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STIMULATION OF REGIONAL COMPETITIVENESS

The article is devoted to the research of economic policy for stimulating regional competitiveness in conditions of macroeconomic instability, spatial polarization and the consequences of the full-scale war in Ukraine. The relevance of the topic is determined by the need to modernize regional development mechanisms in the context of global challenges, in particular the demographic crisis, institutional asymmetry, the digital divide, and structural depletion of peripheral regions. The research is based on the hypothesis that an effective policy to stimulate regional competitiveness is possible provided that the European development vector is integrated with the values of security, sustainable development, institutional capacity, digital transformation of public administration, and differentiated consideration of spatial asymmetries between regions. The research methodology is based on general scientific and specialized methods, including systemic, institutional, comparative, factorial, structural-logical, statistical, spatial, cluster, and graph analytical approaches. The research contains the results of a comparative analysis of the regions' competitiveness of Poland, Lithuania, and Ukraine in the Lublin Triangle architecture, it analyses geospatial differentiation, and identifies transformation vectors of regional development in the context of the war in Ukraine, in particular digital adaptation, demographic

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СТИМУЛЮВАННЯ РЕГІОНАЛЬНОЇ КОНКУРЕНТОСПРОМОЖНОСТІ

Досліджено економічну політику стимулювання регіональної конкурентоспроможності в умовах макроекономічної нестабільності, просторової поляризації та наслідків повномасштабної війни в Україні. Актуальність теми обумовлена необхідністю модернізації механізмів регіонального розвитку в контексті врахування глобальних викликів, зокрема демографічної кризи, асиметрії інституційного середовища, цифрового розриву й структурного виснаження периферії. У дослідженні висунуто гіпотезу, що ефективна політика стимулювання регіональної конкурентоспроможності можлива за умови інтеграції європейського вектора розвитку з цінностями безпеки, сталого розвитку, інституційної спроможності, цифрової трансформації державного управління та диференційованого врахування просторових асиметрій регіонів. Методологія дослідження ґрунтується на таких загальнонаукових і спеціальних методах: системному, інституційному, порівняльному, факторному, структурно-логічному, статистичному, просторовому, кластерному й графоаналітичному підходах. У статті представлено результати компаративного аналізу конкурентоспроможності регіонів Польщі, Литви та України в архітектоніці Люблінського трикутника, проаналізовано геопросторову диференціацію, визначено трансформаційні вектори регіонального розвитку



response, institutional mobilization, and mechanisms for stimulating innovation. A conceptual model for aligning sustainable development values with economic policy for managing competitiveness at the regional level is proposed. The results of the research made it possible to develop new conceptual approaches to assessing the effectiveness of economic policy for stimulating regional competitiveness and to justify directions for its further improvement.

Keywords: economic policy, competitiveness, local governments, public administration, region, territorial communities.

в умовах війни в Україні, зокрема цифрову адаптацію, демографічну реакцію, інституційну мобілізацію та механізми стимулювання інновацій. Запропоновано концептуальну модель узгодження цінностей сталого розвитку з економічною політикою управління конкурентоспроможністю на регіональному рівні. Результати дослідження дали змогу розробити нові концептуальні підходи до оцінки ефективності економічної політики стимулювання регіональної конкурентоспроможності й обґрунтувати напрями її подальшого вдосконалення.

Ключові слова: економічна політика, конкурентоспроможність, органи місцевого самоврядування, публічне управління, регіон, територіальні громади.

JEL Classification: R11, R12, R58, O25, O38, H70.

Introduction

In the context of macroeconomic instability, the processes of territorial asymmetry are intensifying, accompanied by increased competition between regions for human, financial, material resources, technologies, investments, and innovations. Ensuring the vector of sustainable regional development requires the introduction of effective mechanisms to support small and medium-sized businesses, implement investment projects, and develop cluster structures. Transformational digital and environmental challenges necessitate a revision of the conceptual framework of the policy of stimulating regional competitiveness. Managing regional competitiveness requires a strategic focus of territorial communities on human capital development, shaping a competitive environment, and strengthening institutional capacity.

Among the latest scientific studies, an important place is occupied by the scientific works of economists devoted to the development of conceptual and methodological approaches to the formation of economic policy and practical mechanisms for its implementation in conditions of macroeconomic instability.

In the report "The future of European competitiveness Part B. In-depth analysis and recommendations" presented to the European Commission, prepared by M. Draghi, the need to form a new institutional and innovative base to increase the competitiveness of the EU, particularly at the regional level, is emphasised. Given the fragmentation of the research and innovation system and the need to consolidate the economic potential of all European regions in this area, Draghi stresses that "The EU needs to set as one of its key priorities the establishment of a Research and Innovation Union" emphasising that "better coordination of public R&I expenditure across Member States is crucial to enhance innovation in the EU", which involves the consolidation of resources, the formation of common strategic directions and the implementation of interregional projects to ensure competitive advantages in the global market (Draghi, 2024).

European scholars Dijkstra et al. (2020) have made a significant contribution to the study of spatial imbalances, substantiating the phenomenon of the "geography of discontent", which manifests itself in the growing social and economic polarisation between dynamic urban centres and depressed peripheries. The researchers argued that regions that are losing economic dynamics are characterised by an increase in protest moods among the local population and growing distrust of government institutions. This confirms the need to develop inclusive economic policies that take into account territorial differences and minimise the risks of increasing regional polarisation.

In their research, Gianelle et al. (2020) emphasise that the concept of Smart Specialisation has become a key instrument of EU regional policy. The researchers note that the concept of the Smart Specialisation strategy is aimed at identifying and strengthening the unique competitive advantages of regions, which allows for the formation of innovative clusters, stimulates scientific and technological development, and increases the investment attractiveness of territories.

Recent studies by Ukrainian economists highlight key areas of economic, spatial and demographic development of regional competitiveness in the context of global challenges and European integration.

Danylyshyn (2024) reveals the strategic priorities for the restoration and development of communities and regions in Ukraine, emphasising the consistent strengthening of the administrative capacity of local authorities, the integration of European management practices, and the formation of a systematic approach to spatial management, taking into account regional disparities and mechanisms of international cooperation.

Varnalii et al. (2023) justify the system of assessing regional disparities using a spatial β -convergence model, which reveals the slow convergence and increasing divergence between regions, necessitating a correction of regional policy objectives.

Mazaraki and Umantsiv (2025) explain the institutional vectors for implementing economic policy in conditions of global instability, noting the need to review state regulation tools, develop incentives to ensure the stability of the national economy, and apply an institutionally oriented approach to economic modernisation in the context of post-war recovery.

Shkuropadska, et al. (2024), having analysed the impact of demographic stability on economic development using the example of the macro-regional association of the Visegrad Group countries, emphasise that declining birth rates, increased mortality and depopulation processes create structural risks for human capital and require comprehensive and effective state policy.

In their research, Ukrainian experts in public management and administration devote considerable attention to researching the problems

and opportunities of regional development in conditions of war and post-war reconstruction.

The authors of the collective monograph "Economic Security in Restoring Competitiveness of Ukraine" (Nadolenko et al., 2024) noted that Ukraine has seen a significant increase in the effectiveness of economic management, which ensures stability, competitiveness, and the development of entrepreneurial activity in the innovation space.

