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Wiesława Caputa



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edited by
Wiesława Caputa



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Introduction

Ukraine is one of the countries seeking to join the European Union. This aspiration is also supported by Poland. However, this does not change the fact that the Ukrainian economy is facing a big challenge of meeting the requirements of a free-market economy.

The articles included in this issue present a wide spectrum of problems facing the economy of Ukraine, from culture through the world of finance and to the development of communities in cross-border areas.

In the article *The Development of a Creative Economy in the Context of European Integration*, Stepan Davymuka and Liubov Fedulova analyse the impact of institutional support for the development of creative and cultural industry in Ukraine, identifying and describing basic trends in this sector. The study indicates that culture in Ukraine is an economic sphere which makes the best use of new technologies and media for its development, which requires a change of the current business model.

The problem of wellbeing is addressed by Iryna Hrynchyshyn in her article entitled *Local Finance in the Provision of Community Wellbeing: Comparative Analysis of Poland and Ukraine*. Emphasising the interdisciplinary nature of wellbeing, the author analyses the influence of local finance on human development. Based on her studies, she concludes that the effectiveness of local government units is positively correlated with the development of human capital. For this reason, it is necessary to conduct a comprehensive assessment of community wellbeing, taking into account local finances and possible areas where the effectiveness of local government units can be improved.

Maryana Melnyk, Iryna Leshchukh in the article entitled *Structural Transformations in Innovative Activities of Industrial Enterprises at Local and Regional Levels: the Experience of Ukraine and EU Countries* focus on the innovative dimension of structural changes in the Ukrainian economy, as exemplified by manufacturing enterprises which they compare with experiences of EU countries.

Their analyses enable them to conclude that financial limitations remain the main factor that slows down innovation in Ukrainian manufacturing enterprises.

Development possibilities for foreign economic activity, which appeared in Ukraine after signing the Ukraine–European Union Association Agreement are the subject of the article by Khrystyna Prytula, Anna Maksymenko, Olha Demedyuk entitled *The Institutional and Legal Framework for the Development of the Transport Infrastructure in the Cross-border Area between EU and Ukraine*. Drawing on the analysis of the dynamics of Ukraine’s exports to and imports from the EU, the authors argue for the need to develop the border and transport infrastructure, which should be modernised in line with national and EU plans and priorities in order to foster closer political and economic cooperation. They also highlight specific aspects of regulations concerning the development of the national transport network and border infrastructure.

The article entitled *Models of Fiscal Equalisation: European Practice* by Iryna Storonyanska and Liliya Benovska describes a study showing that fiscal equalization models used by many countries have been modified over the last decades, with an increasing role of equalization by expenditures. As Ukraine is undergoing a decentralization reform, the emphasis is placed on equalizing revenues using separate equalization tools that focus on expenditures.

Operating conditions of the sector of small enterprises in Ukrainian cities are the subject to an article by Nadia Syniyra-Rostun entitled *Structural-Institutional Transformation of Enterprise Development: the Experience of Ukraine and Poland*. The author shows that efforts to attract capital investment do not have the expected positive impact on business development. The business sector faces a number of problems that need to be tackled urgently, such as the significant role of the *shadow labour market*, outflow of the workforce, accumulation of investments in already existing enterprises, rather than the creation of new ones. In order to stimulate the development of entrepreneurship in small and medium-sized businesses the author proposes intensifying the involvement of local government authorities of cities.

In the article *The Concept of a Community Development in the Cross-Border Space* Iryna Tymchko presents prerequisites and grounds for the development of conceptual foundations of territorial community development in cross-border space. An asset-oriented approach to the development of the territorial community in the cross-border space is proposed – concentrating on the community’s capabilities and resources and stimulating the use of these opportunities to enhance their competitiveness. Negative factors of competitiveness of territorial communities in cross-border space are also identified.

Although the articles do not exhaust existing problems, they do offer an interesting overview, which can be of interest not only to researchers and students but also to people involved in developing business relationships with Ukraine.

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The Development of a Creative Economy in the Context of European Integration

Abstract. *The article analyze institutional support for the prerequisites for the development of cultural and creative industries (CCI) in Ukraine, emphasizing the leading role of EU experts in this process. They identify and describe basic tendencies in the development of a creative economy as well as problems that hinder its effectiveness. A number of proposals are presented about how to strengthen the country's strategic course in order to accelerate the development of a creative economy by implementing the experience of the European Union and taking into account the creative potential of the population.*

Keywords: *cultural and creative industries, creative economy, cultural policy, creative potential*

1. Introduction

Today, in the strategic documents of many countries, the cultural sphere is characterized as one of the factors that ensure the quality of life by creating the market of creative value-added products and improving employment conditions of the population. Creativity and innovation in the creation of new types of goods and services is an important driver of economic growth, especially in spatial terms at the level of specific territories and communities. The creative economy is one of the priority areas of the EU policy. It has proven itself more resilient to crisis situations in the face of global economic instability.

The creative sector of the Ukrainian economy is gradually developing and can already be identified and analyzed. On the whole, it can be said that there are suf-

ficient initiatives of small and medium-sized entrepreneurs in the country, which are attracting more and more attention. Creative clusters, creative hubs, special art projects in the field of topical and traditional arts are being realized in Kyiv, Lviv, Kharkiv, Zaporizhia, Odesa and other big cities of Ukraine; new institutions are being formed, such as agencies of creative industries, creative residences, private residences etc. However, to move on, we need to systematize the results available and evaluate the dynamics of this process, drawing on the positive experience of the countries of the world and, above all, the experience of the EU countries.

In the last decade, there has been a growing scientific interest in the study of the formation and development of culture, the creative industries, the creative economy, especially involving a detailed examination of the creative economy from the point of view of its impact on increasing the creative potential of the national and international economic space [Howkins 2013; Landry 2000; Vakhovych, Chul 2014].

However, in spite of the existing scientific achievements and publications on the introduction and development of creative industries in Ukraine, questions about their effective functioning within the creative sector of the national economy remain relevant and need to be constantly monitored by scientists and practitioners. In particular, it is necessary to study the trends in the development of the creative economy as a strategic vector for improving the quality of life and well-being of the population. The development of efficient tools for the effective implementation and use of cultural and creative industries (CCIs) is equally important, as well as their proper legal and institutional support.

2. Aim of the article

Given the importance of the issue of a new type of economy – the creative economy – in the current conditions of globalization challenges, it is crucial to study international experience and possibilities of its implementation in national contexts, taking into account national peculiarities of economic development and the formation of mechanisms for the effective use of the creative potential of the society. Therefore, the purpose of the article is to identify the main trends in the development of the creative economy in Ukraine and to analyze problems that stand in the way of this process.

To achieve this goal, the following tasks were undertaken and completed: the first set of tasks involved studying aspects of institutional support for the development of the creative economy in Ukraine and establishing the role of the EU in this process; the second group of tasks consisted of identifying characteristic tendencies in the development of the creative economy and identifying problem areas; the third group of tasks included the development of proposals to

strengthen the strategic course of the country in order to accelerate the formation of the creative economy by implementing the experience of the European Union.

3. Research methodology

This study draws on the concepts of innovative systems, creative economy and open innovation, which substantiate the need to review the internal processes of national economy management towards their openness, diffusion of knowledge on the basis of combined efforts of representatives of the creative class – universities, creative laboratories, start-ups, companies, consumers, cultural industries, etc. The nature and features of cultural and creative industries were systematically analyzed. Using methods of expert and statistical analysis, the authors identified characteristic tendencies in the formation of the creative economy in Ukraine and problems that slow down its development, including those within the regions. Proposals for overcoming obstacles to the introduction of cultural and creative industries as a component of state economic and cultural policy were developed using methods of structuring and synthesis.

4. Research results

The analysis of state programmatic documents indicates that in the recent period the main work of state agencies concerned with the development of culture has been aimed at the formation and regulatory and legislative consolidation of the relevant institutional mechanism. So, in 2016, the Ukrainian Ministry of Culture created a department dedicated to solving problems of the development of cultural and creative industries. The development of CCI is recognized as one of the priority areas of the “ Long-term Strategy for the Development of Ukrainian Culture by 2025.”¹ “Ukraine 2030, the Doctrine of Sustainable Development” states that the development of the creative economy is one of the drivers of economic development in the country [Zhylynska 2017]. The doctrine envisages the creation of conditions for achieving the country’s economic growth at the rate at least 10-15% per year, so that by 2030 Ukraine will be ranked among the thirty most developed countries of the world. The only determining factor and catalyst for economic growth of the national economy is the country’s human capital; this requires a new socially-

¹ Rozporiadzhennia Kabinetu Ministriv Ukrainy vid 1 liutoho 2016 r. No. 119-r “Pro skhvalennia Dovhostrokovoi stratehii rozvytku ukrainiskoi kultury – stratehii reform” [Resolution of the Cabinet of Ministers of Ukraine of February 1, 2016, No. 119 “On Approval of the Long-term Strategy for the Development of Ukrainian Culture – Reform Strategy”], <https://zakon.rada.gov.ua/laws/show/119-2016-%D1%80/sp:max10> [accessed: 10.09.2019].

oriented model of development, which places the highest value on people and its main driving force is its creative potential [Zhylynska 2017].

A key role in mobilizing managerial resources to build the creative economy in Ukraine is played by European Union experts and international cooperation with European countries. In particular, after Ukraine joined the Creative Europe programme in 2015, the National Creative Europe Bureau was established and to promote Ukraine at the international level, several Ukrainian cities successfully participated in the Intercultural Cities programme of the Council of Europe; Ukraine also participated in the Creative Business Cup (Copenhagen), and there are periodic festivals that serve as focal points for the professional development and promotion of the creative sector [Farin'ya 2017].

The position of Ukraine's Ministry of Culture is noteworthy: "If until recently the role of culture could seem unclear to some, now we have a strong argument in favour of the assertion: the better the quality of culture, the better everyone lives. And we can promote this opinion at different levels, including at the state level" [Petrakov, Petrakov 2018]. The focus is on cultural decentralization, improvement of the quality of cultural services in each community, modernization of art education and improvement of its status, effective financial promotion of cultural and artistic activities, strengthening the Ukrainian language in all spheres of life, protecting the cultural heritage of Ukraine [Nyshchuk 2019]. At the ministerial level, the functional structure of culture as an industry is represented as follows: intangible and tangible cultural heritage – unique local colours, traditions, objects and historical monuments that distinguish one community from others not only inside the country but also at the global level; art education – preschool, extracurricular and specialized art education (including schools of aesthetic education), which shapes creative skills in children and young people, encourages thinking outside the box and finding oneself in this world; amateur and professional art – forms of cultural expression, where creative artistic activity leads to the creation of products and services for direct consumption (performances, concerts, festivals); creative industries – crafts, design, fashion and many „creative” professions that use cultural heritage and the arts as a resource to create new meanings, products and services and can scale to the level of mass markets (symbolizing the expansion of national culture, traditions, identity to the whole world). At the same time, the cultural scope includes related industries and markets that are at the intersection of traditional (classical) culture and economy, as well as organizational and business culture, the culture of public governance and communication. The development of both industry and culture is complementary: it is not possible to form an effective business culture unless the community itself understands the value of its cultural heritage and sees the development of local industries and creative personalities as a priority [Petrakov, Petrakov 2018].

The closest example of the impact of culture on the economy is our Polish neighbor. The creative sphere of Poland, according to the National Bureau of Statistics (and here, as in many EU countries, a system of classification of creative entrepreneurs has been introduced), there are more than 145 thousand organizations and entrepreneurs. Most of them – over 25,000 – are based in Warsaw. The list of other notable Polish creative centers includes Wrocław, Gdańsk, Łódź and Poznań. The provinces of Śląskie, Wielkopolskie and Mazowieckie stand out in this respect. The country specializes in such areas as industrial design, fashion industry and science gaming development, the cultural scene, including museums and multifunctional centers. Accordingly, both the Ministry of Economy and the Ministry of Culture and National Heritage are involved in sector development programmes. The Copernicus Science Center is one example of a quality implementation of community initiatives. The success of Polish designer Marcin Treder, who raised USD 5 million in Silicon Valley for his UXPin startup (a tool for designing interactive app prototypes and websites) in 2015, gives other players hope that their ambitions may come true in time. Support of the development of the creative economy consists of the following components: internationalization (both import and communication platforms; promotion of local producers' participation in international trade fairs is supported by grants through various government programs; clustering; business education; promotion of creative startups). Krakow Innovation Technopark and Targowa 56 Creativity Center in Warsaw play a significant role in the activity of the creative sector [Skiba 2016].

Cooperation between Ukraine and Poland in the field of culture, among other things, is focused on promoting intercultural dialogue, cultural exchanges, increasing the mobility of art objects. In 2018-2019, joint work on creating a network of startups was intensified. Jerzy Onuch, a practicing cultural diplomat, former director of the Polish Institute in Ukraine and the US, believes that “diplomacy is part of the culture, not the other way around, which is often forgotten by professional diplomats, and even more often by politicians. Cultural diplomacy is a long-standing activity, a tool of public policy designed for the long term, and therefore should not be a tool of the specific political orientation that prevails at this moment. Cultural diplomacy is the sale of the image of a country by cultural means” [Oleshko 2017]. Therefore, the creative economy needs wide international recognition through a range of public image policy measures.

In this context, the Export Strategy of Ukraine (Road Map for Strategic Trade Development) for 2017-2021² is noteworthy, where the creative industry sector is

² Rozporządzenia Kabinetu ministriv Ukrainy, vid 27 hrudnya 2017 r. No. 1017-r, “Pro skhvalennia Eksportnoii strateghii Ukrainy (‘dorozhnoi karty’ strateghichnogho rozvytku torghivli) na 2017-2021 roky” [Resolution of the Cabinet of Ministers of Ukraine “On Approval of the Export Strategy of Ukraine (Road Map of Strategic Trade Development) for 2017-2021”], <https://zakon.rada.gov.ua/laws/show/1017-2017-%D1%80> [accessed: 10.09.2019].

represented as follows: services of fashion and design industry include graphic, industrial and interior design; audiovisual services provided by cinematography, television, broadcasting, film industry, publishing and other performing and visual arts; traditional culture is creative crafts, traditional arts, festivals; cultural heritage sites bring together libraries, archeology sites, museums and exhibitions. In addition, a mechanism (though quite generalized) for introducing Ukrainian creative goods to international markets has been proposed. Even today, the positive influence of creative industries on foreign trade is confirmed by the increase in the turnover of creative products.

It should be noted that works of Ukrainian designers are already sold in 40 countries (excluding online sales). There are four national cinema studios operating in Ukraine. The range of cultural and digital services is being constantly expanded; advertising and public relations are evolving. In 2016, 30 Ukrainian films were released, which promoted the achievements of domestic cinema not only in domestic but also in international cinema, enhancing the image of the country. Export of advertising services in 2016 amounted to USD 149.9 million. Among the creative services, Ukrainian information technology, web design, architectural and design solutions are highly valued in Europe [Farin'ya 2017]. There are already some gains in the cultural sphere: EU-Eastern Partnership Culture and Creativity Programme, which aimed to support the cultural and creative sectors and increase their contribution to sustainable economic, social and humanitarian development in Azerbaijan, Belarus, Armenia, Georgia, Moldova and Ukraine is nearing completion. The programme was co-ordinated by the British Council in partnership with the Soros-Moldova Foundation, the National Cultural Center in Poland and the Goethe-Institut. Successful projects under this programme are: Ivan Honchar Museum – Creative Europe, Tustan – Creative Europe. Cultural programmes work in such areas as project management, cultural research, cultural leadership, cultural product promotion, fundraising, journalism and communication. The main components of the programmes are hands-on research, training, information campaigns and opportunities for international cultural cooperation.

In the absence of national statistics about the creative and cultural industries, we have to use international statistics. Thus, the UNESCO Culture for Development Indicators show the relevant contribution of the CCI to economic growth and social development in Ukraine [*UNESCO Culture for Development Indicators...* 2017]. This document provides quantitative indicators for 2014, which show that the share of CCI in national GDP was 4.44% and employment in the cultural sector was 3.17% of total employment. These figures are close to EU standards. The UNESCO Culture for Development Indicators (CDIS) also showed that the share of expenditures of Ukrainian households on cultural activities, goods and services in 2014 totaled 0.66%. With the share of cultural employment in total

employment equalling 3.17%, there is a risk of widening gap between production and consumption [UNESCO *Culture for Development Indicators...* 2017].

In addition to profit, culture also creates numerous communication platforms for the exchange of ideas, that is, it contributes to the formation of a corresponding innovative ecosystem. For example, in Kyiv's cultural hubs and art spaces, young professionals can communicate with experts and find potential partners. Gender equality prevails in the field: 48% are women and 52% are men. However, librarians are predominantly female and websites are mostly designed by men. It should be kept in mind that according to the current methodology of statistical measurements, in all countries, data are collected on a single list of professions in the cultural sector, divided into major and supportive branches. For Ukraine, the most important categories in the first group include architecture, engineering, advertising and television, in the second group – telecommunications, video and audio production and newspaper publishing. However, the latter has a greater impact on the economy.

In 2017, about 2.9% of the 16.4 million economically active citizens of Ukraine were engaged in creative industries. They provided about 4.4% of the country's GDP. The top three spheres were IT technologies, which provide employment for about 100,000 people, bringing in about USD 81 billion in revenue; architecture, design and fashion employing 6.5 thousand people, generating UAH 17 billion in revenue; media, which employ 14 thousand people and whose annual revenue is about UAH 200 million [*Ckil'ky Ukrayintsiv...* 2017].

Two key trends are worth noting – the dynamic process of organization of various events and festivals in different industries throughout the country and the systematic operation of coordination centers that provide professionals and audiences with access to cultural content from abroad, represent Ukrainian products internationally and promote the country through its culture and creativity. Many of them also carry out audience development and professional training events. Local examples include the Lviv Media Forum, Mercedes Benz Fashion Days (Kyiv/Odesa), Odesa International Film Festival, Publishers' Forum in Lviv, CANactions International Architectural Festival, Docudays International Documentary Film Festival.

Unfortunately, studies show that at the state level, the issue of building the creative economy in Ukraine is of concern only to the Ministry of Culture, and the Ministry of Economic Development and Trade has not yet given serious attention to this promising sector of the national economy. This can be confirmed by the result of the statistical analysis of the dynamics and structure of capital investments in the creative industries (Table 1).

The analysis of the data shows that the share of such investments is insignificant with a mixed picture; there is no clear sign of an upward trend. The prospect of investing in the creative economy in Ukraine is explained by a number

Table 1. Capital investments in some cultural and creative industries (CCI) of the economy of Ukraine during 2015-2018, million UAH

Types of creative industries	2015	2016	2017	2018	CCI share in 2015	CCI share in 2018
National economy	273,116.4	359,216.1	448,461.5	578,726.4	–	–
Publishing, broadcasting, television	2,304.3	2,820.9	3,567.8	4,744.6	29.8	23.7
Computer programming and other information services	1,134.3	2,124.9	2,050.6	3,822.5	14.7	19.1
Activities in the fields of law and accounting, architecture and engineering, technical testing and research	3,244.4	4,965.6	5,562.1	7,751.7	42.0	38.8
Arts, sports, entertainment and recreation	1,044.3	969.9	1,649.2	3,663.2	13.5	18.3
All creative industries	7,727.3	10,881.3	12,829.7	19982.0	100.0	100.0
Share of capital investment in the creative industries in the total capital investment	2.8	3.0	2.3	3.4	–	–

Source: based on data from the Derzhavna sluzhba statystyky Ukrainy.

of factors: the human capital is the major resource in creative industries, so the development of creative industries does not require significant investment (in comparison with the creation of new industrial enterprises), but can be based on the potential of workers and entrepreneurs; developing economies are characterized by higher growth rates for creative industries; investing in the creative economy can also be an important factor in social development as, because of the current unfavorable socio-economic conditions in Ukraine, many young and talented people go abroad in search of a better job and a higher standard of living.

Summarizing the characteristics of the established development tendencies in Ukraine's creative economy, it should be noted that its formation clearly shows two periods: the development of Ukrainian creative industries before 2018, when the state of affairs can be characterized as complex (the very concept of "creative industries" did not exist) and after 2018, when the concept of "creative industries" was added to the Ukrainian legislation on culture.³ Currently,

³ Zakon Ukrainy Pro vnesennya zmin do Zakonu Ukrainy "Pro kul'turu" shchodo vyznachennya ponyattya "kreatyvni industriyi", Vidomosti Verkhovnoyi Rady (VVR), 2018, no. 34, st. 257 [Law of Ukraine No. 2458-VIII of June 9, 2018 on amendments to the Law of Ukraine "On

these industries are experiencing a marked rapid acceleration of development, expansion of mutual influence and interaction of creative industries; victories and achievements from single sensations are gradually becoming a stable factor, which is a sign of a certain trend. And the creativity of Ukrainians contributes to such trends. Thus, according to the CANnual Report 2018, Ukraine is among the top three countries in Eastern and Central Europe where the advertising industry has a strong impact on the whole national economy. Top trends in the export of goods and services in the creative industry are production, design and creative creation and strategy development.

However, despite all the achievements, there is still a significant technological gap between Ukraine and developed countries. The transition towards a creative economy is slow. Institutions responsible for innovative development (venture capital funds, business incubators, technology and science parks, technology clusters, etc.) do not meet modern requirements. The main problem of the creative industry (also faced by other industries) is the loss of human resources. The weak economy, the social fabric of the country and open borders all contribute to the fact that the best people continue to leave the country. This is a very sad trend showing that emigration and brain drain have entered a critical phase.

In most European models, the state has, to a greater or lesser extent, effective and long-lasting tools for creating a system of identification and promotion in the international arena from culture, although the effectiveness of using these tools varies significantly between countries. Promoting culture is now a particularly important element in establishing international political and economic relations. The role of culture in general, the exchange of civilizational achievements and values, is growing and is the cheapest and most effective means of this exchange.

In the case of Ukraine, despite the lack of such state support, individual cultural and creative projects have been operating in cities and regions of our country lately, becoming well-known abroad and contribute to the formation of a new business community and creative ecosystem, changing the image of regions and cities, stimulating the growth of civic engagement. Of course, the European Union programmes support the creative economy, the positive practice of creative cities and creative spaces play an important role in the activation of creative industries in the domestic economy. A number of projects in cooperation with the EU have resulted in the development of tutorials and on-line courses for cultural managers, practical measures for the establishment of creative spaces: SMART libraries, media libraries, creative hubs and more.

The Council of Europe Cultural policy review report on Ukraine's Cultural Policy states that Ukraine is in the ideal position to „invent the Ministry of Cul-

Culture” to define the concept of “creative industries”], <https://zakon.rada.gov.ua/laws/show/2458-19> [accessed: 10.09.2019].

ture of the 21st century”, a Ministry capable of setting the tone for a balanced national policy, paying particular attention to culture and creativity in numerous policy areas that will lead to economic and social innovation, creating conditions for the emergence of a strong cultural sector that maximizes the use of digital technologies, expand social participation in cultural practices and processes [Kern 2017].

So, Ukraine can already see the results of the updated policy ensuring the capacity of the creative sector and active involvement of local communities. An important task in this area is the effective use, promotion and branding of cultural heritage, stimulation by the state of the development of creative industries as one of the main drivers of the progress of the creative economy of the country. To do this, Ukraine needs to create an effective national network of trade supporting institutions that responds to the needs of exporters by providing a wide range of services and support measures. In order to increase the participation of small and medium-sized enterprises in export activities and improve their level of competitiveness, it is necessary to provide the enterprises with the necessary knowledge and competences formed by the modern education system, to promote the creation of business incubators and to stimulate innovation activities.

It is necessary to solve the problem of the lack of national statistics in the field of creative industries, in order to be able to objectively assess the state of their development (in particular, to monitor the number of jobs, GDP, their influence other sectors), and effectively manage these processes.

