

# Structural Analysis and Criteria for Assessment of State Economic Policy

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## Abstract

Public responsibility for the content and results of the economic policy implementation at the federal and regional levels is determined by its capacity to manage the structure of national (regional) economy both in accordance with the institutional characteristics of economic relations typical for the corresponding territory, and with trends at the level of global and local interests and agreements. For the purpose of monitoring the results of the regional executive bodies' activities, the authors present best practices in improving the methods of structural and rank analysis of the subjects of the Russian Federation allowing the correct estimation of the results of the territorial development and, accordingly, the quality of the implemented structural economic policy.

**Keywords:** economic development, structural analysis, typology of the economy, industrialization, service economy.

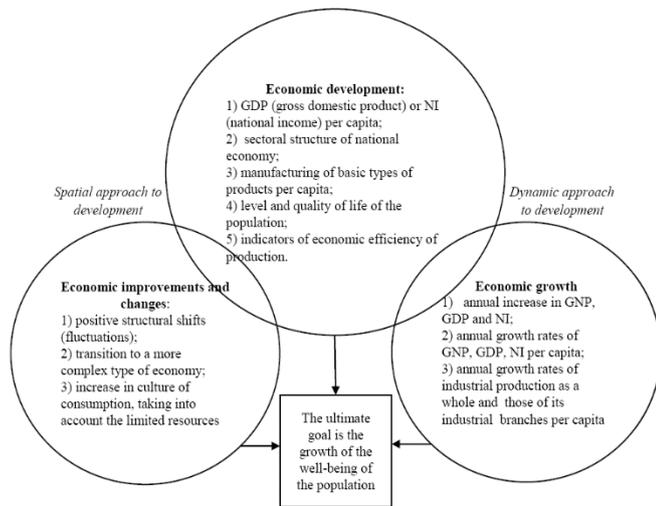
## INTRODUCTION

Public economic policy is traditionally referred to as a set of measures developed and realized within the system of public executive authority to ensure the implementation of those economic decisions that are relevant to socially significant goals of macroeconomic stability (inflation, unemployment rate, etc.) as well as to qualitative Economic Growth and development. This interpretation requires from the authors of the paper:

- firstly, to clarify the content of the concepts of "Economic Growth" and "Economic Development," as they determine the choice of criteria for assessing the public economic policy implemented at the level of the constituent entities (subjects) of the Russian Federation ensuring sustainable Economic Growth and Development of the territories;
- secondly, to refer to the content of the theory of the three-sector economy by Fisher-Clark, on the basis of which combined with application of the author's methodology of structural analysis with subsequent ranging and ranking of the territories we have worked out the most appropriate typology of actual economic systems.

## ECONOMIC GROWTH AND ECONOMIC DEVELOPMENT: DEFINITION AND TYPES

When referring to traditional economic, mathematical, philosophical, interdisciplinary interpretations of the notions of "Economic Growth" and "Economic Development," we observe multi-polar approaches. Furthermore, whichever variant was selected as the basis for the content of the government's economic policy targets, quantitative indicators remain similar, even traditional in the modern practice of assessing and comparing territories of any scale (Fig. 1).



**Figure 1:** Indicators of Economic Growth and Economic Development in the modern practice of quantitative measurement at the macro level

Another classification of definitions of strategic growth is based on the characteristics of theories of endogenous and exogenous growth with a characteristic of those factors that affect the growth rates of the economy.

Table 1 presents the result of systematization of the most popular approaches to determining Economic Growth in Russian and international research practices both dynamic and spatial, regional perspectives.

The textbook by R.M. Nureyev "Economics of development: models of the formation of a market economy" [1] and the scientific work of Russian and foreign scholars exploring the question of interpretation and measurement of Economic Growth and Economic Development have been taken as the basis for the compilation of this table.

**Table 1.** Result of the systematization of approaches to determining Economic Growth in Russian and foreign scientific thought

Source	Characteristics of Economic Growth
Keynesian (and neo-Keynesian) models of Economic Growth (dynamical perspective) (J. Keynes, R. Harrod, E. Domar, G. Singer, R. Prebisch, H. Leibenstein, R. Nurks, B. Knalla, P. Rosenshtein-Rodan)	The main factor of Economic Growth is considered to be investment rate multiplying and expanding profit or itself caused by growth of profits (under the influence of the accelerator). Other production factors such as increase in employment, utilization of equipment, improvement of production organization are not taken into account and are excluded from the model.
Neoclassical theories of Economic Growth based on the production function (dynamical perspective) (J. Borts, H. Siebert, R. Solow, T. Swann, G. Mankew, D. Romer, A. Wale, R. Barro, H. Sala, Martin, R. Hall and C. Jones)	General content: - factors increasing the production potential of the economy of the regions include quantity and quality of natural resources, total number and qualification of labor resources, capital reserves and level of technological development. Therefore, the growth of the economy in the regions is determined by the availability of these factors of production, and economic level is achieved through interregional movement of factors. In this sense, the growth of the national economy is viewed as the result of an efficient distribution of factors of production, hence, income between regions through instruments of the spontaneous market.
Theories of Cumulative Growth synthesizing neo-Keynesian, institutional, economic and geographical models (spatial perspective) (G. Myrdal, A. Hrishman, F. Perru, H. Richardson, J. Friedman, T. Hegerstrand, Zh.R. Budvil P. Potier, H.R. Lasuen, H. Hirsch)	General content: - the spatial factors of Economic Growth include specialization or territorial division of labor, transport costs, mobility of factors of production, agglomeration of production and factors of its expansion, innovations, new features and channels for their spread, localization associated with immobility of factors of production and individual characteristics of the regions. - theory of cumulative development brings to the forefront such processes that once started, create the conditions for subsequent development and ensure the final result considerably superior to the initial impulse.
<i>Other contemporary theories and definitions (by Russian and international researchers)</i>	
The concept of Innovative Waves by J. Schumpeter [2]	The main drivers of Economic Growth are inventions as well as innovations occurring when inventions appear on the market in the

