

# Регіональна політика і територіальний розвиток

<https://doi.org/10.36818/1562-0905-2026-2-1>

UDC 332.1:338.124.4:355.01(477)

JEL R11, R12, R58, H77, O18

## Spatial asymmetry in changes to the socio-economic potential and resilience of Ukraine's regions amid full-scale war

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**Purpose.** The purpose of the article is to identify the features of spatial asymmetry in changes to the socio-economic potential and resilience of Ukraine's regions under conditions of the full-scale war, as well as to substantiate the key factors that determine the differentiation of regional adaptive capacity, financial self-sufficiency, and structural resilience.

**Methodology.** The methodological basis of the study is a comprehensive approach combining the provisions of regional economics, spatial development theory, resilience theory, and systems analysis. The research employs statistical and comparative analysis to assess interregional differences in demographic, infrastructural, financial, and economic transformations. The study uses indicators such as changes in the de facto population, the concentration of internally displaced persons, the scale of infrastructure losses, the share of official transfers in local budget revenues, and the level of economic diversification. Methods of generalization, synthesis, structural analysis, and graphical visualization are applied to identify spatially differentiated models of regional transformation under wartime shocks.

**Findings.** The study demonstrates that the full-scale war has become a factor of profound transformation of Ukraine's socio-economic space. It has intensified demographic losses, caused large-scale destruction of industrial, social, transport, logistics, and energy infrastructure, deepened financial disparities among regions, and increased migration vulnerability. The most severe losses of socio-economic potential are observed in frontline and partially occupied regions, where human capital has declined, production capacity has been destroyed, transport and social infrastructure have deteriorated, and local financial self-sufficiency has weakened. At the same time, relatively safe rear regions have become centres of population concentration, business relocation, financial resource accumulation, and economic activity. The research identifies spatially differentiated models of territorial social and financial return, including financially resilient regions, financially degraded regions, and transitional regions that combine high security risks with a relatively preserved capacity for economic functioning. It is substantiated that economic diversification is one of the key determinants of regional resilience, as it increases territories' ability to adapt to shocks, maintain economic activity, and reduce dependence on individual sectors. Additional factors undermining resilience include migration losses, shrinking labour potential, youth and skilled labour outflow, population ageing, energy instability, and growing dependence of communities on external financial support.

**Originality.** The scientific novelty of the study lies in substantiating the spatial asymmetry of changes in the socio-economic potential and resilience of Ukraine's regions under conditions of full-scale war. The article develops an analytical approach to identifying spatially differentiated models of territorial transformation based on demographic, infrastructural, financial, and structural indicators. The study also highlights the relationship between territorial financial capacity, economic diversification, migration vulnerability, and regional resilience in the context of long-term military shocks.

**Practical value.** The practical significance of the results lies in their applicability for improving state regional policy under wartime and post-war recovery conditions. The findings may be used to develop differentiated policy instruments aimed at supporting regions with critical losses of socio-economic potential, strengthening local financial capacity, reducing interregional disparities, stimulating economic diversification, and increasing the adaptability of regions and communities to long-term security, demographic, and socio-economic challenges.

**Keywords:** spatial asymmetry; socio-economic potential; regional resilience; territorial disparities; territorial financial capacity; economic diversification; state regional policy.

### Introduction

Full-scale war has been one of the most significant shocks to Ukraine's socio-economic development since independence. Not only have the hostilities resulted in significant casualties and large-scale destruction of industrial, social, transport,

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logistics, and energy infrastructure, they have also fundamentally transformed the spatial organization of the economy and the system of interregional links. The war has exacerbated regional disparities in socio-economic development, intensified demographic, infrastructural, financial, and security imbalances, and led to the emergence of new centres of concentration of population, economic activity, and resources.

Issues of spatial asymmetry in changes to the socio-economic potential and resilience of Ukraine's regions are becoming particularly relevant in the current circumstances. The uneven nature of the damage, the scale of migration losses, the concentration of internally displaced persons, business relocations, transformations in labour markets, and regional financial capacity result in regions having significantly different capabilities to adapt to the impacts of the crisis, sustain economic activity, and ensure recovery processes. Meanwhile, the war has brought to the fore the issue of preserving the functional integrity of the country's socio-economic space and has highlighted the need for new approaches to ensuring Ukraine's balanced spatial development.

### **Literature Review**

The issue of spatial disparities in territorial development has traditionally been an important focus of research for Ukrainian scholars. The theoretical and applied aspects of regional development, territorial disparities, and spatial integration are addressed by E. Libanova and I. Bystryakov (2025), A. Cherchata (2025), A. Mosin (2025), and other researchers. These studies pay considerable attention to the factors underlying the emergence of interregional imbalances and the concentration of economic activity, human capital, and financial resources.

