

Report from the International Scientific Conference

“Problems of Local and Regional Development— Socio-economic and Financial Aspects”

This report summarizes the proceedings of the International Scientific Conference “Problems of Local and Regional Development—Socioeconomic and Financial Aspects” organized by the Institute of Finance and Accounting of the Academy of Zamość, held on December 13, 2024. The conference was conducted in a hybrid format, accommodating both in-person and online participation. During the conference, the following papers were delivered (in the order of presentations):

Main session

Lech Gruszecki

John Paul II Catholic University of Lublin, Poland

“The Role of the Kuznets Curve in Research on the Impact of Religion on Economic Growth and the State of the Environment”

Gruszecki's paper explores the relationship between religious faith, economic growth, and environmental issues. Religious faith, manifested both by beliefs concerning the so-called supernatural sphere and by participation in religious services, has a significant influence on all forms of human activity, including economic activity and attitudes towards the environment. It is essential to investigate this influence, as ecology is essential for sustainable economic development—i.e., a development that does not harm the natural environment. The paper presents theoretical considerations on the possibility of applying the Kuznets curve to the analysis of causal relationships between religious faith, economic growth, and environmental degradation.

Zofia Kołoszko-Chomentowska

Białystok University of Technology, Poland

“Development of Peripheral Areas” (Online Presentation)

Kołoszko-Chomentowska addresses the ongoing relevance of peripherality in both academic discourse and practical terms, emphasizing its impact on a large part of the population living in these areas. The European Union's regional development policy, which aims to mitigate disparities in level socio-economic development between prosperous and peripheral regions. The author investigates the effectiveness of support policies for peripheral regions. Utilizing data comprising nine indicators across 16 Polish voivodships, she employs K-means and PAM clustering methods to analyze regional development in 2012 and 2022. The findings revealed overall regional development in the analyzed period, evidenced by improvement in living conditions indicators, including in the peripheral regions. However, the variations in the pace of progress contributes to a persistent division between rapidly growing regions and those remaining peripheral. This trend contradicts the principles of sustainable development.

Paweł Churski

Adam Mickiewicz University, Poznań, Poland

Anna Dubownik, Barbara Szyda, Czesław Adamiak

Nicolaus Copernicus University in Toruń, Poland

Maciej Pietrzykowski

Poznań University of Economics and Business, Poland

“The Trajectories and Challenges of the Development of Inner Peripheries in the New Conditions of Cohesion Post SARS-CoV-2 (Final Results of the Project)”

The authors define inner peripheries as areas with dormant or lost development potentials caused by factors such as low transport accessibility, distance from economic centers, limited functional connectivity, shortage of skilled labor and difficulties in establishing a stable workforce. Using 47 indicators across nine dimensions of peripherality, they delimited and typologized Polish regions, identifying 112 second-order and 96 first-order peripheries. This research, conducted within the TIPERICO project (“The Trajectories and Challenges of the Development of Inner Peripheries in the New Conditions of Cohesion Post SARS-CoV-2”) allowed to formulate recommendations for cohesion policy targeted at these internal peripheries.

Oleksandr Shubalyi, Petro Kosinskyi

Lutsk National Technical University, Ukraine

“Prospects for the ‘Green’ Transformation of the Economy of the Polish-Ukrainian Borderland”

This paper, developed within the project “Structural Transformation of the Economy of the Polish-Ukrainian Borderlands as a Response to Common Challenges of Security, Green, Digital and Intellectual Transition,” examines the current state of the “green” economy in the Polish-Ukrainian borderland. The authors propose key directions for transforming the economies of the Ukrainian oblasts¹ of Lviv and Volyn, including:

- transition to organic farming,
- reducing industrial environmental degradation,
- energy-efficient and environmentally friendly construction,
- development of renewable energy sources (solar, wind, bioenergy),
- active implementation of circular economy principles,
- development of ecotourism and green tourism infrastructure, and
- development of electric transport and green logistics.

Antonina Gordiichuk, Iryna Shubala

Lutsk National Technical University, Ukraine

“Comparative Evaluation of Social Development in Polish-Ukrainian Borderland”

The authors used taxonomic measures of development to assess the social development of two Polish voivodships² (Lubelskie and Podkarpackie) and three Ukrainian oblasts (Lviv, Volyn, and Zakarpattia). They calculated 7 sub-indices describing:

- reproduction and longevity of the population,
- participation of the population in the development of the region,
- income of the employed population and households,
- social protection of pensioners and other population groups,

1. Ukraine is a unitary state with three levels of administrative divisions: 27 regions (24 oblasts, two cities with special status, and one autonomous republic), 136 raions (districts) and 1469 hromadas.