	form of new products or processes; Innovations create a demand for investment capital and fill it with life and value, without them it is sterile.
Theory of long waves in economy by N.D. Kondratiev	Large waves can be regarded as a violation of the long-term economic equilibrium. Their main cause lies in the mechanism of concentration, accumulation and dispersion of capital, sufficient to create new basic productive forces. However, the effect of this primary cause is enhanced by the action of secondary factors.
B.D. Babaev, S.P. Dubrovsky, Economic Growth: an expanded interpretation. Quality of Economic Growth // Economics of education. 2015. № 1. P. 33-38. [3]	Social product contributes to Economic Growth while public welfare ensures Economic Development. In this vein, it is also proposed to treat Economic Growth as an intermediate goal, and Economic Development as a certain ultimate goal for the progressive development of the society.
E.G. Andreeva, A.N. Sukhova, Economic Growth. Models of Economic Growth // Omsk Scientific Bulletin. 2011. № 6 (102). Pp. 46-50. [4]	Economic Growth is quantitative and qualitative improvement of social product for a certain period of time. It is expressed in increasing national production, growth of national and regional economic potentials.
N.G. Mencyu, Principles of Economics. - St. Petersburg: "Peter", 2006, pp. 390-406. [5]	Economic Growth is not only a quantitative change in the volume of production, but also the perfection of the product and factors of production. A fast, a zero or even a negative Economic Growth does not always indicate rapid Economic Development, stagnation or economic degradation. Economic Growth remains the most widely used measure of Economic Development.
Theory of Long-Term Socio-Economic Development associated with the change of technological structures by D.S. Lvov and S.Yu. Glazyev. Theory of technological breakthroughs by K. Perez and K. Freeman	Technological mode (wave, change of technical and economic paradigm) is a set of technologies proper to a certain level of production development. In connection with scientific and technical and technological progress, there is a transition from lower modes to higher, more progressive ones.

As a result of the systematization of interpretations of Economic Growth within the dynamic and spatial approaches, it can be stated that there are the following options for determining Economic Growth:

- as a conditions or "predecessor" of Economic Development;

- as a part of Economic Development;
- as a synonym for Economic Development.

Table 2 presents common approaches to the interpretation of Economic Development and its main characteristics, which are also relevant for Russia's current economic policy.

**Table 2.** Result of the systematization of approaches to the definition of Economic Development in Russian and foreign scientific thought.

Source	Characteristics of Economic Development
Model of Economic Growth with two deficiencies (H. Chenery, M. Bruno, A. Straut, P. Ekstrein, N. Carter)	The main objective of the model with two deficiencies is to trace the relationship between the development of internal accumulation and external sources of financing. Development is interpreted as the replacement of external sources of financing by internal ones, as a replacement of imported goods by domestic ones, as the creation of prerequisites for overcoming external financial dependence.
G. Myrdal Asian Drama: An Inquiry into the Poverty of Nations. N.Y., 1968. P. 18 [6]	Development is commonly understood as a progress of the entire social system. "Moving forward" is referred to as increase in satisfaction of basic needs of all members of the society, mainly by increasing the well-being of the poor.
Schumpeter I. Theory of Economic Development. M.: Progress, 1982. P. 154. [2]	The development is referred to as only such changes in economic circulation that the economy itself generates, i.e. only random changes of the national economy "free from external interference," and not driven by impulses from outside

L. Bezchasny, A. Kruger, L. Balcerowicz, X. Thomas [1]	Growth of well-being is determined by such factors as income per capita, improving the quality of life, increasing the satisfaction level of the basic needs of all members of the society.
B. Gabovich, G. Clarke, D. Lukyanenko [1]	Common laws of Economic Development include its cyclical nature, interconnection between progress and growth, evolution and expansion.
P. Nureyev, S. Encke, G. Arndt [1]	Complex, multidimensional nature of the changes encompasses profound changes in technical, economic, social, political, institutional spheres, in the field of infrastructure, technology, education, as well as in the main factors of production: capital, natural resources and labor.
E.F. Borisov, Economic theory: textbook. - 2nd ed., updated and revised. - Moscow: TK Velby, Publishing House Prospekt, 2009. - 544 p. [7]	<p>New quality of Economic Development is expressed firstly and foremost in the growing economy of social production: labor and means of production per unit of national income are reduced. All Economic Development is improved substantially, scientific and technical level and quality of the products are steadily rising. This is a direct consequence of the transition to a higher technological mode of production.</p> <p>Innovations are manifested in the creation of a modern structure of the national economy. In the total volume of production, the share of knowledge-intensive industries increases. The knowledge-intensive production includes manufacturing instrumentation and professional equipment, computers, electrical appliances, nuclear power, synthetic resins, plastic masses, progressive structural materials, and other industrial products using the achievements of scientific and technological revolution.</p> <p>The progress is also manifested in the fact that the share of intermediate product decreases and, accordingly, specific weight of the final product going into consumption increases. Such a structural change is the result of the economical expenditure of raw resources, materials and energy carriers used in manufacturing of these goods.</p>
B.D. Babaev, S.P. Dubrovsky Economic Growth: expanded interpretation. Quality of Economic Growth // Economics of Education. 2015. № 1. P. 33-38. [3]	Economic Development means Social and Economic Progress, the upward movement of the economy and the society, rational use of resources, proper interaction of man with its environment.