In recent years, research into regional and local resilience has intensified significantly. I. Storonyanska and H. Voznyak (2025), M. Melnyk (2023), L. Zomchak (2025), and other scholars substantiate the conceptual foundations of the resilience of endogenous territorial development, identify the key factors in regions' adaptation to crisis impacts, and examine the role of economic diversification, human capital, institutional capacity, and financial resilience in ensuring territories' ability to recover from shocks.

A separate area of current research involves studying the socio-economic consequences of the full-scale war for Ukraine. In particular, T. Vasylytsiv and O. Mulska (2025) examine the issues of demographic losses and forced migration, K. Prytula (2024) examines the transformation of the transport and logistics system and business relocation, O. Levytska [(2024) examines the transformation of regional labour markets, and V. Yasnetskyi (2025) examines the financial capacity of territories in the context of military challenges.

Meanwhile, the issue of spatial asymmetry in changes to the socio-economic potential and resilience of regions under the influence of military shocks remains underresearched and requires further academic analysis.

### **Purpose of the Study**

The purpose of the article is to identify the features of spatial asymmetry in changes to the socio-economic potential and resilience of Ukraine's regions under conditions of the full-scale war, as well as to substantiate the key factors that determine the differentiation of regional adaptive capacity, financial self-sufficiency, and structural resilience.

The methodology of the study is based on the integration of regional economics, spatial development theory, the concept of resilience of socio-economic systems, and the systems approach. This research logic makes it possible to consider Ukraine's regions not merely as administrative-territorial units, but as complex open systems whose capacity for adaptation, recovery, and maintenance of core functions changes significantly under the influence of wartime shocks.

## Methodology

To achieve the aim of the study, a set of general scientific and special research methods was applied. In particular, statistical analysis was used to assess quantitative changes in the demographic, financial, infrastructural, and economic potential of the regions; comparative analysis was employed to identify interregional differences and the differentiation of territorial development trajectories in the pre-war and wartime periods; and structural analysis was applied to determine changes in regional financial capacity and economic diversification. The indicator framework of the study includes changes in the de facto population, the concentration of internally displaced persons, the scale of infrastructural losses, the share of official transfers in local budget revenues, and the level of regional economic diversification. Methods of generalization, synthesis, and graphical visualization were used to interpret the obtained results and to distinguish spatially differentiated models of regional development transformation under conditions of full-scale war.

## Results and Discussion

Full-scale war has led to an unprecedented decline in the socio-economic potential of Ukraine's regions, as reflected by the large-scale destruction of industrial, social, transport, logistics, and energy infrastructure, the loss of human capital, a decline in economic activity, and increased interregional development disparities.

**Changes in the spatial distribution of the country's human potential** are a particularly apparent consequence of the war. Large-scale migration, demographic losses, and the concentration of human resources in relatively safe regions have significantly altered the configuration of Ukraine's socio-economic space.

An analysis of the number of declarations of a primary care doctor choice, which can be used as a proxy indicator of the de-facto population, reveals an increase in the spatial unevenness of its distribution. In particular, the coefficient of variation in the number of declarations increased from 44.7% in 2021 to 52.2% in 2026 and from 43.5% to 50.7% when excluding data for Kyiv (National Health Service of Ukraine, 2026). This trend indicates growing interregional disparities in population concentration, the displacement of a significant proportion of residents to relatively safer areas, and a decline in the human potential of certain frontline regions.

The growing demographic asymmetry in regional development is largely caused by large-scale migration and an overall population decline. According to various estimates, between 28 and 31 million people were living in the territory controlled by Ukraine as of early 2026, which is 6-10 million fewer than in the pre-war 2019 (Yakobchuk, 2025). This has resulted in a significant territorial redistribution of the population. The largest increase in the share of the population within the overall Ukrainian demographic structure (estimated figures) was observed in relatively safe rear regions and large urban centres. In particular, the proportion of Kyiv's population increased from 9.9% in 2019 to 13.3% in 2025, that of Lvivska oblast – from 6.1% to 8.3%, Odeska oblast – from 6.3% to 7.5%, Volynska oblast – from 2.4% to 3.3%, and Ivano-Frankivska oblast – from 2.0% to 2.4% (Svyrydova, 2025; On approval of the Strategy of Demographic Development of Ukraine until 2040, 2024). In contrast, the regions most affected by hostilities experienced a sharp population decline. For instance, the share of Donetska oblast in the total population of Ukraine fell from 5.3% to 0.8%, that of Hersonska oblast – from 2.5% to 0.4%, Zaporizka oblast – from 4.4% to 2.7%, and Harkivska oblast – from 7.5% to 6.8% (Svyrydova, 2025; On approval of the Strategy of Demographic Development of Ukraine until 2040, 2024). This indicates the emergence of a new spatial configuration of the country's human potential, a concentration of the population in the rear regions, and increased demographic imbalances between different parts of the country.

