

METHODOLOGICAL ASPECTS OF RESEARCHING THE SOCIO-ECONOMIC DEVELOPMENT OF REGIONS

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Abstract. This article analyzes the importance of the theory of cycles in the processes of socio-economic development of regions. The main characteristics of periodic processes in the regional economy, their causes and stages of development have been studied. The role of the theory of cycles in the strategic planning of regions and the achievement of sustainable development goals is emphasized. The article examines methods of evaluating changes in socio-economic indicators of regions within the framework of economic cycles, including short, medium and long-term cycles. Also, the impact of factors such as technological changes, investment processes and demographic dynamics on regional development was analyzed. Based on these analyses, recommendations based on the theory of cycles were developed to ensure the sustainable development of regions..

Key words: territory, theory of cycles, socio-economic development, economic system.

1.Introduction

The socio-economic development of regions is a central subject of contemporary economic research, as it reflects the level of well-being, competitiveness, and sustainability of national economies. Regional development is inherently uneven, influenced by structural, institutional, demographic, and geographic factors. These disparities often generate imbalances that hinder the achievement of inclusive and sustainable growth. Therefore, a comprehensive scientific study of regional socio-economic development requires not only descriptive evaluation but also the application of systematic and methodologically grounded approaches.

In recent decades, the study of regional development has increasingly relied on methodological pluralism, combining economic theory, statistical indicators, and econometric models. Methodological aspects are of particular importance because they determine the

reliability of conclusions, the validity of forecasts, and the applicability of results in policy-making. Without clearly defined research methods, the complexity of socio-economic processes may lead to superficial interpretations or fragmented analysis.

The growing demand for evidence-based policy, especially in the context of globalization, digitalization, and structural transformations of economies, calls for the refinement of methodological approaches to analyzing regional development. This includes selecting appropriate indicators, ensuring comparability of data, constructing composite indices, and applying econometric techniques capable of capturing both dynamic and structural aspects of development.

The purpose of this study is to explore the methodological aspects of researching the socio-economic development of regions, highlighting theoretical foundations, analytical tools, and practical implications. By doing so, the paper seeks to contribute to the development of an integrated methodological framework that enhances the accuracy of regional assessments and provides a basis for informed decision-making aimed at reducing disparities and promoting sustainable growth.

2.Literature review

Issues such as modeling the socio-economic development of regions, integrated development of regions, territorial placement and management of productive forces, and improving the methodological foundations for increasing the competitiveness of the country's regions are widely covered in the scientific research of Uzbek economists S.S. Gulomov [3], T.M. Akhmedov [6], A.M. Sodikov [4], A.M. Qodirov, Sh.H. Nazarov [9], B. Ruzmetov [4], Sh.B. Imomov [7], P.Z. Khashimov, F.T. Egamberdiev, A.A. Kayumov [8], A.J. Siddikov [10], I.O. Yakubov [11], D. Karimov [1] and others. The theory of cycles of socio-economic development of regions is based on an approach that depends on the expectations of economic entities of the evolutionary development of the economy. Famous foreign scientists, using the models of R. Lucas, A. Pigou, S. Fisher, C. Nelson and other scientists, paid attention to the issues of theoretical substantiation of the role of expectations in the cyclical development of economic systems. At the same time, the empirical substantiation of these theoretical and methodological concepts allows us to look at them from a new practical point of view. In addition, it allows us to determine the degree of influence of certain parameters that determine the expectations of economic agents on the nature of phase changes in cyclical development.

The development of any economic system predetermines the corresponding models of behavior of economic entities, which are close to the characteristics of the evolutionary development of classical periods (crisis, depression, recovery, upswing). At the same time, it is the result of changes in a group of indicators characterizing the real, financial and cultural-institutional parameters of socio-economic development.

3. Analysis and results

Business cycle - a periodic increase and decrease in general economic activity over a period of years; the periodic repetition of growth and decline in the economy over a period of several years, consisting of phases of growth, recession, depression, and recovery. In terms of time, there are long economic cycles that repeat every 20-25 years and short economic cycles that repeat every 5-10 years. Individual economic cycles differ sharply from each other in duration and intensity. At the same time, they all have the same phases. At the peak of the cycle, the economy is at full employment and production is operating at full or almost full capacity. In this phase of the cycle, the price level tends to increase, and economic activity stops growing. In the equilibrium phase, production and employment decrease, but prices do not fall. At the bottom of the equilibrium, i. and employment is characterized by its lowest level. In the recovery phase, the level of production increases, and employment increases to the level of full employment.[2]

The theory of cycles is a theory about recurring changes that can be observed over time in the economy, social processes, nature and other areas, that is, periodic processes. The theory of cycles is applied in various sciences and fields, and each field has its own characteristics.[12]

In economics, the theory of cycles studies the periodic repetition of increases and decreases (growth and recession) in economic processes. The main types are as follows:

1. Short-term cycles (Kitchen cycles): Duration 3–5 years. These cycles are mainly associated with changes in the inventory of enterprises.
2. Medium-term cycles (Jogger cycles): Repeat for 7–11 years. They reflect changes in economic activity related to investments.
3. Long-term cycles (Kondratiev or "long waves"): lasting 40–60 years and associated with technological and innovation changes.
4. Supercycles: These include the longest and most extensive changes, for example within a civilization or global trends.