Based on the research by T.P. Cherkasova. [8] we have compiled the interaction matrix between types of Economic Growth and Economic Development which reveals typologies

and diagnostics of Economic Development results and implementation of public economic policy (Table 3).

**Table 3:** Matrix of Theoretical Typology of Economic Growth and Economic Development

Economic Growth	Economic Development		
	<b>1 Progressive</b>	<b>2 Permanent</b>	<b>3 Regressive</b>
<b>1 Positive</b>	<b>Type 1.1.1 For economically developed countries</b>	Type 1.2.1 For economically developed countries	Type 1.3.1 For economically developed countries
	<b>Type 1.1.2 For economically developing countries</b>	Type 1.2.2 For economically developing countries	Type 1.3.2 For economically developing countries
<b>2 Zero (lack of growth)</b>	Type 2.1.1 For economically developed countries	<b>Type 2.2.1 For economically developed countries</b>	Type 2.3.1 For economically developed countries
	Type 2.1.2 For economically developing countries	<b>Type 2.2.2 For economically developing countries</b>	Type 2.3.2 For economically developing countries

<b>3 Negative (decline)</b>	Type 3.1.1 For economically developed countries	Type 3.2.1 For economically developed countries	<b>Type 3.3.1</b> <b>For economically developed countries</b>
	Type 3.1.2 For economically developing countries	Type 3.2.2 For economically developing countries	<b>Type 3.3.2</b> <b>For economically developing countries</b>

Economic Development in modern conditions of implementation and regulation of economic activity is based on the innovation in the real sector of the economy. This process stimulated by the state provides competitiveness, higher rates of Economic Growth, saving resources, progressive mass consumption due to increase in real incomes in the sectors of the economy, where productivity growth outpaces average wage growth. Nevertheless, the differences in the quantitative and qualitative parameters of Economic Growth and rates for economically developed and developing countries are noticeable, otherwise there would be no examples of the inapplicability of the rules and requirements of the IMF, WTO and other international economic institutions created for

developed countries to reform and develop emerging economies. And we are talking not only about the existence of different institutional approaches to the economy, but also about the lack of universality of theories and principles of Economic Development for countries at different levels, cycles, stages of their economic historical path. On the basis of the above typologization of Economic Growth and development, further in Table 4, we have presented the author's version of the gradation of estimates of the types presented from the state of "norm" to "crisis", taking into account differences in the diagnostic criteria of economically developed and developing countries.

**Table 4:** Characteristics of Types of Economic Growth and Development

<b>Types of Economic Growth and development of the territory</b>	Diagnostic criteria	
	For economically developed countries	For economically developing countries
<b>NORM:</b> <b>Positive Economic Growth with progressive Economic Development:</b>	<b>Type 1.1.1</b> GDP growth rates of more than 2-3% per year Growth in the well-being of population (per capita income level).	<b>Type 1.1.2</b> GDP growth rates of more than 5-7% per year. Growth in the well-being of the population (minimum wage, social security and standard of living).
Positive Economic Growth with constant Economic Development:	Type 1.2.1	Type 1.2.2
Positive Economic Growth with regressive Economic Development:	Type 1.3.1	Type 1.3.2
Lack of Economic Growth with progressive Economic Development:	Type 2.1.1	Type 2.1.2
<b>STABLE STATE:</b> <b>Lack of Economic Growth with constant Economic Development:</b>	<b>Type 2.2.1</b> Zero GDP and GNP growth rates. Maintenance of the achieved level and quality of life	<b>Type 2.2.2</b> The rate of GDP growth is no more than 1-2% per year. Simple indexing of social standards. Increase in productivity at the level of average salary growth.
Lack of Economic Growth with regressive Economic Development:	Type 2.3.1	Type 2.3.2
Economic decline with progressive Economic Development	Type 3.1.1	Type 3.1.2
Economic recession with constant Economic Development	Type 3.2.1	Type 3.2.2

<b>PATHOLOGY (CRISIS): Economic decline in regressive Economic Development</b>	<b>Type 3.3.1</b> Negative growth of GDP and other macroeconomic indicators. Reduction in the level of welfare compared to other types of Economic Growth and development.	<b>Type 3.3.2</b> Negative growth of GDP and other macroeconomic indicators. Negative structural changes (decrease in the level of industrialization and service economy),
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### STRUCTURAL ANALYSIS OF ECONOMICS IN AUTHORS' INTERPRETATION

In the interpretation of the authors of this paper, well-being growth of the population should not be considered as the ultimate goal of development otherwise if the welfare growth after the reporting period is achieved, what will be the next goal of Economic Development? Such questions arose and arise in the economically prosperous countries of Western Europe and the United States. We suggest the following answer: the degree of attainability of the well-being growth of the population varies for different countries (as well as the standard of living do), but for the economically developed countries the welfare indicators of the population are the highest and if for developing countries they can be considered as the ultimate goal of Economic Development, then for economically developed countries it is more important to ensure the stability of the already achieved high level of the population's well-being both in terms of consistent innovation and technological development.