Zalizniuk and Lazebna (2024) indicate that the destruction of infrastructure, reduced tax revenues, demographic losses, and dependence on state transfers significantly limited the economic capacity of local communities.

Goncharenko, et al. (2023) define state regulation as a key instrument for ensuring sustainable development, emphasising its importance for infrastructure restoration, investment support and implementation of priority projects, as well as the need for transparent legal mechanisms and public participation.

Dynnyk (2024) analyses regional branding as an innovative tool for shaping a positive image, increasing competitiveness and attracting investment.

In addition, economic policies aimed at stimulating regional competitiveness must take into account the problems of rural areas, which, according to research by Levandivskyi, et al. (2025) are characterised by low living standards due to weak economies and insufficient development of social infrastructure.

The problem of developing strategies for restoring economic ties, strengthening the adaptive capacity of regional economies to external shocks, and forming new growth trajectories based on systemic approaches to regional development has been the subject of research conducted by scholars on the example of the Visegrad countries in the context of the impact of the crisis caused by the COVID-19 pandemic.

The study by Mitze and Makkonen (2021) provides a comprehensive analysis of research and innovation (R&I) financing as an economic policy tool that ensures the recovery of regional economic growth after the COVID-19 crisis. The researchers have shown that such investments create the basis for increasing productivity, revitalizing local enterprises, and generally strengthening the long-term competitiveness of regions.

Lithuanian scientist Vilpišauskas (2024) emphasizes the value-based approach of macro-regional European integration, which he considers a foreign policy success and a tool for economic modernization, including the regional dimension and integration into common EU policies, including energy policy.

Particular attention should be paid to the study by Polish scientist Kloska on the classification of Polish voivodeships by the level of socio-

economic development using the Ward's Method of clustering. The results obtained allowed the researcher to identify groups of regions with similar characteristics, which creates an analytical basis for the development of differentiated regional development strategies, taking into account the structural affinity of the territories (Kłoska, 2023).

Some EU scholars have also studied the tools of regional incentive policy in the form of GRW (Gemeinschaftsaufgabe Verbesserung der regionalen Wirtschaftsstruktur) grants, which are used to support areas with lower levels of socioeconomic development. Researchers have found that an increase in the share of project funding stimulates investment growth and job creation, especially in small businesses; in regions where grant support decreased, employment growth slowed (Alecke & Mitze, 2023).

Recognizing the undeniable scientific and practical significance of the research, we believe that the aspects of economic policy to stimulate regional competitiveness remain insufficiently developed at both theoretical and applied levels and require a separate in-depth study.

The aim of the research is to substantiate the conceptual foundations of the economic policy of stimulating regional competitiveness in the context of macroeconomic instability.

The authors hypothesise that an effective policy for enhancing regional competitiveness is possible provided that the European development vector is integrated with the values of security, sustainable development, institutional capacity, digital transformation of public administration, and differentiated consideration of spatial asymmetries between regions.

The algorithm for testing the hypothesis involves the theoretical formalization of the conceptual foundations of competitiveness; analysis of spatial differences between regions within the Lublin Triangle; checking whether the empirical data correspond to the expected consequences; and interpretation of the results obtained in the strategic context of post-war recovery.

To realize this aim, the following tasks have been identified:

- to study conceptual approaches to the economic policy of regional development;
- to analyze international experience in assessing regional competitiveness;
- to assess the spatial asymmetry of competitiveness of the regions of Poland, Lithuania, and Ukraine in the context of European integration;
- to identify the transformational factors of Ukraine's regional policy in the context of war and post-war recovery.

The methodological basis of the study consists of works by leading scholars on regional economics, spatial development, and public administration. The validity of the scientific results is based on the use of general scientific and special methods of cognition: systemic (for a comprehensive disclosure of the subject of research), institutional (for assessing the impact

of institutional factors on regional policy), comparative (for comparing indicators of different countries and regions), factorial (for identifying key determinants of regional development), structural-logical (for constructing analytical generalisations), statistical (for quantitative processing of indicators), spatial (for analysing territorial differences based on NUTS), cluster (grouping regions by level of development), and graph analytical (for visualising results and identifying trends).

The empirical basis consists of data from the European Commission, the OECD, the World Bank, the NUTS classification system, analytical reviews by Deloitte and McKinsey, and indicators from the State Statistics Service of Ukraine for the Regional Competitiveness Index (RCI) and the Digital Transformation Index for the regions of Ukraine. The analytical part of the study covers the period from 2010 to 2024. The spatial coverage includes the countries of the Lublin Triangle at the macro level (national economy), meso level ("Oblasti" in Ukraine, "Województwa" in Poland, "Apskritys" in Lithuania) and micro level (territorial communities).

The limitations of the research are related to the incompleteness of Ukraine's statistical data on the temporarily occupied territories in connection with the hybrid war of 2014 and the start of full-scale war on 24 February 2024. Statistical data sources in Ukraine and EU countries differ in their methodologies for calculating indicators. The use of expert assessments and analytical reviews expands the factual basis of the study but at the same time limits the possibilities for quantitative comparisons. At the same time, a multi-component methodology and a wide range of verified sources ensure the robustness of the results obtained.

The structure of the article, which consists of three sections, focuses on analyzing the challenges of regional development, assessing the effectiveness of the current policy and the development of tools for its improvement. The main part of the article is structured in the following areas: conceptual understanding of the essence of the competitiveness promotion policy; comparative assessment of the regional potential of Poland, Lithuania and Ukraine; analytical study of the transformational vectors of Ukrainian regional policy in the context of war and its impact on the institutional, digital, demographic and innovative parameters of regional development.

1. Conceptual framework of the policy to stimulate regional competitiveness

The formation of an effective policy to stimulate regional competitiveness is based on an interdisciplinary approach that combines the provisions of macroeconomic theory, institutional economics, spatial organization of the economy, and human capital theory. The change in the paradigm of regional development from centralized financial redistribution to spatially oriented strategies has necessitated a rethinking of the conceptual foundations of economic policy.

1.1. Macroeconomic approaches for stimulating regional development

The formation of an effective policy to stimulate regional development is impossible without understanding the evolution of macroeconomic approaches that have defined the basic principles of government intervention in the face of spatial asymmetry.

The origins of macroeconomic policy to stimulate regional development can be found in the work of Keynes "*The General Theory of Employment, Interest and Money*", where the key concept is the need for state regulation of the economy in conditions of insufficient aggregate demand. The scientist argues that private investment is not always able to provide full employment, and therefore the state should compensate for the deficit of effective demand by making budget expenditures that should have a multiplier effect, activating employment, income, and domestic demand (Keynes, 1936).

The Keynesian approach became the basis for a centralized policy of supporting depressed areas (LFRS, Less-Favored Regions and Spaces), which was implemented through subsidizing enterprises, infrastructure investments, and social transfers. This concept was the basis for post-war regional development strategies in Western Europe, focused on active state involvement in spatial equalization.

