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BALANCE PARAMETERS OF REGIONAL STRATEGY FOR THE SOCIAL AND ECONOMIC DEVELOPMENT

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Abstract

The article deals with the balance parameters of the regional strategy for the development of the social and economic system of the North Caucasus Federal District. An analysis of positioning of the southern Russian regions by the level of competitiveness was conducted. This requires an assessment of the balanced development of both the North Caucasus Federal District as a whole and its regions in order not to destroy the economic systems of the regions. Currently, there are several approaches to assessing the harmony, balance of ongoing and expected changes in the regional socio-economic systems. The balance of changes in the economy of the southern regions was assessed. Conclusions about the compilation nature of applied mechanisms of changes were formulated. Thus, the following general conclusions can be drawn for individual indicators of the induced development of the region. Conclusions on the individual indicators of the induced development of regions were drawn.

Keywords: Economic balance, regional planning, strategic plan, North Caucasus, social development

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1. Introduction

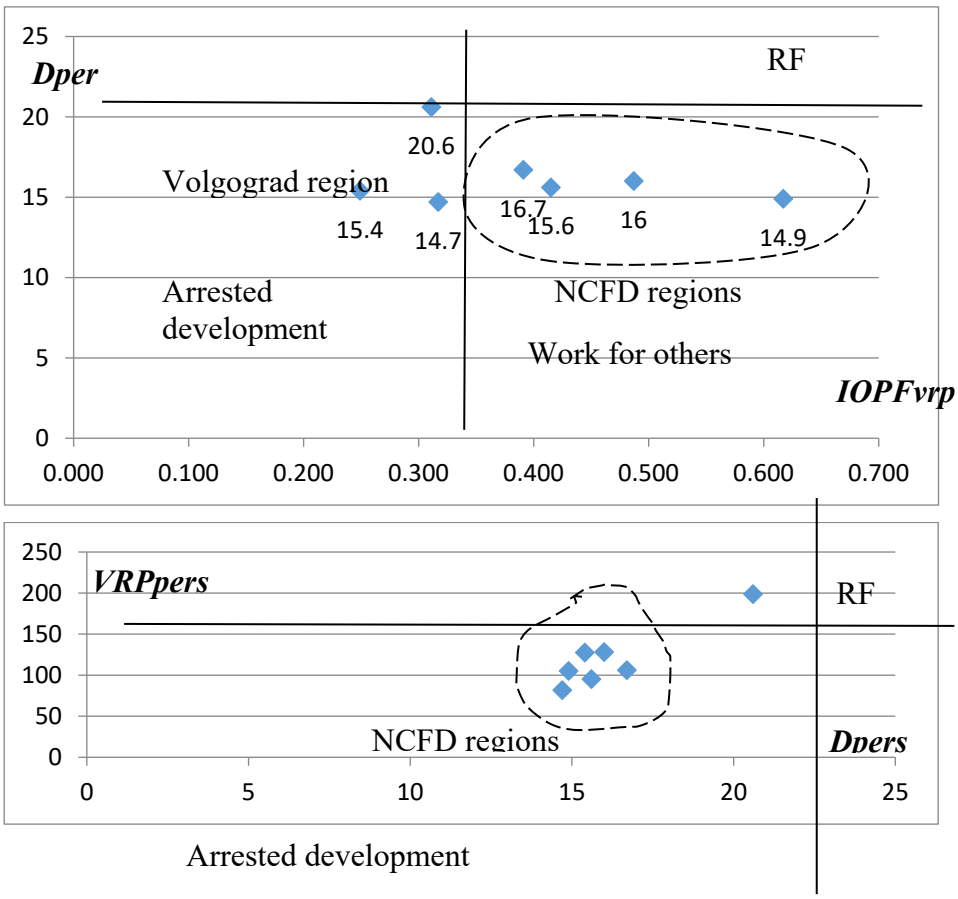
The creation of the North Caucasus Federal District has brought into focus the problems of its territories – regions of the Russian Federation with a low level of economic development. The creation of a new district can bring significant benefits for the formation of balanced mechanisms for managing the development of regions, since the new district integrates regions that have common problems. At the same time, Stavropol region stands out from other regions, since it has a higher level of economic development. Stavropol region may be self-sufficient, but together with subsidized and depressed regions, it may become a donor for them, which will slow down the already low rates of its development in comparison with the average Russian rate.