Another competitive factor laid down in the concepts of Economic Growth and Development is the reproduction of not only goods but also that of human being, which is viewed as a social and even ecological component of Economic Development, ensuring the completeness and quality of the transformation of the social product into well-being of the population.

Another important indicator of economic growth in education is increase in international mobility of students. In general terms, internationalization in higher education both effect and is influenced by economic development of the society. Steady flows of international students ensure economic growth of the host country as it benefits from their higher tuitions fees, accommodation and other investment into local economy. It also indicates that the level of higher education in the country meets best criteria of quality and affordability in the international rankings. On the other hand, counties that send many students to international universities tend to have high investment rates, economic development priorities and long term economic goals. According to Rosstat data, in comparison with 1998 the number of international students in Russia increased and reached 7,6 per cent higher rate in 2015 while the number of students going to study abroad increased only by 1,2 per cent which indicates slow economic growth in the period. As compared to internationalization of Indian education where in just six years these two indicators almost doubled according to "Indian student mobility" report.

It is crucial to correctly isolate the aspect of structural changes out of quantitative and qualitative characteristics of Economic Development, and at the same time to ensure balance between the dynamic and spatial aspects of the economy as an object of state economic policy and subsequent monitoring of the results of measures taken by the structural economic policy of the territory.

Taking into consideration the previous works of the authors (for example, [9]), based on the theory of the three-sector Fisher-Clark economy and in accordance with modern theories of the sectoral division of national and regional economies, we have proposed a new approach to structural analysis of the economy of any scale. We presume that according to the scale-invariant (fractal) approach, the semblance of laws and patterns of Economic Growth as well as of the development of economic systems it is possible to apply author's research results to estimate the economic and social-economic systems of regional and national scales for cross-country analysis and comparison.

The suggested approach not only combines the quantitative and qualitative interpretation of the Economic Development of the territory, but also includes dynamic and spatial perspectives, composition of endogenous and exogenous factors affecting Economic Growth and development for each individual territory as an object of state strategic management through political instruments of economic regulation.

According to the Fischer-Clark approach, adapted to the purpose of structural analysis of modern economy, in order to characterize economic systems in terms of their developmental stages it is possible to introduce the corresponding typology of the subjects of the Russian Federation as economic systems on the territory of which various measures of state structural economic policy were implemented (Table 5).

**Table 5:** Matrix of types of Economic Systems in intersectoral proportions

Intersectoral Proportions (stage of Economic Development)	$D_A > D_I$ (Agrarian type)	$D_I > D_A$ (Industrial type)
$D_r > D_u$ (Industrial type)	<b>INDUSTRIAL- AGRARIAN TYPE</b>	<b>INDUSTRIAL TYPE</b>
$D_u > D_r$ (Service type)	<b>SERVICE- AGRARIAN TYPE</b>	<b>SERVICE- INDUSTRIAL TYPE</b>

Source: compiled by the authors using [10]

The used designation  $D_i$  represents the weights of different sectors of the economy in the structure of the gross added value of the country, region, namely:

- $D_A$  is the specific weight of the Agrarian Sector in the structure of gross value added (GVA) of the national or region levels (specific weights of sections A and B according to Russian Standard Industrial Classification of Economic Activities);
- $D_I$  is the specific weight of the Industrial Sector (the sum of the specific weights in the structure of the GVA of sections C, D and E according to Russian Standard Industrial Classification of Economic Activities);
- $D_T$  is the specific weight of goods production sector in the structure of gross value added (GVA) of the country or region (specific weights of sections A-F according to Russian Standard Industrial Classification of Economic Activities);
- $D_U$  is the share of the service sector in the structure of gross value added (GVA) of a country or region (specific gravities of sections G-P according to Russian Standard Industrial Classification of Economic Activities).

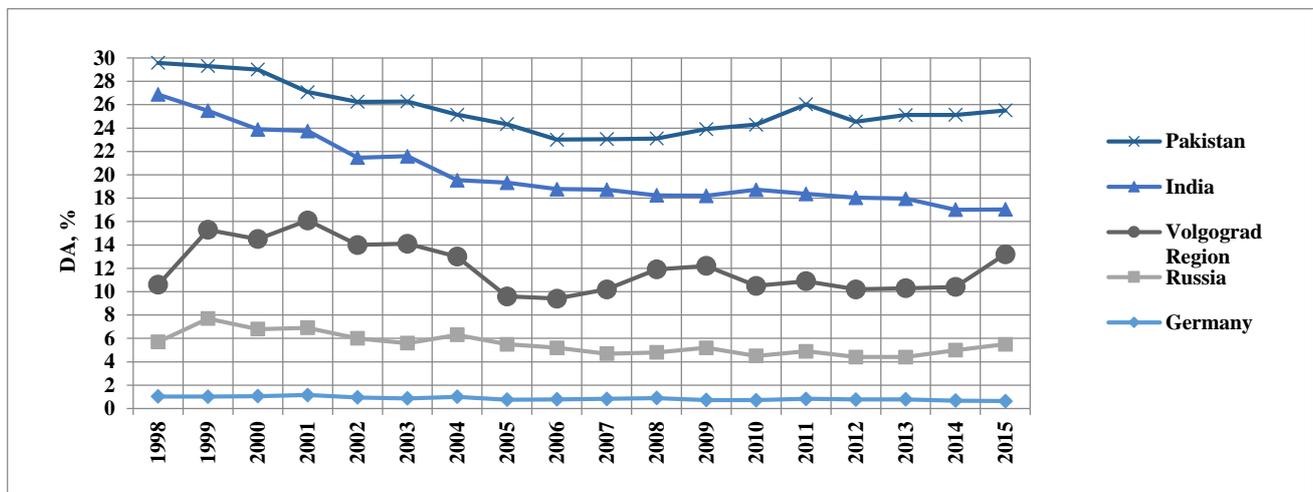
To determine  $D_T$  it is necessary to sum up the values of  $D_A$  and  $D_U$  with section F "Construction".