Critically assessing the Keynesian approach to stimulating regional development, Amin (1999) emphasizes its limitations in the implementation of spatial mechanisms of economic policy, primarily due to the dominance of centralized transfers and macroeconomic regulation that does not take into account local institutional specifics. Instead, the scientist develops an institutional approach, according to which the long-term competitiveness of regions depends on deeply rooted social structures, norms of trust, interaction, and the ability to learn and develop. In this perspective, incentive policies should focus not only on economic incentives, but also on creating a sustainable institutional environment that ensures effective interaction between the state, business, and civil society.

The developer of the "national diamond" model of competitiveness, Porter, argues that no country is able to dominate most industry markets, as each country forms its own specific structure of competitive advantages. Competitive advantages of macroeconomic systems are formed as a result of localized processes caused by a combination of national values, resource potential of territories, cultural factors, historical background, and institutional environment. Therefore, the key determinants of the competitiveness of the country and its regions are the development of highly productive industries, rational use of production factors, formation of competitive strategies of enterprises, availability of institutional support, development and implementation of effective economic incentive policies (Porter, 1990).

According to M. Porter, economic policy instruments can significantly transform the structure of sectoral competition, determining the conditions for entering or exiting sectoral markets, which directly affects the dynamics of regional competitiveness. The scientist emphasizes that economic policy functions as an "exit barrier" or as an "entry barrier", and such restrictions "include governmental entry bans or opposition to entry out of concern for possible unemployment growth or regional economic effects: these are particularly common outside the United States" (Porter, 1998).

Thus, the modern macroeconomic policy of stimulating regional development is the result of a theoretical evolution from centralized state intervention to concepts that take into account local institutional preconditions, competitive advantages and strategic interaction of actors.

1.2. Institutional vector of regional policy

Modern regional policy is formed in the context of global institutional guidelines that define the principles of spatial development and competitiveness of territories. A special role in this process is played by international institutions such as the OECD, the World Bank, and the European Commission, which form the analytical framework, methodological foundations, and regulatory standards for regional development policy with a focus on institutional capacity, multi-level governance, and public administration efficiency.

In the early 1990s, the Organization for Economic Cooperation and Development (OECD) formulated the concept of "*learning regions*", defining human capital, training and skills development as strategic resources for regional economic growth. According to this concept, a region is viewed as a dynamic space of institutional development. Its logic is based on the integration of knowledge development policies with the needs of regional economies, providing for the formation of sustainable partnerships between educational organizations, business, and government. However, despite its theoretical attractiveness, the implementation of this model has been limited due to a lack of coherence between educational programs and market demands, insufficient development of multilevel institutional interaction, and fragmented cross-sectoral cooperation (OECD, 2001).

The current paradigm of regional policy is characterized by a shift to spatially oriented, place-based approaches that take into account the socio-economic heterogeneity of territories and adapt policy instruments to local challenges. According to OECD analytical findings, regional competitiveness is assessed on the basis of a number of measurable indicators, among which labor productivity, employment, innovation dynamics, quality of human capital, and public administration efficiency are

of key importance (OECD, 2019). This approach creates the basis for the formation of a regional policy capable of activating the internal development potential and ensuring the socio-economic sustainability of the territories. In this regard, human capital, professional training, and the development of professional competencies are recognized as key factors in regional competitiveness.

The integration of economic, social and environmental vectors of the policy of stimulating regional competitiveness is consistent with the Sustainable Development Goals (SDGs). Since about 2/3 of the SDGs cannot be achieved without the active participation of territorial communities and coordination of local governments, the OECD has developed a localized indicator framework that allows measuring progress in achieving the SDGs, identifying regional disparities, and adapting strategic policy instruments to realize the internal potential of territories, develop human capital, and modernize infrastructure to stimulate innovation in accordance with the principles of social inclusion and environmental sustainability (OECD, 2020).

The OECD Council Recommendation on Regional Development Policy outlines a holistic concept of spatial development based on the following basic principles: strategic planning, relevance to the territorial scale, joint policy-making, sustainability, analytical framework, multi-level governance, institutional capacity, resource provision, integrity, and result orientation. The proposed framework allows policy to be adapted to spatial heterogeneity, ensuring its coherence, effectiveness and sustainability in response to regional development challenges (OECD, 2023).

According to the analytical work of the OECD Competition Committee, the effective implementation of a spatially differentiated competitiveness policy requires the introduction of clear principles of competition policy: market neutrality, removal of barriers to market access, and support for fair competition. An important area of economic policy to stimulate regional development is to ensure consistency between the institutional regulatory mechanism and local economic characteristics, which allows unlocking the potential of regions in the context of innovative renewal, productivity growth, and increased efficiency of public administration through competitively oriented solutions (OECD, 2024).

The OECD report "*Place-Based Policies for the Future*" states that the effectiveness of regional policy depends on the following prerequisites:

- focus on mobilizing regional potential by clearly defining policy objectives based on an in-depth analysis of market failures and institutional barriers;
- ensuring policy coherence through effective management of interactions between sectors, institutions and policy frameworks, in particular in relation to macroeconomic and structural strategies;

- ensuring effective implementation through scalably relevant tools for transparent resource allocation and implementation of feedback mechanisms;
- strengthening multi-level governance through the development of coordination mechanisms for fiscal and institutional capacity, leadership, and inclusive participation at the local level (OECD, 2025).

In the context of the modern paradigm of regional development, the European Commission is actively implementing the concept of "Smart Specialisation", which is the methodological basis for strategic planning in the EU. This approach involves identifying regional priorities based on existing competitive advantages in order to further strengthen them through the development of innovation potential and technological upgrading of the economy. At the center of this concept is the idea of territorial innovation as a driver of economic growth, quality of life and sustainable development at the national, regional and local levels. The implementation of Smart Specialisation policies is aimed at creating dynamic entrepreneurial ecosystems, supporting transformational innovations, and implementing strategies adapted to the specific needs of individual territories. The concept is implemented in practice through the Smart Specialisation Community of Practice network, which provides methodological support, strategic advice, and a platform for the exchange of experience between stakeholders. This promotes the implementation of innovation-oriented approaches to spatial transformation, in particular in the context of digital, environmental and social transitions. The concept is also closely linked to the implementation of the Sustainable Development Goals (SDGs) by integrating science and technology roadmaps into local research and innovation policies. The transnational projection of this model is also important, as Smart Specialisation mechanisms are gradually being implemented in the EU's neighborhood, which demonstrates the universality and adaptability of this model to different institutional and socio-economic contexts (European Commission, n. d.).

In the context of current challenges to regional development, the World Bank emphasizes the need to transform competition strategies into a systemic policy to stimulate regional competitiveness. The main directions of such a policy are the implementation of institutional reforms, infrastructure modernization and support for small and medium-sized businesses as key factors in enhancing regional growth; it is emphasized that insufficient competition hinders productivity, innovative development and social mobility, and therefore the formation of an effective competitive environment is considered a fundamental prerequisite for ensuring sustainable economic development of regions (World Bank Live, 2024).

Therefore, the institutional direction of regional development policy increasingly depends on the influence of international institutions, which is manifested in the standardization of approaches, the transfer of public

administration tools, and the integration of sustainable development goals into strategic planning. Taking into account OECD practices, World Bank recommendations, and European Commission directives ensures that regional policy is more adaptable and effective in the face of spatial asymmetry and growing global challenges.

