DOI: 10.31520/2616-7107/2022.6.4-2

ISSN 2616-7107

UDC 338.24 JEL: Q01, H61, R58

## Oksana Borodina

Institute of Industrial Economics of the National Academy of Sciences of Ukraine, Kyiv, Ukraine E-mail: oborodina@i.ua

E-mail: oborodina@i.ua orcid.org/0000-0001-7469-9529

#### Lyudmila Burdonos

Hryhorii Skovoroda University ir Pereiaslav, Pereiaslav, Ukraine E-mail: burdonosluida@ukr.net orcid.org/0000-0002-1084-0826

# Volodymyr Stetsenko

Hryhorii Skovoroda University ir Pereiaslav, Pereiaslav, Ukraine E-mail: vovusyka@ukr.net orcid.org/0000-0002-4057-9796

## **Oleksandr Kovtun**

Hryhorii Skovoroda University ir Pereiaslav,
Pereiaslav, Ukraine

E-mail: kovtun3029@gmail.com orcid.org/0000-0003-0145-7988

Received: October 28, 2022 Accepted: November 3, 2022

DOI:10.31520/2616-7107/2022.6.4-2

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# SUSTAINABLE DEVELOPMENT MANAGEMENT FACTORS IN THE REGIONAL ECONOMY OF UKRAINE

**Introduction.** The functioning of the Ukrainian economy with a large number of restrictions necessitates its restoration on the basis of high-quality strategizing, taking into account foreign experience. The formation of financial support tools for the development of a regional development strategy raised the question of the need to change financial strategies to ensure the conditions for sustainable development, which determined the relevance of the study.

Aim and tasks. The aim of this study is a theoretical and methodological review of modern financing of regional projects in Ukraine at the subregional level and the provision of proposals for their conceptual improvement in order to ensure sustainable development of the economy based on the European experience of regional strategizing.

Results. The research contains a thorough modern analysis of individual factors of sustainable development of the regions of Ukraine in the medium-term perspective, namely: use of the opportunities of the administrative-territorial system; effective financing of regional development; concepts and models of "green" development of the regions of Ukraine. The need to organize a qualitatively new financing of regional development with the aim of achieving stable economic growth in post-war Ukraine is substantiated, and ways and forms of state assistance for this process are proposed. Based on the indicators of tax revenues in Ukraine in 2015-2021, a conceptual model of a system of institutions at the district (subregional) level is proposed that contributes to regional development, taking into account smart specialization and environmentalization. For its effective functioning, mechanism for financing such a system is proposed based on the fiscal scheme of deductions from corporate income tax in the estimated amount for each territorial level.

Conclusions. Synchronization of the administrative-territorial division with European countries made it possible to implement the EU experience in financial support of the subregional level of management and to offer a new vision of this process in Ukraine. Forecast calculations of the percentage of deductions from the tax revenues of enterprises' income tax to the relevant development funds were carried out using the apparatus of economic and mathematical modeling. The prospects for sustainable development and models for achieving this goal are analyzed, within which the vision, regional, and sectoral goals of such models are systematized.

**Keywords:** sustainable development, regional economy, subregional level, decentralization.

#### Introduction.

The long existential hostility confrontation has turned Ukraine's economy into a military mode of functioning with a large number of restrictions, which will definitely have a negative impact on the further development of the state. It is necessary to transfer the economy to the recovery mode on the basis of high-quality but realistic strategizing, which, among other things, would be based on the experience of foreign countries. Professional studies of the toolkit of financial support for regional development strategizing touched on the need for changes in funding strategies to ensure conditions for sustainable development.

A set of joint successful tools for post-war recovery has been historically proven and planning followed tested: indicative economic liberalization, active job creation, export orientation of the economy, the predominance of high-tech industries, significant amount of financial and industrial investment, and the creation of a tax incentive regime. This determined the relevance of the study. The process of replacing the previous technological order with the next one and the necessary measures for the strategic development of the economy in a crisis become possible due to the functional aspects of strategizing and creating mechanisms for ensuring sustainable development (Borodina, 2022).

