RESEARCH OF THE LEVEL OF SOCIO-ECONOMIC DEVELOPMENT OF UKRAINIAN REGIONS

Досліджено процеси соціально-економічного розвитку регіонів України та запропоновано аналітичну схему ідентифікації стадії проблемності соціально-економічного розвитку регіонів країни. Обґрунтовано систему часткових показників та на її основі розраховані інтегральні та узагальнюючі показники економічного та соціального розвитку регіонів України. Запропоновано матрицю визначення проблемності регіонів України в площині соціально-економічного розвитку. Запропоновано критерії ідентифікації динамічності валового регіонального продукту регіонів країни та визначено її вплив на соціально-економічний розвиток регіонів України.

Ключові слова: соціально-економічний розвиток, доход на одну особу, валовий регіональний продукт, рівень безробіття, коефіцієнт міграції, проблемні регіони.

1. Introduction

Socio-economic development of Ukraine is based on the substantial positive changes in the regions. So, transition processes in Ukraine were differently marked on the development of its regions: some of them managed to mobilize their capacity and gradually adapt to difficult economic conditions, while the others, as before, are currently in the state of deep economic stagnation, which has led to an increase in regional inequality.

To crown it all, taking into account the complexity of modern processes of Ukrainian regions' socio-economic development, the total assessment of determination of Ukrainian regions' levels of socio-economic development is required.

2. The object of research and its technological audit

The object of research is the process of spatial socio-economic development of Ukrainian regions. The subject of research is theoretical and methodological support for the study of the differentiation of socio-economic development of regions in the spatial economy of Ukraine.

3. The aim and objectives of research

The aim of research implies prompting the research results of determination the problem concerning consolidated assessment of socio-economic development of Ukrainian regions.

For the achievement of the aim it is necessary to decide the row of tasks:

1. The concept of spatial socio-economic development of regions of Ukraine is developed.
2. The structurally-logical scheme of estimation of factors of economic growth of regions is constructed.
3. The methodical approach to identifying the stage of the problem of socio-economic development of the country's regions is substantiated.

4. The system of concepts that describe the differentiation of socio-economic development of regions in the spatial economy of the country is defined.

4. Research of existing solutions of the problem

Modern processes of socio-economic development of Ukrainian regions are complex and poorly defined and therefore require detailed analysis to determine the factors of their irregularity.

In the scientific economic literature there are three main approaches to the survey of socio-economic processes, which are based on: modeling, analytical schemes or a combination of both directions together [1–3]. Each of the above-mentioned approaches has certain advantages and disadvantages, which are thoroughly analyzed in the work [4]. Basing on the work it can be defined that the first stage of this study will use the approach of analytic schemes.

Analysis of a number of studies [5–11], which studied the processes of the regions' socio-economic development, allows offering a certain identification stage of problematic concerning the country's regions socio-economic development.

Thus, works [5, 6] are grounded for modeling socio-economic development of countries and their regions on the basis of the allocation of central and peripheral territories.

The authors of the work [7] investigated the factors of endogenous regional growth taking into account the context of modern problems for the achievement of steady development of regions.

In their research the authors of the work [8] define the criteria and indicators of the typology of the development of the regional economic space in the context of the formation of a network economy using a structural approach to the analysis of economic co-operations in a region.

The priority role of the state in providing of economic growth was emphasized [9, 10].

Theoretical and practical structural development models suggest that differences in regional development are the
result of their linear transition from one stage, reflecting the processes of socio-economic transformation, to another [1].

At the same time, justification of the actual approach to determining the level of socio-economic development of the regions of the country requires in-depth development, which determines the relevance of this article.

5. Methods of research

The methodology of the article is based on the theories and concepts of socio-economic and spatial development of the regions. Obtaining scientific results was based on the use of such methods and techniques:

- analysis and synthesis, logical construction – to substantiate hypotheses of the concept of spatial socio-economic development of Ukrainian regions;
- matrix approach – to identify problem regions in the area of their socio-economic development;
- scaling and economic comparative – to estimate the dynamics of economic growth in the regions;
- formalization and structural decomposition – to structure factors of economic growth of regions;
- content analysis – to construct a classification of the socio-economic status of the regions of the country and determine the sequence of growth of the problem of their socio-economic development, as well as to clarify the essence of the concepts that describe the differentiation of socio-economic development of regions in the spatial economy of the country.