1.3. Assessment of regional competitiveness in the geospatial coordinate system of the European Union

The geospatial dimension of the competitiveness of EU regions reflects the systemic asymmetry of social and economic development between the western, northern and eastern territories, which forms a stable geo-economic space of uneven growth. Spatial disparities are caused by different levels of access to resources, variations in the institutional capacity of the regions, the impact of agglomeration effects, structural inertia of development, and unequal degree of integration of the regions into the EU internal market.

The study by Duranton and Venables, commissioned by the World Bank, proves that spatial disparities are a stable phenomenon of economic development. Moreover, the elimination of regional development asymmetries does not occur automatically, firstly, due to the limited mobility of production factors such as land, labor, and capital, which hinders the realization of competitive advantages, causes depopulation of territories, and reduces investment; secondly, the tendency of economic activity to spatial concentration due to agglomeration effects and the difficulty of launching new centers of economic development. This increases inequality and creates barriers for regions that are not integrated into the economic core. Under such conditions, the expediency of economic policies to stimulate regional development is explained not only by the need to eliminate market failures, but also by the consequences of depopulation, social decline, and the risks of growing territorial inequality, which threatens the stability of the macroeconomic system (Duranton & Venables, 2018).

The parameters of regional competitiveness within the European space are determined through the Regional Competitiveness Index (RCI), developed by the European Commission as an analytical tool for assessing the ability of regions to provide an attractive environment for doing business, innovative development and social well-being of the population. The RCI represents the spatial differentiation of the development of administrative-territorial entities in the EU countries (*Figure 1*).

The methodology for assessing the competitiveness of EU regions is based on the NUTS classification, the official system of territorial division for statistics established by Regulation (EC) No 1059/2003 and updated by

Regulation (EU) No 2016/2066. The use of NUTS 2 and NUTS 3 levels provides a detailed analysis of the economic, social and institutional structure of regions, and also allows identifying disparities between agglomerations and peripheries (NUTS, 2016).

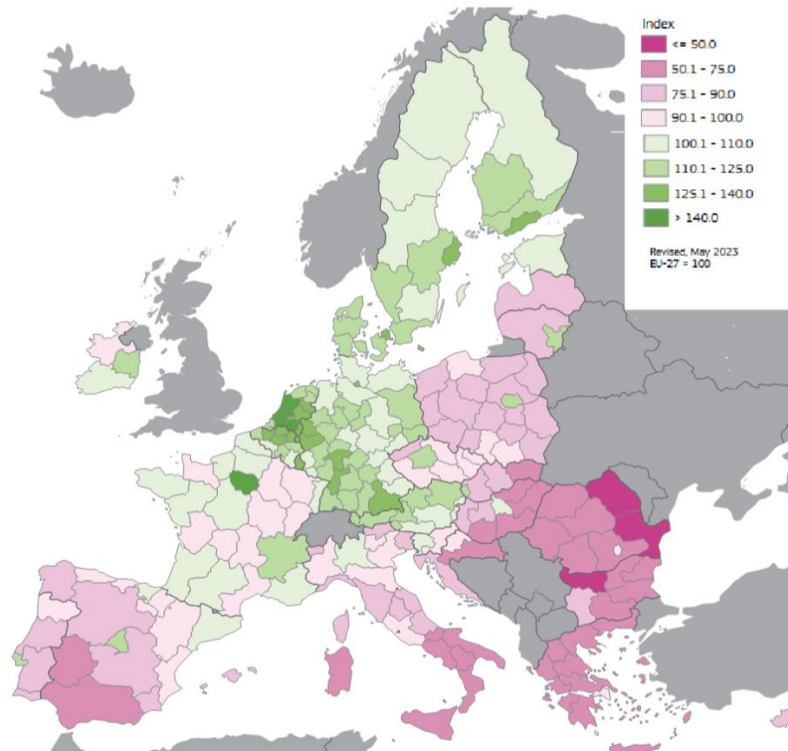


Figure 1. Regional competitiveness index

Source: based on the materials of the European Commission (Dijkstra et al., 2023).

The Regional Competitiveness Index, updated in version 2.0 in 2022, contains 68 indicators grouped into sub-indices: "Basic Factors, Efficiency, and Innovation. Based on the model of the World Economic Forum, RCI 2.0 allows comparing regions with each other, identifying leaders and identifying areas that are lagging behind. The combination of NUTS and RCI 2.0 analysis forms an evidence-based basis for policies to promote regional competitiveness (Dijkstra et al., 2023).

As shown in *Figure 1*, the regions of the Benelux, Northern Europe, Austria, and Germany are characterized by a level of competitiveness that exceeds the EU average. At the same time, most Eastern European regions, with the exception of metropolitan areas, have lower values. A similar situation is observed in the southern EU member states, except for such regions as Catalonia, Madrid, Basque Country (Spain), Lombardy (Italy), and the Lisbon metropolitan area (Portugal), which represent successful competitiveness results. Ireland and France are characterized by a mixed profile, with regions with different levels of competitiveness. In most EU member states, metropolitan regions have the highest competitiveness scores,

especially in Spain, France, Portugal, and Eastern Europe, which can exacerbate imbalances between regions. At the same time, in Germany, Italy, and the Netherlands, the highest results were recorded not in the capitals, but in economically powerful regions: Utrecht (151% of the EU average) and South Holland (142%) in the Netherlands, Lombardy (103%) in Italy, and Oberbayern (130%) in Germany, which exceed the respective indicators of Berlin, Rome and Amsterdam.

Thus, the global policy of stimulating regional competitiveness is based on the principles of spatially oriented development, which involves taking into account the importance of human capital, environmental responsibility, inclusiveness, intellectualization of economic processes, modernization of regional infrastructure, support for small and medium-sized businesses, strategic planning, and focus on achieving sustainable development goals. At the same time, it envisages the introduction of multi-level governance, strengthening the institutional capacity of the regions, development of innovative ecosystems, and ensuring inter-sectoral cooperation.

2. Assessment of regional competitiveness in the architectonics of the Lublin Triangle

The Lublin Triangle is an intergovernmental platform for economic, political, security and regional cooperation between Poland, Lithuania and Ukraine, launched during a meeting of foreign ministers in Poland, in Lublin on 28.07.2020. The format of the Lublin Triangle reflects the institutionalization of a strategic partnership between Poland, Lithuania and Ukraine, based on a common historical and cultural heritage and focused on deepening regional integration. The focus of the partnership initiative is to coordinate cooperation between European and Euro-Atlantic structures, support reforms, and strengthen Ukraine's European integration in the face of Russia's armed aggression. In this context, the border regions of the three countries are seen as key geospatial platforms for the implementation of common strategic priorities, which involves strengthening their role in transforming the security architecture, strengthening economic resilience, and developing the institutional capacity of the territories (Lublin Triangle, 2025).

2.1. Competitiveness of Polish regions in the context of European integration

European integration has become a catalyst for significant shifts in Poland's regional policy, causing a revision of approaches to territorial management, stimulating economic growth and reducing interregional disparities.

Sługocki (2019) believes that the key factor in the development of regional policy was Poland's accession to the EU on May 01, 2004. Accordingly, Poland gained access to financial resources and institutional support through the European Cohesion Policy.

