Ensuring the sustainable of countries development at the intersection of K-waves through the regulation of the labor migration

Irina N. Grinko[1]

Sergii V. Voitko[2]

Abstract **The article analyses labor migration and its impact on key indicators that provide sustainable development of countries such as security of life component, quality of life component, index of sustainable development, harmonization degree, index of economic freedom, growth competitiveness index, unemployment rate, human development index. The evaluation of these indicators allowed identifying the causes that arise in the providing sustainable development of the states at the intersection of K-waves through the regulation of the labor migration. Recommendations on effective labor migration regulation at the international level to ensure sustainability of the top 10 countries, Bulgaria, and Ukraine at the intersection of K-waves grounded and proposed. The overall result of research and elaboration is further developed scientific and practical of the regulation of labor migration of these countries through a combination of institutional, organizational, economic, social, legal and other mechanisms for the effective regulation of labor migration to ensure the sustainable development of countries.**

Index Terms: **labor migration, migration process, sustainable development, K-waves, labor migration regulation.**

JEL: **Q01, F22, E32**

I. INTRODUCTION

Justification of the theoretical and methodological, organizational, informational resource bases of labor migration and its social consequences, development of practical recommendations to improve the efficiency of migration policy is the key to implementation the effective strategy of socio-economic development of any country at the intersection of K-waves. It is also characteristic for each region of the country. The problem is quite topical, because a significant influence on the ensuring the sustainable development at the intersection of K-waves causes deformation the quality parameters of the labor market, the lack of raising migration capital in the economy of any state, reducing economic security. The above is due to domestic and external migratory movements. Labor potential, increasing in the quality and safety of life, human development, improving economic competitiveness is a priority for ensuring the sustainable development at the intersection of K-waves.

---
[1] Irina Grinko and [2] Sergii Voitko are with a National technical university of Ukraine «Kyiv Polytechnic Institute», 37, Prospect Peremohy, 03056, Kyiv-56, Ukraine

The practical and theoretical aspects of the study of labor migration regulation to ensure sustainability of states development are examined in the scientific works by (Baranyk and Romanenko 2014; Bidak and Tsapok 2013; Bil 2014; Glushchenko 2010; Gorbacheva 2014; Gorbacheva 2013; Gumenyuk 2011; Gurgula 2013; Kostenko and Svitaylo 2009; Kudlak 2013; Kuriy 2012; Malinowska 2013; Trofimova 2010) and others. In addition, the works of scientists B. Ghosh, R. Eppleyarda, C. Castle, J. Simon, M. Toffler and others who have studied the specifics of state and regional labor migration should be mentioned. The problem of labor migration and its accordance with the current requirements in ensuring the sustainability of states development remains insufficiently studied. There is no general approach on labor migration for the sustainable development of the states at the intersection of K-waves in the academic studies.

II. PROBLEM

The objective of the article is to study the migration of top 10 countries, Bulgaria and Ukraine in order to identify problematic elements. This will allow suggesting ways of labor migration regulation to ensure sustainability of states development at the intersection of K-waves.

III. THE RESULTS OF THE STUDY

Labor migration has economic nature and should be researched at the level of countries sharing human resources and at the individual level (migrant and his human capital). The migration affects such basic indicators of the state as security of life component, quality of life component, index of sustainable development, harmonization degree, index of economic freedom, growth competitiveness index, unemployment rate, human development index and so on. In the study, we analyze the above indicators of the top 10 countries and compare them with indicators in Bulgaria and Ukraine. This will show problems in the ensuring of sustainable development of the states at the intersection of K-waves.

The results of analyze net migration in terms of security of life component and quality of life component are presented in Fig. 1. At the beginning of the study, we determined the average value for these indicators in selected countries. Average security of life component of the top 10