6. Research results

Analytical framework for assessment the stage of problematic concerning socio-economic development of the regions is given in Fig. 1. One of the main indicators determining the economic development level of the country regions is GDP per person. Fig. 2 shows the distribution of Ukrainian regions on this indicator in 2014.

As can be judged from Fig. 2, the leader in the country in terms of GRP per person is Kyiv city – 109402 UAH. Which is far ahead of the second region in the range namely Dnipropetrov'sk region – 46333 UAH. The following areas are Kyiv region – 39988 UAH, Poltava region – 39622 UAH, Donetsk region – 37830 UAH and Kharkiv region – 31128 UAH. Outsiders of GRP per person in the country are Chernivtsi – 15154 UAH, Ternopil – 16819 UAH, Rivne – 19003 UAH and Kherson – 19311 UAH.
The biggest increasing of the GRP indicator per person to the average rate in Ukraine in 2014 in comparison with 2002 was detected in Kyiv region – 26.4 %, Dnipropetrovsk region – 17.4 %, Donetsk region – 13.8 % and Poltava region – 12.0 %. Meanwhile decrease of the GRP indicator was present in Sumy region – 23.3 %, Zaporizhzhya – 18.0 %, Rivne region – 15.1 % and Odesa region – 15.0 %.

While scientists characterize the economic development of the regions by one indicator – the GRP indicator per person, several indicators characterize the social development. Thus, the analysis of some works \[5, 11\] gives an opportunity to offer the following set: the income per capita, the unemployment rate and migration coefficient.

According to the rate of income per capita Ukrainian regions in 2014 were distributed as follows (Fig. 3).

As can be judged from Fig. 3 the leader in terms of the income rate per person in the country is Kyiv city – 65672.8 UAH, which is far ahead of the second value of Dnipropetrovsk region – 33352.1 UAH.

At the following places are Zaporizhzhya region – 31106.2 UAH, Kyiv region – 29361.5 UAH, Kharkiv region – 27516.7 and Poltava region – 26998.5 UAH. Outsiders by income per person in the country are Zakarpattia region – 17789.7 UAH, Chernivtsi region – 18984.8 UAH, Ternopil region – 19273.0 and Luhansk region – 19920.6.

The unemployment rate of Ukrainian regions' population in 2014 was as follows (Fig. 4).

![Fig. 3. Diagram of Ukrainian regions distribution according to income per person in 2014](image1)

![Fig. 4. Diagram of Ukrainian regions distribution according to unemployment rate in 2014](image2)
Subject to Fig. 4, the leaders of unemployment rate in the country are Kyiv city – 6.7 %, Odesa – 6.7 % and Kharkiv region – 7.8 %, while the outsiders are Zhytomyr – 11.5 %, Poltava – 11.5 % and Luhansk – 11.4 % regions.

According to migration coefficient Ukrainian regions in 2014 were distributed as follows (Fig. 5).

As can be judged from Fig. 5, the biggest positive migration coefficient has Kyiv region – 6.4 %, Kyiv city – 6.0 % and Kharkiv region – 3.0 %, while the negative migration coefficient has Luhansk region (–3.6 %) and Donetsk region (–2.5 %).

The results of integral estimation of Ukrainian regions’ social development index ($I_C$), which is offered in work [5], are described in Fig. 6.

According to Fig. 6, Kyiv city (1.0) is significantly ahead of other regions of the country subject to the integral indicator of social development. Kyiv region is in the second place – 0.6346, it is followed by Odesa region – 0.5065, Kharkiv region – 0.4338 and Dnipropetrovsk region – 0.3725.

It should be stressed that the above mentioned indicators of Ukrainian regions social and economic development have different nature and have no threshold which could identify their problematic, and the need for state support.

Pursuant to Fig. 1, the second stage involves assessment of the homogeneity of the socio-economic space of Ukraine. For this purpose, the coefficient of variation is employed [11].

\[ \text{Fig. 5. Diagram of Ukrainian regions distribution according to migration coefficient} \]

\[ \text{Fig. 6. Diagram of Ukrainian regions distribution subject to the integral indicator of social development in 2014} \]
The GRP indicator in Ukraine had the following dynamism in 2002–2014 (Fig. 7).