### Literature review.

The scientific coverage of issues of environmentalization of innovative regional systems in the studies (Sölvell, Lindqvist, and Prokopenko, Ketels, 2003; Lyashenko, Omelyanenko, 2019) demonstrated that under the conditions of a decentralized model, effective and balanced strategizing of socioeconomic development, in particular regional ecological innovations is an important endogenous factor of sustainability of economic territorial development. The problems of strategizing the regional economy and financial support for sustainable regional development are the focus of active attention of economists. Under such conditions, the structural-regional approach is most effective, taking into account the process of decentralization for the structural

development of the economy (Chen, Richter, Patel, 2021). Devlin & Bleackley (1988) Marshall (1993) Swann & Preveser (1996); Feser (1998); Sölvell, Lindqvist & Ketels (2003); Taghizadeh-Hesary & Yoshino (2019); Wang et al. (2021) consider the consolidation of heterogeneous elements of the social system at the local level and claim that the effective process of sustainable financing of regional projects reveals the internal regional potential of vertical and horizontal integration, which is taken as a basis for the development of economic strategies for the development of the territory. Thus, it is proposed at the territorial (subregional) level, as a systemic regional interaction of economic entities, to determine such a spatial form of economic relations, in which it is possible to carry out the necessary production, managerial and informational concentration of production (Gibbs, O'Neill, 2018).

At the same time, the unprecedented conditions of today in Ukraine, namely administrative decentralization, the allocation of a sub-regional level with specific properties and functions, the lack of a financing mechanism for the implementation of development projects at the district level, the need for a conceptual vision of the financing process in the conditions of a new spatial division in Ukraine for ensuring sustainable development determines relevance of the article's research. It is appropriate to state that the world community is currently demonstrating its readiness to consolidate aid to the affected economy of Ukraine through the creation of joint mechanisms for infrastructure reconstruction, institutional modernization and economic transformation.

In turn, the Government of Ukraine at the International Conference in Lugano, in July 2022, presented a strategic Plan for the regional recovery and development of Ukraine (Recovery Ukraine, 2022), focused on the recovery of the creative economy as a guarantee of sustainable development. The problem of differentiation of territorial communities) according to the level of financial capacity, taking into account the additional indicators proposed in the article, and the construction of the institutional structure of the interaction of local self-government bodies and non-state institutions in accordance with such differentiation, remained partially unexplored, but this topic will be the object of future research. Therefore, the purpose of this study is a theoretical and methodological review of modern financing of regional projects in Ukraine at the subregional level and the provision of proposals for their conceptual improvement in order to ensure sustainable development of the economy based on the European experience of regional strategizing.

#### Theoretical framework.

The process of effective strategizing of the economic development of the state should have as a goal the achievement of a large-scale goal, balanced in terms of resources and terms, which is based on the results of the works of the classics of economic theory (Amosha at el., 2018). Thus, considering the long cycles of economic development, it can be stated that socio-political catastrophes (wars and revolutions) occur on the ascending segment of the Kondrativ cycle, while at the same time, on the descending wave, there is an explosive flourishing of culture. The political life of Ukraine is characterized by a fast-moving political situation, which has its influence on theoretical strategizing. The consequence of such a course is that theoretical strategizing rarely has practical confirmation (Ostapenko et al., 2020). At the same time, if we take into account the timing of Kondratiev's long technical and economic cycles (25-30 years of an upward wave and 25-30 years of a downward wave), then the following can be stated: the upward wave of each major cycle is extremely difficult for the economic infrastructure, accompanied by negative changes in the economic and social life of society, negative dynamics of growth.

Therefore, it is precisely in such periods that it is necessary to use the assets of the previous downward wave, when the infrastructure for expansion was the best. According to the concept of regional economic strategizing, during the 25-30 year semi-cycle of the downward wave, the local self-government of the basic level should demonstrate its own activity. Namely, the territorial community should develop such scenarios (strategies) of anticipatory development, which can be

implemented during the period of economic instability of the next 25-30 years of the rising wave. Such a configuration of events will be able to prevent the internal challenge that exists in Ukraine - the slow processes of changing the political situation. Considering the fact that after decentralization, the territorial community has a sufficiently wide range of powers and funding, it is possible to implement the stated scenario. Examples of successful implementation of state and regional management strategies are countries where democratic mechanisms for the formation and implementation of regional policy are developed, for example, Poland, Hungary, Slovakia, Lithuania (Zbancă, Negritu, Stratan, 2018). Undoubtedly, the current conditions of economic development require a strategy of technological breakthrough. For such long-term strategies, the primary task is to specify those industries where potential competitive market leadership is possible both in existing markets and when new ones are opened based on regional differentiation, which is called smart specialization.

# Methodology.

Theoretical review

The study consists of an analytical review of the current state of administrative and budgetary decentralization taking place in Ukraine. The current administrative division of Ukraine has basic levels - region (state government) and community (local selfgovernment). The sub-regional level of new districts is structurally necessary for Ukraine, even under the conditions of their possibly intermediate of existence term (Decentralization, 2021). Decentralization, which is taking place, guarantees the transfer of real power, funding and other resources to the local level, and it also guarantees the approach of public services to every resident of the community (Statistics Poland, 2022).

