

DOI: [10.55643/fcapter.6.65.2025.5006](https://doi.org/10.55643/fcapter.6.65.2025.5006)
**Zoriana Lobodina**

D.Sc. in Economics, Professor of the Department of Finance named after S. I. Yuriy, West Ukrainian National University, Ternopil, Ukraine;  
 e-mail: [zoryanamyk@ukr.net](mailto:zoryanamyk@ukr.net)  
 ORCID: [0000-0002-8536-1440](https://orcid.org/0000-0002-8536-1440)  
 (Corresponding author)

**Volodymyr Horyn**

D.Sc. in Economics, Professor of the Department of Finance named after S. I. Yuriy, West Ukrainian National University, Ternopil, Ukraine;  
 ORCID: [0000-0002-6048-8330](https://orcid.org/0000-0002-6048-8330)

**Kateryna Berezka**

Candidate of Technical Sciences, Associate Professor of the Department of Applied Mathematics, West Ukrainian National University, Ternopil, Ukraine;  
 ORCID: [0000-0002-9632-4004](https://orcid.org/0000-0002-9632-4004)

**Viktoriia Bulavynets**

Candidate of Economic Sciences, Associate Professor of the Department of Finance named after S. I. Yuriy, West Ukrainian National University, Ternopil, Ukraine;  
 ORCID: [0000-0001-8169-7331](https://orcid.org/0000-0001-8169-7331)

**Volodymyr Trush**

Department of Finance named after S. I. Yuriy, West Ukrainian National University, Ternopil, Ukraine;  
 ORCID: [0009-0000-6988-7920](https://orcid.org/0009-0000-6988-7920)

**Taras Kosteniuk**

PhD Student, Lesya Ukrainka Volyn National University, Lutsk, Ukraine;  
 ORCID: [0009-0007-7781-6410](https://orcid.org/0009-0007-7781-6410)

Received: 22/09/2025

Accepted: 21/11/2025

Published: 31/12/2025

© Copyright  
 2025 by the author(s)



This is an Open Access article distributed under the terms of the [Creative Commons CC-BY 4.0](https://creativecommons.org/licenses/by/4.0/)

# THE INTEGRATED MODELLING OF THE FINANCIAL STABILITY OF TERRITORIAL COMMUNITIES IN THE CONTEXT OF ENSURING THEIR INCLUSIVE DEVELOPMENT

## ABSTRACT

Transformational challenges caused by the local government reform, European integration processes, digitalisation, and war highlight the need to find innovative approaches to managing the finances of local communities to increase their financial stability. Ensuring the ability of communities to withstand external and internal threats, restore financial capacity after crises, and reduce vulnerability to shocks is an important prerequisite for inclusive development and the sustainable functioning of local self-government.

The systematisation of scientific approaches has made it possible to refine the definition of the financial stability of a territorial community. It can be understood as the community's ability to apply adaptive tools and technologies for managing its financial resources in order to overcome the negative effects of shocks, restore financial capacity, reduce vulnerability to threats, and ensure inclusive development.

The purpose of the study is to deepen the theoretical and methodological foundations for assessing the financial stability of territorial communities in the context of ensuring their inclusive development and constructing a consolidated system for measuring it.

The primary outcome of the study is the development of an integrated index of financial stability for a territorial community, comprising two blocks of indicators: financial and inclusive components. This approach enables a comprehensive assessment of financial stability, considering both the outcomes of financial resource management and the state of inclusive community development.

The elaborated theoretical and methodological foundations provided the basis for conducting a comprehensive comparative analysis of territorial communities with regard to their financial stability. This, in turn, allowed for the identification of structural imbalances in their development and the substantiation of strategic priorities for local self-government financial policy, directed at strengthening financial resilience and ensuring the conditions for inclusive development.

**Keywords:** territorial communities, financial stability of territorial communities, local self-government bodies, inclusive development, financial resources, local finance management, integral assessment, integral modelling

**JEL Classification:** H61, H72

## INTRODUCTION

The continuation of the local government reform, the path towards European integration, the digitisation of all areas of activity, the ongoing war with Russia, and other factors pose serious challenges to the financial stability of local communities. These challenges require innovative management tools and technologies to increase local communities' financial stability.