Thus, the development of the economy can be characterized by a change in the proportions between its main sectors: agrarian ( $D_A$ ), industrial ( $D_I$ ), commodity manufacturing ( $D_T$ ) and service ( $D_U$ ). Besides, we observe the predominance of the primary sector of the economy in the industrial-agrarian type of economic systems, the secondary sector of the economy prevails in the industrial type and the tertiary sector of the economy is prevalent in the service-agrarian and service-industrial types.

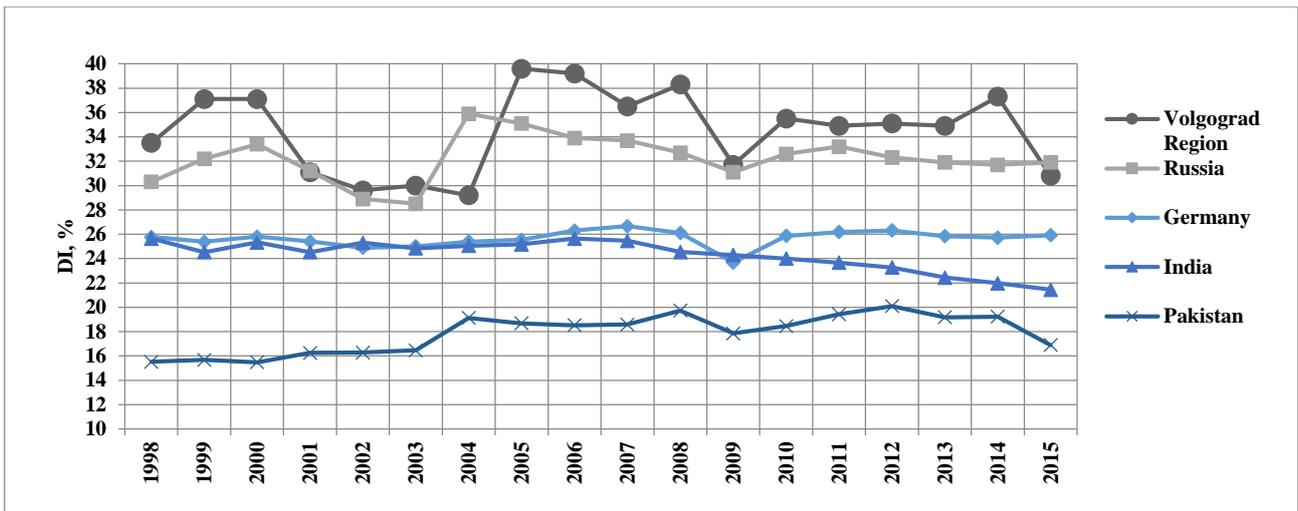
Transitions between types of economic systems can be considered as qualitative changes in the intersectoral structure of the economy on the national and regional levels.

For the optimal combination of dynamic and spatial approaches in the study of Economic Development, taking into account the typology presented in Table 5, we have conducted an evolutionary statistical study of the economies of Germany, India, Pakistan, Russia, and the Volgograd Region to compare trends and the quality of Economic Development of different scales and levels.

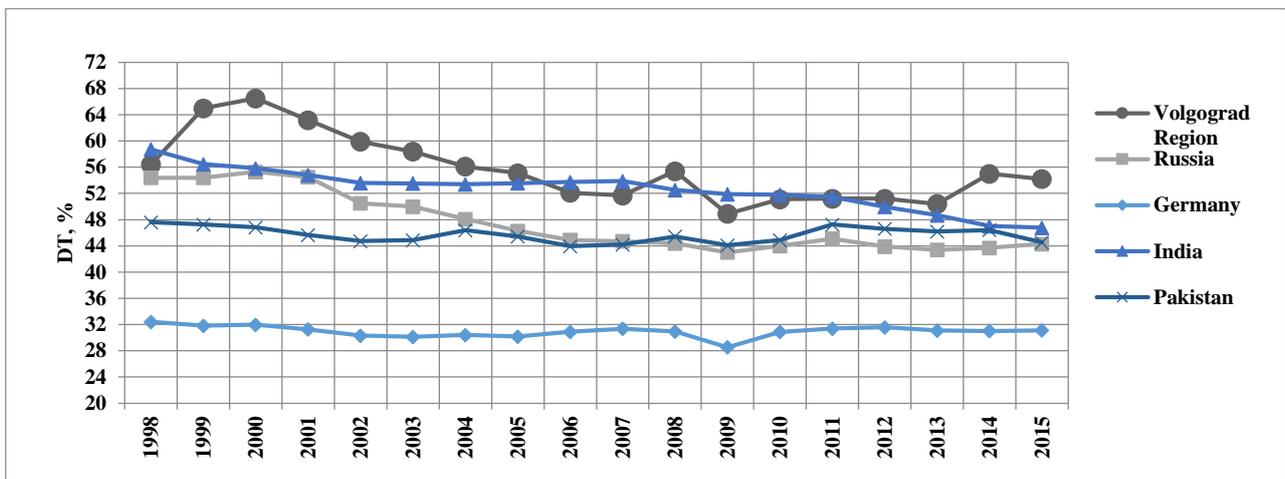
Figure 2 shows the result of calculating the specific weights of the agrarian (a), industrial (b), commodity manufacturing (c) and service (d) economic sectors  $D_A$ ,  $D_I$ ,  $D_T$  and  $D_U$  in the structure of gross value added (GVA) in 1998 -2015.