Since EU membership has opened up new financial, institutional and political opportunities for Poland, it is of particular importance to analyze spatial differences, factors of regional competitiveness and the effectiveness of implemented policies. Assessment of these parameters makes it possible to identify structural features of socio-economic development of voivodeships, to identify areas of growth and vulnerability, and to justify the need for a differentiated approach to stimulating competitive advantages at the territorial level.

According to Poniatowicz (2000), the regional competitiveness of the economy is influenced by the following factors: the level of economic development of the country; the level of interregional differentiation; legal and economic status of the regions and the related territorial organization of the state; the degree of openness of the regions and their integration with the European space; location of the region; transport accessibility; availability of research institutions; level of investment in research and development; level of higher education; effective system of vocational education and training.

In her study, Chrobocińska conducts a comparative analysis of the level of competitiveness of Polish regions based on the Regional Competitiveness Index (RCI), which allows identifying spatial patterns of development and assessing the effectiveness of the implemented regional policy. The researcher emphasizes that the highest competitiveness indicators are demonstrated by the Mazovian, Silesian, Greater Poland, and Lower Silesian Voivodeships. These regions are characterized by a stable economic structure, established cluster formations, a high level of investment attractiveness, significant scientific and educational potential, and developed infrastructure, which indicates the presence of long-term competitive advantages, in particular investment attractiveness and high productivity. They are "growth engines" because they have the highest concentration of production, innovation, and human capital. On the other hand, the eastern voivodeships (in particular Podlaskie, Lubelskie, and Świętokrzyskie) are characterized by low values of the index, which indicates the need for targeted support from regional policy (Chrobocińska, 2021).

In the context of the implementation of the sustainable development vector, the results of the comparative cluster analysis of the regions of Poland are presented in the form of a dendrogram (*Figure 2*).

The analysis of the dendrogram, built with the STATISTICA software package using the Ward's hierarchical agglomerative clustering method (Murtagh & Legendre, 2014), allows us to distinguish two groups of Polish regions:

Higher level of competitiveness: Mazowieckie, Silesian, Lesser Poland, Lower Silesian, Greater Poland, Pomeranian and Lodz voivodeships. The closest in terms of characteristics were Lower Silesian, Greater Poland and Silesian Voivodeships, as well as Lodz and Pomeranian Voivodeships.

Lower level of competitiveness: West Pomeranian, Warmińsko-Mazurskie, Świętokrzyskie, Podlaskie, Podkarpackie, Opolskie, Lubuskie, Lubelskie and Kujawsko-Pomeranian Voivodeships. Within this group, smaller clusters were observed, in particular: Lubuskie and Opolskie; Lubelskie and Podkarpackie; Podlaskie, Świętokrzyskie and Podlaskie; Kujawsko-Pomeranian and West Pomeranian.

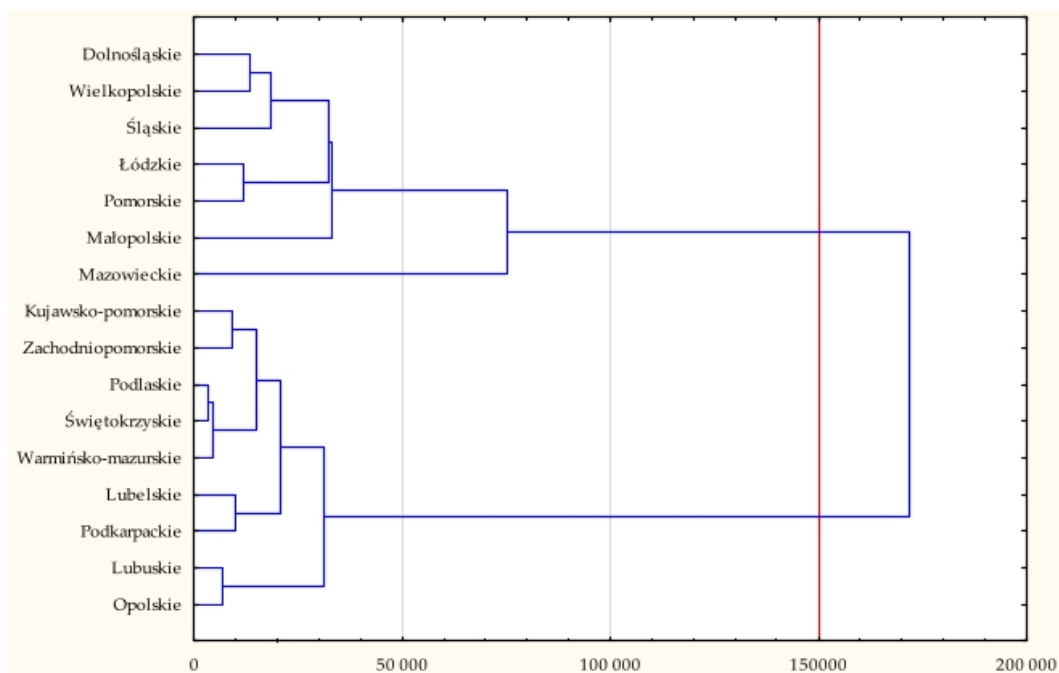


Figure 2. Typology of competitiveness of Polish regions

Source: based on the materials of the research (Chrobocińska, 2021).

The empirical results obtained indicate a clear spatial polarization of regional competitiveness in Poland, which is formed under the influence of institutional, economic, educational, and innovative factors. Within the framework of the European Cohesion Policy, Poland was able to mobilize external resources to strengthen the potential of individual voivodeships, but structural inequalities persist, especially between the western and eastern regions. This necessitates further improvement of the mechanisms of territorial equalization, development of cluster structures, support for human capital, and formation of an institutional environment capable of ensuring long-term competitiveness of the regions in the context of internal and external challenges.

In this context, a new geo-economic factor is worthy of attention: the impact of the war in Ukraine on the regional development of Poland. Russia's invasion of Ukraine and the massive inflow of human capital have led to significant shifts in the demographic and economic structure of individual Polish regions.

Data from an analytical study commissioned by the UN Refugee Agency and conducted by Deloitte show that the competitiveness of certain regions of Poland has increased due to the integration of labor resources from Ukraine, the restructuring of logistics chains, and the growth of entrepreneurial activity. In 2024, the economic contribution of Ukrainian Internally Displaced Persons (IDPs) amounted to 2.7% of Poland's GDP. The high level of labor integration – 69% among people of working age – led to an increase in employment, higher labor productivity, and expanded consumer demand, without causing any negative effects on the labor market for the local population (Deloitte, 2025).

The economic activity of military migrants in Poland has had a multiplier effect: tax revenues, contributions to social and health insurance systems, and overall consumption have increased. Thus, the Polish policy of openness towards the integration of refugees from Ukraine contributed to the growth of regional competitiveness and ensured sustainable economic development of the Polish territories.

2.2. Assessment of regional competitiveness in the context of social and demographic challenges in Lithuania

In the context of modern spatial transformations caused by the demographic crisis, internal migration and external social and economic challenges, in particular the war in Ukraine, the issue of assessing Lithuania's regional competitiveness is an important management problem. The state's regional policy should take into account not only traditional macroeconomic indicators, but also the depth of social and demographic changes that significantly affect the economic dynamics of the territories. In this context, the Regional Competitiveness Index (RCI) acts as an integral tool capable of identifying the strengths and weaknesses of individual regions and providing a comparative assessment based on relevant indicators.