2. The administrative division of Poland since 1999 has been based on three levels of subdivision. The territory of Poland is divided into 16 voivodships (provinces or regions); these are further divided into 380 powiats, including 66 cities with powiat status (counties or districts); and these in turn are divided into 2,478 gminas (communes or municipalities).

- development of education,
- healthcare development,
- cultural development,

and a synthetic measure of social development, which is the average of sub-indices. The calculations were carried out for the years 2010-2021 and presented a much higher level of social development in Polish regions than in Ukrainian regions. Concurrently, while in the analyzed period Polish voivodships have seen a slight improvement in the social situation, Ukrainian oblasts recorded a regression. Additionally, Ukrainian regions are very different from each other. The Lviv oblast has more than twice the value of the synthetic measure of human development than the Zakarpattia oblast.

Mieczysław Kowerski

Academy of Zamość, Poland

"An Attempt to Apply the Heckit Model to Assess the Rate of Development of the Former Voivodship Capitals"

Developed by James Heckman (1976), the Heckit model is a proposal to solve the problem of self-selection bias. The model consists of two equations: the selection (participation) equation, which is a logit (or probit) model describing the mechanism of including observations in the sample, and the outcome equation, which describes the phenomenon being analyzed. The model has been used to describe many economic and social phenomena. The author proposed the use of the heckit model to assess the rate of development of the former voivodship capitals. The selection equation shows the mechanism (determinants) of losing the status of the capital of the voivodehip at the end of 1998. The outcome equation, on the other hand, is a logit model of a taxonomic measure of development rate (TMD) that takes values between 0 and 1. Both equations link the estimated theoretical values of the logit, allowing for the calculation of the probability of remaining a voivodship capital at the end of 1998. The parameter on the theoretical value of the logit that introduced into the resulting equation proved statistically significant, indicating the presence of a self-selection problem addressed by model. This selection (loss of capital status), in addition to changes in the average monthly gross salary, the number of dwellings per 1,000 inhabitants, and the number of beds in hospitals per 1,000 inhabitants, had a significant impact on development rate of the former voivodships capitals. The lower the probability of losing capital status at the end of 1998, the higher the city's rate of development in the years 1999–2022.

Piotr Miszczuk

Warsaw University, Poland

"Business Location and Residential Location of Entrepreneurs— a New Approach to the Analysis of Economic Space" (Online Presentation)

Miszczuk's research investigates the hypothesis that business location influences efficiency. He examines how recent trends, such as the rise of online business and the COVID-19 pandemic's acceleration of remote work, have impacted company location choices. His analysis considers the emergence of new business location forms, including virtual offices and co-working spaces.

Mykola Dзіamulych, Iurii Gordiichuk

Lutsk National Technical University, Ukraine

"Assessment of the Level of Digitization of the Business Environment in the Border Regions of Poland and Ukraine"

Conducted with the project "Structural Transformation of the Economy of the Polish-Ukrainian Borderlands as a Response to Common Challenges of Security, Green, Digital and Intellectual Transition," the study proposes a methodology for assessing the level of digitization in the business environment of border regions. The authors utilize a synthetic indicator, calculated as the average of normalized sub-indicators describing:

- availability of infrastructure,
- level of use of digital technologies,
- digital skills, and
- innovative activity.

The findings indicate similar levels of digitization in the Lubelskie and Podkarpackie Voivodships and the Lviv Oblast, with a significantly lower level observed in the Volyn Oblast.

Urszula Bronisz

Maria Curie-Skłodowska University in Lublin, Poland

“Digital Transformation of Polish Voivodeships: Conditions and Development Prospects” (Online Presentation)

After presenting the essence and basic problems related to the digital transformation of the economy and social life, and discussing various measures of the level of digitization used globally, Bronisz proposed her own Index of Regional Digitization. This index, calculated using 16 indicators grouped into three components (Knowledge, Innovation, and Digital Economy), reveals significant findings about the level of digitization in Polish voivodships:

1. There is a substantial regional variation in Poland's level of digitization. The index value in the Mazowieckie Voivodship is seven times higher than in the Świętokrzyskie Voivodship.
2. The highest digitization levels are found in the Mazowieckie, Małopolskie, and Śląskie Voivodships.
3. The lowest digitization levels are observed in the Świętokrzyskie, Warmińsko-Mazurskie, and Lubuskie Voivodships.