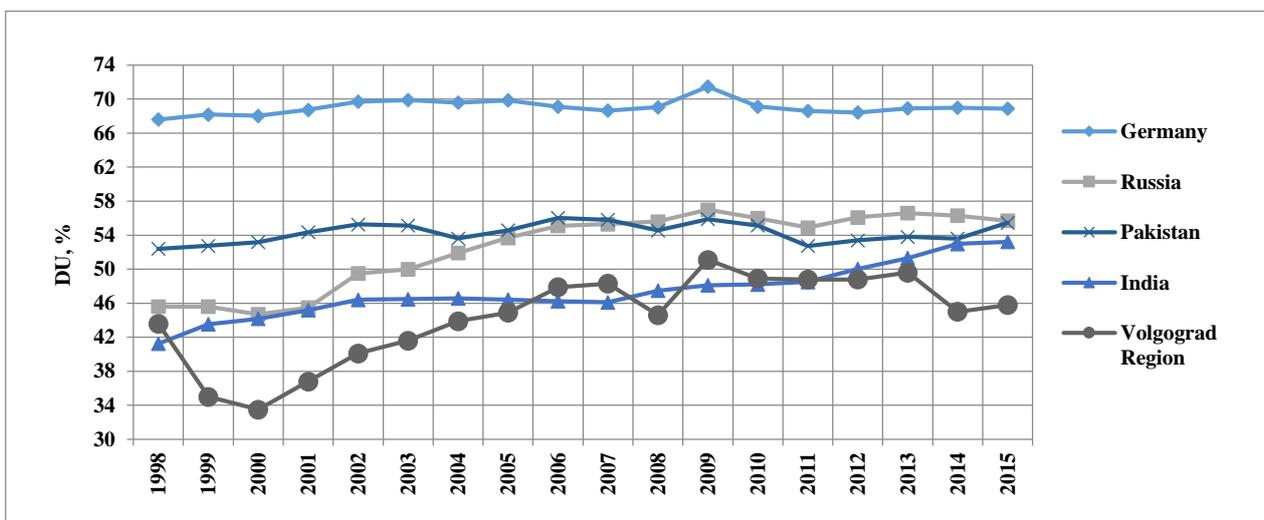
A) Dynamics of the share of the Agrarian Sector in the structure of the GVA



B) Dynamics of the share of the Industrial Sector in the structure of the GVA



C) Dynamics of the share of goods manufacturing sector in the structure of the GVA



D) Dynamics of the share of the service sector in the GVA structure

**Figure 2:** Change in the share of the agrarian, industrial and service sectors  $D_A$ ,  $D_I$ ,  $D_T$  and  $D_U$  in the structure of gross value added (GVA) in the period 1998-2015.

Source: compiled by the authors using materials of the United Nations "Gross value added (GVA) by economic activity at current basic prices" and Rosstat "Branch structure of the gross added value of the subjects of the Russian Federation"

According to the statistics and Table. 5, economic system of Germany and Russia (since 2004) can be attributed to the tertiary or service type of economy ( $D_U > D_T$ ) with a high and medium level of development of the industrial sector, respectively. If we compare the types of the economies of India and Pakistan, we can see a stable development of the service sector in both countries, but diverse trends in the sustainable agrarian development in Pakistan against the backdrop of

India's adjusted Economic Development towards the service-Industrial Sector.

We have systematized the obtained data on weights of these sectors at the time points of 1998 and 2015 in Table 6, we can see and interpret the following indicators of Economic Development of these territories for the period:

**Table 6:** Result of Systematization of  $D_A$ ,  $D_I$ ,  $D_T$  and  $D_U$  Indicators in Time and Space

Indicators	$D_A$	$D_I$	$D_T$	$D_U$	Evaluation for the period	
					In dynamics	In comparison
<b>Germany</b>					$D_A 1998 > D_A 2015$ $D_I 1998 = D_I 2015$ $D_T 1998 > D_T 2015$ $D_U 1998 < D_U 2015$	$D_I > D_A$ (industrial type) $D_U > D_T$ (service type) <b>SERVICE-INDUSTRIAL TYPE</b>
in 1998	1,03	25,8	32,4	67,6		
in 2015	0,64	25,9	31,1	68,9		
<b>Russian Federation</b>					$D_A 1998 > D_A 2015$ $D_I 1998 < D_I 2015$ $D_T 1998 > D_T 2015$ $D_U 1998 < D_U 2015$	<b>In 1998:</b> $D_I > D_A$ (industrial type) $D_T > D_U$ (industrial type) <b>WAS INDUSTRIAL TYPE</b> <b>In 2014:</b> $D_I > D_A$ (industrial type) $D_U > D_T$ (service type) <b>BECAME SERVICE AND INDUSTRIAL TYPE</b>
in 1998	5,7	30,3	54,4	45,6		
in 2015	5,5	31,9	44,3	55,7		
<b>India</b>					$D_A 1998 > D_A 2015$ $D_I 1998 > D_I 2015$ $D_T 1998 > D_T 2015$ $D_U 1998 < D_U 2015$	<b>in 1998:</b> $D_A > D_I$ (agrarian type) $D_T > D_U$ (industrial type) <b>WAS INDUSTRIAL-AGRARIAN TYPE</b> <b>In 2014:</b> $D_I > D_A$ (industrial type) $D_U > D_T$ (service type) <b>BECAME SERVICE AND INDUSTRIAL TYPE</b>
in 1998	26,9	25,6	58,7	41,3		
in 2015	17,0	21,4	46,8	53,2		
<b>Pakistan</b>					$D_A 1998 > D_A 2015$ $D_I 1998 < D_I 2015$ $D_T 1998 > D_T 2015$ $D_U 1998 < D_U 2015$	$D_A > D_I$ (agrarian type) $D_U > D_I$ (service type) <b>SERVICE-AGRARIAN TYPE</b>
in 1998	29,6	15,5	47,6	52,4		
in 2015	25,5	16,9	44,5	55,5		
<b>Volgograd region</b>					$D_A 1998 < D_A 2015$ $D_I 1998 > D_I 2015$ $D_T 1998 > D_T 2015$ $D_U 1998 < D_U 2015$	$D_I > D_A$ (agrarian type) $D_T > D_U$ (industrial type) <b>INDUSTRIAL TYPE</b>
in 1998	10,6	33,5	56,4	43,6		
in 2015	13,2	30,8	54,2	45,8		

**TYOLOGICALIZATION OF THE TERRITORIES ACCORDING TO THE LEVEL OF ECONOMIC DEVELOPMENT**

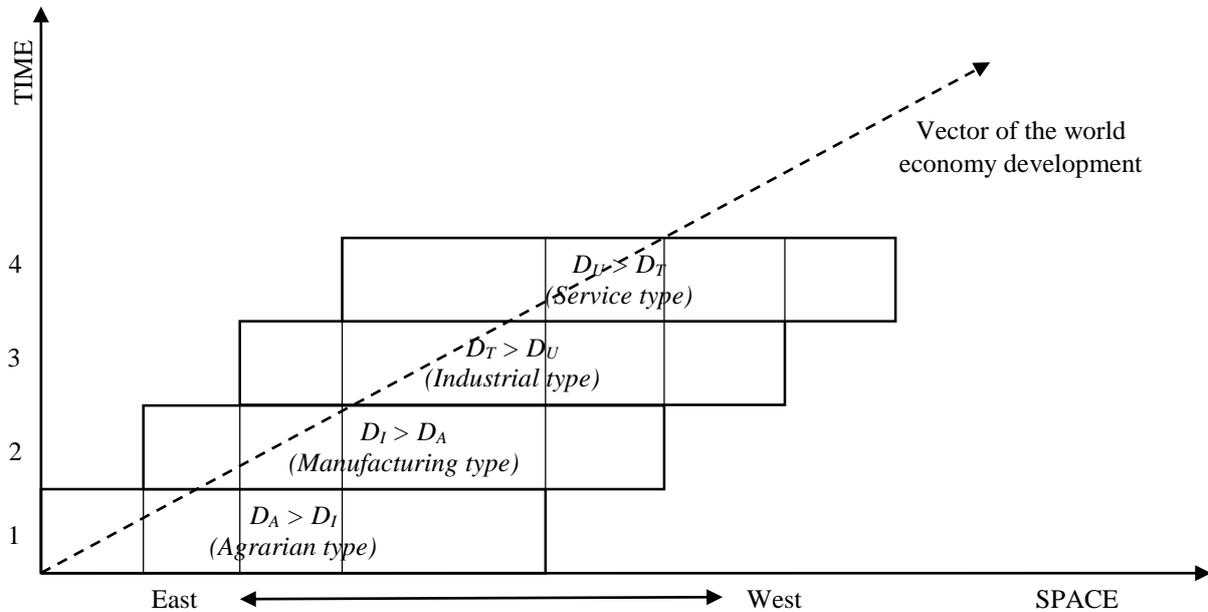
It is necessary to clarify that within each type, additional classification of national and regional economies is possible, taking into account the range of each  $D_i$  from the minimum to the maximum value in the current range for the corresponding period of time. For example, if for Germany in 2015  $D_I > D_A$  is 40 times bigger, then for the Russian Federation this ratio is only 5.8 times higher, that is, 1 rub. in Agriculture (sections A and B) and 5.8 rubles in Industry. Then we can talk about measuring the degree of difference in countries in terms of Economic Development, and to determine that the more economically developed a country is, the more  $D_I$  exceeds  $D_A$ , and the  $D_U$  is greater than  $D_T$ . Table 7 presents the result of the

distribution of countries by the level of Economic Development.