The growing role of communities in decision-making for socio-economic development requires the harmonization of national, regional, sub-regional and local strategizing levels. The state's strategic system is unbalanced and consists of several independent subsystems. Because of this, additional risks arise for the reform of local self-government, namely (NISS, 2020):

– in the process of strategizing, the State Regional Development Strategy (RDSR) and regional development strategies, firstly, do not agree in terms of terms (three, four, seven years) with forecasts and plans of economic and social development, within the framework of budget planning (one year, two years, five years), secondly, will not cover the level of communities;

 strategizing at the community level is currently a separate process that is not coordinated, but is tangential to long-term forecasting of economic and social development and regional development strategies;

 community development strategies do not provide direct financial and budgetary benefits.

In order to eliminate existing failures and improve the strategizing process, a number of empirical methods are used in the study to propose a conceptual vision of the system of institutional and legal support of the fiscal mechanism of financial decentralization at all levels of territorial spatial division in Ukraine.

# Applied application

The economic-mathematical apparatus of the study is focused on the formula presentation of the proposed additional calculation indicators of community capacity (NISS, 2020):

-budget income index,  $I_{bi}$  - coefficient that determines the level of local budget income per person (Level<sub>lbp</sub>) compared to the similar average indicator for Ukraine ( $I_{aver}$ ).

$$I_{bi} = Level_{lbp} / I_{aver}$$
 (1)

—the share of labor costs for national functions (local self-government),  $Ex_{pay}$ , as the ratio of the total amount of salary expenses to the revenue part of the budget,

$$Ex_{pay} = salary \ expenses / budget \ revenue$$
 (2)

-a share of the basic grant,  $B_{sub}$ , as carrying out the volume of budget revenues (Sub<sub>base</sub>) to the total amount of local budget revenues (total amount of budg revenues).

$$Bsub = Subbase / total budget revenues$$
 (3)

Generally speaking, indicators of financial support can be differentiated into: stimulators (improve the overall assessment of community capacity) and destimulators (deteriorate such assessment). To determine the amount of tax revenue deductions to the off-budget

development fund of the appropriate level (oblast, district, community), the following formula is proposed:

$$Vtax = V_o * Sum/3 * ((X_i/X + Y_i/Y))/2$$
 (4)

where Vtax is the amount of tax deductions to the fund of the corresponding territorial level;  $V_o$  - the total amount of corporate income tax in the region; Sum - the coefficient consisting of stimulators destimulators for the territorial unit on which the percentage is calculated, and since the stimulators and where the stimulators must all be present, the indicator should be presented as:  $I_{bi} * Ex_{pav} * Bs_{ub}$  in fractions of units; the indicator must be divisible by 3 – the number of calculated territorial levels (region-districtcommunity); Xi – population for administrative unit of the settlement level; X the population of the region; Yi - the area of the territory for the administrative unit of the settlement level; Y – area of the territory of the region.

For the calculated level of the area, the  $V_i$  indicator will be 1%. For the district, about 1.5%, depending on the size of the district. Thus, it is proposed to provide up to 1% of the corporate income tax as revenue to the relevant territorial development fund (regional, district or community).

#### Results.

The necessity of applying the European approach to territorial division in Ukraine and synchronizing it with the Nomenclature of Territorial Units for the purposes of Statistics (NUTS) (Eurostat, 2021). Thus, the identity of relations with the Polish administrativeterritorial structure allows Ukraine, having learned the positive consequences, to implement its own economic strategy, avoiding mistakes. Thus, the identity of relations with the Polish administrative-territorial structure Ukraine, having learned the positive consequences, to implement its own economic strategy, avoiding mistakes. And the fact that the starting positions of Poland and Ukraine are synchronized, and the territorial division is almost correlated, it is considered that taking into account the experience of budget and tax reform is an extremely expedient and effective process (Association of Cities of Ukraine, 2022).

In parallel with the decentralization reforms, the reform of fiscal decentralization should be carried out. At the same time, the transfer of resources and powers from the central to lower levels of management should be carried out with the provision of appropriate regulatory and institutional support for the sources of financing the provision of public services. The basis for building an effective model of budget decentralization can be the own tax revenues of territorial units. In the relations between the state and communities in the field of strategic planning, an approach should be proposed that will ensure harmonization, and not hierarchization. In addition, the growing understanding of the need to attract large-scale investments in the infrastructure of the regions and cities of Ukraine and the awareness of the insufficiency of the potential amounts of traditional budget funds (especially in the conditions of post-war recovery) forces the state to look for alternative mechanisms for financing sustainable development. Such a mechanism can become a public-private partnership as an effective tool for financing sustainable development. In international practice, there are a large number of financial mechanisms for the implementation of public-private partnerships, which differ in sources of funding (Koval et al., 2021).