Internal forced migration has become a significant factor in transforming human potential. As of May 2026, the number of internally displaced persons exceeded 4.6 million. The highest concentration of IDPs was observed in Harkivska (11.0%), Donetska (10.8% in the territory controlled by Ukraine), and Dnipropetrovska (10.3%) oblasts (Information and Computing Center of the Ministry of Social Policy, Family and Unity of Ukraine, 2026), which together accounted for almost a third of all internally displaced persons in the country. The concentration of wounded servicemen undergoing treatment and rehabilitation in local medical facilities places an additional burden on these territories. Consequently, there is a significant increase in the pressure on housing, social, healthcare, and public utility infrastructure, local labour markets, and public service delivery systems.

Alongside the loss of human potential, the war has caused widespread destruction to the material foundations of socio-economic development across these territories. The uneven concentration of destruction to industrial, social, transport, and energy infrastructure has become one of the key factors contributing to the deepening spatial asymmetry in the socio-economic potential of Ukraine's regions.

According to estimates by international partners, Ukraine's direct losses resulting from the full-scale war had exceeded \$195.1 billion by late 2025, while total economic losses had exceeded \$667 billion. At the same time, reconstruction and rehabilitation needs could reach \$587.7 billion over the next decade, with the largest share going to transport infrastructure (over 16%), the energy sector (over 15%), and housing (almost 15%) (Huba, 2026; World Bank, 2026).

However, the war has caused not only large-scale direct destruction but also significant indirect economic losses. According to estimates by the KSE Institute (UAprom, 2026), the total amount of indirect financial losses to the Ukrainian economy could reach \$1.7 trillion in terms of revenue or \$598.7 billion in terms of value added by the end of 2026. Analysts predict that productive economic sectors will suffer the greatest indirect losses: trade (\$696 billion in lost revenue), industry, construction, and the service sector (\$646 billion), as well as agriculture (\$82 billion). Evidently, the highest concentration of losses will continue to affect the frontline and border regions of Ukraine, where ongoing hostilities, systematic missile attacks, and disrupted logistics networks will further erode productive capacity, reduce transport accessibility, and worsen living conditions for the population.

Ukraine's industrial sector suffered particularly heavy losses. Total direct losses to industry and trade are estimated at \$19.2 billion, with over 80% of the losses concentrated in frontline and formerly industrially developed regions – Donetsk, Harkivska, Zaporizka, Mykolayivska, and Kyivska oblasts. The main factors contributing to these losses were the destruction of production facilities, a decline in domestic and external demand, disruptions to logistics chains, energy constraints, and the loss of access to part of the raw materials supply (World Bank, 2026).

Ukraine's mining and metallurgical sector is one of the hardest-hit industries. Ukraine has lost around 40% of its steel production capacity as a result of the destruction of Azovstal and Ilyich Iron and Steel Works of Mariupol. Steel production volumes fell from 21 million tonnes in 2021 to around 7 million tonnes in 2025, i.e. by almost 65%. Meanwhile, exports of mining and metallurgical products fell by around 70% (UAprom, 2026), while a significant proportion of production and raw materials remain in the temporarily occupied territories or have been lost as a result of the hostilities.

Ukraine's social infrastructure has suffered significant damage from the hostilities. As of late 2025, around 14% of the country's housing stock was damaged or destroyed, affecting over 3 million households (Huba, 2026). The areas closest to the front line have suffered the greatest damage: over 50% of the housing stock in the towns and villages of the frontline zone has been damaged or destroyed,

while in Syevyerodonetsk, damage affected around 90% of residential buildings. Bahmut and Maryinka remain almost completely destroyed (Andriyenko, Horyunov, Marshalok, T., et al., 2026). As a result, direct losses to the housing sector exceeded \$60 billion (Huba, 2026), while indirect losses are estimated at a further \$26.8 billion (Andriyenko, Horyunov, Marshalok, T., et al., 2026) and include increased costs of supporting the sector, additional expenditure by the population on housing rent, as well as costs for the dismantling and removal of construction waste resulting from shelling of residential infrastructure.

**Healthcare systems** have also suffered significant losses. Destruction or damage to healthcare facilities has been recorded in 19 regions of Ukraine, with the highest concentration of damage reported in Donetska, Harkivska, Mykolayivska, Luhanska, and Zaporizka oblasts.

Moreover, the war has led to significant spatial polarisation of the healthcare system's staffing potential (Figure 1).