The financial sustainability of a local community is determined by the capacity of its governing authorities to manage financial resources effectively under the influence of

economic, social, political, and security factors. In the present conditions of fiscal imbalance, the issue of strengthening financial sustainability acquires particular urgency, as it underpins the provision of affordable and high-quality public services, the promotion of social cohesion, the mitigation of economic and social exclusion and income inequality, as well as the facilitation of regional economic recovery.

In light of this, it is crucial to strengthen the theoretical basis of financial sustainability, which is a prerequisite for exercising local self-government powers and ensuring the inclusive development of territorial communities. This also makes it possible to develop new methodological approaches to assessing territorial communities' financial sustainability to improve the information support for local finance management.

## LITERATURE REVIEW

The resilience of local communities, their characteristics, and the conditions for ensuring it are the subject of scientific research by international and Ukrainian scientists and practitioners in the field of finance and public administration. Geoff A. Wilson (2012), for example, has studied the impact of globalisation processes on community resilience. He characterizes community financial sustainability based on a social sustainability approach. Geoff A. Wilson views community financial sustainability as a conceptual space where its (the community's) economic, social, and environmental capital are combined.

According to K. Magis (2010), the level of financial stability of a community depends on the growth of its economic potential. He argues that a financially stable community is one that is able to attract financial resources for its own development in an unstable and unpredictable environment. The researcher also proposes his own methodology for self-assessment of community financial stability and tools for its external evaluation.

The scientific works of K. Dzigbede, R. Pathak, and S. Muzata (2022) examine the relationship between the effectiveness of national budgetary systems and related financial management practices, as well as the impact of fiscal policy measures on economic recovery and sustainability.

A. Schick (2005) considers financial stability to be the ability of public authorities to adhere to the following rules: independently fulfil financial obligations (solvency); stimulate economic development through fiscal policy (growth); prevent the accumulation of unacceptable debt to pay current financial obligations (fairness); not conceal future budget expenditures that will require an increase in the tax burden to cover (stability). A. Schick also emphasizes that institutional frameworks are necessary to achieve fiscal sustainability: medium-term budget planning, a "balanced budget" rule, macro-fiscal guidelines, clear debt limits, and control mechanisms.

Domestic scientists L. Lysyak and A. Kushnir (2019) consider the financial stability of local budgets as a state characterised by solvency, balance, and independence of local self-government, and it is also a necessary condition for ensuring the socio-economic development of territories and improving the well-being of the population.

T. Bondaruk, I. Bondaruk, and M. Dubyna (2019) define the financial stability of the local budget as a complex concept that reflects the state of monetary funds in which the local government must develop steadily, ensuring its financial security in conditions of additional risk. They note the main characteristics of such financial stability: "balance of budget revenues and expenditures; financial capacity to withstand internal and external negative factors affecting socio-economic development; budgetary independence and solvency; the ability of local authorities to provide timely financing for their obligations while maintaining their financial security in conditions of additional risk.

H. Kotina et al. (2024) analyze the impact of fiscal stability of local budgets on the sustainability of regional economic development. They consider transfer policy and borrowing as important instruments for ensuring the fiscal stability of local budgets in an unstable environment. The researchers argue that the rule of fiscal balance in local budgets is harmful in times of crisis and external risks because it hinders the recovery of the local economy. H. Kotina et al. also note that institutional and procedural constraints reduce the ability of local communities to influence their fiscal stability.

M. Stegney and I. Lintur (2017) studied the impact of financial stability on the region's investment attractiveness and proved that the results of the analysis of the local budgets' financial stability should be the basis for the development of a regional investment development program.

D. Jurewicz (2018) considers the financial stability of local self-government to be a complex concept that includes the ability to maintain a balanced financial position in the long term, use debt wisely (especially borrowing for investment rather than to cover deficits), ensuring transparency and accountability in financial decisions, and taking into account differences in resource capacities between communities. The financial stability of a community depends on the extent to which its revenues, expenditures, and financial obligations are aligned. To ensure financial stability, local governments

should avoid excessive growth in debt and pursue a rational investment policy. However, due to the heterogeneity of communities and differences in their financial capabilities, there are no universal solutions for ensuring financial stability.