Depending on the specified sources, the following financing mechanisms are defined in partnership projects: credit; public-private mixed; hybrid.

Proceeding from the very essence of partnership as a combination of administrative or other resources of the state with financial capabilities and entrepreneurial initiative of business, the primary source of funding for public-private partnership is the funds of both national and foreign investors.

However, the business, based on its capabilities, will only be able to implement small or medium-level projects. Business funds will not be enough to implement large projects in the field of energy, innovative and knowledge-intensive industry, health care, and residential construction. Financial support for the implementation of medium and larger projects requires very significant funds. The latter, as a rule, can only be provided by international institutions. Most international institutions are involved in project financing on a multilateral basis. Their help is aimed at financing, consulting and support of the most commercially attractive public-private partnership projects.

Decentralized financial system is one basic factor of rational distribution and use of budgetary resources and effective public services. The level of consolidated districts. which is new for the territorial division of Ukraine, will still be the focus of consideration and strategizing, and in the conditions of a multi-level economy, structure itself its becomes multi-level. The importance of preventive measures is indisputable (Table 1).

Table 1. Advantages and threats of budget decentralization.

Benefits	Threats
1. Can increase the allocative and production efficiency	1. Macroeconomic stabilization and income
of the provision of public goods.	redistribution are becoming difficult to
2. Allocative efficiency.: lower levels of management	implement
can increase the well-being of residents by satisfying their	2 Inequality between regions (municipalities)

- individual preferences (preference matching)
- Productive efficiency: public goods can be produced at lower costs
- It stimulates horizontal and vertical budget competition, which can reduce the size of the public sector, limit the negative incentives of the state and significantly improve the quality
- It creates an opportunity to use individual regions and municipalities as "laboratories" for economic experiments

- ıe
- 2. Inequality between regions (municipalities) and budget imbalance
- 3. Inter-territorial external effects are increasing
- 4. Lack of economies of scale with decentralized provision of public goods
- 5. The quality of the competencies of civil servants at the lower levels of management raises auestions
- Opportunistic behavior and increased corruption

Source: based on Oates Wallace (1999), Martinez-Vazquez, McNab (2003).

In European practice (The Council of European Municipalities and Regions 2022), the effectiveness of budgetary decentralization is determined by the following triad of determinants (Fig. 1).

The reform of the administrativeterritorial system in Ukraine, unfortunately, had a negative course of events, because its process itself was complex and ambiguous.

Determinants of effective budget decentralization in the state

Correspondence between expenditures and own revenues of subregional authorities Transparency of budget procedures, autonomy of regions, subregional structures and the local level Sustainable system of intergovernmental transfers - strict budget constraints, adequate allocation formulas, balance between grants and subsidies

Fig. 1 Global factors that determine the effectiveness of budget decentralization. Source:based on Council of European Municipalities and Regions (2022).

The majority of communities that were able to do so wanted to unite voluntarily, and financial incentives, as in Europe, were not foreseen, so the reform was unofficially completed administratively. In addition, many issues still arise with the property that was transferred to the balance sheet of local self-government, and this concerns, first of all, social objects (hospitals, medical centers, etc.) (CSI, 2022).

The fact that local self-government is the closest government institution to the population gives reason to determine its high importance in the political system of society. At the same time, its basis should be a clear and effective system of inter-budgetary relations, which guarantees sufficient sources of income for all levels of government to fulfil the functions assigned to them.

An analytical review and study of the experience of the EU countries demonstrates the possibility of effectively solving the problems of community functioning at the local level. After all, granting powers, directing financial resources and effective control are the basis of any model of local

self-government. Under such schemes, local authorities become full-fledged administrators of significant amounts of budget funds. Therefore, administrative and financial decentralization stimulate territorial communities to fill their budgets more efficiently, to become self-sufficient and to plan their expenses frugally.

The philosophy of the reform in Ukraine is to provide decentralized communities with appropriate resources for high-quality provision of public services and effective functioning. It should be stated that communities have currently acquired powers and resources that are inherent in cities of regional significance, for example, the inclusion of 60% of the personal income tax on their own authority in the local budgets of territorial communities.

In this case, social justice may be violated through the lack of effective management in the district and consideration of economic and environmental factors as well. The consequences of the reform at the level of community and districts are shown below (Fig. 2).