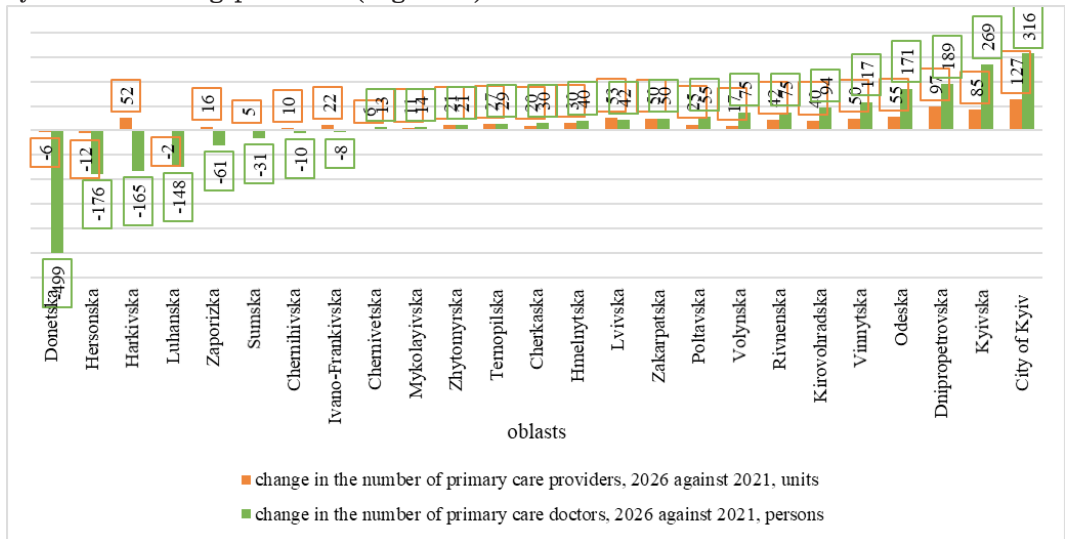


Figure 1. Spatial transformations of staffing potential and network of primary healthcare providers in the regions of Ukraine, 2026 against 2021 (as of the start of the year)

Compiled by the authors based on the data from URL: <https://nszu.gov.ua/dashboards/statistika-podanix-deklaracii-pro-vibir-likaria-per>

The sharpest decline in the number of primary care doctors occurred in frontline regions: Donetska (-499), Hersonska (-176), Harkivska (-165), and Luhanska (-148) oblasts. This confirms the large-scale outflow of medical staff from areas of high security risk, the destruction of medical infrastructure, and the deterioration of healthcare system functioning conditions.

Meanwhile, it is worth emphasising that regional transformations in healthcare staffing are heterogeneous. While there has been an overall decline in the number of doctors and healthcare providers in frontline regions, some areas are showing the opposite trend. In particular, a significant increase in the number of doctors and healthcare facilities is recorded in Dnipropetrovska oblast, which is attributed to its transformation into a key medical support hub for Ukraine. The region serves as one of the main centres for providing emergency care to wounded military personnel and civilians, and it also receives the largest influx of internally displaced persons from frontline areas. Similar processes are also typical for the rear Kyiv, as well as Kyivska and Odeska oblasts.

Around 3,800 educational establishments were damaged or destroyed as a result of the war, with the greatest losses suffered in Donetska, Harkivska, Hersonska, Mykolayivska, and Luhanska oblasts.

Ukraine's **transport and logistics infrastructure** has suffered significant destruction. As of early 2026, the sector's total direct losses are estimated at \$40.3 billion, with the railway infrastructure, local roads, and highways being the most affected. Around 60% of the sector's losses are attributed to the blockade of Black Sea ports and disruptions to export logistics (World Bank, 2026), which has led to a sharp increase in transport costs, difficulties in foreign trade, and exacerbated structural imbalances in Ukraine's spatial development. Indirect losses in the transport sector are estimated at a further \$60.2 billion. Airfields, as well as railway, port, and road infrastructure, are badly damaged (Andriyenko, Horyunov, Marshalok, T., et al., 2026). In particular, 19 of Ukraine's 35 airfields have been damaged. Following the blockade of sea routes in March 2022, Ukrainian exports fell by almost 50%. Public transport systems in the frontline regions have effectively been destroyed. In particular, by early 2026, around 60% of public transport had been lost in Donetska oblast, while the figure was over 70% in Luhanska oblast (Andriyenko, Horyunov, Marshalok, T., et al., 2026). This has significantly restricted the population's transport mobility, access to basic services, the functioning of local labour markets, and opportunities for economic activity in the affected areas.

The **energy infrastructure** has also suffered extensive damage. Indirect losses in the energy sector are estimated at \$75.3 billion (Andriyenko, Horyunov, Marshalok, T., et al., 2026). A significant proportion of the country's power generation capacity has been damaged or destroyed as a result of the Russian Federation's massive attacks on energy facilities. The Zaporizhzhya NPP, which provided more than 10% of the Ukrainian power grid's capacity prior to the outbreak of full-scale war, remains under occupation, posing additional risks to the country's energy and nuclear security.