The policy pursued for the development of the creative economy must be based on an awareness of its interdisciplinary nature – its economic, cultural, social, technological and ecological components. It should aim to ensure concerted action of governmental institutions, institutes and mechanisms to support the development of creative and related industries. When developing the set of measures to support the creative industries, it is important to take into account their particularities, as the sector is at the intersection of economy and culture.

5. Conclusions

Studies show that culture in Ukraine is no longer just a complement to the economy. It is a integral, dynamic sphere of the economy that can make the best use of modern technologies and media for development. The creative economy creates intangible values and ensures sustainable, human-centered development. Its characteristic feature is that any creative industry has at its core an individual creative background, skill or talent. Therefore, one of the strategic tasks is the need to change the business model: to lay in the definition of the creative industry the potential of creating value and jobs in various types of economic activities

(important steps – networking, key player facilitation, development of common rules of game, etc.).

The European experience shows that given the interest and support of the government, the creation of appropriate development programmes can create a high-level creative economy that will support the country's economic growth for many years. That is why it is very important for Ukraine, based on the experience of the EU countries, to form its own creative space and create the necessary conditions for its development.

The introduction of clusterization technologies in education, culture and other sectors will help to increase business activity, improve the investment climate in the region, develop social, economic, information and integration systems, which in turn will give impetus for a more intensive growth of entrepreneurial initiatives, attraction of investments and economic growth in territories. Our future research will be directed to the fulfilment of these tasks.

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Rozwój kreatywnej gospodarki w kontekście integracji europejskiej

Streszczenie. *W artykule przeanalizowano wsparcie instytucjonalne dla warunków rozwoju przemysłu kulturalnego i kreatywnego na Ukrainie oraz określono wiodącą rolę ekspertów UE w tym procesie. Zidentyfikowano i scharakteryzowano podstawowe tendencje rozwoju gospodarki kreatywnej oraz nakreślono czynniki utrudniające jej efektywność. Przedstawiono propozycje wzmocnienia strategicznego kursu kraju w celu przyspieszenia rozwoju gospodarki kreatywnej na podstawie doświadczenia Unii Europejskiej i potencjału twórczego ludności.*

Słowa kluczowe: *przemysł kulturalny i kreatywny, kreatywna gospodarka, polityka kulturalna, potencjał twórczy*

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Local Finance in the Provision of Community Wellbeing: Comparative Analysis of Poland and Ukraine

Abstract. *The concept of wellbeing can be considered from an interdisciplinary perspective, taking into account psychological, social, managerial and economic aspects at different levels (state, regional, local, individual), and adopting a top-down approach. The author analyses the position of Ukraine and Poland in different dimensions of wellbeing and finds significant differences in indices and their constituents. The findings confirm an impact of local finances on regional human development, and the efficiency of local government bodies is found to be positively correlated with the development of human potential. The article demonstrates the necessity of a comprehensive assessment of community wellbeing, taking into account the role of local finances and directions of increasing the efficiency of local government bodies.*

Keywords: *community wellbeing, local finance, human development, local human development, efficiency, local government*

1. Introduction

In modern studies, the nature of local finance is determined by the totality of relationships that arise in the process of formation, distribution and use of financial resources within the competences of local governments and their functions. The formation and development of such relationships is an evolutionary process and, as a consequence, largely due to the political system of the country, its institutional framework, the functioning of the public administration system, and most importantly, the available financial resources and specific ways in which they are used. It is undeniable that both Poland and Ukraine are countries

with market economies, which have undergone similar changes in the process of implementing a decentralized system of public administration; consequently, it is possible to compare them. At the same time, it should be noted that in Poland, the reform of the local government system in order to increase its role in the provision of local public goods and services, was conducted much earlier than in Ukraine, which has only recently succeeded in this area. One should also note the difference between the positions of the two countries in key dimensions of wellbeing, with Poland ranking much higher. In such circumstances, a comparative analysis of two countries (Poland and Ukraine) should reveal differences in wellbeing ratings, causes of such differences, and determine the place and role of local finances in ensuring the wellbeing of the population.

2. The directions for theory, research and practice

There are two directions in theoretical research on local finance and wellbeing. Most Ukrainian and foreign scholars study local finance in the context of: 1) revenue and expenditure autonomy; 2) powers and functions of local government bodies; 3) sufficiency or lack of financial resources; 4) ability to provide public services. Parametrization of the local finance system with a focus on all these issues is extremely important as it determines the possibilities of achieving the end result of the work of local government – ensuring the wellbeing of residents. One should also stress the importance of decentralization, which brings public services closer to citizens and allows local government bodies to identify the basic level of services provision at the community level using bottom-up strategies.

The current scientific understanding of the term “welfare” is increasingly linked to the need of producing alternative measures of the nation’s wealth to the gross domestic product (GDP). Numerous studies confirm the imperfection of GDP, which is seen as not covering all economic operations and inadequately reflecting the level of the population’s wellbeing. Among the most popular indices that can measure wellbeing from different perspectives, there are the Human Development Index, the World Happiness Report, the Better Life Index and the Well-Being Index. Such comparisons can help us determine the position of a given country in the overall ranking. At the same time, they exhibit a rather generalized picture, indicating deterioration or improvement over time, without exploring causes of these trends. These ratings generally ignore variables such as place of residence or affiliation with a particular social group.

The importance of sub-national levels in the measurement of well-being is indicated by the joint initiative of the Institute for Management Research and Radboud University and the OECD. This kind of analysis can determine inequalities within a country and make cross-country comparisons of regions by

population welfare parameters. One weakness of these indices is (as well as in the case of cross-national comparisons) the existence of subregional inequalities related to the lack of information about people's place of residence and their relationship with local government bodies in terms of public services provision. The regional dimension of human development in the aggregated indicators is presented in many countries, though it varies as far as its components are concerned. It is worth noting that these issues are also addressed in the research of scholars from Hungary, Poland, Italy, etc. [Obádovics, Kulcsár 2004: 26-37; Burchi, Gnesi 2016: 170-192].

The need for a more localized approach to wellbeing studies has led to community-based wellbeing research. According to J. Wiseman and K. Brasher, the concept of community well-being is an integrated "combination of social, economic, environmental, cultural and political conditions identified by individuals and their communities as essential for them to flourish and fulfill their potential" [Wiseman, Brasher 2008: 358]. The Kraeger, Cloutier and Talmage study interpreted well-being from the perspective of an individual, society, and community, and found a mutual influence of society and community on the quality of life of its inhabitants [Kraeger, Cloutier, Talmage 2017]. Psychological and geographical approaches to community well-being in the Murgas and Klobučník study allow researchers to analyze different size groups of municipalities and small cities with a comprehensive assessment of the subjective quality of life of community residents [Murgas, Klobučník 2016: 553-570].

The concept of wellbeing can be considered from an interdisciplinary perspective, taking into psychological, social, managerial and economic aspects

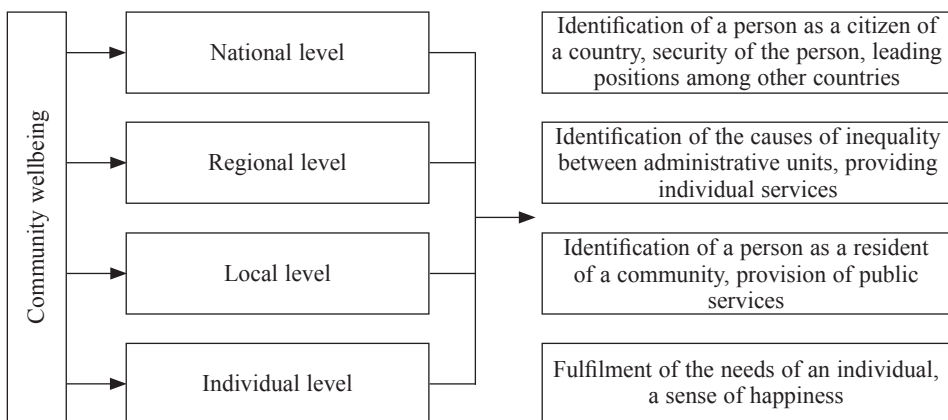


Figure 1. Interpretation of key characteristics of different dimensions of wellbeing

Source: own elaboration.

at different levels (state, regional, local, individual), and adopting a top-down approach. After reviewing theoretical studies (Fig. 1) it was possible to isolate key characteristics that determine the population's wellbeing at national, regional, local and individual level. At the same time, the key role is played by the community, which is a collection of individual residents, and the place where public services are provided.

3. National dimension and cross-national comparisons

According to the Human Development Index, in 2017, Ukraine was 88th in the ranking, having improved its standing compared with the previous year by two places; Poland was 33rd, having moved up one place (Table 1). Thus, by the end of 2017, Poland was in the group of countries with a very high Human Development Index, and Ukraine – with a high Human Development Index. There is a bigger gap between the rankings in the World Happiness Report, which, in addition to objective assessment, also takes into account subjective ratings of well-being. For example, in 2017 Poland ranked 42nd and Ukraine – 132nd. The OECD's Better Life Index covers 40 countries, of which Poland is ranked 29th and Ukraine is not included.

Based on the methodology of the UN Human Development Index, which includes three components: education (expected years of schooling, average years of schooling), health (life expectancy) and standard of living (gross national income per capita), a subnational database on human development is presented¹, which can be used to compare regions of Poland and Ukraine (Fig. 2). It should be noted that the Subnational Regional Human Development Database contains data for Ukraine only at the level of macro-regions. Our study is based on these data, since the ranking of regions in Poland, Ukraine (in this case, macro-regions) and other countries was based on one methodology, which enables comparisons of regional human development between countries.

Ukraine consists of 24 regions (oblasts) and the temporarily annexed part of the Autonomous Republic of Crimea (ARC). In our calculations we used the average values of socio-economic development of regions grouped into the following macro-regions: Western (Lviv, Transcarpathian, Ivano-Frankivsk, Chernivtsi, Volyn, Rivne, Khmelnytsky, Ternopil regions), Central (Poltava, Chernihiv, Vinnytsia and Cherkasy regions), Eastern (Kharkiv, Dnipropetrovsk, Donetsk, Luhansk regions), Northern (Zhytomyr, Kyiv, Chernihiv and Sumy regions), Southern (Kherson, Zaporizhia, Odesa, Dnipropetrovsk and Mykolaiv regions, ARC).

¹ <https://globaldatalab.org/shdi/about/> [accessed: 1.09.2019].

Table 1. Ukraine and Poland in international well-being rankings, 2017

No.	Index	Organization	Main indicators	Number of countries in the ranking	Poland's rank	Ukraine's rank
1	Human Development Index	United Nations Development Program	Life expectancy, education, GDP per person	189	33	88
2	World Happiness Index	UN-sponsored The Earth Institute Research Center	GDP per person, life expectancy, social support, freedom to make life choices, generosity, perceptions of corruption	156	42	132
3	Legatum Prosperity Index	Legatum Institute	9 dimensions Economic Quality, Business Environment, Governance, Education, Health, Safety & Security, Personal Freedom, Social Capital, Natural Environment	149	32	112
4	Better Life Index	OECD	11 dimensions of well-being Housing, income, jobs, community, Education, environment, governance, health, life satisfaction, safety, work-life balance	40	29	–

Source: <http://hdr.undp.org/en/content/human-development-index-hdi>; <https://worldhappiness.report/>; <https://www.prosperity.com/>; <http://www.oecd.betterlifeindex.org> [accessed: 1.09.2019].

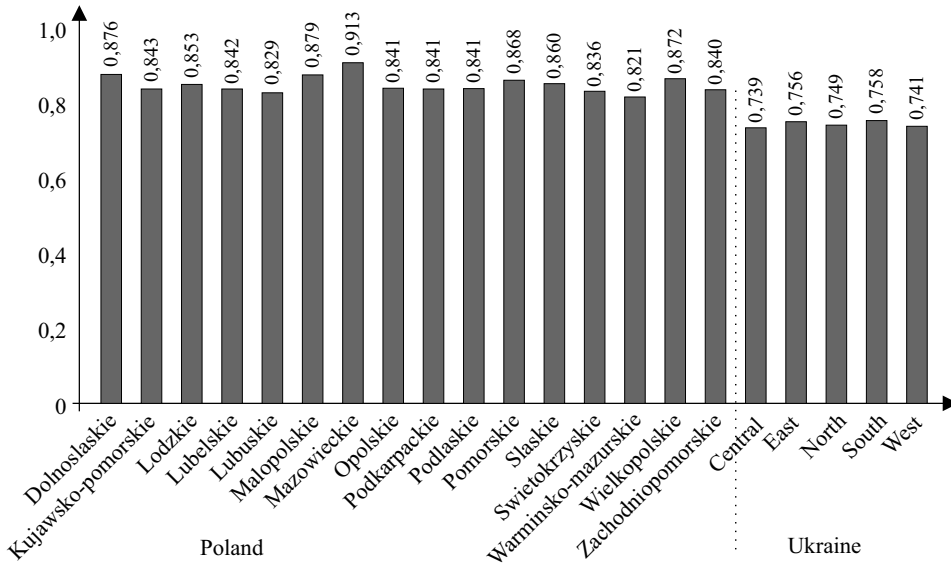


Figure 2. SHDI Ukraine-Poland Comparison, 2017

Source: <https://globaldatalab.org/shdi/about/> [accessed: 1.09.2019].

A cross-regional comparison of the Human Development Index of Poland and Ukraine shows:

- significant differentiation in human development between regions, the difference between the highest and the lowest index is 0.172, which is more due to the higher level of human development of Poland as a whole;
- both in Poland and in Ukraine there are regions characterized by high and low sub-indices, as well as regions in which one of the sub-indices had a significant impact on the overall indicator;
- a higher level of inequality for Polish regions in all components of the regional human development index compared to Ukraine. However, it should be noted that the representation of all 24 regions would show a radically different picture.

In general, many countries often conduct internal assessments of regional human development, using other indicators, stating that the UNDP's subnational human development index is a long-term goal, and this position requires clarifying the internal causes of inequalities in human development across regions.

For example, in 2010 a team of researchers led by P. Arak prepared the "National Human Development Report Poland 2012. Local and Regional Development," which presented local human development (LHDI) results based on a synthetic index including 3 sub-indices: health (estimated life expectancy at

birth, cumulative mortality rate caused by cancer and heart disease), education (percentage of children enrolled in pre-school education, average exam results for lower secondary school: math and science only) and prosperity (average income per capita) [Arak 2012].

In Ukraine, the State Statistics Service,² using the methodology of assessing regional human development, developed by the Ptoukha Institute for Demography and Social Studies of the National Academy of Sciences of Ukraine,³ publishes results of the Subnational Human Development Index (SHDI), including 6 blocks of indicators: population reproduction, social status, comfortable life, prosperity, decent work and education.

Table 2. Comparison of the human development ranking of the provinces of Poland by different assessment methods, 2010

Province	SHDI. UNDP 2010	SHDI ranking	LHDI. Poland 2010	LHDI ranking	Change of rank
Dolnoslaskie	0.844	2	46.3	6	-4
Kujawsko-pomorskie	0.812	12	41.2	13	-1
Lodzkie	0.822	7	39.3	15	-8
Lubelskie	0.812	13	39.6	14	-1
Lubuskie	0.805	15	44.4	9	6
Malopolskie	0.843	3	51.9	2	1
Mazowieckie	0.878	1	60.2	1	0
Opolskie	0.816	9	47.0	5	4
Podkarpackie	0.811	14	43.8	10	4
Podlaskie	0.817	8	44.4	8	0
Pomorskie	0.837	5	51.1	3	2
Slaskie	0.833	6	44.9	7	-1
Swietokrzyskie	0.813	10	36.8	16	-6
Warminsko-mazurskie	0.801	16	42.3	12	4
Wielkopolskie	0.840	4	50.2	4	0
Zachodniopomorskie	0.813	11	42.9	11	0

Source: Arak, 2012; <https://globaldatalab.org/shdi/about/> [accessed: 1.09.2019].

A comparison of the ranking of the Polish regions using the two methods shows differences which are due to the use of different sub-index evaluation characteristics (Table 2); it is difficult to make such a comparison for Ukraine, since only 5 macroregions are listed in the UNDP assessment. At the same time, for example, the western macro-region of Ukraine (Lviv, Ivano-Frankivsk, Transcarpathian, Rivne, Ternopil Volyn, Chernivtsi oblasts), which according to the UNDP has the lowest SHDI rating, contains regions which are in the top of the

² <http://www.ukrstat.gov.ua/> [accessed: 16.04.2019].

³ https://idss.org.ua/ukr_index/irlr_2014 [accessed: 29.04.2019].

ranking according to the national LHDI methodology (1st place: Ivano-Frankivsk oblast to 11th: Volyn oblast).

To link local finance and human development, we used Piotr Arak's approach. Based on local cost effectiveness, he proposes a synthetic indicator that combines local expenditures, the number of doctors per capita, the ratio of teachers to students, and the cost of education. It should be noted that to date, we do not know the study's findings about the impact of local finances on community well-being in Ukraine, which is largely related to their short history of functioning (since 2015), lack of relevant information and lack of methodological bases for calculating local wellbeing. Against this background, let us determine the presence or absence of correlation between regions. The calculations confirmed the presence of a polynomial dependence (Fig. 3) between the level and efficiency of local expenditures (LPDHI) and the regional human development index in Ukraine (LPI).

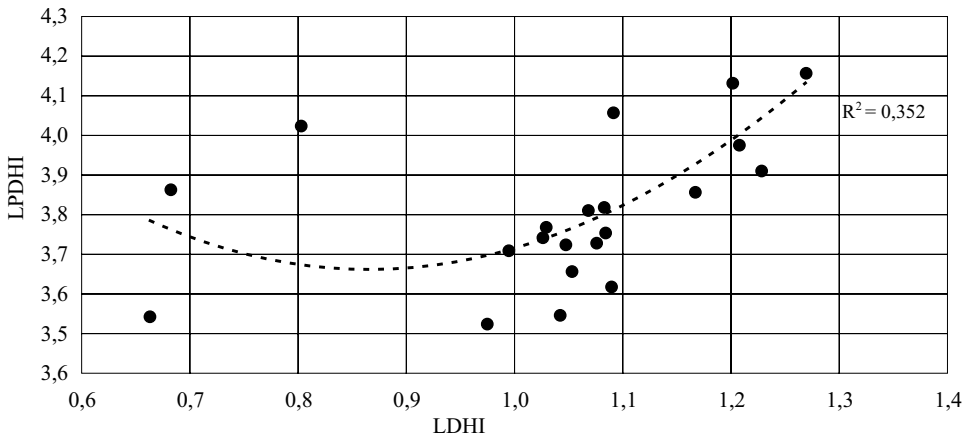


Figure 3. Dependence of regional human development in Ukraine on the efficiency of local expenditures, 2017

Source: own calculations based on https://idss.org.ua/ukr_index/irlr_2014/ [accessed: 29.04.2019].

However, it should be noted that the construction of local well-being indices and the determination of various interdependencies should start at the community level, since:

- the community is the main provider of local goods and services;
- the community is the primary level of interactions between inhabitants and public authorities and the level at which individual persons are identified as community residents;
- improving the efficiency of local government bodies will contribute to the well-being of community residents.

4. Conclusion

The importance of human development as an aggregate assessment of the well-being of residents is confirmed by numerous studies on the construction and measurement of human development. At the same time, its measurement is carried out at the level of countries and regions, which makes it impossible to take into account local differences within a country. In the context of decentralization, there has been a strengthening of the local level (communities) in terms of the financing of goods and services, which indicates the need to intensify the interaction between local governments and residents of the community.

Cross-national and inter-regional comparisons of well-being confirm that there is considerable differentiation between the indices and their components, however, they cannot be used to assess the impact of the causal factors. When human development is assessed at national, regional, local and individual level, it is possible to obtain a picture of development that can help improve the effectiveness of public policy at each level of government. Therefore, there is a need for more research on community well-being, which largely depends on the effective provision of local services and ultimately leads to a high level of human development.

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Finanse lokalne w kontekście zapewnienia dobrobytu społeczności – analiza porównawcza Polski i Ukrainy

Streszczenie. *Koncepcja dobrostanu charakteryzuje się podejściem interdyscyplinarnym i jest traktowana z psychologicznego, społecznego, kierowniczego i ekonomicznego punktu widzenia, na różnych poziomach wymiaru: krajowym, regionalnym, lokalnym, indywidualnym. Zbadano sytuację Ukrainy i Polski w różnych wymiarach dobrostanu. Stwierdzono znaczne zróżnicowanie zarówno wskaźników, jak i ich składników. Potwierdzono wpływ finansów lokalnych na regionalny rozwój człowieka i stwierdzono, że efektywność funkcjonowania organów samorządu terytorialnego jest pozytywnie skorelowana z rozwojem potencjału ludzkiego. Uzasadniona jest konieczność kompleksowej oceny dobrobytu społeczności, z uwzględnieniem roli finansów lokalnych i kierunków poprawy efektywności funkcjonowania organów samorządu terytorialnego.*

Słowa kluczowe: *dobrobyt społeczności, lokalne finanse, rozwój człowieka, lokalny rozwój ludzki, wydajność, samorząd lokalny*

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Structural Transformations in Innovative Activities of Industrial Enterprises at Local and Regional Levels: the Experience of Ukraine and EU Countries

Abstract. *This articles analyses the innovative dimension of structural transformations of the Ukrainian economy as exemplified by industrial enterprises (based on data from surveys conducted by regional departments of statistics). The authors compare them with experiences of European Union countries (based on Eurostat data). It was found that financial constraints remain the main factor responsible for the slower pace of innovation activities in Ukrainian industrial enterprises. Organizational-institutional problems, as well as the near absence of cooperation between the state, science and business in sectors that are priority for the national economy have been identified as the main obstacles to the activation of innovation in the Ukrainian industry. It was found that the problems with the staffing of high-tech development, as well as the practical lack of mechanisms for indirect state financing of innovation activities in Ukraine, are a higher barrier to innovation activities than in the EU countries.*

Keywords: *innovative activity, transformation of economy, structure of economy, innovation costs, innovations, industrial enterprise, innovative development, innovations in industry*

1. Introduction

Vigorous innovation activity in modern conditions of globalization is the most important engine of structural changes in the modern world economy. It defines the main, strategically oriented and irreversible changes in the structure of economies through the entry of new production and business technologies into the market space that can substantially better meet existing needs and create opportunities for the emergence of fundamentally new society needs.

Economic development in the leading countries of the world is increasingly affected by science, education and innovative processes in, which set the direction for the development of the global economy as a whole.

Despite the numerous measures to stimulate scientifically technological and innovative development stipulated by national programs, legislative and departmental normative documents, the actual effectiveness of their implementation remains low in Ukraine, particularly when one considers the following [Shinkaruk, Bevz 2015: 153]:

- in spite of the fact that Ukraine's rating in the Global Innovation Index (GII) in 2017 (50th among 127 countries) improved compared to 2016 (56th among 128 countries) and 2015 (64th among 141 countries), it still lags behind the world's leaders;

- Ukraine's participation in international patenting of leading technologies of the future is extremely low: the country's share in global patents ranges from 0.01% (in the pharmaceutical sector) to 0.09% (in nanotechnology; in some environmental technologies). At the same time the corresponding indicators for the USA are 40.5%, 34.6% and 22.0%; for Germany – 5.7%, 5.0% and 11.9%; for India – 3.7%, 1.5% and 0.9%¹;

- the most innovative sectors in 2012 and 2017 were high-tech industries – the oil and gas production and pharmaceutical industry in Poland, and the food industry in Ukraine;

- the share of research and development costs in Ukraine's GDP in 2017 was only 0.45% (in 2012 – 0.75%), while, for example, in Germany – 2.94%, France – 2.25%, Hungary – 1.21%, Poland – 0.97% [Karmazin 2018];

- overall GDP growth due to the introduction of new technologies in Ukraine is 0.7%, while in developed countries it is 60-90%.²

2. Structure and spatial concentration of innovative industrial enterprises

Today in Ukraine, as well as in the world, innovation centers are located in big cities, where the main production, intellectual and scientific potential is concentrated. Thus, in 2017 between 21.4% (in the region of Ivano-Frankivsk) to 80.0% (in the region of Mykolayiv) of innovative industrial enterprises (“IIE”) were concentrated in cities – regional centers of Ukraine (Fig. 1).³

¹ Patents by main technology and by International Patent Classification (IPC): OECD Patent Statistics (database), <http://dx.doi.org/10.1787/data-00508-en> [accessed: 5.07.2019].