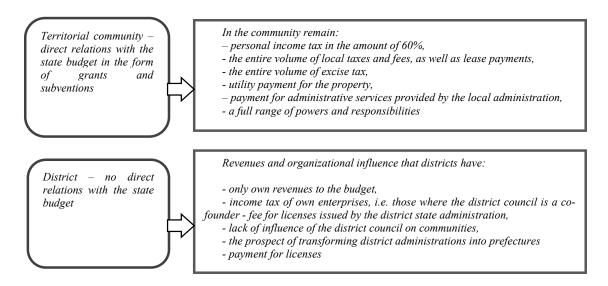


Fig. 2. Results of change at the sub-regional and community levels.

At the same time, the specific weight of the dynamics of the general and special fund in the structure of the state budget is shown in Fig. 3.

For the first time, with the introduction of the reform, the local authorities acquired a real interest in the local fight against illegal production and circulation, in order to fill their own budgets. In addition, it can be noted that the increase in revenues to the general fund of local budgets is accompanied by a significant reduction in the share of transfers from the state budget. Thus, if in 2015 their share in total revenues was equal to 59.3%, then it sharply

decreased in 2021 to 31.9% (Minfin, 2022). Therefore, the analysis of the data confirms that during 2015–2021, the revenues of local budgets increased by 2 times. Official transfers have traditionally dominated the income structure of local budgets, the share of which on average for these years was 52.9%. Non-tax revenues, which occupy the third place in the structure of local budget revenues, during 2015–2021 fluctuate by year and in 2021 amounted to UAH 22.5 billion, which compared to 2015 increased by 1.8 times (Minfin, 2022).

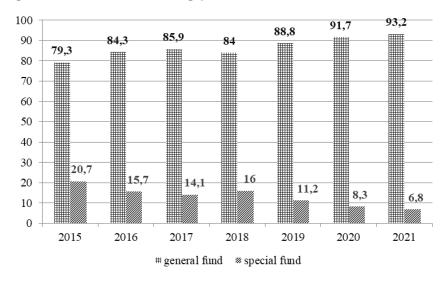


Fig. 3. Structure of receipts in the volume of local budgets.

Source:based on Minfin (2022).

An urgent problem at the district level, provided that the district does not have direct budgetary relations, is the extreme lack of funds, which are not enough to exercise the authority to pay utility bills, pay salaries to employees of the district council, perform administrative services (Ketels, Protsiv, 2021). The possibility of communities to create reserve, insurance, guarantee and amortization funds is regulated by law. At the same time, local depreciation funds are created to finance investments, which are formed by depreciation deductions of municipal enterprises concentrate financial resources. Taking into account the experience of other countries, and in order to implement effective strategizing of economic development, implementation of

strategic level measures with investment corporations for the development of the territory, which should be synchronously reflected in the legal normalization of the process. Thus, the socio-economic matrix of the subregional level, which balances development of basic and new institutions of power, will create the prerequisites for restoring the effectiveness of state regulatory policy in the regional sphere, will become a leading model for ensuring a synergistic effect and financing the implementation of local level development projects, will stimulate local communities and districts on the development of entrepreneurial activity and the use of the potential of relocated enterprises, it is possible to present Fig. 4.

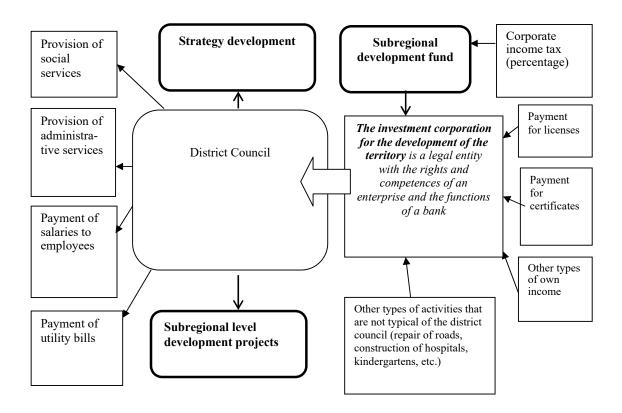


Fig. 4. System of district (sub-regional) level institutes for promoting regional development on the basis of smart specialization.

Currently, the Ministry of Development of Communities and Territories has approved the Methodology for calculating the capacity of communities (Verkhovna Rada of Ukraine, 2015). It is proposed to use calculated indicators that can be obtained by calculation using the

data of state statistics bodies, ministries, state administrations, territorial communities or collected by the field method or the questionnaire method d, which is presented in formulas 1-3.

Differentiation of all indicators of the financial security of communities according to the criterion of improvement / deterioration in the assessment of their capacity allows them to

be divided into - respectively - stimulators and destimulators and systematized in the following form (Table 2).

Table 2. Stimulators and destimulators of sustainable regional development.