Contemporary scholars also devote considerable attention to developing methods and tools for assessing the financial stability of local budgets. In particular, L. Kostyrko and N. Velenteychik (2016) propose to determine the following blocks of indicators for analysing the financial stability of the local budget: financial balance, financial independence, and budget efficiency.

T. Bondaruk, I. Bondaruk, and M. Dubyna (2019) proposed a methodology for assessing the current financial stability of local budgets, which involves "analysis of a dynamic information array of statistical data with the calculation of the following groups of indicators of local budget financial stability: financial capacity, financial autonomy, efficiency, and debt burden." However, of the five assessment indicators proposed by the researchers, two (the ratio of local budget revenues to consolidated budget revenues and to GDP) are not suitable for assessing the financial capacity of individual territorial communities, but only for macroeconomic analysis. The own and tax revenues ratios to local budget expenditures are also partially duplicated.

O. Liuta, I. Boiarko, and N. Pigul (2012) developed a "methodology for assessing the financial stability of local budgets, which considers the current state and long-term trends in changes in indicators of financial autonomy, budget efficiency, and financial adequacy".

The proposed methodologies make it possible to comprehensively examine the financial condition of the budget and form a rating of local budgets, taking into account the results of a generalised integrated assessment. However, the indicators on which the calculations are based do not allow for a direct assessment of the effectiveness of the management of the financial resources of the territorial community and the use of modern budgeting technologies, the level of implementation by local self-government bodies of powers delegated by the state and their own powers, and the possibilities for ensuring the inclusive development of the territorial community.

Therefore, there is still no single approach to understanding the financial stability of a territorial community in scientific discourse, nor is there a unified methodology for assessing it. Therefore, in order to improve the management of the financial resources of territorial communities, it is important to develop a comprehensive approach to assessing their financial stability. This will make it possible to increase the ability of communities to effectively resist external and internal challenges, reduce their vulnerability to threats, recover to their original form, and ensure inclusive, sustainable development.

## AIMS AND OBJECTIVES

The article aims to deepen the theoretical and methodological foundations for assessing the financial stability of local communities in the context of ensuring their inclusive development. The tasks of the article are:

- to develop a unique approach to revealing the essence of the financial stability of a territorial community;
- to justify methodological tools for the integrated modelling of the financial stability of territorial communities in the context of ensuring their inclusive development;
- to determine the priorities of the financial policy of local self-government bodies.

## METHODS

The following methods were used to substantiate the main provisions of the article: analysis, synthesis, generalization – to reveal the meaning of the concept of financial stability of territorial communities and to deepen scientific knowledge about ways to ensure it; the method of normalization and standardization of indicators – to bring multidimensional data to a single scale in order to ensure the correctness of integral calculations; the method of expert assessments – to calculate weighting coefficients that determine the degree of contribution (significance) of indicators and their blocks to the integral index of community financial stability; the method of integral modelling – to construct a generalized index of community financial stability by aggregating indicators into a single indicator; comparative analysis – to compare indicators, integral indices for assessing financial stability, and identify differences in the inclusive socio-economic development of communities; graphical method – to visualize the results of the integral assessment of the financial stability of communities.

## RESULTS

The financial stability of a territorial community is a key indicator that allows assessing the effectiveness of financial instruments used to implement the financial policy of socio-economic development of territorial communities. This concept is closely related to the financial capacity of a territorial community.

Financial stability reflects the community's ability to maintain stable and balanced financial flows, counteract risks and restore financial capacity after crises, and minimise vulnerability to shocks in the long term. Financial capacity is more about the community's potential to generate sufficient financial resources to perform the functions of local self-government and finance development in the current and short term.

There is no single definition of the term "financial stability of a territorial community" in scientific discourse, as researchers use different approaches to its interpretation.

Financial stability is a manifestation of community resilience (the ability to resist, adapt, and recover in the face of transformational challenges without significantly changing its own structure as a system), the effectiveness of combining and using management tools and technologies to influence the finances of the territorial community.

We have summarized various approaches to interpreting the financial stability of a territorial community and propose to consider it as the ability of the community and local self-government bodies to use adaptive tools and technologies for managing the financial resources of the territorial community to overcome the adverse effects of shock impacts (caused by endogenous and exogenous threats) on the finances of the territorial community, restore their parameters after these shocks and reduce vulnerability to them, as well as ensure the continuous provision of quality and accessible public services in the territorial community and its inclusive development.