² *Save the Future: the first rating of innovative companies in Ukraine*, <http://forbes.net.ua/ua/magazine/forbes/1416757-vryatuvati-majbutne-pershij-rejting-innovacijnih-kompanij-ukrayini> [accessed: 5.07.2019].

³ Hereinafter, only those large cities are presented in the pictures and tables, for which all the information necessary for analysis was available.

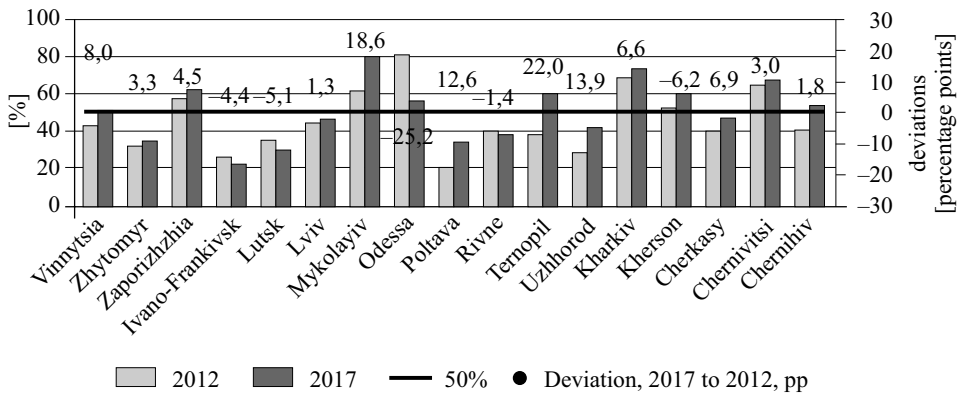


Figure 1. IAIE concentration in cities – regional centers of Ukraine in 2012 and 2017 (% to the respective region)

Source: based on survey data from the regional statistical offices.

In 2017, only 16.2% of industrial enterprises in the country were engaged in innovation activities (–1.2 pp compared to 2012), while in the region of Mykolayiv this share was 38.5%, in Ternopil – 33.3%, Kharkiv – 31.2%, Kiev – 20.7%, and in Lviv – 18.2%. For example, in Poland, 17.5% of industrial enterprises were innovatively active in 2012-2014, and in 2017 – 20.2%. Corresponding figures for two Polish provinces that border Ukraine in the west are: Podkarpackie – 18.4% and 21.2%; Lubelskie 21.2% and 23.2%. According to Eurostat data, in 2016, 87.2% of industrial enterprises were innovatively active in Belgium, 88.7% in Austria, 86% in France, 79.6% in Greece and in the countries bordering on Ukraine: Hungary – 68.5% and Romania – 25.2%. At the same time, it should be noted that the indicator in question in all of these countries exhibited a growing trend compared to the previous year.

In Ukraine, the spatial concentration of innovative industrial enterprises in large cities depends on a number of factors: 1) proximity to a large number of sellers and buyers, which makes it relatively easy to respond quickly and flexibly to the market situation; 2) availability of local workforce with specific skills; 3) greater opportunities to attract transnational stakeholders; 4) availability of institutional, transport infrastructure, etc.

In 2017, there was an overall decline by 1.2 pp in innovation activity of Ukrainian industrial enterprises. On average, the level of innovation in Ukrainian enterprises fell, whereas declines recorded in specific big cities were more pronounced (Fig. 2).

The share of industrial enterprises engaged in innovation activity in Chernivtsi in 2017 compared to 2012 increased by 27.5 pp, in Kharkiv – by 8.7 pp,

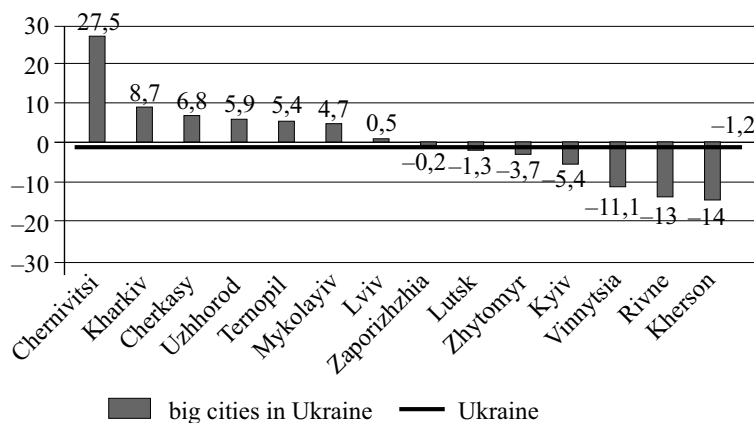


Figure 2. Change in the share of industrial enterprises engaged in innovation activity in large Ukrainian cities in 2017 compared to 2012, in percentage points

Source: based on survey data from the regional statistical offices.

in Cherkasy – by 6.8 pp and in Uzhgorod – by 5.9 percentage points. However, the same indicator for Kherson decreased by 14.0 pp, for Rivne – by 13.0 pp and for Vinnitsa – by 11.1 pp. This situation was caused both by the global financial-economic fluctuations and by the unstable socio-economic situation of Ukraine, which was due, in particular, to military activities in the east of the country, the imperfection of the existing institutional and organizational support of innovative activity, etc. Besides, in recent years, along with innovations in the field of industrial production, a number of large cities of the country, have focused on innovations in the services sector. In addition, it should be emphasized that official statistics available in Ukraine, unlike European countries, do not contain information on innovative activities in the field of services.

During the reference period most innovative enterprises in the big cities of Ukraine represented the manufacturing industry (for example, in 2017 in Kyiv – 87.4%, in Lviv – 90.9%, in Ivano-Frankivsk – 100%), in particular mechanical engineering (manufacture of machinery and equipment; manufacture of electrical, electronic and optical equipment; manufacture of vehicles and equipment), as well as the manufacture of food, beverages and tobacco (for example, in 2017 in Kyiv – 25.3% and 16.9% respectively (Fig. 3), in Lviv – 17.5% and 35% respectively).

Mechanical engineering is an important branch in terms of providing scientific and technological development of the industry. However, our study indicates a slight decrease in the share of innovative machine-building enterprises in the total number of industrial enterprises in large cities of Ukraine in 2017 compared to 2012 (for example, Kyiv –4.9 pp, Lviv –7.5 pp, Ivano-Frankivsk –13.8 pp).

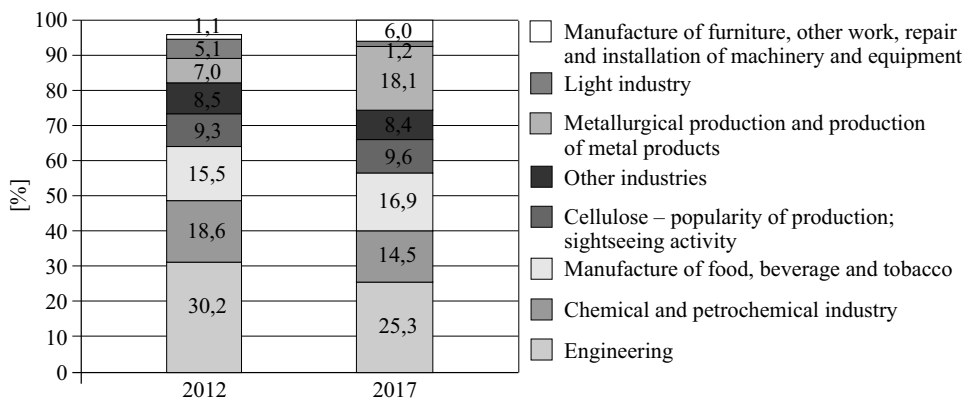


Figure 3. The structure of innovatively active industrial enterprises in Kyiv by type of economic activity in 2012 and 2017, %

Source: based on data published by the regional statistical office in Kiev: <http://kiev.ukrstat.gov.ua/> [accessed: 5.07.2019].

In addition, once can observe a reorientation of the enterprises, from mechanical engineering (production of machines, equipment, vehicles) to the production of spare parts and equipment. This is one of the obstacles in the production of competitive innovative products.

3. Transformation of the cost structure for innovation

From the perspective of the transition towards a knowledge-based economy and taking into account the improvement of production technologies and stimulate growth, it is important to study the transformation of the cost structure for innovation activities.

In 2017 in Ukraine, the share of innovative costs of industrial enterprises in cities (regional centers) in the regional indicator was 97.3% (+10.3 pp compared to 2012) for Zaporizhzhya, 87.4% (+60.3 pp compared to 2012) for Mykolaiv, 81.6% (–14.6 pp compared to 2012) for Vinnitsa, and 62.1% (–22.6 pp compared to 2012) for Lviv.

In addition, in the reporting year, the share of expenditures made by industrial enterprises located in large cities to finance innovation activities in the regional indicator increased at a much higher rate than the expenditures made by innovative industrial companies in the regional centers (the share in the corresponding regional indicator, in particular, in Zaporizhzhia, Ternopil and Vinnytsia).

The volume of innovative expenses incurred by innovative industrial companies in 2017 was, for example, UAH 19.6 million in Kyiv, UAH 52.1 mil-

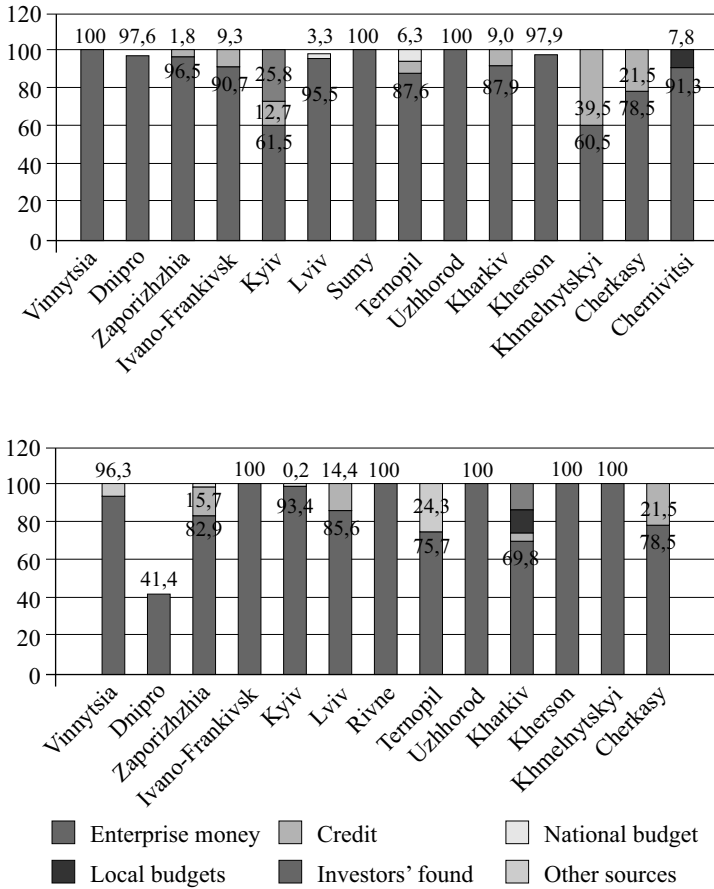


Figure 4. Structure of innovation expenditures of industrial enterprises in large cities of Ukraine by source of financing in 2012 (a) and 2017 (b), %

Source: based on survey data from the regional statistical offices.

lion in Zaporizhzhia, and about UAH 87.5 million in Kharkiv and Lviv. At the same time, the average figure for Ukraine was UAH 12.01 million, in Poland – UAH 40.5 million (PLN 5.7 million), and in high-tech industries – UAH 53.4 million⁴ (7.6 million PLN). Own funds of industrial enterprises in large cities were the main source of financing innovative activities during the reference period (Fig. 4).

On average, the share of enterprises' own funds in the total cost of innovative activities in the cities of interest was 74.2% in 2012 and increased to 78.7% in

⁴ Conversion based on the official exchange rate of hryvnia against foreign currencies published by the National Bank of Ukraine (average exchange rate for 2017: 100 PLN = 704.90 UAH).

2017 (corresponding figures for Ukraine – 52.9% and 84.5%). This structure of innovation expenditures is slightly higher than in the leading EU countries (for example, in 2015-2017 the average for Germany was 67.1%, for France – 63.1%, for the UK – 61.4%), but is similar to that of Poland (75.5%), China (73.4%) and Japan (76.5%). However, while the public sector in the developed countries finances 10-14% of innovations in industry, and in Poland – 1.6% (almost half of which is the state financial support for industrial research),⁵ the corresponding indicator for the big cities of Ukraine was, on average, only 0.09% in 2012 and 0.41% in 2017.

In addition, the most developed countries of the world that are part of the OECD also use indirect methods of stimulating innovations, such as tax breaks, authorization to use accelerated depreciation, tax credits, etc. [Shestakov, Poliarus 2017]. In other words, developed countries, along with the allocation of public funds for certain projects, stimulate the development of innovative companies by mitigating their financial obligations to the state. Also, a large proportion of European industrial enterprises are supported in their innovation activities through funding programs of the European Union (for example, in 2016 15.4% of innovative industrial enterprises in neighboring Slovakia, in Poland – 16.3% of enterprises, and in Romania – 24.9%).⁶

This means that in recent years, Ukraine has virtually ceased to stimulate innovative processes in industry. Among other things, this may be a consequence of the excessive social orientation of budget expenditures (in particular, the financing of consumer needs of the population), which makes practically it impossible to invest in the innovative development of the regions.

The country's level of innovation also depends on the level of investment, which not only serves as “financial fuel” for the development of high-tech industries, but also reflects the state of the business environment in the country, the availability of human resources and skilled labor, the state of the internal market. However, investor funds are almost absent as financing sources for innovative activities of industrial enterprises in large cities of Ukraine. In 2012, in particular, only Kyiv received financial support from investors (25.8% of total expenditures on innovative activities, 97.6% of which are funds from foreign investors), Kharkiv (1.3%) and Sumy (0.02%), and in 2017 – only Kharkiv – 16.3%,⁷ moreover all the funds were invested by domestic investors.

⁵ Central Statistical Office in Poland, <https://stat.gov.pl>; Research and Development: National Trends and International Comparisons, <https://www.nsf.gov/statistics/seind14/index.cfm/chapter-4/c4s2.htm#s2> [accessed: 5.07.2019].

⁶ Results of the Community Innovation Survey: 2016: database, <https://ec.europa.eu/eurostat/data/database> [accessed: 5.07.2019].

⁷ According to the above indicator, 21 city – regional center were analyzed.

In 2012, on average, 1.3% of innovative activities undertaken by industrial enterprises were financed by domestic investors, and 8.7% by foreign investors. In 2017, the corresponding figures were 3.0% and 1.2%, and for Poland,⁸ in 2015-2017, 3.7% were funded by foreign investments.

Thus, the domestic investment process in Ukraine does not fulfill the function of promoting the industrial renewal through innovation, which could start a structural adjustment of the national economy by focusing on industries with long-term innovative competitive advantages.

The average share of innovative activities of industrial enterprises in large cities financed through bank loans in 2012 was 6.5% of total innovation expenses, which decreased to 5.7% (–0.8 pp) in 2017; the corresponding figures for Ukraine were 3.8% and 6.5%, and for Poland – just over 7%.

The main direction of innovation activities undertaken by industrial enterprises in large cities of Ukraine in 2017 (this trend existed in previous years) was the purchase of machinery, equipment, installations, software and new technologies (for example, in 2017, in Dnipro – 95.3% of innovation costs, 55% in Kyiv, 58.1% in Lviv, 56.1% in Kharkiv).

It should be noted that the structure of innovative costs in industry in the EU countries is similar. Thus, 77.7% of enterprises in Poland purchased machinery, equipment and software in 2016, 69.1% in Croatia, 68.3% in Slovakia.⁹ However, in monetary terms, the innovation costs of industrial enterprises in EU countries are much higher than those of similar enterprises in Ukraine.

Research and development activities are the major driver of innovation. However, the number of enterprises engaged in this activity in 2017 was insignificant and decreased sharply compared to 2012. Most research involved internal works. There was also no demand for new technologies from outside (except Vinnitsa, where 90.4% (+7.8 pp compared to 2012) of funds spent by innovative industrial enterprises in 2017 were used to finance R&D), which was caused, in first turn, by the expensive cost of external knowledge. In these business conditions, it is economically feasible for companies to produce (generate) innovations on their own. In addition, in this context, one of the problems faced by Ukraine is the low level of cooperation between industry and universities in the field of scientific research. According to the ranking “Research cooperation of universities with industry” in 2016, Ukraine ranked 57th in the world. The top three places were occupied by Switzerland, Finland, Israel and the USA.

For comparison, there is a high level of cooperation between industrial enterprises with universities in Germany. In particular, nine of the country’s top technology universities have formed the TU9 association to facilitate joint

⁸ Central Statistical Office in Poland, <https://stat.gov.pl> [accessed: 5.07.2019].

⁹ Results of the Community Innovation Survey: 2016: database, <https://ec.europa.eu/eurostat/data/database> [accessed: 5.07.2019].

lobbying for favorable conditions of cooperation with politics and business, and it is currently the leading organisation in Germany when it comes to gaining funds from foreign organizations. Thanks to this collaboration between academic institutions and industry, German universities are consistently at the top of technology and innovation rankings. In addition, according to UNESCO, Germany is among the top ten countries where the business sector spends the most funds on research and development in industry [Bilyayeva 2019].

The trends observed in large Ukrainian cities outlined above generally resemble the trends for the whole of Ukraine, where 64.7% of expenditure on innovations in 2017 were used to cover the costs of purchasing machinery, equipment and software; internal research works – 21.3%; acquisition of other external knowledge – 0.2% (in 2012 – 70.1%, 8.4%, 0.4%, respectively). For comparison, in Poland, the structure of expenditures on innovation activities in industrial enterprises was dominated by the so-called capital expenditures on fixed assets (costs of purchasing machinery, technology, tools) – on average 74% in 2012 and decreased to 70% in 2017 (almost 80% of these costs were spent by large innovative industrial enterprises), as well as research expenditures – just over 17% in 2012 and almost 23% in 2017. The costs of purchasing software and the marketing of new or significantly improved products each accounted for 2% of total expenditure, and the costs of acquiring external knowledge – 3.1% in the base year and only 0.6% in the reporting year.¹⁰

4. Structure of innovations implemented and implemented by industrial enterprises

During the reference period the development of production of innovative types of products prevailed in the structure of innovations implemented by industrial enterprises in large cities of Ukraine. The largest number of innovative products were created industrial enterprises in Kharkiv – 306 units in 2017 (+70 units compared to 2012). However, considering the number of new products per one innovative industrial enterprise, it was the industrial enterprises the region of Kherson that took the lead with almost 6 types of innovative products recorded in 2012, and 8 types in 2017.

Considering the total volume of innovative products implemented in industrial enterprises located in large cities of Ukraine, new products prevailed (for example, in 2017, 94.8% in Chernivtsi, 100% in Ivano-Frankivsk, 81.3% in Kharkov). A similar trend was observed in other regions of Ukraine, where in 2012 and 2017, almost 80% of innovative products introduced into production

¹⁰ Central Statistical Office in Poland, <https://stat.gov.pl> [accessed: 5.07.2019].

were new to the enterprise. For example, the corresponding figure for Poland¹¹ in 2012-2017 was about 90%.

At the same time, despite the fact that industrial enterprises in large cities introduced a considerable number of new technological processes, their number was still critically low. Thus, in 2012, the number of technological processes per one enterprise in Kharkiv was almost 7, in Kherson just over 2, in Dnipro and Ternopil – just over 1, and in other cities – less than 1. The situation did not improve much in 2017 either. In particular, the highest rate of implementation of new technological processes per one enterprise was recorded in Ternopil – 4.1 units.

It should be noted that in Ukraine in general the share of industrial enterprises introducing innovations in 2012 and 2017 was the largest in the sector of food, beverage and tobacco production – 26.7% and 90.8% respectively, as well as mechanical engineering – 25.4% and 34.5% respectively. In 2017 the most innovative sectors in Poland were oil and gas production and the pharmaceutical industry (respectively 66.7% and 45% of the industrial enterprises that introduced innovations). Many innovative companies introduced innovations in the production of chemicals and chemical products.¹²

The share of industrial enterprises that sold innovative products in the reporting year ranged from 33.4% in Rivne and Ternopil up to 100% – in Lutsk. However, while in 2012 industrial enterprises in most large cities sold their innovative products outside Ukraine, in 2017 this was true only for seven cities (Poltava – 66.7% of corresponding enterprises, Cherkasy – 54.5%, Kherson – 50.0%).

The presence of a small, but growing share of innovative industrial enterprises in large cities of Ukraine in 2017 (for example, in Chernivtsi – by 27.5 pp, in Poltava – by 11 pp, in Kharkiv – by 8.7 pp) was not accompanied by a similar growth in the share of innovative products in the total volume of sold industrial production (in particular, in Kyiv the corresponding indicator decreased by 4.1 pp, in Lutsk – by 2.8 pp, and in Ternopil – by 2.4 pp).

It should be noted that the share of sold innovative products in the total volume of sold industrial production in the reporting year averaged 0.7% in Ukraine and decreased by 2.6 pp compared to 2012. This situation is not surprising, given the fact that the lion's share of the those innovative products were new for the enterprise (and not for the market), and, therefore, were not in demand in the market. Accordingly, the share of sales of innovative products is negligible. This means that industrial enterprises are guided by their own needs in the manufacture of innovative products.

¹¹ Central Statistical Office in Poland: <https://stat.gov.pl> [accessed: 5.07.2019].

¹² Industrial Warehouse. Innovation of the Polish industry – report, <https://www.magazynprzemyslowy.pl/zarzadzanie-i-rynek/Innowacyjnosc-polskiego-przemyslu-raport> [accessed: 5.07.2019].

The structure of sold innovative products by type of economic activities in large cities of Ukraine was different. For example, in 2017, Kyiv saw the highest sales of innovative products in the food industry (44.4%; -6.3 pp compared to 2012), and in Ivano-Frankivsk – in mechanical engineering, in particular – manufacture of machinery and equipment (48.4% of the total sales of innovative products).

During the reference period, the lion's share in the total volume of sold innovative products in the majority of large cities were products which can be classified as internal novelties. Thus, for example, in Kiev, the figure was 63% in 2017 (+18.2 pp compared to 2012), and in Chernivtsi – 87.6%. However, in Kharkiv more than a half of sold innovative products were new to the market – 55.7% (per enterprise – only 44.3%).

Along with the general decline in sales of innovative products by industrial enterprises located in large cities of Ukraine in 2017 compared to 2012 (with the exception of Vinnitsa, Lviv and Kherson), a slight decrease in the volume of export of innovative products was observed.

Thus, in 2017 innovative enterprises in Poltava exported 56.4% of innovative products, enterprises in Zhytomyr and Nikolaev – almost 30%, those in Vinnitsa, Kiev, Lviv, Kherson and Cherkasy – less than 10% of innovative products. At the same time industrial enterprises of Ivano-Frankivsk, Lutsk, Rivne and Khmelnytsky did not export innovative products in the reporting year.¹³ It should be emphasized that in 2012 the share of innovative products sold abroad by industrial enterprises in large cities of Ukraine was 83.5% – in Sumy, 77.9% – in Mykolayiv, 69% – in Kharkiv, 66.8% – in Chernivtsi, and 48.1% – in Chernihiv. However, in this case, it should be noted that a number of cities recording exports of innovative products do not disclose relevant information, which is classified as confidential.