During the period analyzed coefficient of variation in terms of disposable income per person tended to increase to 177.6 % from 15.6 % in 2002 and to 27.7 % in 2014 (Fig. 8).

According to the scale provided in Table 1, the social space of Ukraine in terms of disposable income per person remains uniform, despite significant growth.

The coefficient of variation in terms of unemployment rate of the population in Ukrainian regions decreased from 21.1 % in 2002 to 16.8 % in 2014 or to 20.4 % (Fig. 9).

According to the scale provided in Table 1, the social space of Ukraine in terms of unemployment rate remains uniform.

The coefficient of variation in terms of integral indicator of social development increased from 43.2 % in 2002 to 75.5 % in 2014 or to 174.4 % (Fig. 10).

In terms of disposable income per person Ukrainian regions’ distribution in the social area had a right-sided asymmetry that indicates the presence of combination of a great number of them with a value which is less than the national average. At the same time within the analyzed period their number increased (Fig. 12).

According to the unemployment rate the distribution of Ukrainian regions in the social area had a slight left-sided asymmetry, which indicates that they are symmetrically distributed relative to the average value in the country (Fig. 13).

In terms of the integral indicator of social development Ukrainian regions had a right-sided asymmetry in the social area that indicates the presence of combination of a great number of them with a value which is less than the national average.
of a great number of them with a value which is less than the national average. At the same time within the analyzed period their number increased (Fig. 14).

Pursuant to threshold, the matrix consists of 9 quadrants, characterizing the following condition of the country’s regions: socially and economically unproblematic ($H_{S} - H_{E}$), of the average social problematic, but economically unproblematic ($H_{S} - A_{E}$) socially unproblematic, but of the average economic unproblematic ($A_{S} - H_{E}$), of the average social and economic problematic ($A_{S} - A_{E}$), socially unproblematical, but of the high economic problematic ($L_{S} - H_{E}$), of the high social problematic, but economically unproblematical ($H_{S} - L_{E}$), of the average social problematic but of the high economic problematic ($L_{S} - A_{E}$), of the high social problematic but of the average economic problematic ($A_{S} - H_{E}$), of the high social and economic problematic ($H_{S} - H_{E}$).

Subject to the calculations, Ukrainian regions in 2002 and 2014 were distributed in the matrix quadrants in the plane of their socio-economic development in the following way (Fig. 16).

Basing on the work [12–14] the following criteria for identification of types of economic growth dynamics (changes in GRP) of the country’s regions are offered (Table 2).

Pursuant to criteria (Table 2), the regions with advanced growth of GRP are: Dnipropetrovsk, Kyiv, Poltava and Cherkasy regions; with catching-up growth – Zhytomyr, Ivano-Frankivsk, Kirivograd, Lviv, Kharkiv regions and Kyiv; with lagging growth – Vinnytsia, Volyn, Donetsk, Zakarpattia, Zaporizhzhya, Luhansk, Mykolaiv, Odesa, Rivne, Ternopil, Kherson, Khmelnytsky and Chernihiv regions (Table 3).

Subject to Table 3, the dynamic growth of GRP during 2002–2014 allowed the following regions: Dnipropetrovsk, Kharkiv regions and Kyiv city to hold high positions in terms of socio-economic development, while the others: Ivano-Frankivsk and Lviv regions to increase it. At the same time, low dynamics of GRP in the analyzed period led to the deterioration of socio-economic development level of a number of regions: Vinnytsia, Volyn, Donetsk, Mykolaiv, Odesa and Chernihiv.

According to the coefficient of variation in terms of the rate of GRP change the economic space of Ukraine is a homogeneous (Fig. 17).

In scientific literature and the practice of management such concepts as «troubled», «depressed» and others were used to characterize the unsatisfactory level of social and economic development of the regions [15–25].

Table 4 provides some of the definitions of these concepts.