The analytical effectiveness of the regional competitiveness index is substantiated in the works of Snieszka and Brunetskene (Snieška & Bruneckienė, 2009). The empirical application of the index on the example of Lithuanian regions shows its ability to identify key determinants of competitiveness, in particular the demographic structure, level of economic activity, development of institutional and educational infrastructure, degree of clustering and intensity of interaction between science and business. At the same time, there are a number of methodological limitations of the index: its static nature, limited to quantifiable parameters, and insensitivity to qualitative characteristics such as the quality of governance, social capital, and cultural values. In this context, it would be appropriate to supplement the RCI with qualitative indicators for correct interpretation of data in strategic planning of regional development.

In the scientific work of Zhitkus (2015), regional competitiveness is considered as a comprehensive analytical tool for the formation of regional

development policy, which goes beyond the narrow economic paradigm. According to the scientist, an effective policy should be focused not on the formal equalization of interregional disparities, but on the activation of internal drivers of economic growth. These factors include the development of human capital, modernization of the infrastructure base, strengthening of inter-institutional cooperation, and the ability of regions to adapt to structural and technological transformations. The author emphasizes the need to reorient Lithuania's regional policy from the passive distribution of financial resources to the strategic positioning of regions in accordance with their unique competitive advantages. Such an approach allows creating preconditions for the growth of economic efficiency and long-term social sustainability of regional systems.

In the context of Lithuania's regional development, the study of key macroeconomic indicators at the level of territorial units by NUTS 3 allows for a comparative analysis of regional competitiveness. Lithuania, as an EU member state with a relatively recent institutional involvement in pan-European integration processes, demonstrates high rates of macroeconomic growth. At the same time, there is a threatening structural polarization between urbanized centers and demographically vulnerable peripheries (*Table 1*).

Table 1

Competitiveness indicators of Lithuanian regions

Region	GDP		Productivity (GVA PPS per person employed) EU27=100, 2021	Real productivity growth	Population growth
	per head (PPS) EU27=100, 2021	per head growth; Avg % change on previous year, 2011–2020			
Vilnius county	126	4.27	89	0.71	3.60
Alytus county	53	3.80	56	2.54	–17.36
Kaunas county	89	5.02	94	4.06	–5.88
Klaipėda county	81	2.93	83	2.78	–3.70
Marijampolė county	54	4.02	61	2.96	–18.55
Panevėžys county	65	4.73	71	3.71	–19.08
Siauliai county	67	4.76	78	3.89	–13.89
Tauragė county	48	4.93	52	3.43	–20.65
Telšiai county	60	2.86	61	0.32	–16.60
Utena county	52	2.90	62	2.35	–20.73
European Union	100	0.59	100	0.25	–
Lithuania	88	4.49	82	2.48	–8.80

Source: based on the reports of the (European Commission, n. d.).

The analysis of the above data demonstrates a significant socio-economic polarization between the capital region (Vilnius) and other Lithuanian territories. Vilnius County significantly exceeds both the national and EU averages in terms of GDP per capita (126% of the EU average) and labor productivity (89%). Moreover, this region demonstrates positive demographic dynamics: population growth of +3.6% and positive migration of +4.4%. It is the only region with a systematic population growth, which indicates its attractiveness in the socio-economic dimension.

In contrast, peripheral regions such as Tauragė, Utena, and Marijampolė demonstrate extremely low GDP per capita (48% to 54% of the EU average) and low labor productivity (52% to 62%). Despite relatively high GDP growth rates (about 4–5% per year), these regions are experiencing an intense demographic decline: population growth ranges from –18% to –21%, which indicates that economic growth in these regions does not compensate for the structural outflow of human capital. Other large urbanized regions, such as Kaunas and Klaipėda, are doing much better: their productivity levels are above the national average, and their growth rates (4.06% in Kaunas) are the highest among all regions. However, even in these regions, the demographic situation remains negative.

Thus, the regional economic dynamics of Lithuania demonstrates the concentration of growth in urbanized destinations, primarily in Vilnius, while the periphery faces systemic challenges of demographic depletion and insufficient labor productivity. This situation calls for a revision of spatial development policy with a focus on stimulating human capital, increasing regional attractiveness, and supporting decentralized economic growth.

In the context of the policy of stimulating regional competitiveness, it is important to take into account the consequences of migration flows caused by the war in Ukraine. Russia's full-scale invasion of Ukraine has resulted in a significant inflow of labor to EU countries, in particular to Lithuania, where more than half of the Ukrainians of working age who arrived in the country are employed. Despite the rapid integration of some migrants, the overall situation on the labor market was ambiguous: the unemployment rate among unskilled workers in Lithuania increased from 14.9% in Q1 2022 to 15.5% in Q4, which was significantly higher than the EU average (6.5%) (European Commission, n. d.).

These trends point to problems of labor market sustainability and the need for an adaptive policy of public administration in the regions. In particular, an effective regional policy should not only facilitate the integration of internally displaced persons, but also ensure a balance between the demand for skilled labor and the employment structure. Supporting vocational training, stimulating small businesses, and developing local employment infrastructure are key areas for reducing regional inequality and strengthening the competitiveness of territories in the face of socio-economic turbulence.

An assessment of Lithuania's regional competitiveness through the prism of socio-demographic transformations revealed a significant polarization between urbanized centers and peripheries, indicating a systemic imbalance in the development of territories. The high economic performance of the Vilnius region contrasts with the demographic decline of most other administrative units. This necessitates a rethinking of the country's spatial development strategy with a focus on supporting human capital, integrating internal and external migrants into the local socio-economic environment, developing the institutional capacity of the regions, and ensuring social sustainability as a basis for building competitive potential in the long term.

2.3. Transformational policy vectors to stimulate regional competitiveness in the context of war and post-war recovery of Ukraine

Russia's full-scale armed aggression against Ukraine has become a determining factor in the profound transformations of regional socio-economic systems. The war caused not only the loss of infrastructure, production and human potential, but also exacerbated the asymmetries of regional development, making it necessary to rethink strategies for managing the competitiveness of territories. In such circumstances, regional competitiveness policy becomes critical as a tool for adapting to crisis challenges, mobilizing domestic resources, and providing the basis for post-war recovery and economic sustainability.

2.3.1. Geospatial transformation of the competitive positions of regions under martial law in Ukraine

The policy of stimulating regional competitiveness is a key factor in Ukraine's economic recovery. The war, which Russia started in a hybrid format in 2014 with the annexation of the Autonomous Republic of Crimea and transformed into a full-scale invasion on February 24, 2022, caused significant losses of national wealth, large-scale destruction of infrastructure, displacement of logistics hubs, and deepening asymmetries in regional development.

According to the World Bank, Ukraine's real GDP declined by 28.8% in 2022, while in 2023 it grew by 5.3% (World Bank, 2025). According to the State Statistics Service of Ukraine, in 2024, Ukraine's real GDP grew by only 2.9% compared to the previous period. The slowdown in its growth rate was caused by the consequences of the war and attacks on system-forming enterprises and regional infrastructure facilities (State Statistics Service of Ukraine, 2025, March 31).