These large regional disparities in digitizations pose serious challenges related to digital exclusion and cybersecurity in Poland.

Małgorzata Niedźwiedź

Academy of Zamość, Poland

“Terrorism as a Global and Local Threat”

Despite its long history, a universally accepted definition of under international law remains elusive. The author explores the factors contributing to this lack of consensus and discusses the Polish anti-terrorist system. Niedźwiedź's analysis leads to the following conclusions:

1. Poland's security environment is subject to constant and intense changes.
2. Migration pressure, including border incidents and provocations, coupled with the war in Ukraine, significantly reduce border security, and consequently the overall security of the state.
3. Continuous efforts are needed to counteract and combat increasingly diverse cross-border threats, including terrorism.
4. Deep cooperation among services and institutions at local, national and, international level is crucial.

Paweł Wais

Marshal's Office of the Podkarpackie Voivodship, Poland

“Challenges of Strategic Programming at the Regional Level in Times of Dynamic Change” (Online Presentation)

Wais discusses the preparation, objectives, and intended outcomes of the development strategy of the Podkarpackie Voivodship. He identifies the following key factors in creating an effective development strategy:

- thorough knowledge of the region and its surrounding areas (diagnosis)
- flexibility in responding to changes
- innovation as a driver of competitiveness of both individual enterprises and the overall economy
- readiness to utilize smart specializations
- research and innovation ecosystem

- systematic collaboration between the scientific and business sectors in developing, implementing, and commercializing innovative and groundbreaking solutions

He emphasizes the evolving classification of the regions based on GDP per capita Polish, noting that Polish regions may no longer be the primary recipient of cohesion funds.

Alicja Sekuła

Gdańsk University of Technology, Poland

"The Level of Socio-economic Development of Rural Areas in Poland — Selected Measures"

According to Statistics Poland, rural areas are defined as those outside administrative city boundaries, encompassing rural communes and the rural parts of urban-rural communes. These areas comprise 93% of Poland's landmass and are home to 40% of its population. The lack of readily available socio-economic development measures at the commune level presents analytical challenges. For her analysis, Sekuła distinguishes three categories of measures for assessing rural socio-economic development:

- public finance: various income and expenditure categories within commune budgets;
- economic sphere: level of municipal and housing infrastructure development, number of enterprises; and
- social sphere: health care, education, and social assistance infrastructure.

The author presents changes in the baseline values of these indicators from 2019 to 2023, including mean, median, minimum and maximum values, and standard deviation.

Jacek Sierak

(Warsaw School of Economics, Poland)

"Perspectives for Financing Investments of Local Government Units"

(The editors did not receive the abstract of the paper from the author)

Oleksandr Shubalyi, Yuriy Luchechko

Lutsk National Technical University, Ukraine

"The Contribution of Enterprises of the Western Region of Ukraine to the Development of Food Industry in Ukraine"

The authors assessed the development of food industry in western Ukraine, specifically the Volyn, Rivne, Lviv, Ternopil, Ivano-Frankivsk, Zakarpattia, and Chernivtsi oblasts. Indicators of labor efficiency, productivity, and profitability were used for the assessment. The conducted analyses showed that after the destruction of many mining and processing industries in the east and south of Ukraine due to the war, the importance of the agricultural sector in the western region has increased significantly within the national economy of Ukraine. This is evidenced by the growing share of food enterprises in the western region in the national sales indicators of products (goods and services), the number of employees, and the number of operating enterprises. Labor productivity in these food enterprises is increasing, although it remains lower than in the rest of the country.