Indicator	Critical value	Indicator group
Income index of the community budget	0,3 and less	Stimulator
The share of labor costs of state functions	20% and more	Destimulator
The share of the base subsidy, Subbase, in the total amount of budget revenues	50% and more	Destimulator

The specificity of extrabudgetary funds, which in our institutional model is the financial mechanism for the existence of the Investment Corporation for the Development of the Territory, is the clear fixation of income sources and, as a rule, their strictly targeted use. For a

detailed example, let's calculate the amount of tax revenues for the proposed Fund and the Rivne region, which can be indicative, taking into account a certain number of enterprises relocated to it since the beginning of hostilities (Table 3).

Table 3. Basic data for calculating tax revenues.

Territory	Area, thousand km²	Number of population, thousands of ppl.	Amount of income tax for 2021, Vo, mln.	Budget revenues for 2021, mln.	Percentage of deduction to Development Fund, %
Rivne	20,1	1148	80,4	2400	1
Berezniv district of Rivne region	1,71	63,3	0,945	4238	1,5

At the regional level: Vtax = Vo \* Sum\*(Xi/X + Yi/Y)/2 = 80,4 \* (0,3\*0,2\*0,5)/3\* (1,148/1,148 + 20,1/20,1) = 80,4 \* 0,1 = 8,040 million hryvnias.

At the district level: Vtax = Vo \* Sum\*(Xi/X + Yi/Y)/2 = 945.8\*0,1\*(63.3/1148+1710/20100) = 94.58(0.06+0.09)=94.58\*0,15 = Vo\*0.015.

Therefore, the rate of deduction to the Development Fund is 1.5%. Similar attempts to implement fiscal reforms and deduct funds to extrabudgetary funds in the amount of 1.5% in total for the region, with a breakdown of these funds in the amounts of 0.5% per region, 0.5% per district, and 0.5% at the local level were made in Ukraine at the end of the 1990s, but they were never confirmed in the Budget and Tax Code.

Given the fact that a large part of small and medium-sized enterprises in Ukraine (more than 500) were relocated (moved) to the western and central regions with the beginning of hostilities, it turned out to be possible to calculate the percentage of the deduction to the Development Fund for the following regions: Rivne, Poltava, Odesa, Lviv, Zakarpattia, Zhytomyr, Volyn (Table 4).

Number of **Budget revenues** Percentage of Amount of Area, deduction to the population, income tax for for 2021, mln. **Territory** thousand **Development** thousands of 2021, Vo, mln. **UAH** km<sup>2</sup> people **UAH** Fund, % Rivnenska 20.1 1148 80.4 2400 1.0 1370.1 840 Poltavska 28.7 4238 0.0 Odesa 33.3 2 3 6 7 330.8 4824.6 1.0 Lvivska 21.8 2495.9 443.4 5134.6 1.0 1249.7 84.3 1.0 Zakarpattia 12.7 2084 Zhytomyr 29.8 1194.3 93.9 3290 1.0 2410.9 Volynska 20.1 1027.1 93.5 1.0

Table 4. Calculation of deductions to the Development Fund by regions of Ukraine.

Source: compiled by the author on the basis Minfin (2022).

It should be noted that from the selected regions, Poltava region is not subsidized, so the level of deductions for it is zero, that is, the region is able to ensure its own development with the amount of taxes. In all other regions from Table 6, almost unanimously, the specified percentage is 1.0%.

In general, currently there are examples of relevant fiscal initiatives that provide an opportunity to ensure the functioning of extrabudgetary funds at the national level. Thus, in Georgia (Chikhladze, Skotford, 2022), the main sources of income for such funds are charges of up to 1% of the common budget of the territorial units that make up the basic fund. The nonbudgetary Fund of German Unity was created to help the Eastern Lands (Tofaute, 1993). Its launch in 1990 became part of the consolidation program, which included measures for the entry of new lands into the unified state, and the filling takes place according to a similar percentage principle of deductions from the total volume of budgets of certain territorial units.

The European Economic Recovery Plan (EERP), which began to be implemented in autumn 2008 as a response to the economic recession, used built-in stabilizers, national anticrisis plans and extra-budgetary measures in the amount of 0.5-1% (Buti, (2009). additional Empirically, indicators were determined for calculating the state of financial capacity of communities, as well as critical values of these indicators, according to which the territorial community is capable/incapable of performing a range of its own and delegated powers. That is, considering that as a fiscal basis it is proposed to use the amount of income tax of enterprises, including those relocated to central and western Ukraine, the region/district/community should have incentives to increase economic development indicators.