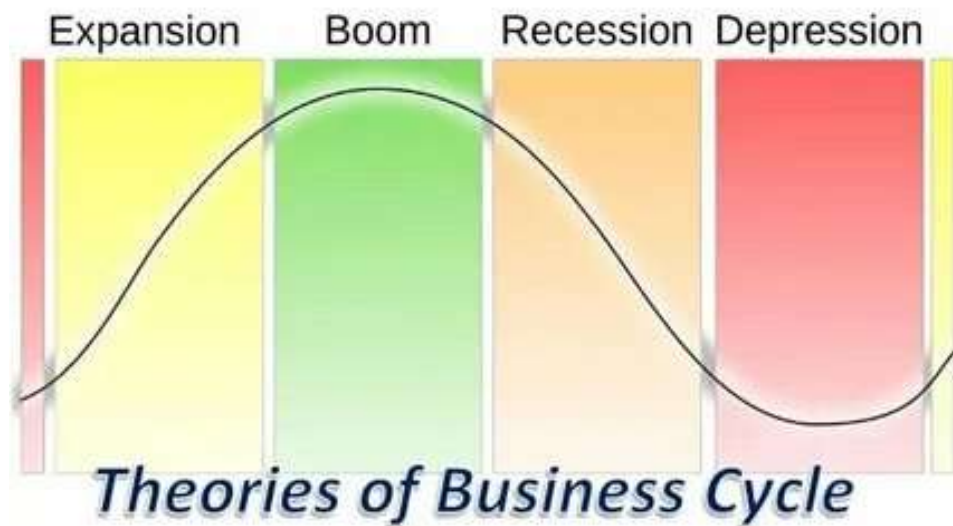


Figure 1. The theory of cycles.

The theory of natural cycles is used in biology, geography, and ecology, for example, in the change of seasons, animal migrations, and the 11-year cycle of solar activity.

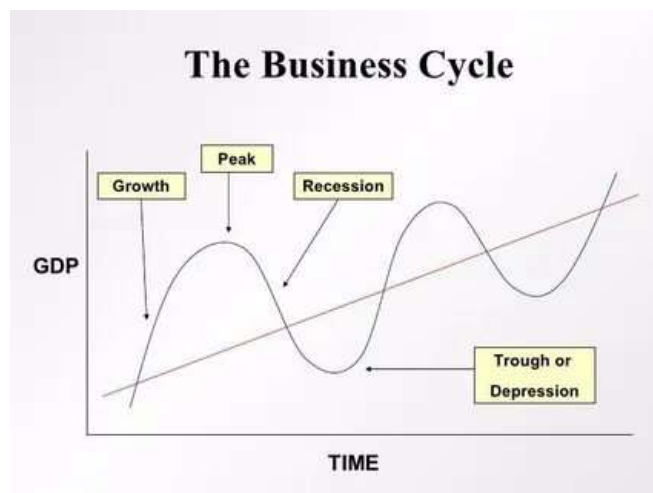


Figure 2. The theory of business cycles.

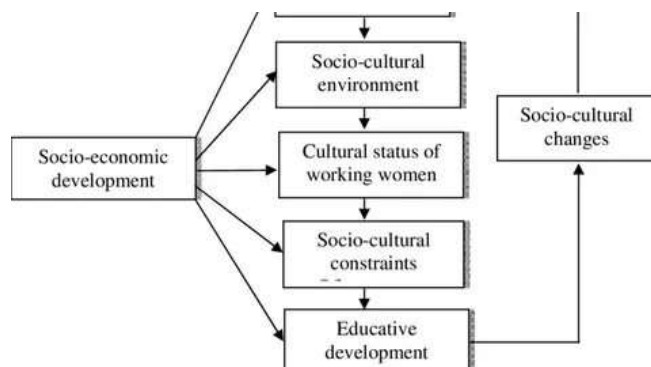
There is also periodicity in political, cultural, and demographic processes in society: cycles of political change (revolutions, changes in political regimes) and demographic cycles (changes in birth and death rates).

In mathematics and physics, the theory of cycles studies periodic functions and oscillatory processes: sine or cosine functions and electromagnetic waves.

The theory of cycles is important for better understanding processes in various fields, predicting their outcomes, and making rational decisions. For example: in economics - to anticipate recessions and droughts, in ecology - to plan the consumption of natural resources,

in politics - to develop measures to maintain social stability.

Various factors characterizing the socio-economic development of regions have been studied.