5. Conclusion.

The main factors inhibiting innovative activity of Ukrainian industrial enterprises

The study revealed that financial constraints caused by an acute shortage of financial resources on the part of industrial enterprises, which are the main source of financing of innovative activities, remain the main factor responsible for the slower pace of innovative activities of Ukrainian industrial enterprises.

¹³ Relevant data for other large cities of Ukraine are not disclosed to ensure compliance with the requirements of the Law of Ukraine "On State Statistics" on the confidentiality of statistical information.

The shortage of own funds is caused, first of all, by the stagnation of industrial production and the unavailability of external sources of financing. In addition, bank loans are expensive, which makes it difficult to obtain resources to finance innovative projects, especially for low-profit enterprises in need of modernization (and therefore unable to attract long-term loans for innovative activities).

In view of the above, it should be noted, that according to Eurostat data, in 2016 the share of enterprises for which the lack of own financial resources was a significant barrier to innovative activities was, for example, 10.1% – in Poland (–18.3 pp compared to 2014), 17.6% – in Slovakia (–14.8 pp compared to 2014), 19.4% in Greece (–2.3 pp compared to 2014).

We believe that the problems faced by industrial enterprises trying to obtain financial support for their innovative activities, among other things, can be overcome by providing financial incentives for private investment in research and development, in particular in the form of indirect state support (state grants for research and development; investment tax credits for R&D; tax incentives and tax holidays for innovatively active enterprises, which direct part of the profit on investments in the development of production).

No less acute in Ukraine are the problems associated with the staffing of high-tech development, as well as with the outflow of qualified personnel abroad, which can be solved by improving the quality of technical education and ensuring its compliance with modern world trends and requirements; forecasting and monitoring the demand for specialists in technological specialties and the like.

At the same time, today the development of industry in big cities, and in Ukraine in general, is becoming a challenge to their ecology. Therefore, in the context of innovative activities, the strategic task for both the government and business now is to use effectively the existing investment potential to improve the environment.

In order to determine the attractiveness and value of domestic innovative products (in particular, by investors), it is necessary to monitor and assess innovative development and conduct its systematic analysis. However, unlike statistical offices in other European countries, Ukrainian statistics has a very limited amount of statistical information on industrial innovative activities, which has been collected and published every two years since 2015. Taking into account foreign experience, in order to provide relevant information about innovative development, it also seems appropriate, that the State Statistics Service of Ukraine should collect, process and publish information on innovative activities in the service sector and the information-communication sector.

The search for ways to create favorable institutional and organizational conditions for industrial enterprises to increase the scope of their innovative activities will be the subject of future research in this area.

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Przekształcenia strukturalne działalności innowacyjnej przedsiębiorstw przemysłowych na poziomie lokalnym i regionalnym – doświadczenie Ukrainy i krajów UE

Streszczenie. *Innowacyjny wymiar przemian strukturalnych ukraińskiej gospodarki został zbadany na przykładzie przedsiębiorstw przemysłowych (w oparciu o odpowiedzi danych na zapytania publiczne regionalnych departamentów statystyki Ukrainy); porównuje się je z odpowiednimi doświadczeniami krajów Unii Europejskiej (na podstawie danych Eurostatu). Ustalono, że ograniczenia finansowe są głównym czynnikiem spowalniającym działalność innowacyjną ukraińskich przedsiębiorstw przemysłowych. Główne przeszkody w aktywowaniu działalności innowacyjnej w przemyśle ukraińskim stanowią zidentyfikowane problemy o charakterze organizacyjnym i instytucjonalnym, a także w przeciwieństwie do rozwiniętych krajów europejskich współpraca między państwem, nauką i biznesem w głównych sektorach gospodarki narodowej. Ustalono, że problemy z obsadzaniem stanowisk związanych z rozwojem zaawansowanych technologii, a także brak mechanizmów pośredniego finansowania przez państwo działalności innowacyjnej na Ukrainie stanowią większą barierę dla innowacji niż w krajach UE.*

Słowa kluczowe: *innowacje, transformacja gospodarki, struktura gospodarki, koszty innowacji, innowacje, przedsiębiorstwo przemysłowe, innowacyjny rozwój, innowacje w przemyśle*

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The Institutional and Legal Framework for the Development of the Transport Infrastructure in the Cross-border Area between EU and Ukraine¹

Abstract. *The article outlines opportunities in foreign economic activity that emerged in Ukraine following the entry into force of the EU-Ukraine Association Agreement. It is argued that in order to strengthen political and economic cooperation between Ukraine and the EU, Ukraine's border and transport infrastructure needs to be developed and aligned with plans and priorities defined at national and European levels of EU Member States. Legal aspects of the development of the national transport network and border infrastructure are identified. National, regional and local documents of the EU Member States bordering Ukraine regarding the transport and border infrastructure are pointed out. The EU legal framework of the TEN-T are analysed, Airports, border crossing points and rail-road terminals that a part of the core and comprehensive network in EU-member neighbouring countries located at a distance of less than 400 km from the Ukrainian border are listed.*

Keywords: *Ukraine, transport, border infrastructure, legislative framework, strategy*

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1. Introduction

The EU-Ukraine Association Agreement (further on referred to as Agreement) that came into force in September 2017, including the Deep and Comprehensive Free Trade Agreement (DCFTA) effective since 1 January 2016, substantially expands Ukraine's opportunities in foreign economic activity and serves as the generator of structural reforms almost in all areas of social life of the country.

Compliance with the Agreement stipulates gradual liberalization of automobile, railway and domestic water transportations, including coming closer to many EU standards [Emerson, Movchan 2016: 153].

Automobile transport is the most economically efficient in relations between Ukraine and the EU. It shows rapid growth in the area of international freight and passenger transport. Almost 80% of EU exports to Ukraine and 30% of imports in value terms are transported by road [Emerson, Movchan 2016: 158]. Eurostat data show that 5.3 million tons of EU exports and 3.5 million tons of EU imports are transported by road to/from Ukraine annually. However, the development of public highways in Ukraine currently lags behind the rate of motorization in the country and the operational condition of roads is extremely poor.

DCFTA has contributed to a significant growth in the volume of Ukrainian exports to EU, which rose by 42% in 2018 compared to 2016 (Fig. 1). The upward trend can also be observed in import trade operations: import in 2016-2018 grew by 33%. However, the first half of 2019 saw a 10% fall in export-import trade.

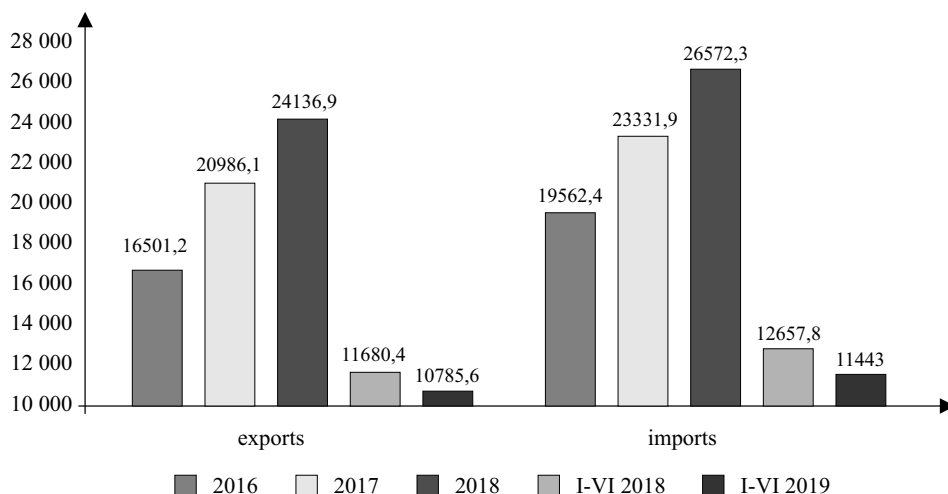


Figure 1. Dynamics of Ukraine's export-import trade with the EU, million USD

Source: State Statistics Service of Ukraine 2019.

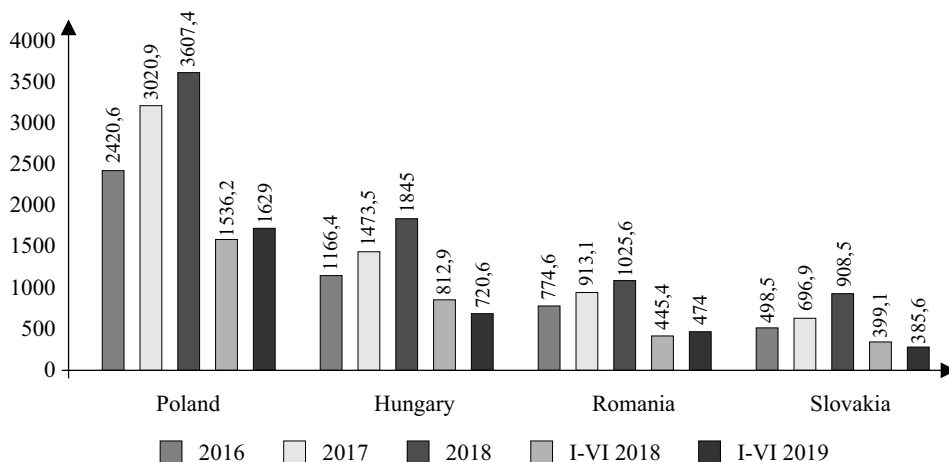


Figure 2. Dynamics of Ukraine's export-import trade with neighbouring EU Member States, million USD

Source: State Statistics Service of Ukraine 2019.

Table 1. Foreign trade operations of Ukraine and EU Member States

No.	Foreign trade operations		2016	2017	2018	I-VI 2019	
1	Foreign trade operations of Ukraine, million USD	export	46229.7	53979.1	58972.9	26791.9	
		import	44576.3	55083.3	63496.4	26488.5	
2	Foreign trade operations of Ukraine with the EU, million USD	export	16501.2	20986.1	24136.9	10785.6	
		import	19562.4	23331.9	26572.3	11443.0	
3	Share of foreign trade operations with the EU in overall volumes of foreign trade operations of Ukraine, %	export	36	39	41	40	
		import	44	42	42	43	
4	Share of foreign trade operations with the neighbouring EU Member States in overall volumes of foreign trade operations of Ukraine and the EU, %	By 4 countries in general	export	29	29	31	30
			import	24	25	24	24
		Poland	export	15	14	15	15
			import	14	15	14	15
		Slovakia	export	3	3	4	4
			import	3	3	2	2
		Hungary	export	7	7	8	7
			import	4	5	5	5
		Romania	export	5	4	4	4
			import	2	2	2	2

Source: State Statistics Service of Ukraine 2019.

A positive trend can also be observed in Ukraine's trade with four neighbouring EU Member States. In 2016-2018, exports to Poland grew by 50%, to Slovakia – by 82%, to Hungary – by 58% and to Romania – by 32%. (Fig. 2).

The role of EU Member States in Ukraine's foreign economic activity is shown in Table 1.

In order to strengthen political and economic cooperation between Ukraine and the EU it is necessary to develop the border and transport infrastructure and align these development efforts with plans and priorities defined at national and European levels of EU Member States. A whole section of the Agreement is devoted to these issues.

2. Provisions of the EU-Ukraine Association Agreement in the field of transport

Chapter 7 “Transport” (Title V “Economic and Sector Cooperation”) of the Agreement stipulates that “the Parties [...] shall expand and strengthen their transport cooperation in order to contribute to the development of sustainable transport systems; promote efficient, safe and secure transport operations as well as intermodality and interoperability of transport systems; endeavour to enhance the main transport links between their territories.” This dimension of cooperation “aims to facilitate the restructuring and modernization of Ukraine's transport sector and gradual approximation towards operating standards and policies comparable to those in the EU”; it is intended to “improve the movement of passengers and goods, facilitate transport flows between Ukraine, the EU and third countries in the region by removing administrative, technical, cross-border and other obstacles, improving transport networks and upgrading the infrastructure in particular on the main axes connecting the Parties.” Cooperation should “include information exchange and joint activities at regional level, in particular taking into consideration and integrating progress achieved under various regional transport cooperation arrangements, such as the Eastern Partnership Transport Panel, the Transport Corridor Europe-Caucasus-Asia (TRACECA), the Baku process and other transport initiatives; at international level, with regard to international transport organizations and international agreements and conventions ratified by the Parties, in cooperation with various transport agencies of the EU.”

Cooperation also covers areas such as the “development of a sustainable national transport policy addressing all modes of transport, particularly with a view to ensuring efficient, safe and secure transport systems and promoting the integration of transport considerations into other policy areas; development of sector strategies in light of the national transport policy (including legal re-

quirements for the upgrading of technical equipment and transport fleets to meet the highest international standards) for road, rail, inland waterway, aviation, maritime transport and intermodality, including timetables and milestones for implementation, administrative responsibilities and financing plans; development of the multimodal transport network connected to the Trans European Transport Network (TEN-T) and improvement of infrastructure policy in order to better identify and evaluate infrastructure projects in the various modes of transport.”

Moreover, in Chapter 27 of the Agreement on “Cross-border and regional cooperation” it is stated that “the Parties shall strive to develop cross-border and regional elements of, *inter alia*, transport, energy, communication networks, culture, education, tourism, health and other areas covered by this Agreement which have a bearing on cross-border and regional cooperation. In particular, the Parties shall encourage the development of cross-border cooperation in regard to modernization, equipping and co-ordination of emergency services.”

Transport industry is one of the basic industries of Ukrainian economy. It has an extensive railway network, developed network of automobile routes, marine ports and river terminals, airports and broad network of air services as well as freight customs terminals, which create necessary preconditions to meet the needs of customers in providing transport services and business development [National Transport Strategy of Ukraine 2030].

In particular, there are 13 marine ports in the Azov and Black Sea basins as well as in Danube Delta. Their aggregate cargo handling capacity is over 230 million tons a year. The length of navigable water routes in Ukraine is 2714.5 km. There is a well-developed network of ferry service and marine container shipments that connect Ukraine and partner countries in the Black Sea region. The national network of public roads amounts to 169652 km. The Ukrainian railway network is one of the largest in Europe and stretches over 20951.8 km, of which 9926.4 km (47.4%) are electrified [National Transport Strategy of Ukraine 2030]. Ukraine plays the role of transit transport bridge that connects the countries of Europe and Asia. There is a differentiated network of direct and transit air services. Air transit through Ukraine is mostly maintained by the Boryspil aviation hub. Several international transport corridors cross the territory of Ukraine: pan-European transport corridors No. 3, 5, 7, 9; corridors of the Organization for Cooperation of Railways (OSJD) No. 3, 4, 5, 7, 8, 10; trans-European transport network (TEN-T), corridor Europe – Caucasus – Asia (TRACECA) [National Transport Strategy of Ukraine 2030].

The transport industry accounts for 7% of GDP and provides 6% of overall employment. The current condition of the transport industry does not correspond to the requirements of efficient implementation of European integration aspirations of Ukraine and integration of national transport network into the trans-European transport network [National Transport Strategy of Ukraine 2030].

3. Legal basis of the development of the Ukrainian transport network and the border infrastructure

The legal basis of the development of the national transport network and the border infrastructure is laid out at several levels: international (legal acts of international institutions); intergovernmental (intergovernmental agreements); national (legal and regulative acts of central authorities, concepts and other strategic and program documents); local (strategic and program documents).

The current Concept of the Creation and Functioning of the National Network of International Transport Corridors in Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine on 4 August 1997 N 821 defined the main principles of the creation and functioning of the national network of international transport corridors in Ukraine until 2015 and their inclusion in the international transport system [Concept National Network of International Transport Corridors in Ukraine 1997]. Nowadays, no new document containing benchmarks for the integration of the national transport system into international transport corridors (joining the existing ones and finding the new ones) has been prepared and adopted. Some issues of integration with the trans-European transport network are covered by the 2030 National Transport Strategy of Ukraine adopted by the Resolution of the Cabinet of Ministers of Ukraine as of 30 May 2018 No. 430-r [National Transport Strategy of Ukraine 2030].

The document sets out plans for the introduction of efficient economic, structural, organizational, technological and institutional transformations in the transport industry in the conditions of the increasing competition between countries for dominance in the field of transport and logistic. The development of a transport strategy for Ukraine until 2030 was motivated by the need to take into account Ukraine's Association Agreement with the EU and the establishment of a free trade area with the EU on 1 January 2016 as well as restrictive sanctions imposed by the Russian Federation against Ukraine regarding Ukrainian export and direct transit through the Russian territory.

In particular, the Strategy indicates that transport system of Ukraine borders the trans-European transport network (TEN-T), however, currently there is the low level of its interoperability and overall technological gap with TEN-T. In order to solve the above mentioned problem issues the Strategy suggests the following:

- improvement of the efficiency of domestic freight transport logistic operations by eliminating of existing obstacles and improvement of relevant infrastructure to connect it with international trans-European transport network (TEN-T);
- establishment of the long-term financial planning of infrastructural projects in the transport industry in correspondence with strategic priorities, period of

implementation and life cycle of transport facilities, granting priority to projects related to TEN-T network;

– reconstruction of the network of main roads connecting oblast centres and Kyiv according to TEN-T standards to improve regional mobility. [National Transport Strategy of Ukraine 2030].

The 2016-2020 State Program of Cross-Border Cooperation Development approved by the Resolution of the Cabinet of Ministers of Ukraine as of 23 August 2016 No. 554 determines the priorities of Ukraine's cross-border cooperation with neighbouring countries, including in the sphere of border and transport infrastructure development [State Program of Cross-Border Cooperation Development 2016-2020].

Strategic documents and program documents of regional level are also oriented at solution of some issues regarding the development of border infrastructure.

4. Common documents signed between Ukraine and neighbouring EU Member States covering the development of the transport and border infrastructure

The Ukrainian-Slovakian cross-border region is the only cross-border region that has its development strategy. The 2020 Strategy of Slovakian-Ukrainian Cross-Border Cooperation (concerning the cooperation between Presovsky and Kosicky self-governing regions of Slovakia and Zakarpatska oblast of Ukraine) stipulates a range of activities concerned with the creation and modernization of the border infrastructure and improvement of border accessibility. As regards the Strategy's medium-term goals, Goal 1 stipulates the improvement of the intensity of socio-economic development in border regions by creating better conditions for common development of small and medium business in border territories, among others through the creation of common cross-border infrastructure to support entrepreneurship, such as joint trade and business centres, cross-border business incubators, logistic centres and common research centres. Goal 2 is related to the improvement of border management at Ukrainian and Slovakian sides of the border by adopting a common approach and an exchange of experience. The emphasis is on educational and social activity of customs officers, border guard officers and representatives of public and private sectors on both sides of the border and regular monitoring of border management.

Goal 3 – modernization of border infrastructure – includes 3 activities:

Activity 1. Improvement of infrastructure by raising the functionality and capacity of border crossing points. It stipulates improvement of technical and social infrastructure of border crossing points, repair of roads leading to existing border crossing points and the development of cross-border public transport.

Activity 2. Increasing the number of border crossing points along the common border. It provides for the construction of new border crossing points along the common border: Ulic – Zabrid, Cierna nad Tisou – Solomonovo, Mali Selmenci – Veke Slemence (change to the automobile transportation) by 2020.

Activity 3. Modernization of transport corridors (automobile, railway) that go to common border. The activity also provides for the development of new communication links, e.g. to the planned border crossing point Ulic – Zabrid.

Joint Action Plan of Presovsky Self-Governing Region and Zakarpatska Oblast State Administration (ZOSA), Zakarpatska Oblast Council (ZOC) for the period from May 2017 to May 2018 envisages a range of activities planned to be implemented by 2020. They include the modernization of the road network on both sides of the border between the two regions through available bilateral instruments and EU funds, preparation and elaboration of project applications regarding the infrastructural development – “Construction of the road Lviv – Sambir – Uzhorod (to the border crossing point “Ubl’a – Malyi Berezhnyi)”” under the ENI “Hungary – Slovakia – Romania – Ukraine 2014 – 2020” and continuing of cooperation towards construction of international border crossing point “Ulic – Zabrid” on Slovakian-Ukrainian border [Joint Action Plan of Presovsky Self-Governing Region and Zakarpatska Oblast State Administration].

Executive Protocol N 8 to the Memorandum on Cooperation between Zakarpatska Oblast State Administration, Zakarpatska Oblast Council (Ukraine) and Kosicky Self-Governing Region (Slovak Republic) for the period from May 2016 to May 2017 also provides for the implementation of a range of activities by 2020. It grants support to joint actions fostering the infrastructural development of Cierna – Solomonovo border crossing point [Memorandum on Cooperation between Zakarpatska Oblast State Administration and Kosicky Self-Governing Region].

The only strategic or programming document of regional or local level in the Ukrainian-Hungarian cross-border region, which covers the border or transport infrastructure, is the Program of Cross-Border Cooperation Development for 2017 between Zakarpatska Oblast State Administration, Zakarpatska Oblast Council (Ukraine) and Council of Szabolcs Szatmar Bereg County (Hungary). One of the activities stipulates that the parties shall urge the Intergovernmental Ukrainian-Hungarian Joint Commission on Economic Cooperation and Ukrainian-Hungarian Intergovernmental Mixed Commission on Cross-Border and Border Cooperation to approve plans and projects prepared based on analysis of border crossing points on Ukrainian-Hungarian part of the border [Program of Cross-Border Cooperation Development for 2017 between Zakarpatska Oblast State Administration and Council of Szabolcs Szatmar Bereg County].

In addition to the above mentioned documents, there is also an Agreement signed by representatives of Ukraine, Slovakia, Hungary and Romania. It is

the Agreement on Cooperation between the Council of Bacs Kiskun County (Hungary), Council of Borsod Abauj Zemplen County (Hungary), the Council of Csongrad County (Hungary), Council of Hajdu-Bihar County (Hungary), the Council of Heves County (Hungary), Council of Jasz-Nagykun-Szolnok County (Hungary), the Council of Kosicky Self-Governing Region (Slovak Republic), Zakarpatska Oblast Council (Ukraine), Maramures County Council (Romania), the Council of Szabolcs Szatmar Bereg County (Hungary), Satu-Mare County Council (Romania) and Vojvodina Autonomous Province (Serbia) in the framework of cross-border cooperation between local authorities in the basin of Tisza River signed in 2016. The list of activities provided by the Agreement includes the development of large regional transnational road and transport networks as well as development of existing border crossing points and construction of new ones [Agreement on Cooperation between Hungary, Slovak Republic, Romania, Ukraine].

5. National, regional and local documents of the EU Member States bordering Ukraine regarding the transport and border infrastructure

2030 National Spatial Development Concept of Poland recognises the border regions of the country along internal and external borders of the EU. As regards the development of border areas along external EU borders, Objective 3, which aims “to improve Poland’s connectivity in different dimensions by developing transport and telecommunications infrastructure” [National Spatial Development Concept 2030].

2010-2020 National Regional Development Strategy: Regions, Cities, Rural areas in its Goal 2 “Establishment of the territorial cohesion and preventing the processes of marginalization of problem areas” Point 2.4 “Overcoming the difficulties related to the situation of the border areas, especially along the external EU borders” stipulates that activities of the regional policy conducted in territories along the EU external border (with Russia, Belarus and Ukraine) should focus on securing the development of the border infrastructure and the network of cross-border connections [National Strategy of Regional Development 2010-2020].

The 2020 Strategy for Social Development of Eastern Poland includes the following activities regarding the development of border infrastructure and border accessibility:

Article 5.37. Improvement of Eastern Poland’s territorial accessibility. The emphasis is on connecting with the network of motorways and expressways and development of railway transport.

Article 5.39. Improvement of railway accessibility through international, national and regional corridors. It stipulates modernization of international connections according to technical standards and restructuring of regional railway connections.

Article 5.44. Improvement of transport connectivity with the countries that border Eastern Poland. It emphasizes that the movement intensity is considerably limited by a small number and capacity of border crossing points. It is important to further develop available and create new automobile routes and bridge crossings on the Ukrainian border [Strategy for Socio-Economic Development of Eastern Poland 2020].

