New Approaches to Modernization of Spatial and Sectorial Development of Russian and Greek Regional Economy

Elena G. Popkova¹, Ekaterina A. Popova², Irina P. Denisova³ and Elena V. Porollo⁴

Abstract:

The purpose of the article is to develop new highly-effective organizational and managerial approaches to conduct of modernization of spatial and sectorial development of regional economy of Russia and Greece. During conduct of the research, the authors use such scientific methods as systemic structural and comparative analysis. The authors determine the level of differentiation of the level and structure of economic development of regions of Russia and Greece in 2012 through consideration of indicators of GRP per capita of regions and GDP, as well as gross added value for regions and sectors of production.

During the research, the authors come to the conclusion that modern Russia and Greece are peculiar for presence of serious disproportions in the level of economic development of regions, which is a reason for unbalanced development of economic systems of these countries, slowdown of rates of national economic growth, and crisis. This situation is caused by orientation at the use of geographical approach. As alternative, the authors offer three new approaches to modernization of spatial and sectorial development of regional economy of Russia and Greece: cluster, client-oriented, and anti-crisis and substantiate expediency of transition to their application. These approaches allow overcoming the aforementioned drawbacks and ensure well-balanced development of regional economy in the long-term, as well as its high sustainability and quick overcoming of economic crises.

For provision of high effectiveness of the process of selecting the optimal approach to modernization of spatial and sectorial development of regional economy by territorial authorities, it is offered to use the corresponding proprietary algorithm of modernization of spatial and sectorial development of regional economy.

Key Words: modernization, regional economy, spatial development, sectorial development, Greece, Russia.

JEL Classification Codes: O1, R11.

¹ Volgograd State Technical University, Volgograd, Russian Federation; 210471@mail.ru
² Professor, Doctor of Economics, Department of State and Municipal Management, Russian Presidential Academy of National Economy and Public Administration, Moscow, Russia
³ Ph.D., Professor, Department of Finance, Rostov State University of Economics, Rostov-on-Don, Russian Federation; denis8663@lmail.ru
⁴ Ph.D., Professor, Department of Finance, Rostov State University of Economics, Rostov-on-Don, Russian Federation
1. Introduction

At the beginning of the 21st century, highly integrated global economy faced new challenges of economic globalization. One of them is emergence of global crises, which, on the one hand, having started in one economic system, penetrate the related systems, i.e., have universal character, but, on the other hand, require the use of own specific approach to overcoming their consequences in each separate economy.

The recent global financial crisis showed that only structurally balanced economic systems are capable to quickly overcome the global depression, while the countries with high differentiation of the level of development of regions face the problem of slow overcoming of the crisis due to the necessary for bringing their inhomogeneous structural components down to common indicators. Due to this, topicality of study of peculiarities and mechanisms of stimulation of regional economy development grows.

The authors of this research offer the hypothesis that modern Russia and Greece are peculiar for substantial disproportions in development of regional economy, which is a reason for unbalanced development of economic systems of these countries, slowdown of rates of national economic growth, and long crisis. Overcoming of these disproportions and quick restoration after economic recession requires modernization of spatial and sectorial development of regional economy of Russia and Greece and development of new highly-effective organizational & managerial approaches.

2. Theoretical, Informational and Empirical, and Methodological Grounds of the Research

Spatial development of regional economy is a process of selection of optimal territory for enterprise placement. The subject of management of such development is entrepreneurial structures, and tools are the market mechanism which provides certain signals for getting profit from entrepreneurial activities. Fundamental foundations of spatial development of regional economy are given in studies of (Scholl, 2016; Melnyk et al., 2016; Fang and Ying, 2016; Dzhandzhugazova et al., 2015 and Kravets et al., 2014).

Sectorial development of regional economy is selection of optimal spheres for development on the region’s territory. The subject of management of such development is regional authorities, and the tool – regulation of sectorial systems with the help of restraining or stimulating mechanisms. Development of the concept of sectorial development of regional economy is viewed in works by (Nordbeck and Steurer, 2016; Calof, 2016; Manganelli and Popov, 2016; Popkova et al., 2013 and Skiter et al., 2015).

Based on the study of materials of latest publications on the topic of the research, it
is possible to conclude that main attention is paid to theoretical aspects of spatial and sectorial development of regional economy. Practical components of most articles on this topic are brought down to analysis of statistical information and problem setting (substantiation of necessity) of modernization of regional development without preparation of specific recommendations, which causes necessity for further development of this topic with emphasis on its applied component.

During the research, the authors use such scientific methods as systemic structural and comparative analysis. With their help, they determine the level of differentiation of the level and structure of economic development of regions of Russia and Greece in 2012 through GRP per capita and GDP, as well as gross added value for the regions and sectors of production.

3. Results

Let us view ratio of GRP per capita of various regions of Russia and Greece as the main economic indicator of regional development. For that, let us use statistical data collected in Table 1.