Currently, local budgets for the formation of financial development have two sources of profitability: first and foremost - the budget (including through horizontal equalization) and the State Fund for Regional Development (SFRD). But fund financing of projects requires compliance with selection criteria, which are not always aimed at satisfying the interests of the community. At the same time, at each spatial level, the proposed Funds, as a mechanism of Corporations' activity, will allow the relevant territorial community to solve its own urgent problems at the expense of its own resources. Thus, it can be stated that the proposed Regional Development Funds are able to promote regional development based on smart specialization.

The current formation of Ukraine's postwar recovery strategy continues, and there is a common vision of a green post-war recovery of country's economy (Relief and Reconstruction, 2022; Worldbank, 2022): a comprehensive medium-term strategy for the development of the state and achieving sustainable regional development medium-term perspective; division of recovery process into stages; all approaches to restoration must have environmental elements; green sustainable recovery of Ukraine is one of the possible concepts of post-war recovery; the concept of "green" sustainable recovery is a holistic vision of the development of society, the state and the economy as a whole; the concept of "green" sustainable recovery can have three models: ambitious, pragmatic (Table 5).

Models	Vision	Main goals and processes	Regional and sectoral principles		
An ambitious model	"Green" Ukraine as part of the global climate- neutral economy of the world. "Green" postwar course of Ukraine	The main goals and processes are "green" (general ambitious goal and ambitious regional and sectoral goals)	<ul> <li>sustainable regional economic growth based on decoupling;</li> <li>preservation of natural capital;</li> <li>improving the quality of the ecological life of the population in the regions;</li> <li>"green" regional investments</li> </ul>		
A pragmatic model	The pragmatic model is a "green tool", its function is the end-to- end integration of "green" issues into the post-war reconstruction of Ukraine	Main goals: partly green, provide for separate sectoral goals, implementation of separate regional strategic green initiatives	- effective mechanisms for taking into account and integrating environmental considerations when making decisions about regional strategizing; - clear "green" financing conditions for certain strategic "green"		

Table 5. Models of post-war "green" regional development of Ukraine.

Thus, the ambitious model of "green" post-war recovery assumes that our main goals are "green", as well as the processes of achieving them. At the same time, the pragmatic model is a "green" tool for achieving goals that cannot always be classified as "green" (for independence, example, energy energy security). The main goal of the pragmatic model is to "green" the process of economic recovery. Therefore, "green" post-war recovery in the medium term should be considered not as a option", but as a necessary "preferred mechanism for deep transformation of the regional and national economy of Ukraine on the way to a "green" and climate-neutral goal.

## Conclusions.

of the Factors actual post-war development of the economy of Ukraine have been proposed in order to achieve, including, sustainable regional development in medium-term perspective (administrativeterritorial structure, financing, "green" ecological transition). Based on the indicators of tax revenues in Ukraine in 2015-2021, a conceptual model of a system of institutions at the district (subregional) level is proposed that contributes to regional development, taking into account smart specialization and environmentalization. For effective its functioning, a mechanism for financing such a system is proposed based on the fiscal scheme of deductions from corporate income tax in the estimated amount for each territorial level. Additional indicators of the financial capacity of communities as stimulators and destimulators of development were determined, which made it possible to determine the percentage of deductions to the Development Fund at the level of 1–1.5%, which fully justifies the hypothesis put forward at the beginning. The maximum share of community budgets for financing extrabudgetary funds can be average in size at the local and sub-regional levels and, finally, minimal at the regional level in accordance with the amount of own income and tax revenues.

initiatives

In order to neutralize risks, as well as increase the efficiency of the work of subregional level bodies, it is proposed to implement a number of institutional and regulatory innovations, namely: regulatory recognition of investment corporations for the development of territories as external and internal investors with the rights and powers of an investment corporation; legislative definition of legal regulation of territorial development funds. The analysis of the potential possibilities of applying the concept of "green" development for the transformation of the regional economy of Ukraine was carried out. Models of such ecological transformation are proposed: ambitious and pragmatic. The vision, main tools and goals, as well as regional and sectoral principles of such models are systematized. It has been proven that "green" post-war recovery in the medium term should be considered not as a "preferred option", but as a necessary mechanism for deep transformation of the regional and national economy of Ukraine on the way to a "green" and climate-neutral goal.

#### **REFERENCES**

Amosha, O., Lyakh, O., Soldak, M., & Cherevatskyi, D. (2018). Institutional determinants of implementation of the smart specialisation concept: Case for old industrial coal-mining regions in Ukraine. Journal of European Economy, 17(3), 305-332.

Association of Cities of Ukraine (2022). Poland: Structural reforms are local and regional finance https://www.2.auc.org.ua/sites/default/files/local finance poland ukr.pdf

Borodina, O. (2022). Basic trends of postwar transformation of Ukraine's economy: industry 4.0, budgetary decentralization, regional energy management. Journal of Innovations and Sustainability, 6(1), 04.