In particular, factors characterizing demographic trends (population size; age structure of the population; demographic coefficients; total birth rate; migration growth rates; urban population; rural population), factors characterizing employment and unemployment (labor force size; average annual number of employees; unemployment rate), a small group of factors characterizing trends in the development of the production sector and economic activity of business entities, factors classified as “monetary” (investments in fixed capital; cash income of the population) and other social factors (number of general education schools; number of higher education institutions; number of hospitals) Undoubtedly, the list of indicated factors can be continued, but, taking into account the limited statistical resource base, as well as the fact that the presented factors themselves reflect the socio-cultural and economic parameters of development, we will conditionally consider them for testing the main provisions of the model, in which the list under consideration is used to carry out an assessment and, based on them, to develop a model of an advanced development cycle enough to check. It is also important that the composition of the factors is selected in accordance with the principle of comparison of statistical databases of different periods.

Thus, the first group of factors describing the urban-demographic potential in the assessment of economic development includes the following from the list of key indicators:

1. Population.
2. Age structure of the population.
3. Demographic coefficients.
4. General indicators of birth.
5. Growth rates of migration.

6. City dwellers.

7. Number of villagers.

The type of urban and demographic development that is developing, in our opinion, is the most promising from the point of view of the industrial development of productive forces - the main driver of industrial and post-industrial development, which in turn determines the development potential of the system and its "settings", including the expectations of economic agents.

Special methodological approaches have been developed to study the socio-economic development of regions based on the theory of cycles. In this regard, the analysis of economic and social processes from the point of view of periodicity is of great importance. The main methodological aspects of this study are presented below.

1. Methodological foundations of the study (identification of types of cycles, stages of analysis, systematic approach.

2. Selection of statistical and economic indicators (key indicators are gross regional product (GRP), investment volume, unemployment rate, population income, volume of industrial and agricultural production, analysis of dynamics and composite indicators, that is, creation of a general index based on several indicators.

3. Econometric modeling and forecasting (separation of trends and cycles, in which filters for separating long-term trends and periodic cycles, Hodrick-Prescott filter and spectral analysis can be used. Also, tools such as ARIMA, VAR or dynamically changing factor models of economic processes can be used. Or scenario analysis.

4. Analysis of factors: technological development, demographic dynamics, infrastructure and investments.

5. Analysis of regional differences, in which each region has its own specific socio-economic conditions and susceptibility to cycles effectiveness is taken into account, the interconnections between regions are analyzed (based on clusters or economic ties).

Development of scientific proposals and practical recommendations, taking into account the specific characteristics of each region. This, in turn, will serve to make clear and logical decisions based on the theory of cycles when developing a regional development strategy. It will allow preparing an appropriate plan of measures to ensure stability and prevent economic crises.

4. Conclusions

The theory of cycles is one of the important theoretical and practical foundations in the socio-economic development of regions. This theory helps to better understand the cyclical processes in the regional economy, to predict them, and to develop sustainable development strategies. The article provides a comprehensive analysis of the types of economic cycles and their impact on regional development processes. Also, factors such as technological changes, demographic dynamics, and investment processes were identified as the main drivers influencing the formation and development of cycles. The analysis shows that by applying the theory of cycles in regional management, it is possible to achieve economic stability, ensure efficient use of resources, and ensure long-term development. Therefore, it is important to widely apply the approach based on the theory of cycles in decision-making on regional development.

References:

1. https://iqtisodiyot.tsue.uz/sites/default/files/maqolalar/23_Karimov_D.pdf
2. <https://qomus.info/encyclopedia/cat-i/iqtisodiy-tsikl-uz>
3. Gulyamov S.S. Modeling of socio-economic development of territorial-industrial complexes. - T.: Fan, 1980. - 194 p.;
4. Sadykov A.M. Fundamentals of regional development: theory, methodology, practice // Monograph. T.: IQTISOD - MOLIYA, 2005. - 280 p.;
5. Ruzmetov B. Comprehensive development of the region in the context of deepening economic reforms. Abstract of Ph.D. in Economics. - T.: 1998;
6. Akhmedov T.M. Regulation of territorial organization of productive forces and comprehensive development of regions of Uzbekistan. - T.: FAN, 1992;
7. Imamov Sh.B. Regulation of territorial development of the economy of Uzbekistan: Abstract of Ph.D. in Economics. - T.: 1998;
8. Kayumov A.A., Nazarova H.M., Egamberdiev F.T., Yakubov O.Sh. Regional economy. -T.: University, 2004;
9. Nazarov Sh.H. Improving the methodological foundations of increasing the competitiveness of regions of Uzbekistan. Abstract of doctoral dissertation. -T.: 2016. - 5 p.;
10. Siddikov A.J. Regional problems of industrial production at a new stage of economic reforms (on the example of Kashkadarya region) abstract of candidate dissertation. -T., 2006;

11. Yakubov I.O. Regional economy. -T.: TDIU, 2016.

12. Анохин, Л. М., Анохина, Н. В., Аркадьева, О. Г., Артёмова, О. В., Ашавина, С. С., Банникова, Е. С., ... & Шлякова, О. А. (2021). Проблемы экономической безопасности: новые глобальные вызовы и тенденции.