The Region Development Strategy: Podkarpackie 2020, in particular action direction 3.1.1 of Action Area 3 “Development of road transport network strengthening external communications accessibility of Rzeszów and sub-regional centres in national and international terms” also outlines the need to develop new border crossing points and new roads to enhance accessibility to border crossing points and logistic centers [Region Development Strategy – Podkarpackie 2020].

The 2016-2022 Program of Economic and Social Development of Kosický Self-Governing Region emphasizes that the V International East-West Corridor goes through the territory of the region and Zakarpatska oblast of Ukraine to Kyiv, therefore, the improvement of road infrastructure and transport accessibility is a strategically important task. In particular, Specific Goal 1.4 states that there is a close connection between infrastructure and logistics. It is not only about roads, but also about the broader concept of promoting efficient mobility of goods, capital and people through the modernization of railway connections, centralized storage facilities and logistic centres, developed industrial parks and advanced Internet connection. Specific activities planned for the implementation of this goal include the construction of an integrated transport terminal and global logistic industrial park in the region [Program hospodárskeho a sociálneho rozvoja Košického 2016-2020].

The 2016-2022 Program of Economic and Social Development of Prešovský Self-Governing Region also mentions the strategic importance of this territory for international transport connections, as far as there are several multimodal corridors, including Bratislava-Zilina-Prešov/Kosice-Zahor-Cierna nad Tisou-Ukraine. Article 1.5 emphasizes the need to build approach routes to the border crossing point with Ukraine in Ubla and to the highway D1, which is part of a multimodal branch of the corridor on the road Bratislava – Zilina -Uzhorod and part of core TEN-T network. Connecting with the corridor will link 8 out of 10 largest cities of Slovakia with the cities of adjoining regions, contributing to the cities’ accessibility and improving the necessary capacities in these transport directions [Program hospodárskeho a sociálneho rozvoja Prešovského 2014-2020].

General Plan of Presov Region Transport Infrastructure in Article 4.1.4 “Transport accessibility in the region” notes the importance to develop transport axis West-East, which is expected to expand in the volumes of goods supply and passenger flows towards Ukraine. Therefore, it is necessary to improve the conditions of crossing the border in Ubl’a-Malyi Bereznyi border crossing point.

The General Plan stipulates the following activities for border with Ukraine in the perspective:

Ubl’a-Malyi Bereznyi: development of Lypnyky-Ubla highway, removal of weight restrictions and promotion of TIR transportation;

Ulic-Zabrid: reconstruction of road section Ulic – Ukrainian border, passenger and freight transportation up to 3.5 t.

The General Plan of Presov Region Transport Infrastructure pro lists activities that should be implemented within each area of the region. Namely, for the Snina area that borders Ukraine the following activities are planned:

- development of transport connection between Lypnyky and Ubl’a in the automobile corridor I/74;

- creation of conditions to develop highway between Lypnyky-Humenne and Ubl’a by 2040;

- adjustment of road sections to improve the safety of movement on the road I/74 Kamenica nad Cirochou – Modra nad Cirochou – Dlhe nad Cirochou – Snina – Ubl’a – Malyi Bereznyi;

- reconstruction of road Ulic – Ukrainian border [Generel dopravnej infraštruktúry Prešovského kraja 2015].

The 2020 Strategy of Satu-Mare County Development notes that the region’s geographic location is not favourable because it is on the periphery of main transport axes and does not have a large urban center unlike other Romanian regions, e.g. Timisoara or Oradea. Therefore, it emphasizes the development of infrastructure and the need to connect the county with several large transport networks. Strategic Goal 2 of the document covers this issue. Regarding neighbouring Ukraine, the Strategy mentions access to the TEN-T network through the road section DN1F – DN19A – DN19 – DN1C through Cluj-Napoka, Zalau, Satu Mare and Halmeu. Road DN19 connects Oradea through Satu Mare with Ukrainian road in Sighetu and DN1C – Cluj-Napoka with Ukrainian border in Halmeu [Strategia de dezvoltare a Județului Satu Mare până în 2020].

The Strategy also stipulates the modernization of the road between Turda and Halmeu on Ukrainian border to raise the travel speed. The road goes through Cluj-Napoka, Baia Mare and Satu Mare. Along with the road OR2, this road provides connection between the South and Center of Romania and North-Western regions and border with Ukraine. The Strategy emphasizes that most of infrastructure is in poor condition and 89% of the road is single-way.

A Master Plan for the Transport of Romania in Article 4.5.80 mentions the modernization of the road between Turda and Halmeu to raise the speed of travel. This road connects the Ukrainian border with the network of trans-European corridors, however, the time it takes to cover the distance is substantially long at an average speed of 70 km/h and most of the infrastructure is in poor condition.

In addition to trans-European corridors and main corridors of transnational and regional levels the Master Plan in the Article 4.5.141 also provides a list of activities to be undertaken with a view to developing local roads, so called Level 3 roads. The list includes the creation and modernization of border crossing infrastructure, organization of parking lots and rest areas, installation of road signs in three languages, including that of neighbouring country and construction of additional lines for heavy transport.

Regarding the railway transport, the document notes that one of the major axes of Romania that is the part of TEN-T comes to the border with Ukraine. It goes through Arad, Oradea, Carei, Satu Mare, Halmeu and Dyakovo in Ukraine [Master Plan General de Transport al Romanei 2015].

2008-2020 Single Transport Development Strategy of Hungary emphasizes the need for Ukraine to implement the Council Directive 92/106 of 7 December 1992 on imposing common rules for certain types of combined freight transportation between the Member States [Egységes Közlekedésfejlesztési Stratégia 2008-2020]. Association Agreement stipulates 8 years to adapt Ukrainian legislation to the Directive (i.e. 1 November 2022)

The Directive is applied to intermodal transport operations.

Due to beneficial geopolitical situation of Ukraine, the most important task is to improve the capacity of transport network by promotion of less used types of transport (like domestic river transport), unloading of automobile transportation and connection with international multimodal transport links.

The Strategy also attributes a great role to such transportation artery as Danube, which accompanies the 7th Pan-European corridor – the Danube (water) corridor. The largest left Danube tributary Tisza flows through the territory of Zakarpatska oblast and can become the part of international network of water routes.

The Strategy of National Transport Infrastructure Development 2014 shows the importance of switching from long-distance international road transport to railways and water. If the cost of these forms of transport is viewed in the context of the whole supply chain, it can be demonstrated that the service chain is reliable and delivery times and flexibility are close to those offered by road transportation. The signing of an agreement between Ukraine and Hungary on intermodal transportation should facilitate the process [Nemzeti Közlekedési Infrastruktúra-Fejlesztési Stratégia 2014].

The Transport Operation Program (2013) suggests the following EU transport development priorities in the Article 2.2.4. Other professional aspects of planning:

1. Development of railway and automobile lines TEN, including the Priority Project 6 (PP) 6: Lyon-Trieste-Divaca / Koper- Divaca -Ljubljana-Budapest-Ukrainian border). PP6 is the priority in terms of railway line Budapest – Szolnok. The direction Szolnok – Debrecen – Záhony will develop towards Ukrainian border [Közlekedés Operatív Program 2013].

The Program encourages the development of railway infrastructure in the region (restoration of towing network that services freight capacities). It is also possible to modernize domestic road infrastructure of the region in order to develop access logistic centres and railways and to avoid settlements. There also expectations that the trade with East and Far East will grow due to realization of the program regarding the development of Zahony complex.

Middle-Term Logistic Strategy 2014-2020 emphasizes the transport-logistic role of Zahony and of Cierna Russian-Hungarian and Chinese-Hungarian railway freight transportation.

Danube is the most important element of the domestic water transport network (the system of water routes Danube-Main-Rhine). Tisza can be turned into a navigable water route with substantial investment, however these opportunities are currently being explored [Középtávú logisztikai stratégia 2014-2020].

Hungarian Government in its Decision 2130/2017 (XII. 29.) “On the Organization of Transport Infrastructure Development on the Hungarian-Ukrainian Border” published on 29 December 2017 declares the comprehensive support to the development of transport connections in Hungarian-Ukrainian border region, in particular it emphasizes the need:

- to connect highways M34 and M3 with motorways on the Ukrainian side;
- to prepare a new bridge (M34) next to the existing Tisza bridge in Zahony;
- to substantiate the need to establish a road connection between Tarpa and Badalovo;
- to restore the road surface on the Tisza bridge between Zahony-Chop;
- to improve the conditions of border crossing and accelerate border clearance procedures on the Tisza bridge between Zahony-Chop;
- to expand the freight terminal at Beregsurány–Asztély. However, it cannot be finished by EU funding, therefore, the Ukrainian side should be consulted in terms of searching for new sources of funding;
- to reduce the railway travel time between Budapest and Mukachevo to 7 hours and to develop the railway connection with Uzhorod and Berehove [Korm. határozat a magyar-ukrán határtérség közlekedési infrastrukturális fejlesztéseiről 2130/2017 (XII. 29)].

2030 Concept of National and Regional Development 2030 adopted by the Parliament on 17 December 2013 provides the following:

1.5.5 Reassessment of border regions. Eastern-Western transport flow is the motor of growth in the region. However, the route is overloaded. Its development requires compliance with European standards and construction of necessary infrastructure. Breakthrough point can be integrated around the umbrella Zahony-Chop-Cierna based on the use of logistic capacity of three countries.

3.1.3.8 Border and cross-border developments. Environmentally friendly alternative forms of transport (water transport, cycle routes) are an ordinary development phenomenon supplemented by nature management and cultural values (i.e. cross-border natural parks, cultural thematic routes).

3.2.1.8 Logistics. Development policy tasks include the construction of the network of interrelated logistic service centres; improvement of infrastructure; promotion of intermodality; expansion of logistic use of river transportation to existing ports; development of railway-water-road connections [Határozat a Nemzeti Fejlesztés 2030].

The Ministry of National Development issued a report on the planned railway and automobile routes by 2022. Regarding Ukrainian-Hungarian border area, it stipulates connecting of roads M34 and M3 with the border with Ukraine [Planned Hungarian rail and road developments 2018].

6. EU legislation framework of transport policy and core transport corridors

First of all, EU has strategic common transport policies. The Commission published its 2011 White Paper on the future of transport for the period to 2050, entitled ‘Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system’ (COM (2011)0144) on 28 March 2011. Among the 10 objectives included in the 2011 White Paper, the Commission sought to set up a single European transport area by doing away with all remaining barriers between modes and national systems, by easing the process of integration, and by facilitating the emergence of multinational and multimodal operators. A higher degree of convergence and enforcement of social, safety, security and environmental rules, minimum service standards and users’ rights was sought in order to avoid tensions and distortions [Coito: 2019].

One of the important instruments for development of the relation between the EU and the Neighbourhood countries of the East and the South is the European Neighbourhood Instrument (ENI) 2014-2020. In the case of Ukraine, one should mention the regional programming document, which consists of the Regional East Strategy Paper (2014-2020) and Multiannual Indicative Programme (2014-2017) [Programming of the European Neighbourhood Instrument (ENI) – 2014-2020]

In addition to the strategy documents there are different types of documents in EU law such as decisions, regulations, resolutions, communications, opinions etc. Each document has its scope of influence.

Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network (TEN-T) establishes guidelines for the development of a trans-European transport network, identifies projects of common interest and specifies the requirements to comply with for the management of the infrastructure of the trans-European transport network; sets out the priorities for the development of the trans-European transport network; provides the measures for the implementation of the trans-European transport network [Regulation (EU) No 1315/2013 of 11 December 2013]. Annex III of the Regulation (EU) No 1315/2013 contains indicative maps of the trans-European transport network, which are applied to specific neighbouring countries. In 2013 the maps of the Ukraine's transport network as well as of the other Eastern Partnership countries were not included in the Regulation (EU) No 1315/2013. However, Commission Delegated Regulation (EU) 2019/254 of 9 November 2018 on the adaptation of Annex III to Regulation (EU) No 1315/2013 included indicative maps of the core rail and road networks in Ukraine [Regulation (EU) 2019/254 of 9 November 2018].

The Resolution on infrastructural cooperation between the EU and Eastern Partnership countries: joint road, rail and air transport projects emphasizes “that strengthened cooperation in the transport sector could significantly help Eastern Partnership countries to become economically stronger and politically more stable; points out that citizens and businesses in the EU and in neighbouring regions are the direct beneficiaries of improved transport cooperation, which aims to reduce the time and resources spent on transportation of goods, services and passengers, and that closer market integration can also help to open up new market opportunities for businesses in both the EU and its neighbouring regions” [EU Resolution on infrastructural cooperation between the EU and EP countries 2015].

The core and comprehensive network of the European infrastructure has a strategic significance in the Eastern and Western parts of the European Union. Generally, nine core TEN-T corridors exist but only two end at the Ukraine border.

There are 11 rail freight corridors (RFC) in the EU. Two of them end at the Ukrainian border. RFC6 or the Mediterranean corridor goes to Zahony – Chop. RFC9 or Czech-Slovak is a part of Rhine – Danube corridor that ends at Slovak/Ukrainian border [Rail Freight Corridors map 2018].

Core corridors include railways, roads, airports, ports, rail-road terminals (RRT), sections of “motorways of the sea” and inland waterways. There are several airports and rail-road terminals (RRT) which are located within neighbouring

Table 2. Ukraine as part of TEN-T corridors

Corridor	EU Member States	Principal routes	Ukrainian border	Type	Route type
Rhine – Danube corridor	FR, DE, AT, CZ, SK, HU, RO, BG, HR	Strasbourg – Stuttgart – München – Wels/Linz Strasbourg – Mannheim – Frankfurt – Würzburg – Nürnberg – Regensburg – Passau – Wels/Linz München/Nürnberg – Praha – Ostrava/Prerov – Žilina – Košice Wels/Linz – Wien – Bratislava – Budapest – Vukovar Wien/Bratislava – Budapest – Arad – Braşov/Craiova – Bucureşti – Constanţa – Sulina	Chierna nad Tisou – Chop Vyshne-Nemetske – Uzhhorod (Slovak/Ukrainian border)	Freight, Passenger	Rail Road
Mediterranean	ES, FR, IT, SI, HU, HR	Algeciras – Bobadilla – Madrid – Zaragoza – Tarragona Sevilla – Bobadilla – Murcia Cartagena – Murcia – Valencia – Tarragona Tarragona – Barcelona – Perpignan – Marseille/Lyon – Torino – Novara – Milano – Verona – Padova – Venezia – Ravenna/Trieste/Koper – Ljubljana – Budapest Ljubljana/Rijeka – Zagreb – Budapest	Zahony – Chop Beregshurany – Luzhanka (Hungarian-Ukrainian border)	Freight, Passenger	Rail Road

Source: Regulation (EU) No 913/2010 of 22 September 2010; Mobility and Transport. TEN-tec Interactive Map.

EU counties at a distance of less than 400 km from the Ukrainian border. RRT are places where passengers can embark and disembark and where freight can be transferred. Intermodal terminals are the interface between the different transport modes and thus are key to access intermodal transport services and to ensure efficient and road-competitive intermodal supply chains throughout Europe. Basic functions of intermodal terminals include transshipment of loading units between different transport modes; check in/out functions, such as check of documents, the security and damages of loading units and handling of dangerous goods and respective documents; disposition, such as rail and truck disposition for loading and unloading; disposition of internal transshipments and movements and terminal management system; ingoing and outgoing train check; intermediate buffer of loading units [Intermodal Terminals].

Table 3. Airports, border crossing points and rail-road terminals of the core and comprehensive network in EU-member neighbouring countries (less than 400 km to UA-border)

EU Member State	Road		Rail		Airports		Rail-road terminals	
	Border Crossing	UA	Border Crossing	UA	Core	Comprehensive	Core	Comprehensive
Poland	Korczo	Krakovets	Przemysł	Mostyska	Kraków Warszawa	Rzeszów	Kraków Warszawa	Dorohusk/ Okopy Werchrata/ Rawa Medyka/ Żurawica
	Dorohuska	Yahotyn	Dorohuska	Yahotyn				
	Hrenene	Rava-Ruska	–	–				
Romania	Siret	Porubne	Viçşani	Vadul-Siret	–	Baia Mare; Cluj-Napoca; Oradea; Suceava	–	Cluj-Napoca; Suceava
	Halmeu	Dyakovo	Halmeu	Dyakovo				
Hungary	Beregsurány	Luzhanka	Záhony	Chop	Budapest	Debrecen	Budapest	Záhony; Miskolc
Slovakia	Vyšné Nemecké	Uzhhorod	Čierna nad Tisou	Chop	–	Košice	–	Košice, Matovce

Source: Regulation (EU) No 1315/2013 of 11 December 2013; Mobility and Transport. TEN-Tec Interactive Map.

Beside the core and comprehensive transport network there is also the European cycle route network (EuroVelo network), which is a project of the European Cyclists' Federation (ECF). The EuroVelo network consists of 5 transcontinental routes [EuroVelo 2019]. One of them crosses the territory of Ukraine: #4 Central Europe Route: Roscoff – Kiev. And the nearest one is #11 East Europe Route: North Cape – Athens. EuroVelo 11 goes through Košice, near the UA-Hungary border and at the territory of Poland (Kraków – Tarnów) crosses the EuroVelo #4. The Opinion of the European Economic and Social Committee on the Promotion of cross-border cycle transport mentions „that the goal of EuroVelo project is to develop international long-distance cycle routes across Europe, both within and outside the EU Member States. The routes are largely based on existing local and regional routes. The continental perspective of the project and the vision of a pan-European network of cycle routes have proved a major asset since the start of the project. The idea behind Euro Velo is to develop and maintain a recognized Trans-European Cycle Route Network as a Trans-European Network, comparable to the rail and road network” [EU Opinion Promotion of cross-border cycle transport 2007].

7. Conclusions

The development of Ukraine's national transport network depends directly on the level of its integration with the network of international and trans-European transport corridors, modernization and improvement of modern information technologies used in management of such networks, etc.

The implementation of integration processes under the EU-Ukraine Association Agreement and "temporary" application of Deep and Comprehensive Free Trade Agreement since 1 January 2016 accelerates the entry of border regions into the European economic space through implementation of EU legislation in various economy areas. However, the Report on Compliance with the EU-Ukraine Association Agreement in 2018 indicated that the current progress was estimated at 52%. Moreover, fulfilment of obligations was the least successful in the following areas: education, training and youth (13%), transport, transport infrastructure, postal and courier service (15%), public procurement (16%), environment and civil protection (22%). Among the positive points the Report mentions the adjustment of laws "On Railway Transport", "On Domestic Water Transport" and "On Concessions."

The Ukrainian transport system borders the trans-European transport network (TEN-T), but the current level of interoperability is low due to a big technological gap. The adoption of the Law "On Multimodal Transportation" is very urgent as it is the core element of the mechanism of implementation of the Council Directive 92/106 of 7 December 1992 on imposing common rules for certain types of combined freight transportation between the Member States. It is also important to develop and adopt the Strategy of Integrated Border Management and to enshrine in legislation the basic principles and ways to develop and realize transit capacity of Ukraine, etc.

Overall, the EU policy in the transport area is aimed at:

- reducing the number of vehicles with "conventional fuels";
- transferring 50% of the flows of middle-distance inter-municipal passenger and freight transportations from automobile to railway and water transport;
- developing the cycling infrastructure to improve safety, reduce the number of accidents and raise the quality of residents' life. Its development should agree with the development of railway transport network;
- developing "smart transport systems" or "ITC";
- securing the accessibility, quality and safety of passenger and freight transportation, etc.

The implementation of common development strategies of neighbouring border regions of Ukraine and EU Member States is an important component of planning transport infrastructure development. It will contribute to making

borders “more open” through the development of engineering-transport infrastructure; the creation of common cross-border innovation structures (clusters, industrial parks, etc.), joint enterprises; common implementation of projects in the area of ecologically sound and energy efficient technologies; development of tourism infrastructure, etc.

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Instytucjonalne i prawne ramy rozwoju infrastruktury transportowej na terenach transgranicznych między UE a Ukrainą

Streszczenie. *W artykule przedstawiono możliwości zagranicznej działalności gospodarczej, które powstały na Ukrainie w związku z wejściem w życie układu o stowarzyszeniu między Unią Europejską a Ukrainą. Podkreślono potrzebę odpowiedniego rozwoju infrastruktury granicznej i transportowej, a także dostosowania jej do planów i priorytetów określonych na szczeblu krajowym i europejskim państw członkowskich w celu zacieśnienia współpracy między Ukrainą a UE w sferze politycznej i gospodarczej. Przeanalizowano dokumenty krajowe, regionalne i lokalne państw członkowskich UE graniczących z Ukrainą w sprawie infrastruktury transportowej i granicznej. Szczególną uwagę zwrócono na programy transportowe, strategie i plany główne oraz przewidziane przez nich postanowienia dotyczące rozwoju infrastruktury w pobliżu granicy z Ukrainą. Wymieniono lotniska, punkty kontrolne i terminale kolejowe sieci głównej i pomocniczej w sąsiednich państwach członkowskich UE do 400 km od granicy z Ukrainą.*

Słowa kluczowe: *Ukraina, transport, infrastruktura graniczna, ramy prawne, strategia*

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Models of Fiscal Equalisation: European Practice

Abstract. *The purpose of the article is to study models of equalization payments used in European countries and to identify the model of fiscal equalization of Ukraine. The following methods were for this purpose: abstract and logical comparative analysis, graphical visualization, statistical analysis. Analysis of the models of fiscal equalization of European countries indicates that most of them are aimed at overcoming imbalances of budget revenues of administrative and territorial units by redistributing budgetary resources between different levels of government. The authors note that the fiscal equalization models of many countries have been modified over the last decades, with more attention paid to equalization of expenditures. With the implementation of the decentralization reform in Ukraine, the model of fiscal equalization places emphasis on equalizing budgets revenues using separate equalization tools that focus on expenditures.*

Keywords: *fiscal equalization, budget, transfers, territorial development, decentralization*

1. Introduction

The purpose of fiscal equalization is to minimize territorial disproportions of development, which arise from differences between budget revenues of local administrative and territorial units, and to solve the problem of insufficient budget revenues by increasing the spending potential of local authorities. The practice of many countries shows that budgetary and administrative decentralization, which is characterized by increasing disproportions of the fiscal capacity of local units of government, is accompanied by adjustments of the model of

fiscal equalization implemented by those units. Ukraine is no exception in this respect. As regards the implementation of reforms, the fiscal equalization system in Ukraine has undergone significant decentralization of resources and powers. As a result of these changes the model has moved away from equalization of expenditures to equalization of revenues. However, the introduction of the new equalization system, while creating more incentives for local authorities to increase the revenue base of their budgets, causes problems related to the redistribution of resources and powers between state, regional and local authorities, the stability and consistency of legislative innovations, the validity of the level and the procedure of index calculation of taxability, which is used in horizontal fiscal equalization and others. Against this background, an important task is to identify the main problems of transition to the fiscal equalization of the revenue capacity and to find ways of improving it, taking into account the accumulated experience of developed countries and characteristics of the budgetary system of Ukraine.

The purpose of the article is to study models of fiscal equalization used in European countries and to describe the model of fiscal equalization of Ukraine.

2. Identification of models used in European countries and Ukraine

In European countries, fiscal equalization of territorial development is defined as a system of tools and measures for eliminating differences in available revenue. Fiscal equalization involves a vertical redistribution of fiscal resources, vertically between different levels of the budgetary system, and horizontally between poorer and richer administrative and territorial units [Lunina 2002: 10-16].

On the basis of the analysis of domestic and foreign experience of inter-budgetary relations, one can identify the main types, forms, methods of fiscal equalization: vertical, horizontal (by direction of revenue flows); revenue equalization, expenditure equalization, mixed equalization (by subject of equalization); full and partial equalization (by degree of equalization).

It should be noted that in practice it is extremely rare for countries to use only one form of fiscal equalization; in most countries, the fiscal equalization model is a combination of different methods (vertical, horizontal, equalization of revenues, equalization of expenditures). The taxonomy of the fiscal equalization models of OECD countries and Ukraine shows that most of them are aimed at overcoming imbalances of budget revenues of administrative and territorial units by redistributing revenue resources between different levels of government (Fig. 1).