countries is 1.450; average value of quality of life component is 1.307. The countries like Iceland (1.608), Australia (1.605), Finland (1.561), Canada (1.545), Sweden (1.539), Luxembourg (1.539) and Denmark (1.483) should be marked. In these countries, security of life component exceeds the average value of the countries surveyed. Security of life component is less than the average value only in Switzerland (1.439), which is 0,225 more than in Ukraine (1.214) and 0.235 more than in Bulgaria (1.204).
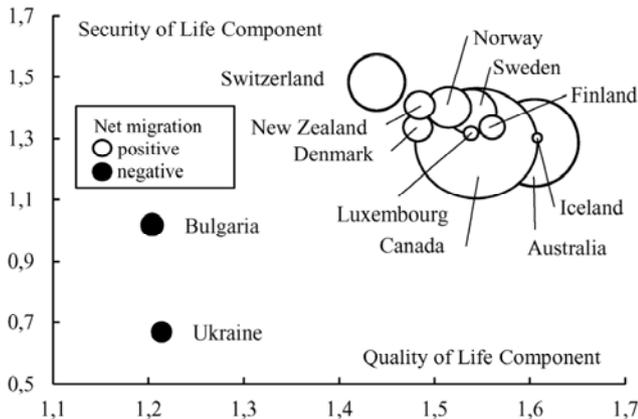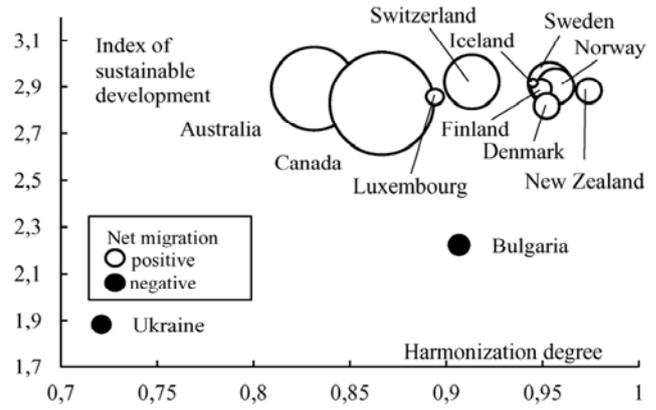

Source: World Bank; World Data Center

Fig. 1. The location of the states in the volume of net migration in terms of security of life component and quality of life component

Analysis of the quality of life component showed the following result: this index is only 0.669 in Ukraine and 1.019 in Bulgaria. This value is 0.681 (for Ukraine) and 0,331 (Bulgaria) less than the average value of the quality of life component (1.350) of the top 10 countries. Among the countries surveyed, a significant value of this indicator reached in Switzerland (1.483), New Zealand (1.399), Norway (1.389), Sweden (1.377). Quality of life component is lower than the average value in Canada (1.286) and Iceland (1.297).

The net migration affects indicators such as index of sustainable development and harmonization degree. Calculation results are presented graphically in Fig. 2.

We should note, that the average harmonization degree in the surveyed countries is 0.924, in Bulgaria this index reaches 0.907, while Ukraine it is 0.721. Average index of sustainable development of the countries surveyed is 2.881. In Ukraine, the index of sustainable development is only 1.882, in Bulgaria – 2.222. This is 1.04 and 0.7 less than in Switzerland where the index reaches its highest level – 2.922. After Switzerland in the top 10 countries should be mentioned Sweden (2.916), Iceland (2.906) and Norway (2.903), where sustainable development index exceeds 2.9 mark. Not much, but the index is lower in countries such as Australia (2.892), Finland (2.892), New Zealand (2.884), Luxembourg (2.852), Canada (2,830), Denmark (2.818).

Source: World Bank; World Data

Fig. 2. The location of the states in the volume of net migration in terms of index of sustainable development and harmonization degree

The net migration affects such important indicators of countries as growth competitiveness index and index of economic freedom. Interpretation of net migration in terms of the growth competitiveness index and index of economic freedom of the top 10 countries, Bulgaria and Ukraine are presented at Fig. 3.
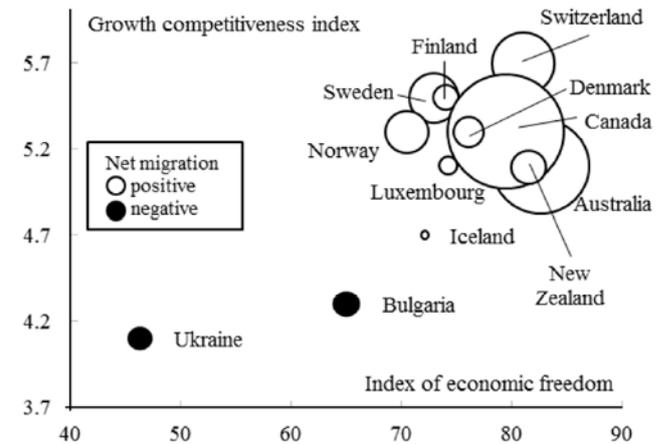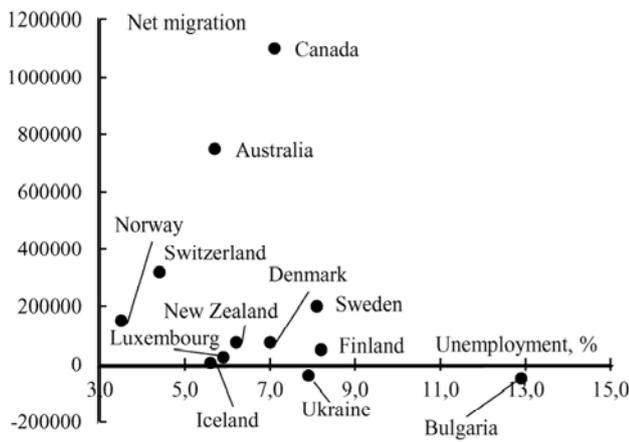