![Fig. 12. The dynamics of asymmetry coefficient of disposable income per person in Ukrainian regions in 2002–2014](image1)

![Fig. 13. The dynamics of asymmetry coefficient of Ukrainian regions population’s unemployment rate in 2002–2014](image2)

![Fig. 14. The dynamics of asymmetry coefficient of Ukrainian regions of integral indicator in social development in 2002–2014](image3)

![Fig. 15. The matrix of determination of Ukrainian regions’ problematic in the plane of their socio-economic development](image4)
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Fig. 16. Distribution of Ukrainian regions in the matrix quadrants in the plane of their socio-economic problematic in 2002 and 2014

Table 2

| Region's dynamics of economy | Criteria |
|------------------------------|----------|
| Advanced (A)                | $\Delta GRP > 1.0$, $\Delta GRP_{av}$ — the dynamics of the GRP of the region; $\Delta GRP_{av}$ — the average value of the dynamics in the regions which have the value of this indicator higher than the national average |
| Catching-up (C)             | $\Delta GRP \leq \Delta GRP_{av} < GRP_{int}$. $\Delta GRP_{av}$ — the average value of the GRP dynamics in the regions of the country |
| Lagging (L)                 | $\Delta GRP < 1.0$ |
| Degrading (D)               | $\Delta GRP < 0$ |

The influence of the GRP dynamics type on the problematic of Ukrainian regions of socio-economic development in 2002–2014

Table 3

| Region                          | 2002 | 2002–2014 | 2014 |
|---------------------------------|------|-----------|------|
|                                | $I_e - I_c$ | $\Delta GRP$ | $I_e - I_c$ | Quadrant | Rank | % | Rank | Cluster | Quadrant | Rank | The direction of change |
| Vinnitsa                        | 2    | 3         | 4     | 5     | 6     | 7    | 8     | Li       | Li       | 9     | ↓    |
| Volyn                           | 7    | 7         | 783.1 | 17    | L     | Li   | Li   | 9        | ↓        |
| Dnipropetrovsk                 | 4    | 1016.5    | A     | A     | A     | A    | A    | A        | →        |
| Donetsk                         | 2    | 806.3     | L     | 14    | L     | Li   | Li   | 4        | ↓        |
| Zhytomyr                       | 9    | 884.1     | L     | 8     | L     | Li   | Li   | 9        | →        |
### Table 3 (Continued)

| Region           | $A_t - A_{t-1}$ | $B_h - B_{h-1}$ | $C_t - C_{t-1}$ | $D_t - D_{t-1}$ | $E_t - E_{t-1}$ | $F_t - F_{t-1}$ |
|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Zakarpattia     | 9               | 18              | L               | $A_t - A_{t-1}$ | 19              | $A_t - A_{t-1}$ |
| Zaporizhzhya    | 4               | 23              | L               | $A_t - A_{t-1}$ | 4               | $A_t - A_{t-1}$ |
| Ivano-Frankivsk  | 9               | 9               | C               | $A_t - A_{t-1}$ | 7               | $A_t - A_{t-1}$ |
| Kyiv            | 2               | 1               | A               | $A_t - A_{t-1}$ | 2               | $A_t - A_{t-1}$ |
| Kherson         | 9               | 6               | C               | $A_t - A_{t-1}$ | 9               | $A_t - A_{t-1}$ |
| Luhansk         | 9               | 11              | L               | $A_t - A_{t-1}$ | 7               | $A_t - A_{t-1}$ |
| Lviv            | 9               | 7               | C               | $A_t - A_{t-1}$ | 5               | $A_t - A_{t-1}$ |
| Mykolaiv        | 8               | 16              | L               | $A_t - A_{t-1}$ | 9               | $A_t - A_{t-1}$ |
| Odessa          | 4               | 20              | L               | $A_t - A_{t-1}$ | 5               | $A_t - A_{t-1}$ |
| Poltava         | 4               | 4               | A               | $A_t - A_{t-1}$ | 8               | $A_t - A_{t-1}$ |
| Rivne           | 9               | 25              | L               | $A_t - A_{t-1}$ | 9               | $A_t - A_{t-1}$ |
| Sumy            | 9               | 22              | L               | $A_t - A_{t-1}$ | 9               | $A_t - A_{t-1}$ |
| Ternopil        | 9               | 12              | L               | $A_t - A_{t-1}$ | 9               | $A_t - A_{t-1}$ |
| Kharkiv         | 4               | 10              | C               | $A_t - A_{t-1}$ | 4               | $A_t - A_{t-1}$ |
| Kherson         | 9               | 19              | L               | $A_t - A_{t-1}$ | 9               | $A_t - A_{t-1}$ |
| Khmelnyts'ky    | 9               | 15              | L               | $A_t - A_{t-1}$ | 9               | $A_t - A_{t-1}$ |
| Chernivts'yi    | 7               | 2               | A               | $A_t - A_{t-1}$ | 9               | $A_t - A_{t-1}$ |
| Chernihiv       | 7               | 13              | L               | $A_t - A_{t-1}$ | 9               | $A_t - A_{t-1}$ |
| Kyiv city       | 1               | 5               | C               | $A_t - A_{t-1}$ | 1               | $A_t - A_{t-1}$ |