Ukrainian and foreign scientists and practitioners offer various methods for assessing the financial stability of a territorial community. To determine its level, many indicators are used that comprehensively characterise the results of using tools and technologies to manage a territorial community's financial resources. This determines the need to group them according to specific classification criteria to consider them in the methodology for assessing financial stability. In our opinion, when grouping these indicators, it is advisable to take into account such classification criteria as the types of financial policy instruments used by public authorities, financial technologies, the impact of endogenous and exogenous threats on the finances of the territorial community, the possibility of providing high-quality and accessible public services, ensuring the inclusive development of the territorial community, etc.

In the current environment, financial stability should be considered not only in a narrow fiscal sense as the ability to maintain a balanced budget, fulfil socio-economic obligations, and adapt to external shocks without a critical decline in the quality of public services, but also in relation to the quality of territorial development. The inclusiveness of community development is an important feature of financial sustainability, as it involves the broadest possible participation of the population in forming, distributing, and using financial resources. This approach to managing community financial resources, which is based on taking into account the interests and needs of all social strata through the use of inclusive practices, has a multifaceted impact on the financial sustainability of the community: first, it creates a stable foundation for the growth of the tax base by activating the participation of different segments of the population in the economic life of the community; secondly, it increases the adaptability of the policy for using community financial resources to changes in the external environment and community needs, which contributes to the rationalization of public spending; thirdly, it strengthens the legitimacy of financial decisions, increases public trust in the authorities, and stimulates tax discipline and citizens' willingness to finance public goods jointly.

Thus, the inclusiveness of community development should be considered a fundamental basis for its financial stability, as it ensures a balanced distribution of resources, participation, and shared responsibility of citizens in financial processes. Taking into account the interests of different social groups contribute to forming a broader and more stable financial base, reduces the risks of financial imbalances, increases trust in government institutions, and creates conditions for long-term community resilience in times of crisis.

These arguments indicate the need to develop new approaches to determining a territorial community's financial stability level, which would consider current trends in the functioning of communities and the challenges local self-government bodies face.

It is advisable to use an integrated approach to assess the level of financial stability of a territorial community, which involves calculating an integrated index of financial stability of a territorial community. This index considers the combined effect of indicators categorised into groups according to the purpose of the analysis. Our study aims to determine the financial stability level of a territorial community in the context of ensuring its inclusive development, and analyse the impact of financial

instruments on financial stability. Therefore, we propose to group the indicators for analysis into financial and inclusive components blocks. The indicators of the "Financial Component" block allow for the assessment of the results of the use of public authorities of financial instruments and technologies for managing the financial resources of the territorial community to overcome the consequences of threats and restore and reduce vulnerability to shocks. The indicators in the "Inclusive Component" block make it possible to analyse the possibilities for ensuring the inclusive development of the territorial community (in particular, to analyse budget financing for inclusive development, the use of participatory and gender-responsive budgeting tools to increase social justice and people's participation in democratic life, to assess the transparency of the budget process, the level of public involvement in it, etc.).

Thus, the integral index of financial stability of a territorial community includes two integral indices, which are calculated based on the assessment of indicators by blocks:

1. Financial component.
2. Inclusive component.

The selection of indicators for calculating the integral index for each block was made taking into account:

- the ability of the indicator to characterise the relevant block as fully as possible;
- the most significant impact on the level of financial stability of the territorial community and ensuring its inclusive development;
- the ability of the indicator to objectively reflect the level of financial stability of the territorial community;

The availability of the indicator for analysis (official statistics, Open Budget – the State budget web portal for citizens, expert materials from domestic and foreign scientists and practitioners, materials based on the results of a survey of financial authorities of territorial communities).

The main stages of integrated assessment of the level of financial stability of a territorial community in the context of ensuring its inclusive development:

1. Selection and determination of indicator values for calculating integrated indices by blocks: financial component, inclusive component.
2. Normalisation of indicators.
3. Determination, using expert assessments, of weighting coefficients that reflect the significance of blocks and indicators in the integrated index of financial stability of the territorial community.
4. Calculation of integrated indices by blocks (financial component, inclusive component) and the integrated index of financial stability of the territorial community.