If we transfer the matrix of types of economic systems presented in Table 5 following the results of structural analysis to the graphical perspective, we can see the gradation of stages and types of economies in time and space with given historical stages and territorial features (Fig. 3). The closer to the present time and to the principles and tendencies of the countries of the Western world, the more places in the structure of the economy will be occupied by the production of goods and services with a high level of development and effectiveness of agrarian and industrial sectors. The closer the country to the traditions and features of Economic Development towards the eastern world, the greater the place is occupied by agriculture and traditional types of industrial production.

**Table 7:** Distribution of the analyzed territories according to the level of Economic Development in 1998 and 2015 on the basis of the ratio  $D_i$ , measured in times

Country / Region	1998				2015				Characteristic of Economic Development
	$D_A > D_I$	$D_I > D_A$	$D_T > D_U$	$D_U > D_T$	$D_A > D_I$	$D_I > D_A$	$D_T > D_U$	$D_U > D_T$	
Germany has high industrially service economy	-	25	-	2,09	-	40,5	-	2,22	Stable economic structure alongside twofold decline in the share of agriculture.
The Russian Federation has a weak industrial, weak service economy	-	5,32	1,2	→ -	-	5,8	-	1,26	Stable structure of the agrarian and industrial sectors against the backdrop of the development of the services sector.
India has a weak industrialized and weak service economy	1,05	→ -	1,42	→ -	-	1,26	-	1,14	Dynamically developing economy against the background of optimization of the structure by sectors.
Pakistan has a weak Agrarian and service economy	1,9	-	-	1,1	1,5	-	-	1,25	Priority agrarian and service sectors of the economy with weak development trends.
Volgograd Region has a weak industrial service economy	-	3,16	1,29	-	-	2,33	1,18	-	Stable inadequate structure of the region's economy.



**Figure 3:** Graphical typology of countries by types of economies on the basis of structural analysis

where 1 is the feudal system

- 2 - Industrial Revolution
- 3 - mass industrialization of the 20th century
- 4 - mass service and the economics of services of the 21st century.

As a result of the calculations and typologies, the authors have come to the conclusion that in the current conditions of the development of the world, national, and regional economies, the issue of structural changes is solved, first of all, at the level of the state structural economic policy by strategic planning and management of the development of the territories.

The examples of Germany and the Russian Federation reveal significant differences in service-industrial type of economies in terms of Economic Development with the priority of industrial manufacturing and a high share of production of services for Germany and weak structural shifts in the Russian economy in 1998-2015. This trend indicates not only the consequences of external political and economic factors, but also low quality and non-working mechanisms of public economic policy at the macro- and meso levels of government decision-making and their execution.

Comparing quality of Economic Development and economic policies of India and Pakistan clearly shows that if India has achieved better results in the structural changes of the national economy implemented by the state and major investors, demonstrated by the data in Tables 6 and 7, for Pakistan the most stable was the tendency to preserve the agrarian type of the economy against the background of the dominance of services in comparison with the material production of goods, which is explained by institutional features of public

development and resource security and the established economic and trade relations of the country.

The example of the Volgograd Region being one of the subjects of the Russian Federation which during the Soviet period used to combine high growth rates of agricultural and industrial developments, now differs from all the types of economy considered in the paper by the fact that on the one hand, industrial production exceeds agrarian, but with a tendency to reduce the gap from 3.16 times in 1998 to 2.33 times in 2015 (this indicates an increase in the pace of agrarian development against the background of a decline in industrial products what is clearly demonstrated in Figure 2. in 2015 ). On the other hand, unlike all the other territories, in the Volgograd Region goods manufacturing level exceeds the production of services, which either exacerbates the level of Economic Development of the region or indicates a high share of exports of goods (especially agrarian and metallurgical). It also shows the lack of necessary growth in the production of services at a higher pace, as their production and consumption is limited to the regional market.

Nevertheless, the need for Economic Development to rise to a new and more modern competitive level requires from the regional authorities adoption of strategic plans and policy documents including investment strategy aimed at qualitative structural changes in the regional economy by means of:

1) maximum automation of agrarian production against the backdrop of increasing production of own seeds and reducing dependence on their imports;

2) development of industrial production with a strategic ratio for every 1 ruble of agrarian goods 20 or more rubles of industrial products which also requires introduction of high-tech equipment, investments and stable demand in the market, competitive prices and quality. So far, for the Volgograd region, this is the most difficult task because of the sanctions, current political and economic conditions;

3) for the transition to the economy of services, which is reflected, inter alia, by the growing excess of the share of the services sector over the goods one, the region has identified a support and stimulation of tourism services as a strategic development guideline, ensuring the availability of a wider range of financial services for the region's population. The main problem in addressing this issue is the solvency of the population and the trend in strengthening-equalization of inequality in the standard of living of people as consumers of goods and services in the regional economy.

4) considering that the Volgograd Region is only a part of the national economy and its structural economic policy is in legal, methodical and financial dependence on Russia's economic policy, on the medium-term and long-term development prospects of the region, taking into account historical features, resource opportunities, economic feasibility, profitability and investment attractiveness, emphasis should be placed on the most realistic projects that may not lead the region to a highly industrialized or highly service type of economy but should ensure stable production growth, for example, in agriculture it should ensure the growth of employment and income levels, and in the long term, the growth in service and industrialization of the regional economy.

Ensuring the manageability of the process of structural changes and following the chosen trajectory of Economic Development are priority tasks of public strategic planning and management, ensuring "survival" of the State and supporting the quality of life of its citizens.

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