![Fig. 17. The coefficient of variation in terms of rate of GRP changes indicator in Ukrainian regions in 2002–2014](image-url)
The essence of the concepts that characterize the problematic of socio-economic development of the state’s regions in the scientific literature

| Author/ Source     | Definition of the concept                                                                 |
|-------------------|------------------------------------------------------------------------------------------|
| Perroux F. [8]    | Problematic area – the area that isn’t able to solve their socio-economic problems or realize their highest potential and therefore requires active support from the state |
| Machihina A. V. [19] | Problematic regions are crisis, retarded, depressed and border regions of the North. The primary characteristics of these regions are: a low living standard of the population, lack of investment, labour shortage, ethnic conflicts, outdated production |
| Tolchinskaya M. N. [20] | Problematic region – the territory possessing during a long period of time low economic potential, the development of production and investment activity, living standard of the population, a high unemployment rate compared to the average rate in the country |
| Novikova A. [21] | Depressive areas – industrialized areas, the crisis state of which is a manifestation of the structural crisis of the economy and the uneven development of industrial production in terms of industry sectors and regions of Ukraine |
| Yaroshenko I. V. [22] | Depressive regions are those in which economic growth is absent or is not significant |
| Klimov A. A. [23] | Depressed regions are characterized by the processes in the economy that are in stagnation, social tensions and with low level of entrepreneurial activity, regardless of their geopolitical location |
| Capello R. [11]  | Underdeveloped regions – areas with the lowest indicators of the magnitude of special production, highly specialized economic and mainly raw materials or agricultural orientation |
| Yaroshenko I. V. [22] | Underdeveloped regions are those that have low economic level and unfavorable structure of the economy |
| Ivanov Yu. B., Oleynik A. D. [24] | Underdeveloped regions are problem regions, which have a low level of economic activity, low level of diversification of the sectoral structure of the industry, a significant lag behind other regions in terms of accumulated production potential, weak scientific and technical potential, relatively weak infrastructure areas (including transport), underdeveloped social services |
| Keretman V. Yu. [25] | Crisis regions – the regions in which the systemic crisis is causing irreversible social and political strain |
| Yaroshenko I. V. [22] | Crisis regions are those regions in which economic growth is absent or negligible |
| Tolchinskaya M. N. [20] | Crisis regions differ in the extreme nature of economic, socio-political and eco-natural processes |

In [19] there are main approaches segregated to determine the types of regions’ development, by virtue of which the following scheme of the formation of the concept of «problematic regions» is offered (Fig. 18).

Basing on the above-mentioned statement, one can offer the following classification scheme of socio-economic state of the country’s regions (Fig. 19).

On the basis of the concepts determination provided in Table 4, which were classified in Fig. 19, the growth of problematic of regions’ socio-economic development is as follows: depressive → underdeveloped → crisis.

In this case, the scale of determining the stage of problematic of regions’ socio-economic development will be as follows (Table 5).

Pursuant to the scale, provided in Table 5, Ukrainian regions are at the following stages of the problematic of socio-economic development (Table 6).

As can be judged from Table 6, 4 regions in Ukraine (16 % of the total number) are unproblematic, 2 (8 %) – depressive, 6 (24 %) – underdeveloped, 13 (52 %) – crisis.

