high level of opportunities for interaction and implementation of economic interests
Norway, Australia, Switzerland, Germany, Denmark, Netherlands, Ireland, Iceland, Canada, United States, Sweden, United Kingdom, Japan, Israel, Luxembourg, France, Belgium, Finland, Austria, Slovenia, Estonia
Cluster 3 - countries with a low level of opportunities for interaction and implementation of economic interests
Costa Rica, Brazil, Colombia, Botswana, Paraguay, Bolivia, South Africa, Cape Verde, Namibia, Honduras, Zambia, Kenya, Rwanda, Lesotho

Source: Compiled by the authors

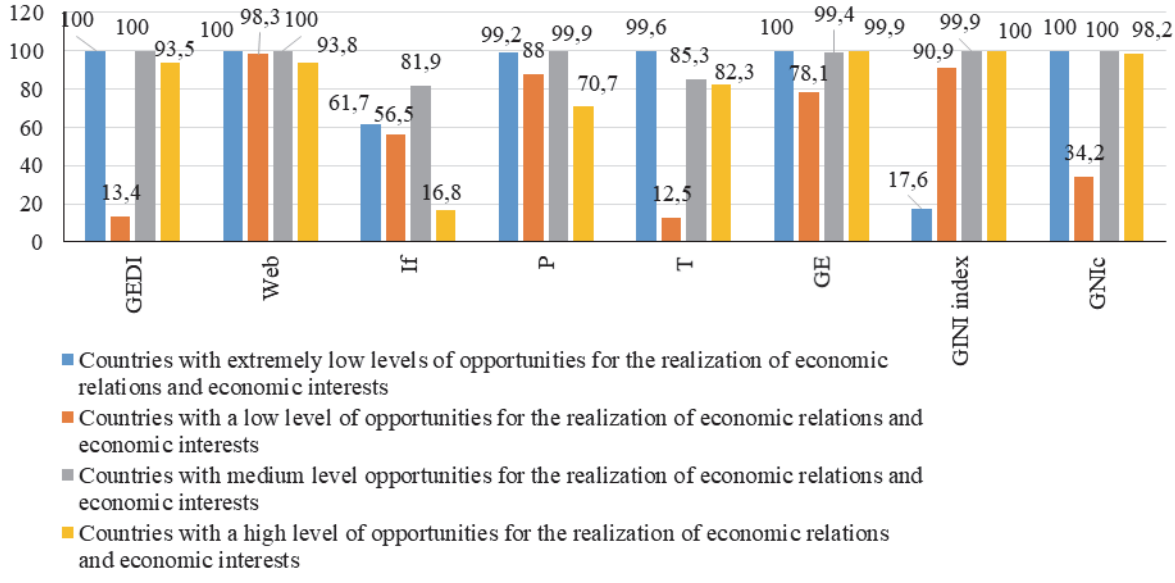


Figure 2. Significance of input parameters for each cluster group

Source: Compiled by the authors

The next step is Stage 5, which implies an analysis of the indicators of the resulting groups of countries and the definition of their characteristic features. The distinguishing characteristics of the groups of countries, obtained through the analysis, are given below.

(i) ***Cluster 0*** includes countries with very low or limited opportunities for the reproduction of economic relations and implementation of economic interests. This cluster has a significant weight, it makes 32.6% of the total sample and includes 31 countries.

This group of countries is characterized by unfavorable economic and institutional conditions for interaction and implementation of economic interests. The level of GNI per capita (GNIc), the Global Entrepreneurship and Development Index (GEDI), and the share of government expenditure on education (GE) have the highest significance for this group of countries (100%). But here, one needs to take into account the correlation between the first and second indicators, as well as the

negative deviation of these indicators in Cluster 0 countries from their average vector calculated for all countries of the world (the lowest position among all the other clusters). Consequently, under the conditions of a decrease in the GNIc level or its ineffective redistribution, the countries of this group lack the opportunities for the reproduction of economic relations and continuous performance of economic entities. Furthermore, the high dependence on the GEDI indicator (100%) shows that poor protection of property rights and interests, restrictions of economic freedom, the formation of a corrupt and non-competitive environment accompanied by a high dependence on tax pressure (the significance of 99.6%), price level (the significance of 99.2%), and dependence of the manpower quality on the government expenditure on education (100% significance) increase the risks for economic entities and decrease their motivation for starting and developing their own businesses and providing innovative economic activities.

The latter aspect is also very important for foreign investors, who, based on the position of a country in a particular cluster, assess the risks for foreign direct investment in the country, and may decide on the withdrawal of capital to a less risky economic space. Given the fact that FDI in these countries has a medium significance (61.7%), this aspect should be taken into account in their economic development strategy, as it significantly limits the opportunities of cluster 0 countries to use the benefits of globalization for the implementation of economic interests.

At the same time, the cluster 0 countries are characterized by an insignificant influence of the Gini index and a high level of significance of an access to the Internet (Web). In addition, these countries show a significant deviation of input indicators from their average calculated for all the countries under study; moreover, negative deviation is observed in practically all indicators except for the price index, which is much higher than the average level.

Ukraine is in Cluster 0 along with the underdeveloped countries, which results from its internal economic and institutional problems and a strong dependence of the processes of reproduction of economic relations and implementation of economic interests on unfavorable conditions and interrelations between the above macroeconomic indicators.