According to estimates by international organisations (Huba, 2026), around 75% of all damage accounts for frontline areas, which indicates the extremely uneven geographical distribution of the destruction and increasing territorial disparities in socio-economic development.

Therefore, the war has not only created a spatial asymmetry of losses in the socio-economic potential of the regions, but has also significantly affected their ability to ensure economic recovery, accumulate financial resources, and maintain an adequate level of functioning of local economic systems. One manifestation of such transformations is a **shift in the level of territories' social return**, which is largely determined by their ability to generate financial resources independently and to sustain the functioning of the local economy without being critically dependent on external support. That is why the share of official transfers from central authorities in the structure of regional local budget revenue is selected as one of the key assessment indicators.

The results of the calculations (Figure 2) demonstrate significant transformations in the financial capacity of Ukraine's regions and a growing asymmetry in their social returns amid full-scale war.

The analysis shows that there are several spatially differentiated models of the transformation of territories' social return.

*Firstly*, a distinct 'financial resilience pole' is emerging, comprising mainly the western regions and parts of the central regions. These areas are characterized by a decline or relative stabilization in the share of official transfers in the structure of local budget revenue. In particular, the share of transfers fell by 19.3 p.p. in Ternopil'ska oblast, by 14.7 p.p. in Volyn'ska oblast, by 14.0 p.p. in Chernivets'ka oblast, and by 13.9 p.p. in Zakarpats'ka oblast. This trend indicates that these territories have maintained or increased their own revenue base, have adapted their local economies more effectively to the conditions of war, and have been able to sustain economic activity and generate tax revenue even in the face of major crises. In the context of social return, this means maintaining the ability of territories to sustain

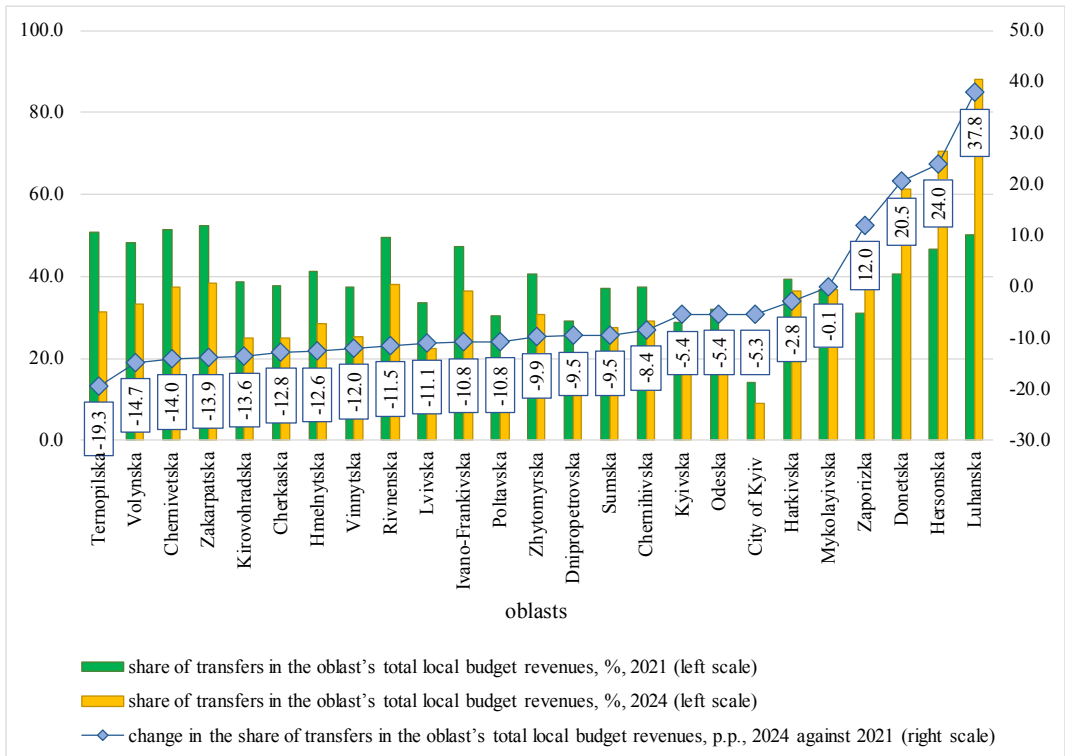


Figure 2. Transformation of the share of official transfers from central authorities in the revenues of local budgets in Ukraine's oblasts as an indicator of changes in these territories' social and financial returns, 2021 and 2024

Compiled by the authors based on the data from URL: [https://mof.gov.ua/storage/files/2\\_Budget\\_of\\_Ukraine\\_2021.pdf](https://mof.gov.ua/storage/files/2_Budget_of_Ukraine_2021.pdf); <https://mof.gov.ua/storage/files/Badgef%20of%20Ukraine2024.pdf>

the functioning of the economy, the labour market, the business environment, and local financial systems without being critically dependent on centralized support.