Unproblematic regions have high or average level of economic and social unproblematic (\(1[B_{t} - B_{t-1}] - \frac{1}{2}[C_{t} - B_{t-1}] - 2[C_{t} - C_{t-1}]\) ) and advanced or choking-up dynamics of growth (2BP2HIP).
Determination scale of the stage of the problematic of regions’ socio-economic development

| Stage of problematic | Level of problematic | Dynamics of growth |
|----------------------|----------------------|--------------------|
| Unproblematic        | $H_{L_e} - H_{L_w}$  | A                  |
|                      | $A_{L_e} - H_{L_w}$  | C                  |
|                      | $H_{L_e} - A_{L_w}$  |                    |
|                      | $A_{L_e} - A_{L_w}$  |                    |
| Depressive           | $H_{L_e} - H_{L_w}$  | L                  |
|                      | $A_{L_e} - H_{L_w}$  | D                  |
|                      | $H_{L_e} - A_{L_w}$  |                    |
|                      | $A_{L_e} - A_{L_w}$  |                    |
| Problematic          | $L_{L_e} - H_{L_w}$  | A                  |
|                      | $H_{L_e} - L_{L_w}$  | C                  |
|                      | $L_{L_e} - A_{L_w}$  | L                  |
|                      | $A_{L_e} - A_{L_w}$  | D                  |
| Crisis               | $L_{L_e} - L_{L_w}$  | A                  |
|                      | $C_{L_e} - C_{L_w}$  | C                  |
|                      | $L_{L_e} - L_{L_w}$  | D                  |

Identification of Ukrainian regions in terms of the stage of problematic of socio-economic development in 2014

| Region             | Level of problematic in 2002 | Dynamics of growth in 2002–2014 | Level of problematic in 2014 | Stage of problematic |
|--------------------|------------------------------|----------------------------------|-----------------------------|---------------------|
| Kyiv (city)        | $H_{L_e} - L_{L_w}$          | C                               | $H_{L_e} - L_{L_w}$          | Unproblematic       |
| Kyiv               | $A_{L_e} - L_{L_w}$          | A                               | $A_{L_e} - H_{L_w}$          | Unproblematic       |
| Dnipropetrovsk     | $A_{L_e} - A_{L_w}$          | A                               | $A_{L_e} - A_{L_w}$          | Unproblematic       |
| Donetesk           | $A_{L_e} - H_{L_w}$          | L                               | $A_{L_e} - A_{L_w}$          | Unproblematic       |
| Zaporizhzhya      | $A_{L_e} - A_{L_w}$          | L                               | $A_{L_e} - A_{L_w}$          | Unproblematic       |
| Kharkiv           | $A_{L_e} - A_{L_w}$          | C                               | $A_{L_e} - A_{L_w}$          | Unproblematic       |
| Lviv              | $L_{L_e} - L_{L_w}$          | C                               | $L_{L_e} - H_{L_w}$          | Underdeveloped      |
| Odesa             | $A_{L_e} - A_{L_w}$          | L                               | $A_{L_e} - L_{L_w}$          | Underdeveloped      |
| Ivano-Frankiviv    | $L_{L_e} - L_{L_w}$          | C                               | $L_{L_e} - A_{L_w}$          | Underdeveloped      |
| Luhansk           | $L_{L_e} - L_{L_w}$          | L                               | $L_{L_e} - A_{L_w}$          | Underdeveloped      |
| Chernihiv         | $L_{L_e} - A_{L_w}$          | L                               | $L_{L_e} - A_{L_w}$          | Underdeveloped      |
| Poltava           | $A_{L_e} - A_{L_w}$          | L                               | $A_{L_e} - L_{L_w}$          | Underdeveloped      |
| Vinnytsya         | $L_{L_e} - A_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Volyn             | $L_{L_e} - A_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Zhytomyr         | $L_{L_e} - L_{L_w}$          | C                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Zakarpattia       | $L_{L_e} - L_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Kirovograd        | $L_{L_e} - L_{L_w}$          | C                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Mykolayiv         | $A_{L_e} - L_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Rivne             | $L_{L_e} - L_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Sumy              | $L_{L_e} - L_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Terrupil          | $L_{L_e} - L_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Rivne             | $L_{L_e} - L_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Khmelnytak        | $L_{L_e} - L_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Cherkasy          | $L_{L_e} - A_{L_w}$          | A                               | $L_{L_e} - L_{L_w}$          | Crisis              |
| Chernivtsi        | $L_{L_e} - L_{L_w}$          | L                               | $L_{L_e} - L_{L_w}$          | Crisis              |

Depressive regions are characterized by the average level of economic and social problematic $[2(C_{L_e} - C_{L_w})]$ and lagging dynamics of growth (2BC).