It is clear that the economic growth of GDP in the year following Russia's full-scale invasion of Ukraine was made possible by the processes of

adaptation of regional socio-economic systems to martial law, which was manifested through the intensification of business activity in the western and central regions, the relocation of production facilities from the war zones, and the support of international partners. These processes demonstrate the ability of the regions to adapt and structurally transform their economic activities in the face of limited access to resources and growing security risks.

The war has devastated the economy of Ukraine and exacerbated regional disparities: frontline regions have lost their industrial and manufacturing potential, while western regions have gained new opportunities for development thanks to business relocation, changes in trade routes and a stronger role in European economic integration. The primary and secondary sectors have suffered the greatest losses, while the social services and trade sectors remained relatively stable even in frontline territories. Recovery requires taking into account regional specifics and forming competitive advantages. The key challenge is to create an investment climate: international assistance remains crucial in the initial stage, while in the long term, it is necessary to attract private and, in particular, foreign capital, develop entrepreneurship, and stimulate exports and investments (Lyvch & Diakiv, 2025).

The asymmetry of social and economic development necessitates the formation of an economic policy to stimulate regional competitiveness aimed at eliminating structural imbalances, restoring the potential of the territories liberated from Russian occupation and strengthening their economic capacity. Some regions are now acting as internal donors of economic stabilization through the formation of new production clusters, intensification of housing construction, development of trade and services, and job creation. The existence of regional imbalances requires a systematic approach to the development of economic policy aimed at restoring the production base, mobilizing internal resources and increasing the competitiveness of the territories.

2.3.2. Sustainable development values in regional competitiveness management

In the scientific discourse, there is an ambiguous interpretation of the concept of sustainable development in the context of its application in the management of regional competitiveness.

Ecological integrity, economic well-being, and social justice are a triad of values, each of which is a necessary but not sufficient condition for sustainable development (Our Common Future, 1987).

In the context of macroeconomic instability, the challenges of war, post-war recovery, resource depletion, climate change, and social disparities, the concept of sustainable development is seen as a methodological basis for strategic management of regional competitiveness. In this context, the values

of sustainable development serve as a methodological basis for the formation of management decisions, ensuring the integration of economic, social, environmental, and institutional dimensions into a holistic system of regional economic policy.

Taking into account the methodological approach (Dmytruk & Humeniuk, 2022), the values of sustainable development acquire the status of objectively verifiable and measurable characteristics that reflect the ability of the regional socio-economic system to respond adaptively to external and internal challenges. If values are integrated into the management decision-making system (if values are real, not abstract declarations), they serve as integral indicators that synthesize the results of strategic and tactical management actions. In this context, values express the level of coherence of economic, social, environmental, and institutional components within the sustainable life cycle of a region's development, transforming into a means of analytical assessment of the effectiveness of economic policies to improve competitiveness.

Therefore, it is appropriate to interpret them as the result of synchronization of strategic and operational management decisions in the context of a sustainable life cycle of generating relevant values. To formalize this approach, we will use the function of the integral value of sustainable development of the region:

$$VR(t) = \alpha_{(1)} R(t) + \alpha_{(2)} S(t) + \alpha_{(3)} E(t) + \alpha_{(4)} I(t) + \alpha_{(5)} D(t), \quad (1)$$

where: $VR(t)$ – the integral function of the value of sustainable development of the region at time t ;

$R(t)$ – the resource potential, which includes balanced use;

$S(t)$ – social integration, which reflects equitable access to opportunities and inclusion of vulnerable groups in the development of the region;

$E(t)$ – environmental quality, which takes into account ecosystem sustainability, resource recovery, and pollution control;

$I(t)$ – institutional capacity, which includes governance effectiveness, adaptability of regional institutions, and strategic coherence;

$D(t)$ – management actions that accumulate the results of policy coordination, goal setting, and response to external challenges;

$\alpha_{(1)}, \alpha_{(2)}, \alpha_{(3)}, \alpha_{(4)}, \alpha_{(5)}$ – weighting coefficients that determine the relative importance of each component in accordance with the priorities of regional development.

The conceptual model under consideration is consistent with the "Matrix of Sustainable Development Values in the Regional Competitiveness Management Coordinate System", where each value is specified through economic, social, environmental, and institutional dimensions (*Figure 2*).

Values	Dimension			
	Economic	Social	Environmental	Institutional
	Transdimensional			
	An environment mindful of future generations' needs	Balancing short- and long-term needs	Accounting for ecosystem parameters	Planning with a horizon of post-war recovery
	Equity			
	Competitive conditions for access to resources and infrastructure	Real opportunities for community development	Distribution of environmental risks without prejudice	Involvement of key stakeholders in business processes
	Rationality			
	Maximizing value rent in the context of sustainable development	Responsible organization of regional clusters	Optimization of the use of the region's productive forces	Monitoring of the situation, intellectualization of regional policy
	Ecologization			
	Support for the environmental vector	Raising environmental awareness	Restoration and conservation of resources	Implementation of environmental management
	Inclusiveness			
	Facilitating economic inclusion of persons with disabilities and veterans	Real community participation in regional governance	Protection of natural resources of the territories	Participatory public management and administration
	Innovation			
	Technological modernization of production	New forms of employment in the region	Development of environmental technologies	Support for regional regional innovations
	Sustainability			
	Decarbonization policy in region	Formation of a culture of frugality	Transition to circular economy	Limitation of eco-risk practices
	Synergy			
	Harmonization of regional priorities	Integration of social effects	Systematic consideration of risks	Coordination of regional policy coordination

Figure 2. Matrix of sustainable development values in the coordinate system of regional competitiveness management

Source: compiled by the authors.

The above conceptual model forms the information and methodological basis for substantiating the policy of stimulating competitiveness, as it allows assessing the values of sustainable development of territories, ensuring a balance of economic, social, environmental, and institutional mechanisms.

2.3.3. Digital transformation as a factor of regional sustainability

Digital transformation shapes the structure of modern regional policy, defining new governance principles, mechanisms of interaction, and competitive advantages of territories. In the context of war and post-war

recovery, digital solutions play not only a technological but also a strategic role as a catalyst for adaptation, institutional stability, and economic activity at the regional level. The importance of studying this problem is outlined in the following vectors:

- in the current economic environment, regions compete not only at the national but also at the cross-border and international levels, which necessitates the development of effective competitiveness management strategies taking into account trends in the international sectoral concentration of business entities and economic specialisation of territories;
- globalization processes and the rapid development of digital technologies are radically changing traditional models of regional governance, putting forward new requirements for flexibility, innovation, and digital integration of regional systems in the face of increasing macroeconomic instability;
- the digital transformation of sectoral markets increases the responsibility of local authorities in ensuring the economic sustainability of regions, the integration of digital technologies into public administration practices, the modernization of local government mechanisms, and the strengthening of the institutional capacity of territorial communities.

In the context of the implementation of the EU's macro-regional strategy (Sytnyk et al., 2020), the key factors in these processes are the development of human capital, the development of modern digital infrastructure, ensuring inclusive digital accessibility, and the integration of digital solutions into the practice of managing regional competitiveness.