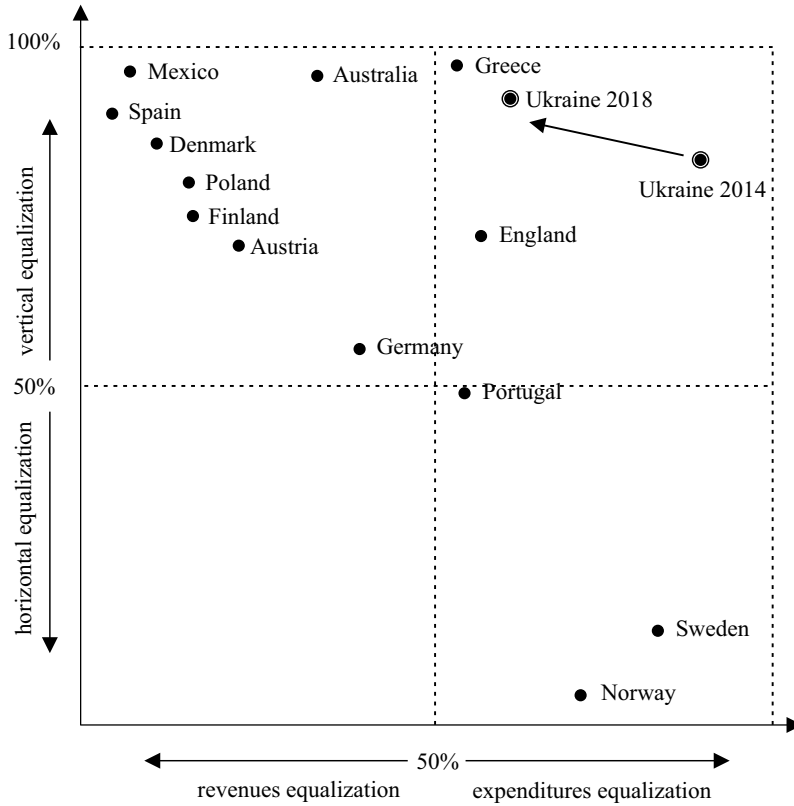


Figure 1. Taxonomy of fiscal equalization models of OECD countries (2014) and Ukraine (2014, 2018)

Source: based on Boadway 2007; Fiscal Federalism 2014; Shah 2014; Sierak 2016.

At the same time, it should be noted that fiscal equalization models of many countries have been undergoing permanent modifications over the last decades, with increasing attention paid to equalization of expenditures.

Expenditures on fiscal equalization make up a significant amount in the structure of budget expenditures in all OECD countries and range from 1.2% in Norway to 11% in Japan (Fig. 2).

The amount of equalization spending per capita is also characterized by a significant differentiation – from AUD 110 in Australia up to JPY 1,244 in Japan. It should be noted that these indicators practically do not correlate with a scale of variation in per capita GRP observed in regions of these countries. In addition, there is no relationship between types of state systems (unitary or federal state) and amounts of fiscal resources they spend on equalization.

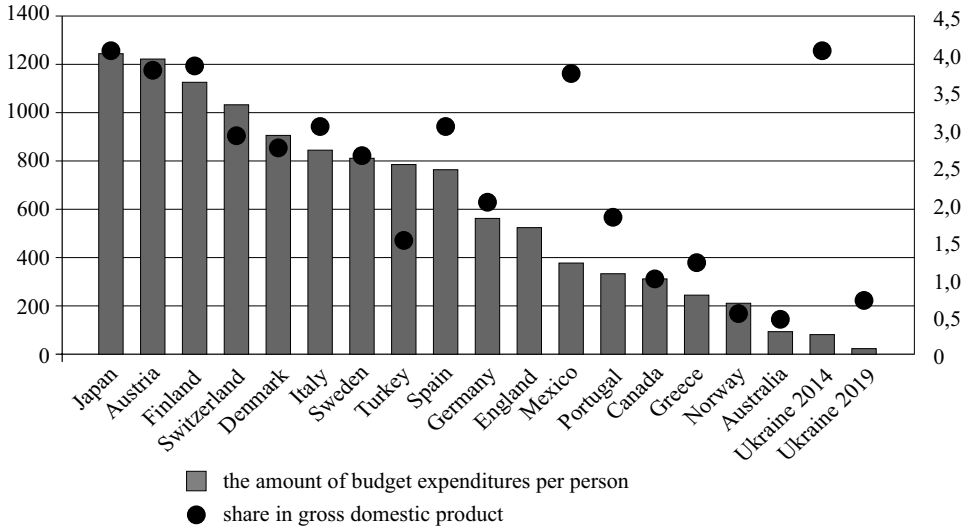


Figure 2. Comparison of OECD member states (2014) and Ukraine (2014, 2018) by the level of interregional disproportions and budget expenditures on fiscal equalization

Source: based on Boadway 2007; Fiscal Federalism 2014; Shah 2014; Sierak 2016.

3. Analysis of fiscal equalization models

The following section is devoted to a detailed analysis of models of fiscal equalization in a number of developed countries, which may help to improve the system equalization in Ukraine.

3.1. Germany

The German equalization system is a mixed type system (vertical and horizontal equalization tools are used in equal proportions) and is based on the principles of solidarity. An active equalization policy is considered to be an important element of the country's cohesion, mainly because of the need to support the federal states of the former German Democratic Republic. However, critics of the current system point out that even after 20 years, this policy seems to have produced no long-term results, while some even regard it as harmful, arguing that it preserves the inefficient economic structure of the Eastern regions of Germany. The equalization system implemented during the 1990s often led to the situation when the weakest Eastern states had higher budget expenditures per capita than the more affluent states. For this reason, the system was questioned by the Ger-

man Constitutional Court. As a result, a new equalization model was established, with a decreased level of redistribution of budget revenues between states.

The German model of fiscal equalization has a number of interesting features from the perspective of discussions about ways of improving the equalization system in Ukraine.

Firstly, the current system only performs equalization at the level of federal states, and the elimination of disparities at the lower level is the responsibility of individual states, which can choose their own approaches to equalization. This study only considers the system of equalization between the states.

Secondly, despite the fact that Germany is a federation of states, they do not have the right to collect their own taxes. Only municipalities can impose local business taxes. Therefore, the distribution of revenues of budgetary resource between the national and subregional levels is achieved through the division of tax revenue – personal income tax (collected according to the person's place of residence), corporate income tax (collected according to the enterprise's location), value added tax (25% of which is immediately redistributed between richer and poorer countries).

Thirdly, both revenues and expenditures are equalized. If the level of tax capacity in a given state is higher than 120% of the average national level, municipalities of that state transfer 75% of tax revenues that exceed this value to the equalization fund.

States whose tax capacity is lower than 80% of the national average can receive transfers from this fund to cover budgetary deficits to the amount of 75% of the average national level of tax capacity.

The next step is equalization of states expenditures, where states with less than 99.5% of tax capacity can additionally receive up to 77.5% of the budgetary amount that is lacking [Clemens, Veldhuis 2013]. Moreover, special equalization transfers are provided to post-communist federal states “to overcome economic backwardness”, to reduce structural unemployment, to cover budget deficits, which often leads to distortion of the initial distribution between wealthy and poor states.

Fourthly, the German equalization model does not use data about the fiscal imbalances in previous years, but it is solely based on current monthly information about the amounts of state tax revenues, with adjustments made on the basis of annual results. This makes it possible to avoid the “time gap” and to update the equalization transfer calculations.

Fifthly, with regard to equalization at the municipal level, each federal state chooses its own way of solving the problem, and several approaches are in common use. Limits and equalization tools for different groups are usually differentiated – for large cities, small towns and rural municipalities; for regulation of intraregional imbalances, the amount of budgetary resource is defined

as a certain percentage of budget revenues; equalization transfers are generally vertical.

Despite the fact that the share of redistributed tax revenues in Germany's consolidated budget is quite insignificant (ranging from 3% to 5% during 2005-2017) the effect of fiscal equalization in federal states is very significant and practically leads to a complete equalization of state tax revenues per capita after redistribution. Differentiation between the states in terms of budget expenditures per capita ranges from 106.5 to 98.3% of the average national level [Frey, Wettstein 2008]. At the same time, the German equalization model is quite often criticized on the grounds that it leads to the destimulation of economic activity in more developed regions and promotes the conservation of outdated economic structure of Eastern states.

3.2. Switzerland

The Swiss model of budgetary federalism is unique for two reasons: firstly, it is very strongly fragmented – there are 26 cantons comprising 2,500 local communities with a total population of 8 million people; secondly, Switzerland has one of the highest levels of decentralization in the world – about 30% of tax revenues and budget expenditures are used by the federal government, while 70% are reserved for cantons and local communities [Frey, Wettstein 2008]. At the same time, there is a very high level of differentiation between regions – per capita GRP and tax revenues in some regions is as much as three times bigger than in others.

That is why Switzerland has one of the oldest fiscal equalization systems, whose mechanisms are laid down in the Swiss Constitution. Every two years the Swiss equalization system is reviewed and can be modified if necessary. The last fundamental reform of the system of interbudgetary relations in Switzerland was carried out in 2008, which led to a more significant distribution of functions and powers between national and sub-regional levels of government, as well as a change in the principles of fiscal equalization between territorial units.

The changes consisted in placing greater emphasis on equalization of revenues (taking into account indicators of the tax capacity of the cantons) and developing clear criteria for equalization of revenues obtained by cantons. With regard to this first element, it is assumed that the mechanism cannot lead to a change in the ranking of canton revenues, but can only smooth out the differences between them. At the same time, the historical method is used to estimate the tax capacity of the cantons, which is calculated based on several years of the previous period, to account for possible fluctuations in revenues from different taxes that may arise in the assessment of the tax capacity in a given year.

Equalization of expenditures in Switzerland is conducted for territories that fall into specific groups by social and economic or geographical factors. Currently, there are three groups: mountainous areas (characterized by low population density and difficult natural conditions), urban areas (in terms of population structure and density) and large urban agglomerations, which are assigned specific functions (large, by Swiss standards, taking into account the fact that the largest city, Zurich, has 380,000 inhabitants, followed by Geneva with 195,000 inhabitants and Basel with 170,000 inhabitants) [Dafflon 2004]. Such criteria of selecting groups are severely criticized and often called political.

Another major change in the current Swiss model of equalization is the withdrawal of targeted subsidies and the significant increase in the share of subsidies that cantons can use at their discretion.

Another feature of the new system is the creation of a transitional fund, which should provide fiscal support to weaker cantons on a temporary basis. However, the lack of clear criteria for the distribution of the fund resources has led to the situation where beneficiaries of the fund include some of the richest cantons.

3.3. Scandinavian countries

The fiscal equalization models in Denmark, Norway and Sweden are practically based on the same principles, which is largely due to the similarity of local government systems in these countries. In all three countries local government plays a very important role in the accomplishment of state tasks (more than a half of all public funds are available to subregional and local levels of government). Traditionally, amounts of equalization transfers in these countries have been very significant, and have been implemented primarily through horizontal mechanisms. The equalization systems in Denmark and Sweden were reformed (in 2007 and 2005 respectively), leading to a partial replacement of the horizontal mechanism with vertical transfers from the state budget. The modern systems of the Scandinavian countries are examples of mixed models – in fact, the main part of subsidies comes from the state budget, but a substantial part is still financed by the most affluent local authorities (only the fraction has changed). The highest level of equalization exists in Sweden and relatively the lowest – in Denmark.

It should also be noted that in all these countries, equalization transfers are insignificant (compared to other European countries) in the structure of fiscal resources available to municipalities and regions. In all three countries, much more emphasis is placed on expenditure equalization. A sophisticated algorithm is used to consider factors that affect the differentiation in expenditure needs of municipalities. In Denmark, 70% of such a needs index is defined by the demographic structure of the population and 30% – by the social and economic

position of particular municipalities. In Sweden, variables relating to demography, ethnic composition, economic development and geographical location are taken into account [Frey, Wettstein 2008].

3.4. Poland

Considering the fact that the Ukrainian model of local government is largely based on the Polish model, the Polish system of equalization is especially interesting from when it comes to exploring practical mechanisms of eliminating territorial disproportions.

The equalization system in Poland has been modernised as part of the reform of administrative and fiscal decentralization, which has led to an increased differentiation of the fiscal capacity of administrative and territorial units. Notwithstanding the growing role of local government in Poland, the share of interbudgetary transfers, which are made to equalize local revenues and expenditures is quite significant. It should be emphasized that the modern equalization system in Poland is aimed at equalizing revenues, and all levels of government – provinces, districts and communes – are involved in equalization, and separate equalization criteria have been developed for each level. For example, as regards general subsidies, districts and communes are allocated the equalization part (or are charged the balancing part in the form reverse payments), and provinces receive transfers from equalization and regional parts. The equalization part of the subsidy consists of principal and additional amounts. The principal amount is provided to:

- communes where tax revenues per capita are below 92% of the national average tax revenue level (compensation may be up to 80% of the difference between the average commune tax revenue level and the revenue of a given commune);
- districts in which tax revenues per capita are lower than the district average;
- provinces where tax revenues per capita are lower than the province average [Sierak 2016].

The additional amount is allocated to:

- communes with a population density below the national average (subject to compliance with the first criterion);
- districts in which the unemployment rate, calculated as the ratio of the unemployment rate in the district to the national unemployment rate, exceeds 1.1;
- provinces in which the number of inhabitants does not exceed 3 million people.

It should be emphasized that when calculating tax revenues, it is not real revenues for a given year that are taken into account, but the average from the two previous years. The calculation includes revenues from local taxes imposed

by administrative and territorial units (on real estate, agriculture, forestry, transport, civil transactions), the share in the personal income tax and the share in the corporate tax.

The criteria for allocating additional amounts take into account not only the large differentiation of own revenues, but also particular expenditure needs related to the economic, social and demographic situation of individual territorial units.

As for the balancing part (reverse payments), they are paid by communes in which tax revenues per capita exceed 150% of the average for all communes. The amount of reverse payments is 20% of the excess above 150% of the average; after exceeding 200% the share to be transferred increases. Districts pay reverse transfers when their tax revenues per capita exceed 110% of the district average [Kańduła 2016; Wołoszyn, Kozera, Głowicka-Wołoszyn, Stanisławska 2016].

The unemployment rate, the road network, the size of per capita GRP and functions in the field of railway transport should be taken into account when distributing the regional part of the general subsidy between the provinces.

The regional part of the general subsidy comes from reverse payments made by provinces in which per capita tax revenue exceeds 110% of the average for provinces.

An educational subsidy received by communes is often classified as another equalization mechanism in Poland, but it is difficult to agree with this view, since it is received by all communes regardless of their revenue level or educational expenditures. The formula for calculating educational subsidy amounts includes more than 40 indicators, but only a few can be considered to be determined by the differences in the fiscal capacity of communes. One such indicator is a commune's rural or mountainous location [Kańduła 2016].

In general, the Polish model of fiscal equalization, which was created (like the Ukrainian one) to stimulate endogenous economic development of basic territorial units, is now criticized for its predominant focus on revenue equalization and for neglecting the differentiation in expenditures across territorial units. That is why, the Polish Ministry of Finance is currently working on developing a new methodological approach to fiscal equalization, in which much more attention will be attached to expenditure needs of communes.

In summary, it can be argued that each of the systems of equalization described above has its advantages and disadvantages. The advantage of equalizing budget revenues is the possibility of balancing the tax capacity of administrative and territorial units and ensuring that local government bodies are motivated to increase their tax revenues. A debatable issue for scholars and practitioners is the level of tax capacity at which surplus revenue of local budgets is withdrawn by the central government and the method of its calculation. In different countries, the equalization threshold is different: for Norway, it is 100% of the amount in excess of 134% of the average tax capability, and 90% for municipalities below

110% of the average tax capability; in Sweden, 85% for municipalities above 115% of the average tax capability and 95% for municipalities below the average tax capability [Pyontko 2015].

The equalization of expenditures also has its advantages and disadvantages. The advantage, first of all, is that it helps to reduce the imbalance in the capacities of different territories and to ensure that all citizens receive the same level of services. Typically, the biggest problem of equalizing budget expenditures is the issue of assessing the quality, cost of public services and their compliance with existing public service standards. When calculating the cost of services, different types of expenditures can be used – past, actual, standard or normalized. Expenditure equalization based on actual costs (Italy, Germany) encourages local governments to replenish the budget; expenditure equalization based on past costs (Spain, Mexico) reduces the possibility of exploitations. Standard expenditures are calculated using the indicators of needs, which are country-specific and depend on its historical, social and economic, and geographical features. Moreover, the number of such indicators also varies: in Denmark and Norway, there are about 15 indicators for estimating expenditures needs, while in Switzerland, 24 indicators are used [Fiscal Federalism 2014; Shah 2014]. Methodological approaches to calculating expenditure needs can be systematized in terms of indicators, which include:

- macro indicators (used in Indonesia, India, Brazil);
- demographic indicators: population and population density (Canada), age structure of the population (Denmark, Norway, Netherlands), population weighted by age groups (Italy);

- a set of general indicators:

- Australia: geographical characteristics of the territory, social and economic characteristics, the level of urbanization, demographic (population, percentage of Aborigines, age structure of the population).

- a set of indicators, which include specific social characteristics:

- Switzerland: population, population density, population aged 80+, recipients of social guarantees, foreigners, big cities, type of territory (mountains, border, etc.);

- Denmark: time of arrival to the place of work, unemployment rate, share of families with poor quality housing or rented accommodation, number of unmarried people, mentally ill people, children of poorly educated parents;

- Norway: number of divorced people, unemployed, mentally disabled people, single senior citizens, immigrants, time spent by residents on travel, mortality;

- Netherlands: quality of housing, high population density, share of low-income households or those who are on social welfare, number of students.

It should be emphasized that there is a fundamental difference between the above mentioned systems of expenditure equalization and the Ukrainian model of expenditure equalization which existed until 2015 – the equalization criteria

did not include expenditure needs to finance the social infrastructure in the region or municipality, but the characteristics which can increase/decrease the cost of public services in a specific territory.

4. Summary and research prospects

What model of fiscal equalization is chosen in a given country depends on many factors, in particular: the state's institutional structure; population, features of the administrative and territorial system; the level of economic development of administrative and territorial units and their fiscal capacity; the level of decentralization of powers and budgetary decentralization; state of development of standards of social services and others.

With the implementation of the decentralization reform in the Ukrainian model of fiscal equalization, the emphasis is placed on equalizing budget revenues while using some elements of expenditure equalization.

Further research should focus on exploring the possibility of enhancing the role of expenditure equalization in Ukraine. However, it does not mean a return to the old funding scheme of the existing social infrastructure. The new equalization system is based on the new standards of social services and the development of a network of alternative providers of such services.

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Wzory wyrównania finansowego – praktyka europejska

Streszczenie. *Celem artykułu jest analiza modeli wyrównania finansowego krajów europejskich i określenie modelu wyrównania finansowego Ukrainy. Podczas przeprowadzania badań zastosowano następujące metody: streszczenie i logikę, analizę porównawczą, wizualizację graficzną i dane statystyczne. W artykule poddano analizie modele wyrównywania finansowego w krajach europejskich. Stwierdzono, że większość z nich ma na celu przezwycięzenie nierównowagi budżetowej jednostek administracyjnych i terytorialnych poprzez redystrybucję środków budżetowych między szczeblami władzy. Zauważono, że modele wyrównywania finansowego wielu krajów uległy modyfikacjom w ostatnich dekadach i coraz większą wagę przywiązuje się do wyrównywania wydatków. Wraz z wdrożeniem reformy decentralizacji władzy na Ukrainie w modelu wyrównywania finansowego nacisk kładzie się na wyrównywanie budżetów „według dochodów” przy użyciu oddzielnych narzędzi wyrównywania „według wydatków”.*

Słowa kluczowe: *wyrównanie finansowe, budżet, transfery, rozwój terytorialny, decentralizacja*

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Structural-Institutional Transformation of Enterprise Development: the Experience of Ukraine and Poland

Abstract. *The purpose of this article is to determine specific aspects of the functioning of the small business sector in Ukrainian cities. The institutional environment for entrepreneurship development in Ukraine and Poland is compared with reference to international research in this area. The article highlights factors that hinder the effective development of entrepreneurship in Ukraine, as well those that attract investment. The author evaluates the effects of investment processes on the development of medium and small businesses in Ukrainian cities is evaluated. The results show that capital investments do not have the expected positive impact on business development. A significant role of the shadow labour market, outflow of the workforce, investments in already existing enterprises rather than opening new ones – all of these constitute urgent problems for the business sector. In order to stimulate the development of entrepreneurship, the author proposes intensifying the role of city authorities to stimulate and support the development of small and medium-sized businesses.*

Keywords: *business environment, entrepreneurship, institutional environment, regulatory policy, investment*

1. Introduction

Building a competitive economy is not possible without an active development of the business sector. The development of the business sector is determined by the quality of the business environment at the state and local levels, which is characterised by certain features:

– the business environment is part of the social environment and ideally helps to enhance national wealth and prosperity;

– the quality of the business environment is determined by the efficiency of economic processes in the country;

– the business environment has the characteristics of territorial integrity, within which it is formed by business people, the nation and institutions (government, financial and credit, etc.) with their interconnections and relationships;

– the business environment is affected by legal, political, social and economic factors, all of which create conditions for the functioning of business entities of a particular society, the implementation of business relations and functions [Melnyk 2007: 423-436]. Thus, the business environment is an indicator of the country's economic development and a sign of entrepreneurship.

Small and medium-sized businesses, which are the backbone of the EU economy (accounting for 60-70% of GDP and employing 2/3 of working citizens), play the most important role in business, while in Ukraine this figure does not exceed 20%.¹

Poland's accession to the EU has fostered the development of the small and medium-sized business sector, so modern Poland has become a model for other post-communist countries, in particular, as far as the development of small and medium-sized enterprises is concerned. Out of 3.8 million enterprises registered in Poland, more than 99% are SMEs that generate over 70% of GDP [Romanchuk, Raboshchuk 2017].

Ukraine significantly lags behind Poland and the EU in this respect. The main obstacles to the development of small business in Ukraine include insufficient support for small and medium-sized businesses; limited access to financial resources; insufficient development of the business support infrastructure, etc. [Berezina 2018].

The purpose of the article is to identify characteristic features of how the business sector in Ukrainian cities functions and what obstacles limit its development as well as to compare the institutional environment of business activity in Ukraine and Poland.

2. How favorable the institutional environment is for the development of small and medium-sized enterprises according to international ratings

The development of the entrepreneurial sector in Ukraine is characterized by a number of structural and institutional transformations. Today, Ukraine is on the path to forming transparent conditions for small businesses. The structural and

¹ Maliy ta seredniy biznes v ukrajini daye 55 vvp kabmin, 2019, *Unian*, <https://www.unian.ua/economics/finance/10596576-maliy-ta-seredniy-biznes-v-ukrajini-daye-55-vvp-kabmin.html> [accessed: 17.09.2019].

scientific transformation of small business development is one of the priorities of state and regional economic policy, as it is believed to be a crucial element in solving a number of socio-economic problems to do with local needs.

The creation of a favorable institutional environment for the development of small businesses requires effective cooperation at all levels of government, from national to local, in order to attract more foreign investment.

Today, the level of support from the institutional environment for the small business sector in Ukraine is assessed by international organizations and foundations, which while acknowledging some positive dynamics identify a number of adverse factors.

International ratings and comparisons can be used to evaluate trends in structural and transformation processes in a country. The Bertelsmann Transformation Index (BTI)² is an international index for evaluating the development of democracy, market economy and favorable institutional conditions for doing business, especially in the field of small business. In 2018 Ukraine was ranked 36th, which is a noticeable positive trend. However, despite some progress in this area, Ukraine has only returned to the ranking from 2006 (Fig. 1).