**Table 1. Ratio of GRP per capita and GDP of Russia and Greece in 2012**

<table>
<thead>
<tr>
<th>Region</th>
<th>Russia</th>
<th>Greece</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgorod Oblast</td>
<td>98.08%</td>
<td>Attica</td>
</tr>
<tr>
<td>Bryansk Oblast</td>
<td>47.54%</td>
<td>South Aegean</td>
</tr>
<tr>
<td>Vladimir Oblast</td>
<td>57.63%</td>
<td>Mainland Greece</td>
</tr>
<tr>
<td>Voronezh Oblast</td>
<td>69.19%</td>
<td>Crete</td>
</tr>
<tr>
<td>Ivanovo Oblast</td>
<td>40.06%</td>
<td>Peloponnesus</td>
</tr>
<tr>
<td>Kaluga Oblast</td>
<td>77.57%</td>
<td>Western Macedonia</td>
</tr>
<tr>
<td>Kostroma Oblast</td>
<td>57.82%</td>
<td>Ionian islands</td>
</tr>
<tr>
<td>Kursk Oblast</td>
<td>64.63%</td>
<td>Central Macedonia</td>
</tr>
<tr>
<td>Lipetsk Oblast</td>
<td>72.03%</td>
<td>Thessaly</td>
</tr>
<tr>
<td>Moscow Oblast</td>
<td>95.59%</td>
<td>Epirus</td>
</tr>
<tr>
<td>Orel Oblast</td>
<td>56.56%</td>
<td>Northern Aegean</td>
</tr>
<tr>
<td>Ryazan Oblast</td>
<td>64.80%</td>
<td>Eastern Macedonia &amp; Thrace</td>
</tr>
<tr>
<td>Smolensk Oblast</td>
<td>61.69%</td>
<td>Western Greece</td>
</tr>
</tbody>
</table>

*Source:* (Poccman, 2015); (Caraveli and Tsonis, 2012).

As is seen from Table 1, modern Russia and Greece are peculiar for serious disproportions in the level of economic development of regions. The reason for existing situation is orientation at the use of geographic approach to conduct of spatial and sectorial development of regional economy of Russia and Greece. The sense of this approach consists in the fact that geographical conditions (possibility and potential) of the region are the basis for its development. The result of the use of
this approach is high specificity of spatial and sectorial development of regional economy. This is confirmed and proved by regional sectorial statistics of Russia and Greece (Table 2).

**Table 2. Gross added value for regions and sectors of production of Russia and Greece in 2012, % of gross added value of the country**

<table>
<thead>
<tr>
<th>Region</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Region</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgorod Oblast</td>
<td>0.34</td>
<td>0.31</td>
<td>0.40</td>
<td>Eastern Macedonia &amp; Thrace</td>
<td>8.4</td>
<td>4.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Bryansk Oblast</td>
<td>0.03</td>
<td>0.11</td>
<td>0.27</td>
<td>Central Macedonia</td>
<td>20.3</td>
<td>17.0</td>
<td>12.7</td>
</tr>
<tr>
<td>Vladimir Oblast</td>
<td>0.03</td>
<td>0.23</td>
<td>0.31</td>
<td>Western Macedonia</td>
<td>4.0</td>
<td>4.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Voronezh Oblast</td>
<td>0.16</td>
<td>0.29</td>
<td>0.67</td>
<td>Thessaly</td>
<td>11.9</td>
<td>6.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Ivanovo Oblast</td>
<td>0.01</td>
<td>0.09</td>
<td>0.19</td>
<td>Epirus</td>
<td>4.7</td>
<td>2.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Kaluga Oblast</td>
<td>0.04</td>
<td>0.25</td>
<td>0.25</td>
<td>Ionian islands</td>
<td>1.6</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Kostroma Oblast</td>
<td>0.02</td>
<td>0.10</td>
<td>0.14</td>
<td>Western Greece</td>
<td>11.2</td>
<td>5.1</td>
<td>3.8</td>
</tr>
<tr>
<td>Kursk Oblast</td>
<td>0.14</td>
<td>0.16</td>
<td>0.21</td>
<td>Mainland Greece (Sterea Ellada)</td>
<td>9.6</td>
<td>10.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Lipetsk Oblast</td>
<td>0.06</td>
<td>0.28</td>
<td>0.24</td>
<td>Peloponnesus</td>
<td>9.4</td>
<td>7.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Moscow Oblast</td>
<td>0.10</td>
<td>1.50</td>
<td>3.12</td>
<td>Attica</td>
<td>4.9</td>
<td>34.4</td>
<td>55.0</td>
</tr>
<tr>
<td>Orel Oblast</td>
<td>0.04</td>
<td>0.09</td>
<td>0.18</td>
<td>North Aegean</td>
<td>2.2</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Ryazan Oblast</td>
<td>0.04</td>
<td>0.19</td>
<td>0.28</td>
<td>South Aegean</td>
<td>2.0</td>
<td>2.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Smolensk Oblast</td>
<td>0.03</td>
<td>0.16</td>
<td>0.23</td>
<td>Crete</td>
<td>9.8</td>
<td>3.9</td>
<td>4.9</td>
</tr>
<tr>
<td>Total for the country</td>
<td>15,2</td>
<td>28,1</td>
<td>56,7</td>
<td>Total for the country</td>
<td>3.7</td>
<td>19.0</td>
<td>77.3</td>
</tr>
</tbody>
</table>

**Source:** (Rosstat, 2015); (Caraveli and Tsionas, 2012).

As is seen in Table 2, in both studied countries there is substantial scatter in intensity of development of economic sectors at the regions’ level. The logic of enterprises placement and development of spheres of regional economy consists in orientation at geographical factor. That is, selection of targeted territories for creation of business by entrepreneurial structures and targeted spheres for stimulation and development by regional authorities is predetermined by interests of proximity to natural resources for the purpose of reduction of production costs.