The list and procedure for calculating indicators to determine the integral index of financial stability of a territorial community in the context of ensuring its inclusive development have been formed, taking into account the highest level of significance of the indicator, and are presented in Tables 1 and 2.

**Table 1. Indicators for diagnosing the financial stability of a territorial community in the context of ensuring its inclusive development.**  
Note: Symbols TC – territorial community; ↑ – an increase in the numerical value of the indicator directly reflects a positive trend – an improvement in the result or condition; ↓ – A decrease in the numerical value of the indicator directly reflects a negative trend – a deterioration of the result or condition.

Indicator designation	Economic interpretation of the content of the indicator	Recommended value
<b>Indicator block "Financial component"</b>		
x <sub>1</sub>	Volume of tax revenues of the budget of the TC per 1 inhabitant	↑
x <sub>2</sub>	Volume of budget revenues of the TC per 1 inhabitant	↑
x <sub>3</sub>	Volume of revenues of the general fund of the budget of the TC per 1 inhabitant	↑
x <sub>4</sub>	Share of budget revenues of the territorial community excluding interbudgetary transfers per 1 inhabitant	↑
x <sub>5</sub>	Volume of expenditures of the budget of the TC per 1 inhabitant	↑
x <sub>6</sub>	Volume of expenditures of the general fund of the budget of the TC per 1 inhabitant	↑

*(continued on next page)*

Table 1. Continued.

Indicator designation	Economic interpretation of the content of the indicator	Recommended value
X7	The volume of assigned national taxes and fees on the budget of the TC and interbudgetary transfers per 1 inhabitant	↑
X8	Share of own revenues in the budget revenues of the TC	↑
X9	Share of local taxes and fees in the budget revenues of the TC, excluding interbudgetary transfers	↑
X10	Share of tax revenues in the budget revenues of the TC, excluding interbudgetary transfers	↑
X11	Share of interbudgetary transfers in the budget revenues of the TC	↑↓ <10
X12	Share of the basic subsidy in the revenues of the general fund of the budget of the TC	↓
X13	Share of the reverse subsidy in the revenues of the general fund of the budget of the TC	↑
X14	Share of assigned national taxes and fees to the budget of the TC and interbudgetary transfers in the expenditures of the budget of the TC	↑
X15	Share of revenues in the expenditures of the budget of the TC	↑
X16	Share of assigned national taxes and fees to the budget of the TC and interbudgetary transfers in the expenditures of the budget of the TC to ensure the implementation of delegated powers by local self-government bodies	↑ >100
X17	Share of tax revenues in the budget expenditures of the TC	↑
X18	Share of interbudgetary transfers in the expenditures of the budget of the TC	↑
X19	Share of subventions in the expenditures of the budget of the TC	↑↓ <10
X20	Share of unused and returned subventions to the state budget in subventions received by the budget of the TC	↓
X21	Share of capital expenditures in the budget of the TC	↑
X22	Share of the deficit in the expenditures of the budget of the TC	↓
X23	Share of surplus in the expenditures of the budget of the TC	↑
X24	Share of accounts payable of managers and recipients of budget funds in the expenditures of the budget of the TC	↓
X25	Volume of tax revenues per unit of interbudgetary transfers	↑ >1
X26	Share of local debt in the budget revenues of the TC, excluding interbudgetary transfers	↓
<b>Indicator block "Inclusive component"</b>		
X1	Share of budget expenditures for inclusive development in the budget expenditures of the TC	↑
X2	Share of interbudgetary transfers received from the State Budget of Ukraine to the budget of the territorial community for inclusive development in the expenditures of the budget of the TC for inclusive development	↑
X3	Share of revenues for which gender analysis was carried out in the revenues of the budget of the TC	↑
X4	Share of budget programs for which gender analysis was carried out in the total number of budget programs financed from the budget of the TC	↑
X5	Share of gender-neutral budget programs in the total number of budget programs financed from the budget of the TC	↓
X6	Share of gender-sensitive budget programs in the total number of budget programs financed from the budget of the TC	↑
X7	Share of programs that reflect gender aspects in the name and purpose of the budget program in the total number of budget programs financed from the budget of the TC	↑
X8	The share of budget programs for which performance indicators are of high quality and sufficient in terms of highlighting the level of achievement of the goal and fulfillment of tasks, the volume and quality of public services to ensure gender equality, in the total number of budget programs financed from the budget of the TC	↑
X9	Share of expenditures of the budget of the TC, the distribution of which among the managers of budget funds takes into account the results of the gender analysis	↑
X10	Share of budget programs in their total volume for which funding was increased or decreased based on the results of gender analysis or the level of change in funding of programs after gender analysis	↑
X11	The number of draft participation budgets submitted by citizens to the competition in the TC per 1000 inhabitants	↑
X12	Share of implemented participatory budget projects in the total number of winning projects of the competition of participatory budget projects in the TC	↑
X13	Share of the population that took part in voting for draft budget participation in the total population	↑
X14	Share of the population that authorises draft participatory budgets in the total population	↑
X15	Share of territorial community budget expenditures aimed at implementing participatory budget projects in the TC budget expenditures	↑
X16	The average cost of 1 implemented draft participatory budget in a TC.	↑