This requires an assessment of the balanced development of both the North Caucasus Federal District as a whole and its regions in order not to destroy the economic systems of the regions. Currently, there are several approaches to assessing the harmony, balance of ongoing and expected changes in the regional socio-economic systems.

2. Problem Statement

2.1. Positioning of regions by the level of competitiveness

According to the methodology proposed in (Thompson, 1998) the regions were positioned by the level of the most significant competitiveness indicators (Figure 01) (Troitskaya, 2017).



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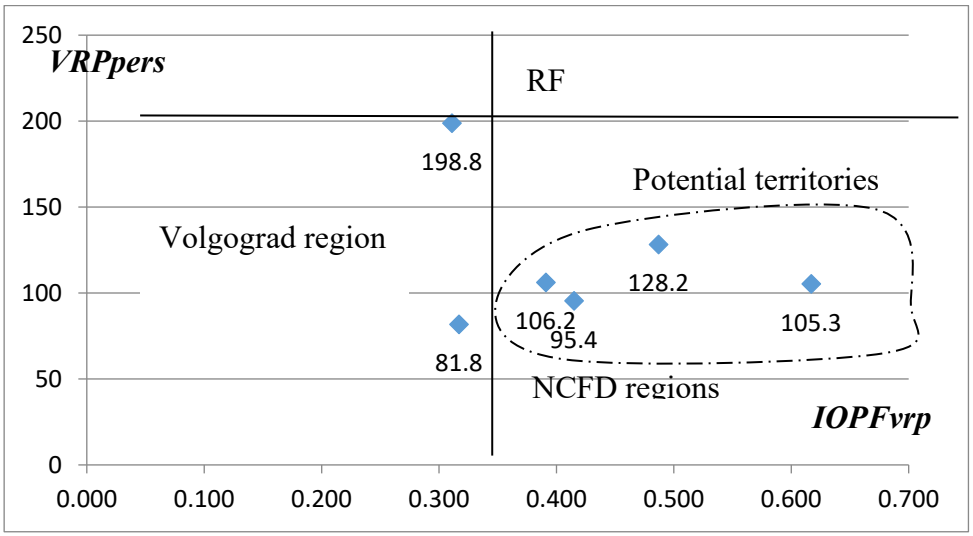

Designations	
Investment activities	***IOPFvrp***
Living standards	***Dpers***
Resource efficiency	***VRPpers***

Note: the average Russian indicators form the coordinate axes and quadrants of the matrix

Figure 1. Positioning of the southern regions of the Russian Federation by the level of competitiveness

3. Research Questions

An analysis showed that the indicators in all regions of the North Caucasus Federal District are lagging behind in development in comparison with the average Russian indicators. The positions of Stavropol region relative to the average level in the Southern Federal District (until 2018) are weak. The edge in all matrices falls into the “Arrested development” quadrant (Figure 02) (Turevsky, 2006, 2010; Turusin, 2003).