Source: World Bank; World Data Center

Fig. 3. The location of the states in the volume of net migration in terms of growth competitiveness index and index of economic freedom

The estimated average value of the growth competitiveness index in top 10 countries is 5.2, while the average index of economic freedom reaches 76.42. Growth competitiveness index is 1.1 in Ukraine (4.1) and 0.9 in Bulgaria (4.3) less than the average of the top 10 countries. The highest growth competitiveness index is in Switzerland – 5.7, Sweden – 5.5 Finland – 5.5. The smallest value of this index is in Iceland – 4.7 (which is 0.6 is more than in Ukraine and 0.4 more than in Bulgaria). As for the index of economic freedom, it should be noted that in Ukraine this figure is only 46.3, in Bulgaria – 65.0. It is 30.12 (for Ukraine) and 11.42 (Bulgaria) less than the average of top 10 countries. Highest level of this indicator reached by the following countries: Australia – 82.6, New Zealand – 81.4,

Switzerland – 81. Below average index of economic freedom is in Sweden (72.9) and Iceland (72.1).

The results of analyze net migration in terms of security of unemployment rate are presented in Fig. 4. It should be noted that in Canada migration is 1,099,999 people, which is the biggest value in relation to other countries in the top 10 and Bulgaria (-50,000) and Ukraine (-40,006 people), where this indicator has negative value. The average value of net migration in surveyed countries reached 275,102.7 migrants. The next countries after Canada with a significant amount of net migration are Australia (749,997 migrants), Switzerland (320,000 migrants), Norway (149 997 migrants) and Sweden (200,000 migrants). In the top 10 countries the lowest value of this indicator is in Iceland (5429 migrants), which has 10,945,570 migrants less than Canada.

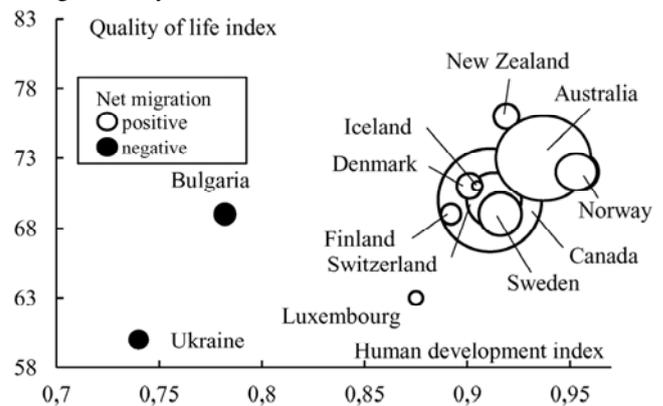*Source: World Bank; World Data Center*
Fig. 4. The location of the states in the volume of net migration in terms of unemployment rate

Graphic interpretation of relation between unemployment rate and net migration indicates that the unemployment rate in Ukraine is 7.9 %, which is 1,025 % more than the average value of this indicator (6.875 %). The unemployment rate in Bulgaria reached its highest level (12.9 %) in comparison with the other top 10 countries and Ukraine, which is 6.025 % more than the average value. In Finland, this figure reaches 8.2 %, which is the largest value comparing to other countries in the top 10. Out of the top 10 countries the lowest unemployment rate (depending on the volume of net migration) is in Norway – 3.2 % (4.4 % lower than in Ukraine and 9.7 % than in Bulgaria), Switzerland – 4.2 %, Luxembourg – 5.1 % of Australia – 5.2 %.

Analyzing the volume of net migration in terms of human development index and the quality of life index (Fig. 5) we should note that the highest rate of human development index is in Norway (0.955), which is 0.215 more than in Ukraine (0.74) and 0.173 more than in Bulgaria (0.782). Except Norway other countries in which the figure is higher than the average (0.913) should be mentioned: Australia (0.938); New Zealand (0.919); Sweden (0.916). Of the top 10 countries human development index is the least in Luxembourg (0.875), which is 0.08 less than in Norway.