Kyiv stands out as the least dependent on intergovernmental transfers of all territories in Ukraine. Between 2021 and 2024, the share of transfers in the capital's local budget revenue fell from 14.3% to 8.9% (-5.4 p.p.). This consolidates Kyiv's position as the country's key generator of financial resources, its most financially autonomous centre, and the region with the highest concentration of economic activity, jobs, businesses, and tax revenue. Meanwhile, this concentration of financial capacity in the capital city further exacerbates spatial disparities in development and the asymmetry of social returns between different parts of the country.

*Secondly*, a 'financial degradation pole' is emerging, comprising primarily regions of active hostilities and areas with a high proportion of occupied territory. The most significant changes are recorded in Luhanska (+37.8 p.p.), Hersonska (+24.0 p.p.), and Donetsk (20.5 p.p.) oblasts. In these regions, the share of transfers in the structure of local budget revenue in 2024 ranged between 60% and 88%, confirming a substantial loss of their own revenue base as a result of the destruction of economic potential, a decline in business activity, and a critical narrowing of opportunities for the territories to finance themselves. Essentially, this involves transforming local budgets from systems that accumulate their own resources into systems that primarily rely on external financial support. In terms of social returns, this reflects a sharp decline in the ability of territories to independently sustain economic, social, and service functions.

*Thirdly*, a separate analytical group comprises so-called ‘transitional’ regions located in areas of high security risk but exhibiting mixed trends in financial capacity and social return, primarily Harkivska, Mykolayivska, and Zaporizka oblasts. Despite constant security pressures, proximity to the combat zone, infrastructure damage, and the partial occupation of territories, these regions retain a relatively greater capacity to sustain economic activity, generate their own tax revenue, and ensure the functioning of the local economy. In particular, the share of transfers in the revenue structure of local budgets in Zaporizka oblast increased by 12.0 p.p. in 2024 against 2021, which is significantly lower than in Luhanska (+37.8 p.p.) and Hersonska (+24.0 p.p.) oblasts, despite a high level of territorial occupation (74.8%). This indicates that the impact of the war on the financial resilience and social returns of Ukraine’s regions is uneven. Consequently, the extent to which regions lose their financial self-sufficiency is determined not only by their geographical proximity to the front line, but also by the structure of their economy, the degree of its diversification, the concentration of business activity, the role of the defence-industrial complex, the adaptability of local economic systems, and the regions’ ability to integrate new economic functions amid the war.

In terms of **social and economic resilience of regions**, the authors’ previous research on the resilience of endogenous regional development in the face of global challenges and shocks (Statistical collection of the Ministry of Finance of Ukraine «Budget of Ukraine – 2024», 2025) shows that the **level of diversification of a region’s economy** is one of the key drivers of resilience. A diversified economic structure ensures greater adaptability of territories to crises, reduces dependence on certain types of economic activity, and creates the conditions for sustaining economic activity even in the face of major external shocks. Conversely, the economy’s reliance on a single sector significantly increases the regions’ vulnerability to military, energy, logistical, and industrial crises, limiting their ability to recover quickly and adapt structurally. Consequently, assessing changes in the level of economic diversification across Ukraine’s regions in the context of a full-scale war makes it possible, among other things, to identify the specific patterns of change in the resilience of these territories under the influence of military shocks.

In 2023, the highest levels of economic diversification (in terms of the volume of goods, works, and services sold) were recorded in Luhanska, Ternopil'ska, Chernihiv'ska, Hmelnytska, Vinnytska, Harkiv'ska, Kirovohrad'ska, Hersonska, Poltav'ska, Ivano-Frankiv'ska, Rivnenska, Sumska, and Mykolayiv'ska oblasts, where the rate exceeded 0.7 (Figure 3). Interestingly, the most significant increase in the diversification rate was observed in Luhanska, Chernihiv'ska, and Poltav'ska oblasts. However, the nature of the changes in economic diversification varied across these regions. A high level of diversification in central and relatively safe regions stems from a more balanced economic structure, while in certain frontline areas this is largely attributable to a sharp decline in the dominant economic activities, the breakdown of traditional industrial specialisation, and the forced transformation of the economic structure as a result of the war.