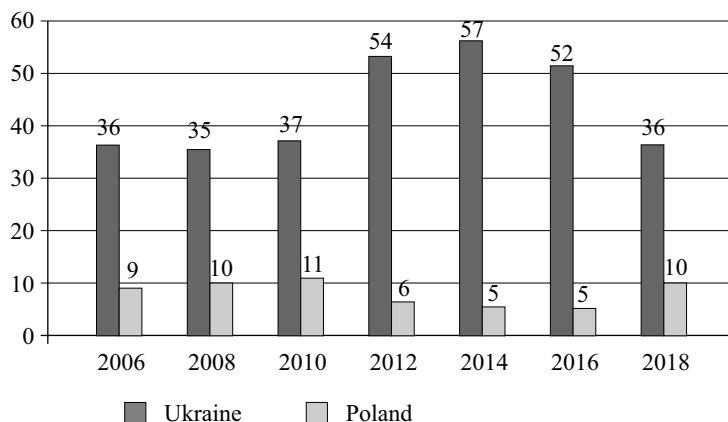


Figure 1. Dynamics of the BTI Index of Ukraine and Poland in 2006-2018

Source: based on BTI 2018c.

Based on the results of the BTI 2018, researchers identified the main problems in the creation of a market economy in Ukraine, including high levels of

² The Bertelsmann Transformation Index is compiled every two years and features a rating of democracy among 128 transition and developing countries, based on an analysis of 250 international experts. The rating consists of two parts – political and economic transformation. Ukraine drops in Bertelsmann Transformation Index's rating of democracy, <https://www.ukrinform.ua/rubric-politics/1330688-a7431c66aed2e8ea7a11f430cf653d4d.html> [accessed: 17.09.2019].

corruption and abuse of power, formal liberalization of prices, regulation of communal, energy and telecommunications tariffs, difficulties with currency conversion for investors. Among positive aspects one can mention some degree of protection for foreign investors (foreign investments cannot be nationalized except in the case of a force majeure, in which case investors are entitled to a compensation for losses; investors have the right to free repatriation of profits, dividends and investments in their own right) and a reduction in the level of the shadow economy (estimated by the Ministry of Economic Development and Trade to account for 38% of GDP in 2016 but still dominated by financial and industrial groups), etc. [BTI 2018b].

In contrast, Poland has long been ranked in the group of countries that top the BTI ranking. Unlike in Ukraine, there is micro- and macroeconomic market competition in Poland, liberalized prices and fully convertible currency, the state safeguards the rules of market competition and all market participants enjoy equal opportunities. At the state level, measures have been taken to facilitate the business creation process, reduce bureaucracy, facilitate tax and insolvency issues. Competition laws and anti-monopoly practices are also in place [BTI 2018a], which creates much better conditions for setting up and running a business.

As we can see, Ukraine's place in the BTI ranking shows some positive developments in the democratization of the governance process in the country, but at the same time, the imperfection of the economic and legal environment of conducting business activity in Ukraine remains. In addition, Poland is ranked high thanks to deep structural reforms aimed at democratizing administrative processes in the country.

An important factor in shaping a favorable environment for entrepreneurship is the level of attention paid by public authorities to create favorable economic and legal conditions for business. It is this level of attention and quality of the regulatory environment that is defined by the international ranking called *Doing Business*. Regarding the level of regulatory climate and business environment, Ukraine has moved up from 152nd place in 2012 to 71st place in 2019. Taking into account such indicators as conditions for setting up a new business, obtaining licenses and permits, registering property, obtaining a loan, paying taxes and executing contracts, Ukraine was ranked even higher than 71st. Additional efforts are required to simplify the business environment in such areas as connection to the power grids and the procedure for the liquidation of an enterprise (Table 2), as these limitations make it difficult to create or expand enterprises in the manufacturing and processing sector. Bankruptcy procedures also remain rather rigid, so Ukraine is ranked 150th among 190 economies in this category, and the cost of bankruptcy is still much higher than the average in other countries [BTI 2018b].

Table 1. Ukraine and Poland ranked in the Doing Business ranking

Indicator	Place							
	2012		2014		2017		2019	
	PL	UA	PL	UA	PL	UA	PL	UA
Overall ranking	62	152	45	112	24	80	33	71
Starting a business	126	112	116	47	107	20.	121	56
Dealing with construction permits	160	180	88	41	46	140	40	30
Getting electricity	64	169	137	172	46	130	58	135
Registering property	89	166	54	97	38	63	41	63
Getting credit	8	24	3	13	20	20	32	32
Protecting minority Investors	46	111	52	128	42	70	57	72
Paying Taxes	128	181	113	164	47	84	69	54
Trading across borders	46	140	49	148	1	115	1	78
Enforcing contracts	68	44	55	45	55	81	53	57
Resolving insolvency	87	156	37	162	27	150	25	145

Source: based on World Bank 2012, 2013, 2014, 2017, 2019a, 2019b.

In contrast, Poland looks significantly better in this respect. To improve the business environment in Poland, a number of measures have been implemented, such as facilitating the business creation process, reducing bureaucracy and costs, simplifying tax law, and resolving insolvency issues, making it easier to obtain building permits and connect to electricity.

An effective regulatory policy provides opportunities for starting a new business. One indicator used to measure this aspect is the number of new businesses per 1,000 population (business entry density), calculated by the World Bank. In 2019 this figure was approximately the same in Ukraine (1.54 per 1,000) as in Poland (1.66 per 1,000),³ with Denmark, Singapore, and Sweden leading the ranking with a score of more than 8. Such a small gap between Ukraine and Poland can be explained by cheap resources and a sufficiently educated workforce in Ukraine.

3. Problems of creating the institutional environment for SME development in Ukraine

What are the key factors that continue to have a destructive impact on business development in in Ukraine⁴ in the period 2018-2019? They include the level

³ *Entrepreneurship*, <https://russian.doingbusiness.org/ru/data/exploretopics/entrepreneurship> [accessed: 11.09.2019].

⁴ The definition of the Small Business Attitudes Index was conducted in 2018-2019 in Ukraine. With General notes Small Business Confidence Index for the survey results was 2.7 to 5 available in 2019, while in 2018 was 3.2.

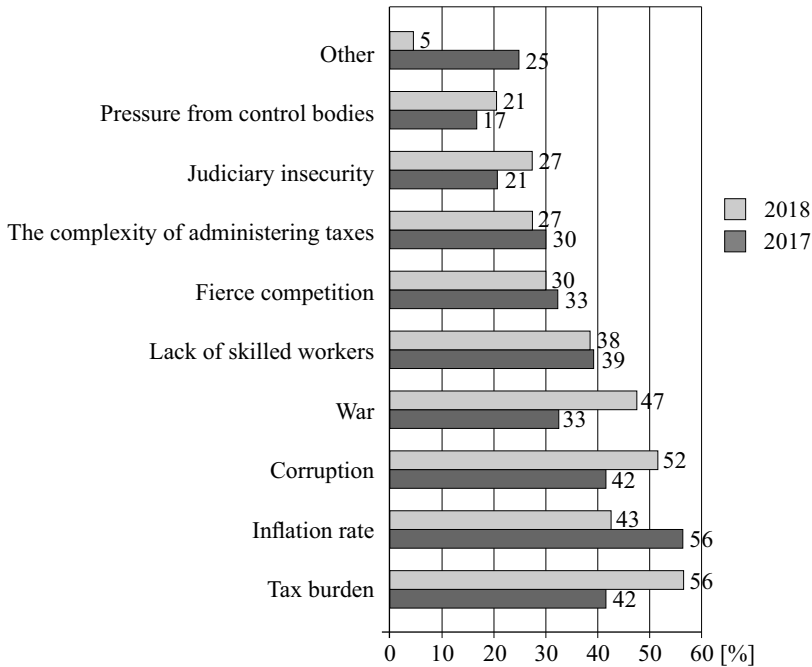


Figure 2. Destructive factors affecting the development of small businesses in Ukraine in 2017-2018

Source: based on *Small Business Attitudes Index 2018*, <https://eba.com.ua/indeks-nastroyiv-malogo-biznesu-2018/> [accessed: 17.09.2019].

of tax burden (in particular the single insurance contribution, which has to be paid regardless of activity), high levels of corruption, hostilities in the country, accessibility to credit and low solvency of the population⁵ (Fig. 2).

Owing to the unstable socio-economic and political situation in Ukraine development prospects for small businesses deteriorated, with 72% of respondents believing that the economic situation was unfavorable for business; this was reflected by employers' decisions to reduce their export plans and expansion to foreign markets. The factors most in need of reform still include the tax burden and the cost of credit, government support for businesses and more.

Despite the unfavorable environment for development, the small business sector has been and continues to be the engine of economic growth by reinvesting money into people and the country's economy. Therefore, an effective public policy aimed at eliminating or reducing the impact of these destructive factors could be a good incentive for small business development.

⁵ *Small Business Attitudes Index 2018*, <https://eba.com.ua/indeks-nastroyiv-malogo-biznesu-2018/> [accessed: 17.09.2019].

In view of the significant obstacles to doing business in Ukraine in recent years, more attention has been paid to the how the business environment actually functions. One result of this analysis was the second regional ranking called DOING BUSINESS, which focused on the time and money spent by businesses to complete formal procedures and the number of “visits” at agencies of the state or local government⁶. In 2017, five areas of interaction between entrepreneurs and local authorities were investigated (payment of local taxes; obtaining permits for construction; registration of land as real estate; connection to the electricity grid), in 2018 the list was extended by including “electronic services”. Therefore, the results of the rating revealed significant territorial disparities between the regions of Ukraine. At the same time, none of the regions (Ukr. oblast) received the maximum amount of points in the 2017-2018 rating, which indicates that the potential for growth is still considerable and that the conditions for doing business in Ukraine and in some regions are far from favorable. The survey revealed that the administrative burden on small businesses is much higher, in particular due to the lack of knowledge, experience and access to quality legal services.⁷

One of the indicators of effective business environment development is the investment component, which refers to conditions created by municipalities *to attract investments* and use them effectively.⁸ The final rating is based on the assessment for two main parameters: investment activity (capital investment, foreign investment and construction activity) and socio-economic effect of investment (wages, commissioning, employment and services).⁹ The results indicate deep disparities between cities of regional centers and cities of regional importance and are much smaller between cities of regional centers; most cities are unable to sustain a steadily high dynamics of growth, which is due in particular to the rebuilding of urban economies and their reorientation to new markets, the ability to attract investment and their efficient use.

In general, trends identified in other ratings are maintained, cities and regional centers are more likely to attract investors and financial opportunities to develop e-governance in the city and increase their own transparency, but not always use these opportunities. However, decentralization processes have provided incentives and opportunities for smaller cities to develop, so municipalities have

⁶ PRO. *Effective regulation platform. Ratings*, <https://regulation.gov.ua/rating> [accessed: 17.09.2019].

⁷ *Regional Doing Business: Where to invest in Ukraine*, <https://www.epravda.com.ua/publications/2017/09/8/628820/> [accessed: 17.09.2019].

⁸ Since 2015, it has been conducting quarterly evaluations of the investment performance of cities (22 cities have regional centers and 8 cities of regional importance). *Rating cities list. Euro Rating*, <http://euro-rating.com.ua/regiony/rejtingovaya-shkala/> [accessed: 17.09.2019].

⁹ *Rating of investment efficiency of cities of Ukraine, results of the 4th quarter of 2016*, <http://euro-rating.com.ua/regiony/analitika/rejting-investitsionnoj-effektivnosti-gorodov-ukrainy-itogi-4-go-kvartala-2016-g/> [accessed: 10.09.2019].

become more interested in attracting investment and have begun investing in the development of transparent e-governance.

At the same time, a survey of foreign investors showed that the main obstacle to investment in the development of business for the third consecutive year is corruption, followed by the distrust of the judicial system, and the instability of the currency and the financial system. The biggest obstacle for strategic and portfolio investors has been the military conflict with Russia. As we can see from Figure 3, there are insufficiently effective transformational changes to attract foreign investment,¹⁰ which indicates the passivity and lack of interest on the part of public authorities in intensifying investment processes through the implementation of deep structural reforms.

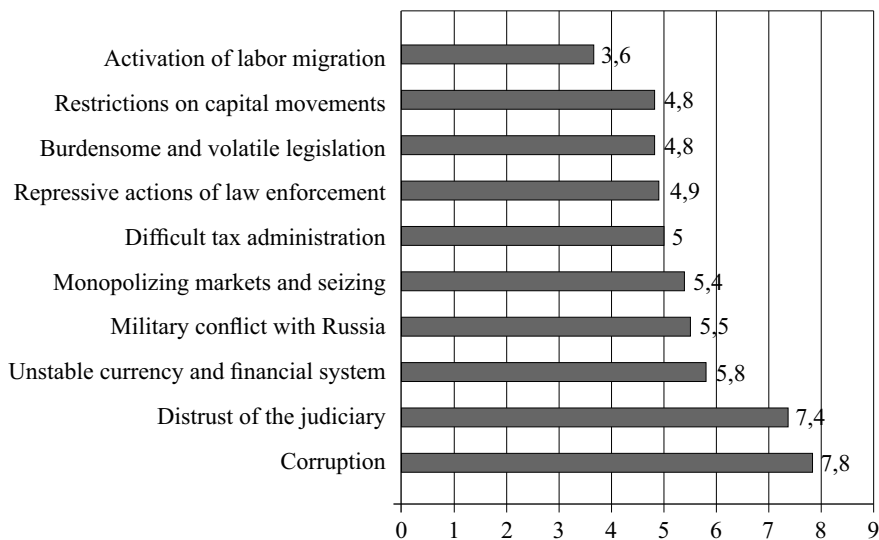


Figure 3. Barriers to foreign investment in Ukraine in 2018

Source: based on *Third Annual Foreign Investors Survey. September 2018*, https://eba.com.ua/wp-content/uploads/2019/03/2018_investorsurveyresults_presentation_ua.pdf [accessed: 9.09. 2019].

A national survey of small and medium-sized enterprises¹¹ found that the main obstacles to SME development included low solvency of the population; unfavorable political situation; high tax rates and difficult administration (instability of tax legislation, the size of penalties for errors, tax rates and fees, and

¹⁰ *Third Annual Foreign Investors Survey September 2018*, https://eba.com.ua/wp-content/uploads/2019/03/2018_investorsurveyresults_presentation_ua.pdf [accessed: 9.09.2019].

¹¹ *Annual Business Climate Assessment in Ukraine: 2016. Small and Medium Business Survey Summary*, <https://www.slideshare.net/USAIDLEV/2016-2017-abcareportshort23042017final> [accessed: 14.09.2019].

frequent changes in tax report forms); high regulatory pressure and corruption; adverse economic situation, lack of markets; for medium-sized enterprises – land use regulations, for small and micro-enterprises – currency regulations, etc. At the same time, SME representatives expect the state to create favorable conditions for entrepreneurial activity (direct state support for business) by simplifying the workflow and tax administration, as well as facilitating access to information through creation of a single information resource.

4. Impact of investment processes on the development of medium and small entrepreneurship

To facilitate a deeper analysis and evaluation of trends in the development of the business sector, to help identify problems and develop complex solutions, elasticity coefficients were calculated. The effects of investment processes on the development of small and medium businesses were evaluated positively in

Table 2. Methods of assessing the impact of investment processes on structural transformations in the SME sector of cities of regional importance of the Western region of Ukraine

Formulas	Performance criteria
Block 1. Elasticity ratio (Ratio of the growth rate of enterprises per 10 thousand population to capital investment)	
$K_{EL} = T_{RP} / T_{RI}$, where: T_{RP} – the growth rate of the number of small/ medium-sized enterprises per 10 thousand population; T_{RI} – growth rate of capital investment	$K_{el} \geq 1$ there is a stimulating effect of capital investment on the expansion of the SME network; $K_e < 1$ there is evidence of a poor relationship between these components, so more investments made in the already existing enterprises than to create new ones
Block 2. Elasticity ratio (Ratio of sales growth rate to capital investment)	
$K_{EL} = T_{ORP} / T_{RI}$, where: T_{ORP} – sales growth rate of small / medium-sized enterprises; T_{RI} – growth rate of capital investment.	$K_{el} \geq 1$ there is a stimulating effect of capital investment on the activity of enterprises, which contributes to the growth of sales; $K_e < 1$ is a low impact of investment processes on the efficiency of enterprises
Block 3. Elasticity ratio (Ratio of employment growth rate to capital investment)	
$K_{EL} = T_{KZ} / T_{RI}$, where: T_{KZ} – the growth rate of employment in small enterprises; T_{RI} – growth rate of capital investment.	$K_E \geq 1$ capital investments lead to higher employment and expansion of enterprises; $K_{el} < 1$ low impact of capital investment on employment growth; may indicate a high share of shadow employment

Source: Melnyk 2007.

Table 3. Elasticity coefficients

Cities of regional importance	Elasticity coefficients (ratio of growth rates of relevant indicators to the rate of growth of capital investments)						
	The growth rate of the number of medium-sized enterprises per 10 thousand population	The growth rate of the number of small enterprises per 10 thousand population	The rate of growth of sales volume by medium-sized enterprises	The growth rate of sales of small enterprises	The growth rate of employment in medium-sized enterprises	The growth rate of employment in small enterprises	
Lviv	0.46	0.57	0.98	1.49	0.59	0.49	
Boryslav	0.53	0.70	1.46	1.19	0.79	0.59	
Drohobych	0.36	0.48	1.63	1.03	0.49	0.35	
Motshyn	0.46	0.57	1.70	1.10	0.32	0.40	
Novy Rozdil	1.02	1.20	5.54	5.59	1.53	1.02	
Sambir	0.52	0.66	2.18	1.25	0.54	0.51	
Stryi	0.35	0.50	0.67	1.42	0.29	0.37	
Truskavets	1.15	1.23	1.94	2.24	0.83	1.02	
Chervonograd	0.66	1.01	1.43	1.75	0.82	0.85	
Bolehiv	0.67	0.69	1.03	1.91	0.67	0.67	
Colomya	0.98	0.38	2.55	1.52	0.68	0.49	
Yaremche	2.72	0.67	3.33	3.32	0.99	0.65	
Khust	0.44	0.47	1.58	2.03	0.40	0.41	
Chop	0.18	0.57	0.62	0.96	0.22	0.61	
Lutsk	0.56	0.73	3.69	1.89	0.71	0.62	
Volodymyr Volynsky	0.38	0.71	0.59	1.32	0.34	0.51	
Kovel	0.51	0.43	0.98	0.92	0.33	0.32	
Varash	0.38	0.23	0.45	0.73	0.20	0.25	

Source: own elaboration.

three blocks of indicators: ratio of the growth rate of the number of companies per 10 thousand population to capital investments, ratio of growth rates of sales volume to capital investment, ratio of the growth rate of employment to capital investment (Table 2).

The results of calculations of the ratio of the growth rate of medium-sized enterprises per 10 thousand population, the volume of sales, the number of employed to the volume of capital investments are presented in Table 3, which leads us to conclude that:

- the growth of capital investment has no significant impact on the quantitative growth of the business sector. The trend shows that investments flow to existing businesses and are not used to create new ones.
- the ratio of sales growth to capital investment reveals a more positive trend, which is, however, more driven by higher prices and higher inflation rates.
- the ratio of the growth of employment rate to the growth rate of capital investment indicates a significant role of the shadow labor market, negative demographic and migration trends, the emigration of young professionals to the European Union.

As we can see, capital investments do not have the expected positive impact on the development of entrepreneurship in cities, which is demonstrated by a decrease in the dynamics of development and competitiveness of entrepreneurship; this situation is exacerbated by the imperfect legal framework and the slow creation of a transparent regulatory and investment climate.

5. Conclusions

Creating a healthy business environment for entrepreneurship in Ukraine requires the development and implementation of effective entrepreneurship development policies. At this stage, one should emulate the positive experience of Poland as a guide in the following areas: to simplify registration procedures; to reduce administrative burden; to improve access to financing for businesses; to increase the freedom to doing business in the market; to expand institutional support by providing support to entrepreneurs through various foundations and government programs; to foster business innovation; to develop training systems and the like.

Stimulating entrepreneurship in Ukraine requires the activation of local governments, particularly in cities. The problem is that urban municipalities have limited experience in developing and using business development tools. One such tool is the use of SME support and development programs. First, however, one needs to tackle the main problems such as the lack of local business development and support programs; the lack of skills to track the effectiveness of program

implementation due to the lack of open access information for analysis; the lack of strategic planning skills of local government bodies; therefore, economic development planning is carried out for one to five years, which limits the correctness of management decisions and impedes the development of entrepreneurship, etc.

The creation of local business development programs will enable local governments to implement an effective policy of support not only for business but also for community development, in particular:

- to provide an opportunity for priority areas of business development, making it possible to identify a strategic industry for the city, determine the types and amounts of support, etc.;

- to formulate a socially oriented regulatory policy. For example, the city of Lviv banned the sale of alcohol in kiosks (25 kiosks out of 236 remained) and the sale of alcohol from 8 pm to 8 am.

- to implement socially-inclusive support for the development of small business through training and involvement in the military of the military, stimulating the employment of the female population, etc.;

Suggestions for improving the local business climate for local government units:

1. Use information and analytical materials (international and national) in the development of local strategies and plans for the development of the economy and SMEs of the region to remove barriers that hinder business development, create a favorable and transparent regulatory environment in cities, which will encourage new investments.

2. Introduce transparency in the governance processes at local government level, which will significantly reduce cases corruption and increase the investment attractiveness of cities.

3. Eliminate imbalances between regional city centers and cities of regional importance with respect to their ability of attracting investment by formulating a transparent city management policy, with active use of the latest IT solutions (e.g. PROZORRO. Sales, E-government).

4. Meet the expectations of SMEs by creating an effective business support system, streamlining workflows and obtaining permitting procedures, additional training in tax administration, creating a single information resource for SMEs (which would include information on investment projects, business support programs, international business support programs, local regulations, trainings for SME representatives, etc.).

5. Expand the business support infrastructure.

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Transformacja strukturalno-instytucjonalna rozwoju przedsiębiorstw – doświadczenia Ukrainy i Polski

Streszczenie. *Celem artykułu jest określenie specyfiki funkcjonowania sektora małych firm w ukraińskich miastach. Porównanie otoczenia instytucjonalnego dla rozwoju przedsiębiorczości w Ukrainie i w Polsce oparte jest na wynikach badań międzynarodowych. Wyodrębniono czynniki utrudniające efektywny rozwój przedsiębiorczości w Ukrainie, a także te przyciągające inwestycje. Oceniono skutki procesów inwestycyjnych na rozwój średnich i małych firm w ukraińskich miastach. Uzyskane wyniki wskazują, że inwestycje kapitałowe nie mają oczekiwanego pozytywnego wpływu na rozwój biznesu. Znaczący udział szarej strefy w rynku pracy, odpływ siły roboczej, przyciąganie inwestycji do już istniejących przedsiębiorstw, a nie na otwieranie nowych pozostają pilnymi problemami dla środowiska biznesowego. W celu stymulowania rozwoju przedsiębiorczości proponuje się zintensyfikowanie aktywności organów samorządowych miast w promowaniu i wspieraniu rozwoju małych i średnich przedsiębiorstw.*

Słowa kluczowe: *otoczenie biznesu, przedsiębiorczość, otoczenie instytucjonalne, polityka regulacyjna, inwestycje*

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The Concept of a Community Development in the Cross-Border Space

Abstract. *The article presents the prerequisites and grounds for the development of conceptual foundations of territorial community development in the cross-border space. An asset-oriented approach to the development of the territorial community in the cross-border space is proposed, concentrating on the community's capabilities and resources and stimulating the use of these opportunities to enhance the community's competitiveness. Destructive factors of competitiveness of the territorial community in the cross-border space are demonstrated. The author outlines some ways of increasing the competitiveness of a territorial community in the cross-border space such as organization of the community's life activities in the cross-border space; improving the institutional environment for the development of the community in the cross-border space; modernization of the state or regional support system for cross-border cooperation. The level of convergence of territorial communities is defined as the main criterion for their development in the cross-border space.*

Keywords: *territorial community, development of the territorial community, cross-border space, cross-border cooperation, civil society*

1. Introduction

At the moment the asymmetry of development in the cross-border space between the EU and Ukraine causes resources to flow into a more productive environment. In 2018, Ukraine was 81st in the ranking of competitiveness, in contrast to Poland, which was 39th (Fig. 1) [World Economic Forum 2019]. Therefore, it is important to increase the competitiveness of Ukrainian territorial communities in the cross-border space between the EU and Ukraine. Even if more

resources are available to solve local development problems, they won't disappear at once. Instead, there are new categories of residents/consumers/dependents, which focus only on payments and external intervention, so the problems begin to develop in a new direction. This situation is especially noticeable in some territorial communities that are subsidized or dependent on the operation of one or many monopoly enterprises, which, if closed down, would mean a disaster for the community. If our efforts to solve problems continue to focus only on the needs of the community, we are unlikely to be able to overcome them, because the available resources will always be insufficient. As a result, people are becoming addicted to subsidies and the main task of organizing community life is no longer development but the search for arguments to get more resources, which becomes increasingly harder each year.