To improve the indicators analyzed above and to provide sustainable development of the states at the intersection of

K-waves labor migration in the countries surveyed should be regulated by economic methods.

Source: World Bank; World Data Center
Fig. 5. The location of the states in the volume of net migration in terms of quality of life index and human development index

Considering the legal forms of employment of migrant workers (the existence of an employment contract) labor migration should consist of optimizing transaction costs in exchanging property rights for labor.

Optimizing the transaction costs is related to costs for obtaining information about the labor market in the country; measuring the quality of labor force and employment services; negotiation and conclusion of labor contracts; coordination of positions and actions of market agents of the country; observance of labor legislation. It should be noted that for the illegal migrant worker employment forms the focus should be on minimizing or distribution of transaction costs to create a possibility to hire a worker, which means to strengthen the state's role in implementing the worker's right to protect property for labor.

Implementation of the effective regulation of labor migration in ensuring the sustainability of development at the intersection of K-waves should be based on the elaboration of an effective mechanism of migration processes regulation and carrying out immigration controls to meet the requirements of national security and national demand for foreign labor.

Effective regulation of labor migration at the international level should include the interests of states, international organizations and international institutions, because their interaction creates a global system of regulation of international migration.

In surveyed top 10 countries, Ukraine and Bulgaria can be created a special interstate programs to stimulate the re-emigration of labor force; interstate training programs for re-emigrants; interstate programs of economic assistance (for example for a country with mass emigration) from other developed countries; programs for informational and financial support to re-emigrants; interstate first job programs for people educated on special programs in other countries; the procedure for recognition of non-formal education and skills of migrant workers; programs to support the further education of children of immigrants.

IV. CONCLUSION

For effective regulation of labor migration the migration policy of any state, including surveyed countries should include a system of legal, administrative, organizational and financial measures and information support for government and public associations. It will organize migration sphere, regulate migration of the population from the national priorities position, quantitative and qualitative composition of migration flows, their social, demographic and economic structure.

Scientific novelty of the results of research and presented elaboration are further developed scientific and practical bases of the regulation of labor migration through a combination of institutional, organizational, economic, social, legal and other mechanisms for the effective regulation of labor migration to ensure sustainability of states development at the intersection of K-waves.

Identifying priorities for reforms in migration policies of the top 10 countries, Bulgaria and Ukraine in terms of international cooperation for sustainable development of the national economy can be further researched.

REFERENCES

Baranyk, Z. & Romanenko, I. (2014). Migration as an object of statistical analysis. *Efficient Economy*, no. 6. http://www.economy.nayka.com.ua/?op=1&z=3096

Bidak, V. & Tsapok, S. (2013). Social Diagnostics of Territorial Migration Systems, *Regional Economy,* no. 67 (1), pp. 114–122.

Bil, M. (2014). Problems of the formation and development the infrastructure of regional migration systems, *Regional Economy*, no 2, pp. 66–73.

Gorbacheva, I. (2013). Trends in the international migration of labor force in the context of globalization, *Aspects of Labor,* no. 5. pp. 39–44.

Gorbacheva, I. (2014). Institutional regulators of external migration policy of Ukraine, *Aspects of Labor,* no. 4, pp. 46–51.

Glushchenko, G. (2010). The impact of international migration on the global socio-economic development, *International Economy*, no. 2, pp. 50–63.

Gumenyuk, Y. (2011). All-round balanced development and international migration of labour power: problems of mutual influence, *Industrial Economy,* no 2–3, pp. 295–306.

Gurgula, O. (2013). Migration situation in the Transcarpathian region in terms of socio-economic transformation of economy of Ukraine*, Aspects of Labor,* no 5, pp. 33–38.

Kudlak, V. (2013). Ukraine in the international labor migration system. *Sustainable Development of Economy,* no. 1, pp. 54–58.

Kuriy, L. (2012). The solution to the migration problems and in Ukraine and the development of human potential, *Strategic priorities*, no. 22, pp. 113–120.

Malinowska, O. (2013). Labour Migrants and their Contribution to the Socio-Economic Development of Ukraine*, Regional Economy,* no. 3, pp. 82–93.

Svitaylo, N. & Kostenko, A. (2009). Analysis of the current state of labor migration flows and directions of the state regulation, *The Economic Annals – XXI Journal*, no. 23-4, pp. 40–44.

Trofimova, O. (2010). The European Union as a center of international labor migration, *International Economy*, no. 2, pp. 64–73.

World Bank. Data & Research (online): http://data.worldbank.org/

World Data Center for Geoinformatics and Sustainable Development (online): http://wdc.org.ua/uk/data