Tetyana Holdak-Horbaczewska, Wasyl Hułaj

Lviv Polytechnic National University, Ukraine

"The State and Prospects of Cooperation Between Local Communities of the Yavorivsky Raion (county) of the Lviv Oblast and the Poviats, Municipalities and Partner Cities of the Republic of Poland During the Period of Mass Aggression of the Russian Federation Against Ukraine (2022-2024): Aid, Development and Reconstruction" (Online Presentation)

Following the decentralization of the administration system in Ukraine, the Yavorivsky raion became one of the seven administrative raions of the Lviv oblast bordering Poland, encompassing six local territorial communities. The Yavorivsky raion borders the Lubaczów, Jarosław and Przemyśl powiats of the

Podkarpackie Voivodship in Poland. Before the full-scale Russian invasion of Ukraine on February 24, 2022, the Yavorivsky raion established close cooperation with the Polish border powiats as well as with partner cities and municipalities of other Polish regions, in areas such as the economy, education, culture, and tourism. However, Russia's aggression has significantly altered the nature of this cooperation, which has primarily shifted towards providing aid and revitalizing the areas of the Yavorivsky raion affected by the war.

Stanisław Dubaj

Academy of Zamość, Poland

“Crisis Management at the Local Government Level in the Field of Protection of Local Communities in the Republic of Lithuania—Selected Aspects”

Crisis management, as exercised by public administration bodies (both state and local government), involves:

- preventing crisis situations and continuously preparing to manage them through the implementation of previously planned activities;
- crisis response and recovery; and
- rapid restoration of destroyed or damaged infrastructure essential for the functioning of the state, its administrative structures, and society.

Crisis management in Lithuania is regulated by the Act of 15 December 1998 on Crisis Management and Civil Protection of the Republic of Lithuania (*Lietuvos Respublikos krizių valdymo ir civilinės saugos įstatymas*). Dubaj analyzes the crisis management system in the Šalčininkai county, situated on the border with Belarus. The county has 35,500 inhabitants, 80% of whom are Polish. The proximity to Belarus (over 100 km of shared border with two border crossings) presents significant security challenges, exemplified by the migration crisis caused by the Belarusian and Russian regimes. The burden of accommodating migrants fell on border local governments, including Druskininkai, Šalčininkai, Medininkai. In autumn of 2021, Lithuanian authorities decided to construct (or rather re-establish) a military training ground in the Rudniki and Biała Waka communes of Šalčininkai county (20 km south of Vilnius) for national security purposes. Following Russia's attack on Ukraine on February 24, 2022, Lithuania declared a state of emergency (*nepaprastoji padėtis*) throughout the country due to the national security threat. Crisis management and civil protection efforts in the Lithuanian-Polish borders are supported by the agreement between the Government of the Republic of Poland and the Government of the Republic of Lithuania on cooperation and mutual assistance in the event of catastrophes, natural disasters, and other serious accidents, concluded in Warsaw on 4 April 2000.

Papers/presentations not delivered due to the bombing of the city of Lviv by the Russians and the interruption of the internet

Vasyl Hułaj, Vira Maksymiec

(Lviv Polytechnic National University, Ukraine)

“Results of the Local Elections of April 2024 in the Border Powiats and Municipalities of the Podkarpackie and Lubelskie Voivodships and Directions for the Development of Cooperation with Local Government Bodies of Ukraine” (Online Presentation)

Ivan Tofan, Oksana Grytsyna, Olga Shludko

(Lviv National Environmental University, Ukraine)

“Shaping the Revenues of Ukraine's Budgets in the Conditions of the War with Russia” (Online Presentation)

Oleksander Moran

(Ukrainian National Forestry University, Lviv, Ukraine)

“Peculiarities of the Marketing Policy of Communications in the Tourism Industry of Ukraine” (Online Presentation)

Lubov Syniavska

(Ukrainian National Forestry University, Lviv, Ukraine)

"Financial Decentralization in Ukraine: Economic Assumptions and Current State" (Online Presentation)

Student session

Klaudia Strzałkowska, Julia Grabarz

Academy of Zamość, Poland

"General Budget as the Basis of the European Union Financing System"

Sylwia Czwartkowska

Academy of Zamość, Poland

"European Funds as a Source of Financing Development"

Maciej Kanarszczuk, Sebastian Kukawski

Academy of Zamość, Poland

"Budget Expenditure on Environmental Protection in the European Union Countries 2018–2022"

Sandra Majdańska, Agata Bukszyńska

Academy of Zamość, Poland

"Sources of Income of the Municipalities of the Zamość Powiat in the Years 2017–2021"

Monika Wnuk

Academy of Zamość, Poland

Analysis of the Report on the Implementation of the Budget of a Local Government Unit on a Selected Example"