However, the most negative trend was recorded in Donetsk oblast, where the level of economic diversification fell by 0.15 points. Significant declines were also observed in Chernihiv'ska, Lviv'ska, Zakarpatska, Zhytomyr'ska, Vinnytska, Odeska, and Kyiv'ska oblasts. This suggests that structural imbalances are intensifying, economic activity is becoming concentrated in a narrower range of sectors, and the risk of regions losing their economic resilience is increasing.

Ongoing **security risks and energy instability** have a significant impact on resilience. According to the Kyiv International Institute of Sociology, the main factors contributing to public fatigue include fear for one’s life and safety, constant shelling, economic hardship, and problems with electricity and heating supplies (Hrushetsky, 2026). Large-scale attacks on energy infrastructure lead

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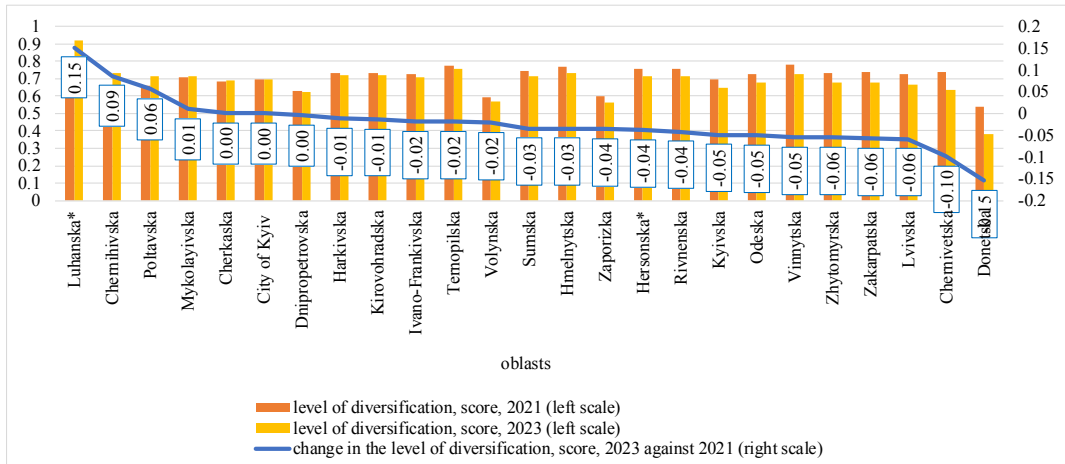


Figure 3. Changes in the level of economic diversification in Ukraine's regions as an indicator of their structural resilience (based on the volume of goods, works, and services sold), 2021 and 2023

Compiled by the authors based on the data from URL: <https://stat.gov.ua>

Note:

\*due to the limited availability of statistical data under conditions of temporary occupation and active hostilities, certain indicators for Luhanska and Hersonska oblasts for 2023 have been estimated by the authors;

\*\* closer to 1 → greater diversification; closer to 0 → greater economic monoculture.

to disruptions in the operation of businesses, transport, social services, and public utilities, thereby exacerbating the instability of the functioning of territories.

**The increased vulnerability of regions to migration and the loss of human capital** are key factors in the decline of their socio-economic resilience. According to various estimates, Ukraine's population has fallen by 6-10 million people since the start of the full-scale war (Mulska, Bil, Leshchukh, Baranyak, 2025a), while the number of internally displaced persons was over 4.6 million (as of May 2026) (Internally displaced persons: analytical dashboard]. Information and Computing Center of the Ministry of Social Policy, Family and Unity of Ukraine, 2026), and the number of forced migrants abroad was around 6.9 million. Meanwhile, a survey of local governments shows significant internal differentiation in demographic trends at a local level: some communities, particularly rural ones, even in deep rear areas, are experiencing a population decline of 8-16 %, while some territories (mainly large cities and their agglomerations) are demonstrating population growth of 5-15% due to internal migration and the influx of IDPs (Mulska, Bil, Leshchukh, Baranyak, 2025b). This suggests uneven adaptation capacities among communities, a widening of demographic imbalances, and added pressure on local social, housing, and utility infrastructure systems.

Further threats to the socio-economic resilience of communities include a decline in the labour potential, an outflow of young people and skilled workers, an ageing population, reduced local budget revenues, and increased dependence on external financial support. However, only a quarter of local governments consider their communities to be institutionally capable of promptly responding to migration challenges, while almost 65% of Ukrainian communities require external resources to ensure an effective response to crisis processes (Mulska, Bil, Leshchukh, Baranyak, 2025a).

### Conclusions and Directions for Further Research

The study confirms that the full-scale war has been a factor in the profound transformation of the country's socio-economic space, as evidenced by the uneven

distribution of demographic losses, the scale of destruction to industrial, social, transport, logistics, and energy infrastructure, changes in the financial capacity of territories, increased vulnerability to migration, and the deepening of inter-regional development imbalances.