Buti, M. (2009). EMU in times of economic and financial crisis. ECFIN, Brussels.

Chen, Y., Richter, J. I., & Patel, P. C. (2021). Decentralized governance of digital platforms. Journal of Management, 47(5), 1305-1337.

Chikhladze, N., & Skotford, J. (2022). The issues of financial plan of the Imereti region: thesis of paper. Kutaisis.

CSI (2022). The gap between the village and the city and the cohesion of society https://www.csi.org.ua/news/rozryv-mizh-selom-i-mistom-ta-zgurtovanist-suspilstva-anatolij-tkachuk/

Decentralization (2021). Monitoring local government reforms and territorial organization of government. https://decentralization.gov.ua/uploads/library/file/690/10.02.2021.pdf

Devlin, G., & Bleackley, M. (1988). Strategic Alliances Guidelines for success. Long Range Planning, 21, 18-23.

Eurostat (2021). NUTS – Nomenclature of territorial units for statistics. https://ec.europa.eu/eurostat/web/nuts/background

Feser, E. J. (1998). Old and New Theories of Industry Clusters. London: Selected Works.

Gibbs, D., & O'Neill, K. (2018). Future green economies and regional development: a research agenda. Transitions in Regional Economic Development, 287-309.

Ketels, C., & Protsiv, S. (2021). Cluster presence and economic performance: a new look based on European data. Regional Studies, 55(2), 208-220.

Koval, V., Hrymalyk, A., Kulish, A., Kontseva, V., Boiko, N., &Nesenenko, P. (2021). Economic policy of industrial development and investment approach to the analysis of the national economy. Estud econ apl., 39(6).

Lyashenko, V, Prokopenko, O., & Omelyanenko, V. (2019). Institutional model of innovative economy. Kyiv: NAS of Ukraine.

Marshall, A. (1993). Principles of economic science. Moscow: Science.

Martinez-Vazquez J., & McNab, R. (2003). Fiscal decentralization and economic growth. World Development 31 1597-1616.

Minfin (2022). Revenues of the State Budget of Ukraine in 2021 https://index.minfin.com.ua/ua/finance/budget/gov/income/

NISS (2020). Regional and local improvement strategy of socio-economic development. https://niss.gov.ua/sites/default/files/2020-09/socialno-ekonomichnyi-rozvytok-1.pdf.

Oates Wallace, E. (1999). An Essay on Fiscal Federalism, Journal of Economic Literature American Economic Association 37(3) 1120-1149.

Ostapenko, R., Herasymenko, Y., Nitsenko, V., Koliadenko, S., Balezentis, T., & Streimikiene, D. (2020). Analysis of production and sales of organic products in Ukrainian agricultural enterprises. Sustainability, 12(8), 3416.

Recovery Ukraine (2022). Ukraine recovery plan. https://recovery.gov.ua/

Relief and Reconstruction (2022). Ukraine https://reliefweb.int/report/ukraine/ukraine-relief-and-reconstruction-may-2022

Sölvell, Ö., Lindqvist, G., &Ketels, Ch. (2003). The Cluster Initiative Greenbook. Stockholm: Ivory Tower.

Statistics Poland (2022). Administrative division of Poland. https://stat.gov.pl/en/regional-statistics/classification-of-territorial-units/administrative-division-of-poland/

Swann, G. M. P., & Preveser, M. (1996). Comparison of the Dynamics of Industrial Clustering in Computing and Biotechnology. Research Policy, 25, 1139-1157.

Taghizadeh-Hesary, F., & Yoshino, N. (2019). The way to induce private participation in green finance and investment. Finance Research Letters, 31, 98-103.

The Council of European Municipalities and Regions (2022). https://www.ccre.org/

Tofaute (1993) Sonderfonds als Instrumente zur Finanzierung der Kosten der deutschen Einigung. Gewerkschaftlichen Monatshefte, 153-64.

Verkhovna Rada of Ukraine (2015). About the approval of the Methodology for the formation of capable territorial communities. https://zakon.rada.gov.ua/laws/show/214-2015-%D0%BF#Text.

Wang, Y., Zhao, N., Lei, X., & Long, R. (2021). Green finance innovation and regional green development. Sustainability, 13(15), 8230.

Worldbank. (2022). Relief, Recovery and Resilient Reconstruction: Supporting Ukraine's Immediate and Medium-Term Economic Needs. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099608405122216371

Zbancă, A., Negritu, G., & Stratan, D. (2018). Benchmarking of investment and their recoverability in the berries sector. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development 18: 529–536.