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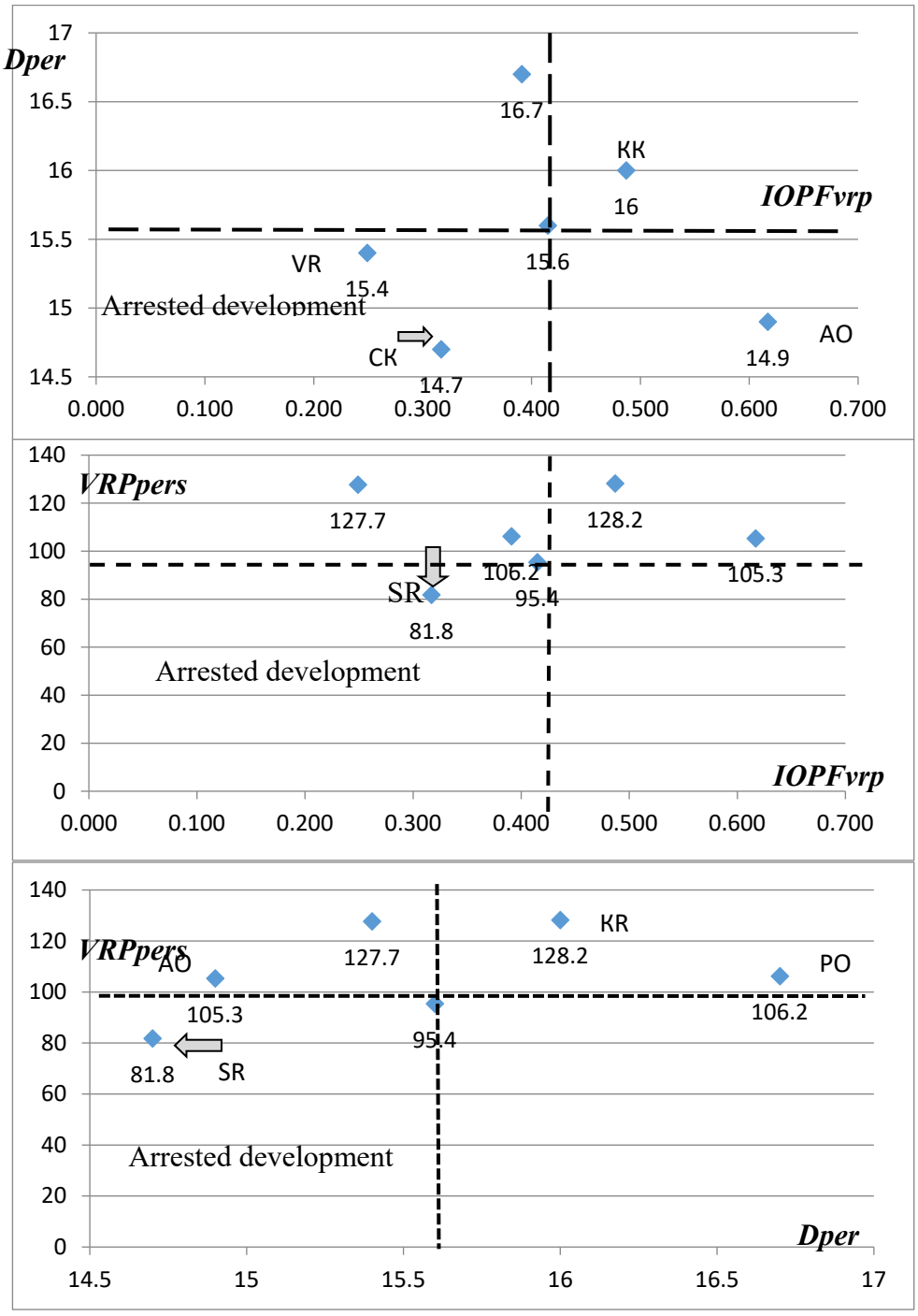

Figure 2. Positioning of Stavropol Region (SR) among the regions of the South of the Russian Federation by the level of competitiveness

4. Purpose of the Study

A number of factors of the socio-economic development of Stavropol region convincingly demonstrate that it has competitive advantages, but the resource potential is far from being fully implemented. Little attention is paid to the balanced development, as a result of which development

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management seems to be more like “patching holes” than the stable and coordinated activities of all subsystems of the regional system.

We have made an attempt to show the need to assess the balance of development when making managerial decisions at various levels.

In analyzing the balance, consistency of various socio-economic phenomena, it is necessary to resort to conditional estimates using ranks, and the relationship between individual features using nonparametric connection coefficients.

5. Research Methods

From our point of view, it is advisable to use this approach to assess the balance of regional development.

Ranking is an ordering procedure that is performed on a preference basis. The rank is an ordinal number of values arranged in an ascending or descending order. If the values are similar, the rank of all these values is assumed to be equal to the arithmetic mean of the corresponding numbers of places that they determine. These ranks are coherent (President of the RF, 1996; Tyaglov, 2013; Tykkulainen, 2008; Ulitsky, 2015).