Underdeveloped regions have the average or high level of economic problematic and low, average or high level of social problematic $[2(H_{L_e} - B_{L_e}) - 3(H_{L_e} - C_{L_e}) - 1(H_{L_e} - H_{L_e})]$ and lagging, choking-up or advanced dynamics of growth (1BP2HP3BC).

Crisis regions are characterized by low level of economic and social problematic $[13(H_{L_e} - H_{L_e})]$ and lagging, choking-up or advanced dynamics of growth (1BP2HP10BC).

7. SWOT analysis of research results

Strengths. The proposed operational model for studying the differentiation of the country’s socio-economic space has allowed the regions of Ukraine to be positioned in the context of their socio-economic development.

Weaknesses. The uncertainty of the exhausted list of factors of influence on regional competitiveness at the macro, meso and local level, as well as the innovative activity of business entities operating in the region.

Opportunities. Forming of instruments of state support of equalization of social and economic development of Ukrainian regions. The state policy of regional development should be implemented in relevant strategies, programs, projects and plans that must be developed taking into account insufficient efficiency of traditional instruments of smoothing of regional development such as transfers. It is advisable to carry out continuous monitoring of indicators of economic and social development of regions, to track and timely adjust its differentiation. Thus, application of the offered instruments is able to decrease the socio-economic unevenness of regional development in the economic space of Ukraine, which is of particular importance during the strengthening of foreign policy challenges and the aggravation of the threat to the integrity of the country.

Threats. The imperfection of the existing spatio-territorial, state and tax-budget systems significantly reduces the level of socio-economic development of certain regions.

8. Conclusions

1. The processes of socio-economic development of Ukrainian regions is researched and the analytical scheme of identification stage of the regions’ problematic of socio-economic development is offered. The scheme includes areas such as the formation of private and integrated indicators of economic and social development, assessment of the dynamics and asymmetry of regional development,
the identification stage of the regions’ problematic of socio-economic development based on the method of scaling.

2. The system of fractional indicators is justified and on its basis the integral and generalizing indicators of economic and social development of the regions of Ukraine are calculated. The leaders in the integral indicator of social development in 2014 were Kyiv city, Kiev, Odesa, Kharkiv, Dnipropetrovsk and Zaporizhzhia regions. The leaders for the general indicator of economic development in 2014 were Kyiv city, Dnipropetrovsk, Kiev, Poltava, Donetsk and Kharkiv regions.

It is proved in the work that asymmetry, indicating the formation and consolidation of the trends of the uneven socio-economic development of Ukrainian regions is inherent to the indicators that characterize the economic and social development of Ukrainian regions.

3. Methodical provisions on the positioning of Ukrainian regions in the plane of their socio-economic development is developed. The following states of the regions of the country are identified: socially and economically unproblematic; socially unproblematic, but of the average economic problematic; of medium and high social and economic problematic etc.

It was proved that some regions of Ukraine, namely Ivano-Frankivsk, Lugansk, Lviv, Chernivtsi, managed to improve their position in the matrix of socio-economic development assessment during the studied period.

4. The classification of socio-economic state of the country’s regions is refined and the sequence of growth of socio-economic development problematic can be as follows: depressive – underdeveloped – crisis. On this basis the scale of determining the stage of problematic of socio-economic development of the country’s regions is justified.

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1. Introduction

Seaports play an important role in the development of the East Coast region of the Baltic Sea. In the mid-90s of the 20th century, the ports of Latvia, Lithuania and Estonia played a key role in transshipment of goods. For 20 years, after the construction of a number of ports in the Leningrad region, the volume of cargo turnover in the designated region has grown 4.5 times, and transshipment in six Russian ports has grown 24 times, while in the Baltic States it has approximately doubled. Politicians of both sides often use rhetoric that undermines interstate economic relations. However, the positive dynamics of the world turnover of sea cargoes allows to look at the future of all ports with optimism.

2. The object of research and its technological audit

The object of scientific research is the performance of the ports of the East Coast of the Baltic Sea, as well as data on the development of economies in the Baltic States.