An advantage of geographical approach to conduct of spatial and sectorial development of regional economy of Russia and Greece is high resource effectiveness and use of territories’ natural potential. At that, it possesses a whole range of significant drawbacks, among which are excessive development of regions with favorable combination of geographical factors and hopeless underrun of regions that are unfavorable in geographical aspect, difficulties in products sales due to orientation at previous links of the added value chain against the following, etc.

As an alternative for geographical approach, this work offers three new approaches to modernization of spatial and sectorial development of regional economy of Russia and Greece: cluster, client-oriented, and anti-crisis. They allow overcoming these
drawbacks and ensure well-balanced development of regional economy in the long-term, as well as its high sustainability and quick overcoming of economic crises, which is shown by data of Table 3.

**Table 3. Comparative analysis of existing and offered approaches to modernization of spatial and sectorial development of regional economy**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Approach to development of regional economy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Geographical</td>
</tr>
<tr>
<td>Criterion of territory selection for enterprise placement</td>
<td>proximity to natural resources</td>
</tr>
<tr>
<td>Targeted optimized business process</td>
<td>production (as mechanical process of labor)</td>
</tr>
<tr>
<td>Criterion of selection of spheres for region’s development</td>
<td>geographical factor (region’s possibilities)</td>
</tr>
<tr>
<td>Advantages</td>
<td>resource effectiveness</td>
</tr>
<tr>
<td>Drawbacks</td>
<td>difficulties in sales</td>
</tr>
</tbody>
</table>

As is seen from Table 3, the key difference of the offered approaches from the existing geographical approach is that the main criterion of selection of spheres for region’s development is not the region’s possibilities but its needs and interests of development, which allows leveling inter-regional difference in the level of economic development. However, the offered approaches have their drawbacks, so it is important to take them into account and combine approaches for successful achievement of the goals of regional development. Let us view peculiarities of application of these approaches.

Cluster approach is oriented at production, like innovational process of technology development. Within this approach, a criterion for selection of territory for enterprise placement is sectorial concentration of enterprises and proximity to R&D centers. It ensures high innovational activity but supposes rather high complexity of management due to founding on integration mechanism.

Client-oriented approach is aimed at saving on the scale. The logic of business placement consists in achievement of maximal proximity to clients – i.e., the best possibilities for products sales. This approach focuses on marketing in the sphere of
sales. Its main drawback is complication of production due to potential remoteness from cheap raw materials and resources.

Anti-crisis approach supposes orientation at demand for business in the region as a criterion for selection of territory for enterprise placement. Its core is marketing in the sphere of promotion. It stimulates achievement of sustainable development of business and regional economy on the whole, but possibilities of state regulation within this approach are limited due to founding on corporate responsibility.

For provision of high effectiveness of selection of optimal approach to modernization of spatial and sectorial development of regional economy by territorial authorities, this work offers to use the corresponding algorithm presented in Fig. 1.

**Figure 1. Algorithm of modernization of spatial and sectorial development of regional economy**

As is seen from Figure 1, if geographical conditions in the region are favorable and stimulate its spatial and sectorial development, it is expedient to use geographical approach, as in this case its advantages are maximized, and drawbacks are leveled. Otherwise, it is necessary to determine the level of development of market relations (competition level) in the region.

If the level is low, it is necessary to focus on state management of spatial and sectorial development of regional economy and use cluster approach with emphasis on state stimulation of cluster initiatives in entrepreneurship. If competition is
developed, it is important to evaluate the level of corporate responsibility in the region.

If the region’s enterprises are characterized by high level of corporate responsibility, and consumers – by high level of consciousness, it is possible to use anti-crisis approach, otherwise – client-oriented approach. In both cases, emphasis is made on creation of favorable conditions for action of market mechanism, which allows achieving high results with minimal state expenses.

4. Conclusions and recommendations

Thus, the authors’ hypothesis was proved – modern Russia and Greece are peculiar for structural imbalance of regional economy, overcoming of which is stimulated by the offered authors’ recommendations and developed organizational and managerial approaches to conduct of modernization of spatial and sectorial development of regional economy.

It should be concluded that the offered approaches possess high scientific and practical significance and width of application – they are not limited by Russian or Greek regional economy and could be applied in any countries with similar problems. However, a certain limitation of the results of the conducted research is generalized character of the authors’ recommendations. Further perspectives of development of the concept of well-balanced development of regional economy are related to development of detailed strategies of modernization of spatial and sectorial development of regional economy, adapted to specific conditions of targeted countries.

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