6. Findings

Among the nonparametric methods for assessing the closeness of relationship, the Spearman' (*Rs*) and Kendall's (*Rk*) rank coefficients are of great importance. These coefficients can be used to determine the closeness of relationship between both the quantitative and qualitative characteristics.

The rank correlation coefficient (Spearman’s coefficient) is calculated by formula

$$Rs = 1 - (6\sum d^2_i) / (n(n^2 - 1)), \quad (1)$$

where d^2 – rank difference squares;

n is the number of observations (the number of pairs of ranks).

The Spearman's coefficient takes any values in the range of [–1; 1].

The Kendall's rank correlation coefficient (*Rk*) can be used to measure the existing relationship between the qualitative and quantitative indicators that characterize homogeneous objects, ranked according to any one principle. The Kendall's rank coefficient is determined by formula

$$Rk = 2S / (n^*(n-)), \quad (2)$$

where n is the number of observations;

S is the sum of deviations of the number of sequences from the number of inversions by the main feature.

This coefficient is calculated in the following sequence:

- The X values are ranked in an ascending or descending order;
- The Y values are ordered according to the X values;
- For each rank Y, the number of subsequent ranks that exceed its value is determined (this is the number of sequences). They are summed up and the value of P is determined as an assessment

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of the correspondence of the existing sequences of ranks in X and Y; it is taken into account with a (+) sign;

- For each rank Y, the number of subsequent rank values that are less than its value is determined. The total value is designated with Q and fixed with (–);

The sum of points for all members of the series is determined.

Typically, the Kendall's coefficient is less than the Spearman's coefficient. With a sufficiently significant volume of observations, the values of these coefficients have the following relationship: the relationship between the signs is recognized as statistically significant, and the series of changes are consistent if the values of the Spearman' and Kendall's rank correlation coefficients are close to or greater than 0.5.

The balanced development of the regional economy depends on how balanced the changes in the national economy are. In this regard, it is necessary to assess the level of balance of the dynamics of the economic system of the Russian Federation using the following indicators:

- GDP (GRP) dynamics,
- real money income index,
- dynamics of investment in fixed assets,
- retail turnover index,
- index of the physical volume of industrial production,
- agricultural production index.

The following values of the Spearman' and Kendall's coefficients were obtained (table 01) (Uskova, 2010a, 2010b; Wallace, 2010; Waterman, 1988).

Table 1. Assessment of the balance of changes in the economy of the Russian Federation

Indicator	Year											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Spearman's coefficient	–0.143	0.750	0.179	0.536	0.393	0.286	*0.429*	*0.464*	*0.429*	–0.214	0.341	0.427
Kendall's coefficient	–0.095	0.619	0.143	0.429	0.333	0.238	*0.333*	*0.333*	*0.238*	–0.143	0.115	0.221

An analysis showed that the most balanced changes took place in 2016 (the Spearman' and Kendall's coefficients were more than 0.5); harmonious changes were in 2018 (the coefficients were about 0.5); close to this value is the assessment of changes that took place in 2015 and 2018 (the Spearman's coefficient was about 0.5) (Table 01).

The economy of the best region of the North Caucasus Federal District, Stavropol region, developed less balanced than in the Russian Federation as a whole; therefore, the mechanism for managing changes was not focused on the proclaimed priorities (innovative and social dominants) and was not balanced. Only in 2016 and 2017, one of the Spearman's coefficient showed a certain, albeit low, degree of balanced development (Table 02) (Utkin, 2012).

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Table 2. Assessment of the balance of changes in the economy of Stavropol region

Indicator	Year											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Spearman's coefficient	0.000	0.250	–0.357	0.071	0.321	–0.286	0.071	0.429	0.393	–0.321	0.280	0.417
Kendall's coefficient	0.048	0.238	–0.143	0.095	0.238	–0.143	0.048	0.333	0.238	–0.238	0.156	0.320

The rank coefficients can be used to measure and evaluate the relationship between both the quantitative and qualitative features.