The frontline and partially occupied regions of Ukraine have suffered the most severe losses in terms of socio-economic potential, with a critical decline in human resources, the destruction of the industrial base, the deterioration of transport and social infrastructure, and a significant reduction in the financial self-sufficiency of these territories. Conversely, relatively safe rear regions are experiencing a concentration of population, businesses, financial resources, and economic activity, exacerbating spatial disparities in development and shaping a new configuration of Ukraine's socio-economic space.

The results of the study show the emergence of spatially differentiated models of territories' social returns. In particular, the study identifies financially resilient regions, characterized by the preservation or strengthening of their own revenue base and their ability to sustain economic activity even in wartime, as well as financially degraded regions, where the destruction of economic potential has led to a significant increase in dependence on intergovernmental transfers and external support.

Prospects for further research on this topic are related to the development of tools for a differentiated state regional policy aimed at reducing inter-regional development imbalances, supporting territories with critical losses of socio-economic potential, strengthening the structural diversification of the economy, boosting local financial capacity, and enhancing the adaptability of regions and communities to long-term security-related, demographic, and socio-economic challenges.

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**Мельник М. І., Лещух І. В. Просторова асиметрія зміни соціально-економічного потенціалу та резильєнтності регіонів України в умовах повномасштабної війни**

**Мета.** Метою статті є виявлення особливостей просторової асиметрії змін соціально-економічного потенціалу та резильєнтності регіонів України в умовах повномасштабної війни, а також обґрунтування основних чинників, що визначають диференціацію адаптивної спроможності, фінансової самодостатності та структурної стійкості регіонів.

**Методологія.** Методологічну основу дослідження становить комплексний підхід, що поєднує положення регіональної економіки, теорії просторового розвитку, теорії резильєнтності та системного аналізу. У дослідженні використано методи статистичного та порівняльного аналізу для оцінювання міжрегіональних відмінностей у демографічних, інфраструктурних, фінансових та економічних трансформаціях. Для аналізу застосовано такі показники, як зміни де-факто чисельності населення, концентрація внутрішньо переміщених осіб, масштаби інфраструктурних втрат, частка офіційних трансфертів у доходах місцевих бюджетів і рівень економічної диверсифікації. Методи узагальнення, синтезу, структурного аналізу та графічної візуалізації використано для ідентифікації просторово диференційованих моделей трансформації регіонів під впливом воєнних шоків.

**Результати.** У дослідженні доведено, що повномасштабна війна стала чинником глибокої трансформації соціально-економічного простору України. Вона посилила демографічні втрати, спричинила масштабне руйнування промислової, соціальної, транспортно-логістичної та енергетичної інфраструктури, поглибила фінансові диспропорції між регіонами та підвищила міграційну вразливість територій. Найбільші втрати соціально-економічного потенціалу спостерігаються у прифронтових і частково окупованих регіонах, де відбулося скорочення людського капіталу, руйнування виробничої бази, деградація транспортної та соціальної інфраструктури, а також послаблення фінансової самодостатності територій. Обґрунтовано, що економічна диверсифікація є одним з основних детермінантів регіональної резильєнтності, оскільки підвищує здатність територій адаптуватися до шоків, підтримувати економічну активність і зменшувати залежність від окремих секторів.

**Оригінальність.** Наукова новизна дослідження полягає в обґрунтуванні просторової асиметрії змін соціально-економічного потенціалу та резильєнтності регіонів України в умовах повномасштабної війни. У статті розвинуто аналітичний підхід до ідентифікації просторово диференційованих моделей територіальної трансформації на основі демографічних, інфраструктурних, фінансових і структурних індикаторів. Також акцентовано взаємозв'язок між фінансовою спроможністю територій, економічною диверсифікацією, міграційною вразливістю та регіональною резильєнтністю в умовах тривалих воєнних шоків.

**Практична цінність.** Практичне значення результатів дослідження полягає в можливості їх використання для вдосконалення державної регіональної політики в умовах війни та повоєнного відродження. Отримані результати можуть бути застосовані для розроблення диференційованих інструментів політики, спрямованих на підтримку регіонів з критичними втратами соціально-економічного потенціалу, зміцнення місцевої фінансової спроможності, зменшення міжрегіональних диспропорцій, стимулювання економічної диверсифікації та підвищення адаптивності регіонів і громад до довгострокових безпекових, демографічних і соціально-економічних викликів.

**Ключові слова:** просторова асиметрія; соціально-економічний потенціал; регіональна стійкість; територіальні диспропорції; фінансовий потенціал територій; економічна диверсифікація; державна регіональна політика.

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Стаття надійшла до редакції / Received 11.02.2026

Прийнята до друку / Accepted 21.04.2026

Опубліковано / Published 30.06.2026