Today, sectoral digital transformation determines the institutional sustainability and competitiveness of regions. According to the report "Digital Transformation Index of Ukrainian Regions. Results of 2024", the Sectoral Digital Transformation sub-index reflects the level of integration of digital technologies in the areas of cybersecurity, healthcare, civil protection, and e-democracy. The assessment covers the implementation of information security measures, modernization of alert systems, and the introduction of digital tools for the participation of local communities in regional development decision-making. Due to security restrictions in the context of martial law in Ukraine, no data on cybersecurity and civil protection are detailed, instead the focus is on the development of e-democracy (Index of Digital Transformation of the Regions of Ukraine, 2024).

The results of the analysis of the sectoral digital transformation of Ukraine's regions show significant territorial disparities. The highest values of the Sectoral Digital Transformation sub-index were recorded in Lviv (0.964), Ternopil (0.792), Poltava (0.694), Volyn (0.664), Vinnytsia (0.652), and Dnipro (0.650) regions. At the same time, Zaporizhzhia (0.243), Mykolaiv (0.292), and Ivano-Frankivsk (0.357) regions have lower scores (Index of Digital Transformation of the Regions of Ukraine, 2024).

The overall range of values of the Sectoral Digital Transformation sub-index (from 0.243 to 0.964) indicates the presence of digital asymmetry in the development of territorial communities. In such circumstances, the priority of regional policy should be to stimulate digital modernization and develop effective mechanisms for managing regional competitiveness in the digital environment. In this context, sectoral digital transformation serves as a public management and administration tool that ensures the integration of digital technologies into the strategic planning processes of territorial communities.

The problem of managing regional competitiveness in the context of sectoral digital transformation is particularly acute in Ukraine, where, as a result of large-scale armed aggression, certain territories have been temporarily occupied, critical infrastructure destroyed, production potential lost, and economic activity reduced. Targeted attacks on energy infrastructure facilities (power plants, substations, distribution networks) have complicated the functioning of business entities in sectoral markets, destabilized the transport and logistics infrastructure, and worsened the socioeconomic conditions of the population in certain territorial communities.

Under such conditions, the management of the competitiveness of regional socio-economic systems is determined not only by the ability to create a favorable environment for doing business, attracting investment and rational use of resources, but also by the ability to restore critical infrastructure, reintegrate the affected territories, and guarantee the vector of sustainable development of territories in the period of post-crisis transformations.

Thus, digital transformation in Ukraine is gradually moving from the status of an auxiliary tool to the plane of methodological principles of public management of regional competitiveness. Its level already correlates with economic sustainability, business activity, investment attractiveness, and social inclusion, and in the medium term will be crucial for the country's post-war recovery and European integration.

2.3.4. Stimulating the innovative competitiveness of regions in the perspective of post-war economic recovery

The innovative competitiveness of a region is formed as a result of the active implementation of innovative solutions in the economic activities of enterprises and the development of an institutional environment that ensures sustainable growth of the region's economy. Innovations play a key role in improving the efficiency of business entities, creating new or improving existing products, services and technologies, as well as in the ability to adapt to dynamic changes in the market environment.

Effective management of the region's innovation competitiveness involves a set of economic policy measures aimed at creating favorable conditions for the development of innovation. In particular, financial incentives in the form of subsidies, tax breaks, and grants significantly reduce barriers to the introduction of new technologies. This allows companies to overcome the risks associated with innovation activities faster and increases

the investment attractiveness of relevant projects. An example of such an impact is the growing number of renewable energy projects under the influence of government subsidies, which reduce the financial burden and create an impetus for the region's innovative competitiveness.

A special role in stimulating the innovation activity of enterprises is played by the innovation rent, which is an economic incentive for business and the development of territorial communities. The innovation rent allows enterprises that introduce new technologies and developments to receive excessive profits due to a temporary monopoly on unique innovations.

The innovation rent of industry segments of the regional economy is one of the key indicators characterizing the economic effect of implementing innovative solutions within certain sectors of the region. It is formed in the form of additional cash flow generated by the growth of added value and increased competitiveness. Given that this effect is realized over a certain period of time, for its adequate assessment it is necessary to apply discounting of future income, which allows to determine the present value of the innovation rent:

$$RI = \sum [\Delta EVA_{jt} / (1 + ik)^t], \quad (2)$$

where: RI – the innovation rent of industry segments of the regional economy;

ΔEVA_{jt} – increase in economic value added in the j industry segment of the regional economy in year t due to the innovation component;

ik – discount rate, expressed as a decimal as the weighted average cost of capital directed to the development of innovations;

t – year number of the innovation life cycle.

Thus, the management of the region's innovation competitiveness involves an integrated system of measures that combines financial support, regulatory policy, and the development of innovation infrastructure. Creating conditions for obtaining innovation rents serves as an important motivational factor for business, contributing to the economic dynamics and social well-being of the region.

The analysis of the transformational vectors of Ukraine's regional competitiveness policy in the context of the war and post-war recovery shows significant changes in the priorities, mechanisms, and institutional approaches to regional development. The spatial challenges caused by the war have actualized the need for an adaptive and differentiated management solution that take into account the asymmetry of the social and economic situation of the regions, their resource base, and infrastructure potential.

Conclusions

This research has established an interdisciplinary theoretical and analytical basis for rethinking policies to stimulate regional competitiveness in conditions of spatial asymmetry, structural transformations, and security threats. The results confirmed the hypothesis that effective policies to stimulate regional competitiveness are possible provided that the European development

vector is integrated with the values of security, sustainable development, institutional capacity, digital transformation of public administration, and differentiated consideration of spatial asymmetries between regions.

A comprehensive study of theoretical approaches, indicator assessment, and empirical analysis of Poland, Lithuania, and Ukraine in the coordinate system of the Lublin Triangle has shown that modern economic policy of regional development requires a transition from unified models to adaptive, spatially differentiated strategies based on the principles of sustainable development, digital transformation, and innovation dynamics.

It is substantiated that the determinants of regional competitiveness are not only productivity, investment attractiveness and human capital, but also the ability of territories to adapt to demographic pressure, security risks, infrastructure losses and challenges of digital inequality.

An approach to an integrated assessment of the effectiveness of strategic management of regional development through the prism of sustainable development values is proposed. Such a model allows synthesizing economic, social, environmental and institutional factors within a single analytical framework suitable for monitoring the competitive potential of territories in the dynamics.

The research is limited by incomplete statistics on temporarily occupied territories and differences in the methodologies used to calculate indicators in Ukraine and the EU. The use of expert assessments and analytical reviews broadens the factual basis but complicates quantitative comparisons. However, the multi-component research methodology and the reliability of sources ensure the robustness of the results.

The scientific novelty lies in the interdisciplinary generalization of approaches to measuring the competitiveness of regions, covering social, institutional and digital factors, as well as in the development of functional models that ensure the formalization of strategic decisions.

The practical significance of the results lies in the possibility of their use in the development of regional development policies in conditions of limited resources, increased turbulence and asymmetry of post-war recovery.

Further research should focus on economic and mathematical modelling of the stability of regional systems, taking into account demographic and security factors, as well as on developing scenarios for the adaptation of regions to external shocks during wartime and post-war periods.

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