(ii) *Cluster 1* comprises the countries with a medium level of opportunities for the interaction and implementation of economic interests.

The distinguishing feature of this group of countries is the highest significance of the Gini coefficient (90.9%), Internet access (98.3%), price index (88%) and state expenditure on education (78.1%). That means that these countries feature a significant deviation of the income distribution from absolute equality, and the free access of economic entities to the Internet space has a significant impact on their interactions and implementation of their economic interests. These countries are also characterized by a high level of expenditure on education, which accordingly forms the basis for improving the labor quality. At the same time, inflation shows high significance in this cluster; it is lower than the mean level for the aggregate sample, but its high value indicates the need for the governments of these countries to carry out anti-inflationary policies. In addition, there is an evident significance of the GNIc and GEDI indicators, which is practically the same as the mean of these indicators calculated for all countries, but its value is low. Consequently, these countries, in comparison with other cluster groups, feature a low level of value added and an accordingly low level of tax revenues, which corresponds to the low entrepreneurial activity and requires improvements of the corresponding institutional parameters and conditions for economic activities. The level of foreign investment in these countries is slightly above the mean, which indicates the need for its expansion to enhance the interaction of economic interests in this group of countries.

Cluster 1 includes 29 countries, whose weight is 30.5% of the total sample size. The majority of them are the countries of the former socialist camp, which are now experiencing active market reforms and have problems associated with inflation and unemployment; here also belong the post-Soviet countries with a significant institutional "burden" of the previous system and significant governmental restrictions on the business start-ups and protection of property rights. However, the

"scenario" of economic relationships and interactions in these countries is similar, therefore they require changes in the above areas, although they meets many parameters of the average level of indicators, calculated on the basis of the dynamics in all the countries.

(iii) ***Cluster 2*** includes countries with a high level of opportunities for the interaction between economic entities and implementation of their economic interests. The distinguishing feature of this group of countries is the high significance level of absolutely all economic and institutional indicators (81.9% to 100%).. The inflow of foreign investment appears lower compared to other indicators, as the countries of this group are more focused on placement, rather than the attraction of capital. In Cluster 2, GNIc, GEDI, the number of Internet users, the total amount of tax revenues show a significant positive deviation from the overall average of all sample countries. At the same time, the level of inflation and the Gini coefficient are much lower than average.

Cluster 2 includes 21 countries with a weight of 22.1% in the total sample. These are highly developed countries according to the UN classification, which manifest a linear dependence between the growth of value added and entrepreneurial activity. These indicators show the high level of economic freedom and protection of property rights and interests, low economic and investment risks for business startups and implementation of economic interests, including investment. The level and dynamics of indicators in Cluster 2 countries testify to a predominantly intensive type of reproduction of economic relations and economic interests.

(iv) ***Cluster 3*** includes countries with a low level of opportunities for the interaction and implementation of economic interests.

The countries in Cluster 3 are characterized by a significant positive deviation from the average aggregate sample in a number of indicators such as the consumer price index (70.7% significance), the Gini coefficient (100% significance), and the government expenditure on education (99.9% significance). Thus, the significance of these indicators is very high. The high inflation rate together with an inequality in the income distribution and education expenditure reveals the social problems in the countries of this sample and ineffectiveness of government institutions. This last conclusion is confirmed by the GEDI (93.5% significance), which is well below the average for the aggregate sample, although at the same time its level is higher than in Cluster 0. The GNIc has similar dynamics; its significance is 98.2%, which indicats the position of this group of countries between Cluster 0 and Cluster 1, and at the same time the need for reforms to increase the rates of economic development by stimulating entrepreneurial activity and creating new jobs. In addition, these countries are characterized by a low inflow of FDI, due to unfavorable economic and investment climate and high inflation.

The Cluster 3 group includes 14 countries and has a sample weight of 14.7%. It consists of underdeveloped countries that have embarked on the path of economic reform, but their results are relatively poor.

CONCLUSIONS

Summing up the results of clustering the countries of the world by the level of opportunities for the reproduction of economic relations and implementation of economic interests, based on the economic and institutional conditions in each of them, we can draw the following conclusions. Firstly, for groups of countries with a very low and low level of opportunities for the implementation of economic interests (Clusters 0 and 3), including Ukraine, it is necessary to increase the level of entrepreneurial activity through an expansion of economic freedom and reduction of governing in the process of opening, closing, and running a business; it is also necessary to solve the problem of insecurity of interests and property rights through changes in the legal field, creating economic conditions for the development of a predominantly intensive type of reproduction of economic relations using innovation-investment levers. This should be accompanied by economic measures for overcoming inflation, creating an effective system of taxation, struggle against monopolization,

which in aggregate will increase the degree of interaction and implementation of economic interests in these countries.

Furthermore, the Cluster 3 countries need to apply measures for reduction of social inequalities, which result in the low standard of living and limited opportunities for implementing economic interests.

Secondly, for countries with an average level of opportunities for the reproduction of economic relations and implementation of economic interests (Cluster 1), it is important to expand production, create favorable conditions for economic activity of entities and stimulate entrepreneurship, including transformation of institutional conditions, reformation of the taxation system, creation of a favorable investment climate, and curbing inflation.

Thirdly, for countries with a high level of opportunities for the implementation of economic interests (Cluster 2), we recommend to further maintain the favorable economic, institutional and investment climate, freedom of economic activity and effective interaction of institutions with economic entities in the process of reproduction of economic relations.

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