◆ Poland ■ Slovak Republic ▲ Hungary ☒ Romania ☒ Ukraine				
Rank overall index	Rank basic requirements	Rank efficiency enhancers	Rank innovation and sophistication factors	
◆ Poland 39		◆ 34		
▲ Hungary 60	◆ 45	45 ▲ 44		
■ Slovak Republic 59	52		☒ 58	◆ 59
☒ Romania 68	64		☒ 70	■ 70
☒ Ukraine 81	☒ 72			77 ☒ 79
	☒ 96			
				☒ 107

Figure 1. Rankings for the three subindexes of the Global Competitiveness Index 2017-2018

Source: World Economic Forum, 2019.

We offer an alternative to the traditional (and basically inefficient way of solving problems by only concentrating on them), a new approach, which focuses on the community's capabilities and resources, and involves encouraging the use of these opportunities to enhance the community's competitiveness. In our opinion, community assets include (or may include) shared resources in the

cross-border space, which emphasize the feasibility of an asset-oriented rather than problem-oriented approach to the development of the territorial community in the cross-border space.

The main criterion for the development of territorial communities in the cross-border space is their level of convergence. It refers to the way cross-border convergence of territorial communities occurs in the process of borrowing, reproducing or forming common methods and ways of using/storing/developing shared resources in the cross-border space.

At the same time, some criteria for the effective use of shared resources and capabilities include:

- the degree to which cross-border cooperation opportunities are used (according to the legislation); creation of an asset of a territorial community in the process of using its existing shared resources in the cross-border space of between Ukraine and the EU;
- enhancing the viability of the territorial community in the cross-border space between Ukraine and the EU (criteria for sustainable development);
- creation and efficiency of cross-border cooperation institutions (in particular, cross-border cooperation authority);
- level of formation and implementation of shared instruments, development mechanisms based on assets in the cross-border space (development and realization of joint strategies, programs, etc.).

The focus is on developing the conceptual principles of development of the territorial community in the cross-border space. A territorial community is defined as a community of residents (villages or voluntary associations of rural residents of several villages, towns and cities) who independently resolve local issues on the basis of joint resources or through representative bodies with active participation.

Prerequisites and accounts for the elaboration of conceptual foundations for territorial community development in the cross-border space include:

- the existence of common resources in the cross border space between Ukraine and the EU, including natural resources with access on both side of the border, which are of considerable interest. They need to be preserved to ensure sustainable development through cooperation in the area of resource management, protection and use; financial resources with shared access of subjects and participants of cross-border cooperation, etc.;
- the territorial community is the subject of cross-border cooperation;
- membership in the Council of Europe. Ukraine, as a member of the Council of Europe, has pledged to support and promote cross-border cooperation, joining the European Outline Convention on Transfrontier Cooperation between territorial communities or authorities, namely to ensure that laws and regulations and policies have not prevented cross-border cooperation, and maintain or develop

appropriate mechanisms and procedures to raise awareness of this in the country, and within all concerned institutions. Effective enforcement of public policies aimed at facilitating and promoting cross-border cooperation and initiatives means reviewing existing legislation and practices, identifying legal and illegal obstacles, and modifying or prohibiting procedures, requirements and conditions that directly or indirectly interfere with, or de facto, make cross-border cooperation extremely difficult for territorial communities, public associations, residents, etc.;

– the strategic policy of the state geared towards Ukraine’s full membership in the European Union. According to the EU-Ukraine Association Agreement [Verkhovna Rada 2015], our state is obliged to support cross-border and inter-regional cooperation, namely: to foster mutual understanding in the field of regional policy on the methods of formulating and implementing regional policies, in particular multi-level governance and partnership, with particular emphasis on the development of retarded territories and territorial cooperation; to create communication channels, enhancing the exchange of information between state, regional and local authorities and self-government, socio-economic entities and representatives of civil society; maintain and strengthen the involvement of local and regional authorities and governments to cross-border cooperation and the related management structures to enhance cooperation by creating favorable legal framework, support and capacity development and strengthening of cross-border economic ties and business partnerships; to strengthen and encourage the development of cross-border cooperation components such as transport, energy, communication networks, culture, education, tourism, health and other areas containing cross-border cooperation elements; facilitate the development of the cross-border cooperation on the modernization, provision of equipment and coordination of assistance services for emergencies.

For reference, the support of the European Union is aimed at [European Commission 2018]:

– promoting respect for human rights and fundamental freedoms, the rule of law, the principles of equality and combating discrimination in all its forms, establishing a deep and stable democracy, promoting effective governance, combating corruption, strengthening institutional capacity all levels and development of a prosperous civil society, including social partners;

– achieving progressive integration into the Union’s internal market and enhanced sectoral and cross-sectoral cooperation, including through approximation of legislation and regulatory approximation with the European Union and other relevant international standards, as well as improving access to markets, including deep, comprehensive and comprehensive free trade areas related to institutional development and investment, also including investments into the interconnections; creation the conditions for the better organization of legal migration and the promotion of well-managed mobility of people, the implementation of exist-

ing or future agreements concluded under the Global Approach to Migration and Mobility, and for the promotion of people in contacts, in particular with regard to cultural, educational, professional and sporting activities;

- support for smart, sustainable and inclusive development in all aspects;
- poverty reduction, including through the development of the private sector and the reduction of social exclusion;
- promoting capacity building in science, education, in particular higher education, technology, research and innovation; promotion of internal economic, social and territorial unity;
- promoting rural development; promotion of public health;
- support for environmental protection, climate action and disaster resilience; building trust, good neighborly relations, etc. that promote security in all its forms, as well as preventing and resolving conflicts, including long-term ones; strengthening the subregional, regional and European neighborhood region.

The following destructive factors of development of the territorial community in the cross-border space have been identified:

- underestimating the importance of the territorial community as a subject of cross-border cooperation;
- lack of mechanisms for managing/using/maintaining the development of shared resources in cross-border space;
- strengthening local community threats of life in the cross-border area;
- low efficiency in the use of mechanisms and instruments for cross-border cooperation;
- poor living conditions of territorial communities compared to EU standards;
- underdeveloped local civil society;
- conflict of interests, in particular the interests of representatives of the territorial community (representative bodies) and the common interests of residents – members of the territorial community;
- ineffective interaction of public authorities and local self-government bodies with the public; the influence of cross-border factors (opening of a crossing point, functioning of cross-border markets, mutual facilitation of border crossing) on the transformation of interests of residents – members of the territorial community, which are both positive and negative for the development of the latter.

The self-preservation of each territorial community in the cross-border space is relevant. Community self-preservation (according to the law of self-preservation) depends on the external and internal environment, assets, quality of management, etc. Self-preservation is based on the dualism of territorial community development: on the one hand, in the community as an open system, there are always phenomena of entropy, decay, differentiation, and on the other – non-entropic tendencies – increasing the organization and order, which are underlying evolutionary development. The very survival of the territorial

community (a non-institutional approach) is a certain imperative, which must be achieved whatever the cost. Community resilience is relative: a system that is stable in some conditions will be unstable in others.

However, it is important to focus on improving the competitiveness of local communities in the cross-border space. It should be noted that the basic level of competitiveness of a territorial community is its viability based on the principles of sustainable development: respect and concern for all communities; improving the quality of human life; maintaining viability; ensuring the sustainable use of renewable resources; minimizing the depletion of non-renewable resources; change of individual positions and activities. Negative trends in Ukraine, such as the outflow of human resources into a more productive environment in the cross-border space, (abroad), indicate the need to develop/improve the competitiveness of territorial communities of Ukraine in the cross-border space.

2. Improving the competitiveness of territorial communities in the cross-border space

The following directions for improving the competitiveness of territorial communities in the cross-border space can be distinguished (Fig. 2):

1. Organization of the vital activity of the territorial community in the cross-border space;
2. Improvement of the community's institutional environment of development in the cross-border space;
3. Modernization of state/regional support cross-border cooperation.

The organization of life of the territorial community in the cross-border space should involve the following:

1. Identification of shared resources in the cross-border space and specification of ownership.
2. Establishment of new or reorganization (improvement) of existing institutions that realize the interests of the territorial community or the common interests of territorial communities in the effective use of shared resources in the cross-border space (body of cross-border cooperation, civil society institutions, Euroregions, local organizations, associations). This includes staff training to provide organizational support of these institutions and enhance cross-border cooperation.
3. Establishment of coordination mechanisms of the local community in the cross-border space viability through algorithms of decision-making, creating communication channels, accounting system and reporting feedback.
4. Construction of the mechanisms of management, use, preservation/restoration, creation, development of shared resources in cross-border space. Using

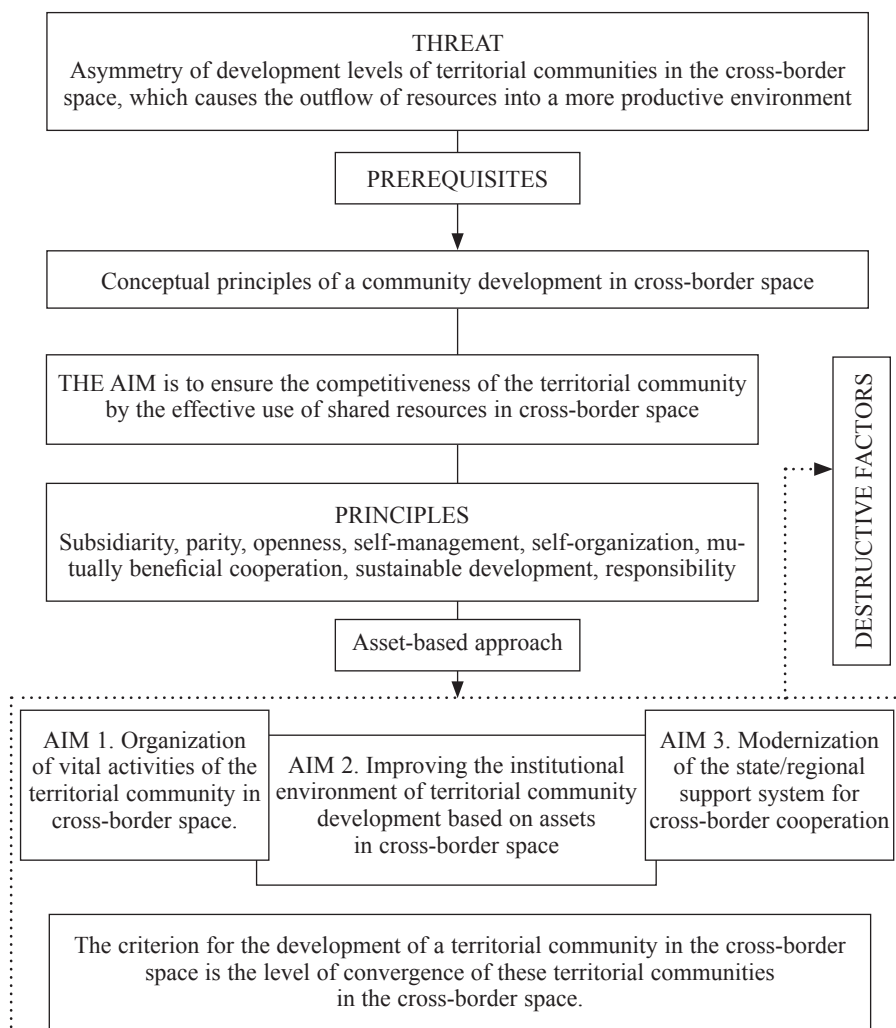


Figure 2. Conceptual principles of a community development in cross-border space

Source: own elaboration.

a constructive approach will create a mechanism of interaction in which selfish actions of particular entities will jointly lead to a solution that is optimal in terms of the overall objective function. It should be emphasized that there is no one model of collective action.

The transformation of assets into capital begins with the identification and ordering of the most useful in economic and social terms assets of the territorial community, since without a formalized system of ownership, which extracts the economic potential of the assets and transforms it into a from which is conveni-

ent for transactions and control, the assets of the territorial community remain only potentially useful. The following effects of a formalized ownership system can be distinguished: expression of the economic potential of assets; integration of scattered property information should be standardized and publicly available; liability of owners; increase of liquidity of territorial community assets; developing social connections; safety of arrangements.

It is advisable to focus on an architecture of choice that reflects a good understanding of the behavior of residents – members of territorial communities, namely, to create a comfortable environment that will improve community living conditions. R. Thaler distinguished the following principles of good and bad architecture of choice [Thaler, Sunstein 2008: 24]: the default option; expected error; providing feedback; “comparison”; structuring difficult choices; incentives.

Therefore, efforts to foster competitiveness of the territorial community in the cross-border space should focus on improving the institutional development environment, which involves the following:

1. Institutionalization of the cross-border network, which covers three components: shared resources in the cross-border space, subjects and their actions on appropriate resources that involve the use, storage/recovery and development of common resources in the cross-border space. Identification of shared resources in the cross-border space, level and degree of access to them by economic subjects; definition of subjects of ownership (in the subjective aspect, ownership is a set of powers and responsibilities).

2. Strengthening the institutional capacity of the territorial community as a subject of cross-border cooperation.

3. Formation of a system for monitoring the features of life of territorial communities on the basis of common resources in the cross-border space.

4. Forming a system for monitoring the efficiency of sharing resources.

Given that the territorial community is the subject of cross-border cooperation, it is important that the state supports the development of cross-border cooperation, which includes:

- determination of priority directions of state support for the development of cross-border cooperation;

- selection of cross-border cooperation projects (programs), which are in need of state support;

- development and implementation of state programs for the development of cross-border cooperation;

- providing legal, organizational, methodological, information assistance and support to the subjects and participants of cross-border cooperation of Ukraine.

Territorial communities, as subjects of cross-border cooperation [Verkhovna Rada 2018]:

- organize and coordinate the work on preparation and implementation of projects (programs) of cross-border cooperation;
- participate in the development of conjoint projects (programs) and coordinate their implementation;
- develop or participate in the development of national programs for the development of cross-border cooperation;
- provide, within their competence, the allocation of funds for the development of cross-border cooperation in the prescribed manner from local budgets.

Modernization of state/regional support system for cross-border cooperation should involve:

1. Strengthening the territorial community's active role in the system of cross-border cooperation;
2. Improving instruments for the implementation of the State Regional Policy in the field of cross-border partnership development;
3. Creation of bodies of cross-border cooperation;
4. Development of common tools for the development of territorial communities in cross-border space (Common Strategy for Smart Specialization);
5. Co-financing of cross-border cooperation projects.

The expected results of the modernization of the state/regional support system for cross-border cooperation should be identified and measured in the following areas:

- development and effective and timely implementation of common tools/mechanisms/initiatives for the use of shared resources in the cross-border space;
- ensuring increased responsibility of subjects and participants of cross-border cooperation;
- providing ways of improving coordination between local, regional and national development plans;
- ensuring the implementation of appropriate and effective cross-border cooperation projects that will benefit both sides of the border;
- increasing the prosperity, stability and security of territorial communities through enhanced cross-border cooperation;
- strengthening sustainable development; increased mobilization of resources from both internal sources and external support;
- increasing attention to good organizational practices and management; improving mobility, border crossing and border functioning; effective and balanced actions of conjoint projects on both sides of the borders;
- improving capacity to address local priorities; reducing the level of isolation of border territorial communities with improvement of socio-economic development of border area;
- strengthening regional participation and participation in identifying regional and subnational priorities of common interest;

– creating and understanding of sustainable networks and cooperation platforms, capable of providing a real contribution to solving the problems.

3. Conclusion

Summing up the above considerations, it is necessary to:

– develop common smart specialization strategies across the EU-Ukraine cross border space, which will enable a coordinated response to common challenges that can be more effective together, as well as to mobilize new initiatives, projects and attract funding from specific sources;

– institutionalize the cross-border network including three components: joint resources in the cross-border space, entities and their actions on appropriate resources, which involve the use, storage and development of joint resources in the cross-border space; this will help to formalize the ownership system in order to extract the economic potential of the assets and transform them into a form that is convenient for transactions and control, while the total assets at the moment are only a dead stock of potential energy;

– create cross-border cooperation bodies in accordance with the law, which will make it more efficient to coordinate such cooperation. It is important to add the priority of strengthening the institutional capacity of territorial communities to the State program for the cross-border cooperation development, in particular through the establishment of bodies of cross-border cooperation.

– develop the local civil society through improving legislation on the use of public participation instruments, in particular on local referendum and self-organization bodies; formation and implementation of the state information and educational policy in the field of promoting the development of civil society and public participation in solving issues of local, regional and national importance; the creation of a single e-democracy platform; access of civil society organizations to public financial support.

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Koncepcja rozwoju społeczności w przestrzeni transgranicznej

Streszczenie. *W artykule przedstawiono warunki wstępne i podstawy rozwoju koncepcyjnych podstaw rozwoju społeczności terytorialnej w przestrzeni transgranicznej. Proponuje się zorientowane na aktywa podejście do rozwoju społeczności terytorialnej w przestrzeni transgranicznej – koncentrując się na zdolnościach i zasobach społeczności oraz stymulując wykorzystanie tych możliwości w celu zwiększenia jej konkurencyjności. Przedstawiono niszczące czynniki konkurencyjności społeczności terytorialnej w przestrzeni transgranicznej. Ujawniono kierunki zapewnienia konkurencyjności społeczności terytorialnej na obszarze przygranicznym: organizacja żywotnej działalności społeczności terytorialnej w przestrzeni transgranicznej; poprawa otoczenia instytucjonalnego dla rozwoju społeczności terytorialnej w przestrzeni transgranicznej; modernizacja państwowego/regionalnego systemu wsparcia współpracy transgranicznej. Poziom konwergencji społeczności terytorialnych określa się jako główne kryterium ich rozwoju w przestrzeni transgranicznej.*

Słowa kluczowe: *wspólnota terytorialna, rozwój społeczności terytorialnej, przestrzeń transgraniczna, współpraca transgraniczna, społeczeństwo obywatelskie*

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Tekst główny

- czcionka Times New Roman z polskimi znakami, 12 pkt
- odstęp między wierszami – 1,5 wiersza
- wyróżnienia – pismem półgrubym
- słowa obcojęzyczne – kursywą
- nazwiska użyte po raz pierwszy – pełne imię i nazwisko, kolejne przywołanie – samo nazwisko
- skróty – za pierwszym razem pełny termin, a skrót w nawiasie; dalej – tylko skrót, np. *jednostki samorządu terytorialnego (JST)*
- liczby do 4 cyfr – bez spacji i kropek (5000, a nie: 5.000 czy 5 000), liczby powyżej 5 cyfr – ze spacjami co 3 cyfry, licząc od prawej (5 000 000, a nie: 5.000.000)
- w liczbach dziesiętnych – przecinek, nie kropka (z wyjątkiem tekstów angielskich)

Przypisy bibliograficzne

- umieszczone w tekście w nawiasach kwadratowych: nazwisko autora/redaktora, rok, strony:
[Meyer 2010: 31-40] lub [Dubisz (red.) 2003: t. 3, 104]
- jeśli autorów jest więcej niż trzech, należy podać tylko nazwisko pierwszego z nich, a po nim: i in.:
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- jeśli brak nazwiska autora/redaktora, należy podać kilka pierwszych słów tytułu książki/dokumentu:
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- jeśli przywoływane są raporty, analizy itp., to należy podać nazwę instytucji i rok:
[Eurostat 2014] lub: [GUS 2015]
- w przypisie można zawrzeć dodatkowe informacje, np.:
[por. Hadzik 2009: 38] lub: [cyt. za Szromek 2010: 52]
- jeśli odwołanie dotyczy więcej niż jednej publikacji, należy je wymienić w kolejności chronologicznej:
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- jeśli autor wydał w danym roku więcej niż jedną publikację, to po dacie należy dodać kolejne litery alfabetu, np.
[Nowak 2014a, 2014b]

Przypisy objaśniające, polemiczne, uzupełniające tekst główny oraz **przywołujące akty prawne, wyroki i orzeczenia sądów i adresy stron WWW** – numerowane kolejno i **umieszczone u dołu strony**, czcionka 10 pkt, interlinia pojedyncza.

Bibliografia

- pozbawiona numeracji
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- **artykuł w czasopiśmie** – nazwisko autora, inicjał imienia, rok, tytuł artykułu (prosto), *tytuł czasopisma* (kursywą), nr czasopisma, zakres stron:
Borek M., 2000, Rola technik sekurytyzacyjnych, *Bank*, nr 12: 53-55.
- **pozycja książkowa** – nazwisko autora/redaktora, inicjał imienia, tytuł książki (*kursywą*), miejsce wydania: wydawnictwo:
Janowska Z., 2002, *Zarządzanie zasobami ludzkimi*, Warszawa: PWE.
- **rozdział pracy zbiorowej** – nazwisko autora rozdziału, inicjał imienia, rok, tytuł rozdziału (prosto), w.; inicjał imienia, nazwisko redaktora + (red.), *tytuł pracy zbiorowej* (kursywą), miejsce wydania: wydawnictwo, zakres stron:
Michalewicz A., 2001, Systemy informacyjne wspomagające logistykę dystrybucji, w: K. Rutkowski (red.), *Logistyka dystrybucji*, Warszawa: Difin, 102-123.
- **akt prawny**
Ustawa z dnia 8 marca 1990 r. o samorządzie gminnym, t.j. Dz.U. 2001, nr 142, poz. 1591.
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- **raporty, analizy**
GUS, 2015, *Pomorskie w liczbach 2014*, Gdańsk.
- **źródło z Internetu** (w nawiasie pełna data korzystania ze strony WWW):
www.manpowergroup.com [dostęp: 28.05.2015].

Ilustracje

- edytowalne, wyłącznie czarno-białe,
- rysunki, wykresy i schematy – w plikach źródłowych (*.xls lub *.cdr)
- zdjęcia – w plikach źródłowych (najlepiej *.tif), rozdzielczość min. 300 dpi
- opatrzone numerem oraz źródłem (np. *opracowanie własne*)
- pozbawione napisów: półgrubych, wersalikami, białych na czarnym tle, czarnych wypełnień, dodatkowych ramek
- z odwołaniem w tekście (np. *zob. rys. 1*, a nie: *zob. rysunek poniżej/powyżej*)
- z objaśnieniem użytych skrótów

Tabele

- ponumerowane, opatrzone tytułem oraz źródłem (np. *opracowanie własne*)
- z odwołaniem w tekście (np. *zob. tab. 1*, a nie: *zob. tabela poniżej/powyżej*)
- każda rubryka wypełniona treścią
- skróty użyte w tabeli – objaśnione pod nią

Wzory matematyczne

- przygotowane w programie Microsoft Equation 3.0
- poprawnie zapisane potęgi i indeksy
- zmienne – kursywą, liczby i cyfry – pismem prostym
- znak mnożenia to: \cdot lub \times (nie gwiazdka czy „iks”)
- pisownia jednostek – według układu SI
- symbole objaśnione pod wzorem