In most regions of the Russian Federation, the leading factors of regional development are still financial assistance from the federal budget, natural resources, large energy and mining enterprises.

One of the few regions of the Russian Federation that relies on the favorable investment climate is Stavropol.

Calculation of the degree of balanced development of Stavropol showed that the estimated development indicators are not balanced (Table 03).

Table 3. Assessment of the balanced development of SR according to the main perspective indicators established in program documents

Indicator	Year	
	2015	2018
Spearman's coefficient	–0.4291	0.2863
Kendall's coefficient	–0.3332	0.2384

The following data indicate the imbalance in the induced development of the region:

1) the documents provide for the growth rate of GRP less than the growth of real investment in fixed assets;

2) the growth rate of monetary income has a value that does not exceed inflationary expectations, which indicates a deterioration of the living standards.

The results of the analysis of strategic regional development documents showed that there are shortcomings in the existing mechanisms. The strategies, concepts, plans and programs for the development of the region are not based on the conclusions of a comprehensive study of internal patterns and processes, initial conditions and prerequisites for the strategic development of regions. The combined influence of internal and external factors is not taken into account.

The documents regulating the development of the southern regions do not always have a system of quantitatively characterized goals; the choice of a development option is not based on a set of regional criteria and priorities. In addition, the strategies do not have a "municipal profile" and are not coordinated with similar municipal programs. There are no strategic programs for the growth and development of human potential, assessment of management activities of the government bodies; the priority of certain areas of development has not been determined. There are other weaknesses in the mechanisms for the development of the regions, including the declarative nature of programs and strategies.

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The low balance and efficiency of the mechanism for managing the development of the regions of the North Caucasus Federal District, its incompliance with the modern requirements of the theory of balanced development require further improvement of the strategic management mechanism in the southern regions of the Russian Federation (Faye, 2004).

7. Conclusion

The conclusion about the compilation nature of modern mechanisms used for making changes in the southern regions which are the basis for innovative, socially-oriented, marketing, and investment development was drawn. These mechanisms are not coordinated with each other, which makes the management process inefficient.

It is necessary to activate the marketing mechanisms for the development of the region, ensuring the growth of the regional economy, balanced with its needs.

It was revealed that the dynamics of economic processes in Russian regions, the mechanisms of development of their financial and economic bases oppose the principles of balanced development. The "selfish" model of behavior is used in the regions. Intensive use of natural resources or subsidies from the federal budget are sometimes the only sources of budge revenues.

Over the past 20 years, with an increase in the level of motorization by 250 %, an increase in the length of paved roads was only 63 %, i.e. the growth rates of the first one significantly outstrip the growth of the second one, which confirms the revealed imbalance in the development of the transport industry of the Russian Federation. According to experts, the losses of the Russian Federation caused by the underdevelopment and low traffic capacity of the road network amount to 3 % of GDP, which is six times higher than in the EU countries. The shortage and low-quality highways slow down the transition to an innovative model of the development.

Thus, the following general conclusions can be drawn for individual indicators of the induced development of the region: there is a wide range of issues and problems that arise in the regions, especially when implementing the priority projects:

- inconsistency of the federal and regional legislations, untimely provision of adopted laws with bylaws;
- the lack of specific responsibilities for regional government bodies, local government bodies when implementing priority programs and projects;
- Insufficient funding from the federal budget for the priority projects;
- inconsistency between the three levels of government when implementing important projects;
- the lack of a single federal coordination center for implementing federal and regional projects, including the lack of an accessible and convenient knowledge base on federal projects, the best experience accumulated when creating individual subsystems;
- the insufficient level of independent expert assessment of regional projects, cost and timing of their development or implementation in the regions;
- the lack of a mechanism for replicating the best regional solutions in other regions of Russia;
- the lack of information support, special projects that improve the loyalty of socially significant groups to the priority projects;

- insufficient involvement of civil servants in the creation and implementation of innovations in the field of public administration;
- the lack of developments to determine new balanced development criteria.

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