The list of indicators for the integrated assessment of the financial stability of a territorial community has been formulated on the basis of the work of foreign and domestic scientists and practitioners. However, it is not exhaustive and may be modified depending on the availability of data and the purpose of the analysis.

The full-scale war in Ukraine since 2022 has caused a shift in the financial policy priorities of local communities. In particular, the use of specific budgeting tools (e.g., gender-responsive and participatory budgeting) has been suspended, and there has been a decline in the level of public involvement in the budget process, as well as in the openness, accessibility, and comprehensibility of information on the movement of public financial resources. Taking these factors into account, the process of conducting an integrated assessment of the financial sustainability of local communities has been hampered by the lack of officially confirmed statistical data or public information on certain indicators. Therefore, we will calculate the integrated index without taking into account indicator  $x_{16}$  of block 1 and indicators  $x_{1-16}$  of block 2. However, local self-government bodies in territorial communities have such indicators. If the proposed methodology for the integrated assessment of the financial stability of a territorial community is used in practice, local self-government bodies will be able to use these indicators in the calculation process. In this study, due to insufficient information, we will use publicly available indicators (Table 2) instead of indicators  $x_{1-16}$  of block 2. They are somewhat superficial, but still give an idea of the territorial community's ability to use an inclusive approach in local socio-economic development.

**Table 2. List of indicators of the "Inclusive Component" block for diagnosing the financial stability of a territorial community in the context of ensuring its inclusive development in the absence of information.** Note: Symbols TC – territorial community; ↑ – an increase in the numerical value of the indicator directly reflects a positive trend – an improvement in the result or condition; ↓ – A decrease in the numerical value of the indicator directly reflects a negative trend – a deterioration of the result or condition.

Indicator designation	Indicator calculation algorithm	Economic interpretation of the content of the indicator	Recommended value
Indicator block "Inclusive component"			
$x_1$	So – 1 point. No – 0 point.	Is the technology of participatory budgeting used in the TC?	↑
$x_2$	So – 1 point. No – 0 point.	Is the technology of gender-based budgeting used in the TC?	↑
$x_3$	So - 1 point. No – 0 point.	Are budget programs focused on inclusive development financed from the community budget?	↑
$x_4$	So - 1 point. No – 0 point.	Is the public of the TC involved in local self-government?	↑
$x_5$	So - 1 point. No – 0 point.	Has the draft budget of the TC been discussed with citizens?	↑
$x_6$	So - 1 point. No – 0 point.	Are reports on the implementation of the budget of the TC discussed?	↑

After determining the values of indicators for calculating the integral index of financial stability of a territorial community, it is necessary to normalise them.

During the normalisation stage of indicators, it is necessary to take into account that they are divided into:

- stimulants (the higher the value, the better), when there is a direct relationship between the indicator and the financial stability of the territorial community;
- destimulators (the lower the value, the better), when there is an inverse relationship between the indicator and the financial stability of the territorial community;
- indicators with an optimum (U- or n-type). These indicators have a certain limit up to which they stimulate development, and once this limit is exceeded, they become disincentives (or vice versa).

For all indicators to be comparable, they must be converted to a dimensionless scale (0...1).

Let us introduce the following notation:

$i$  – indicator type index,  $i = \overline{1, n}$ ;

$t$  – territorial community index,  $t = \overline{1, T}$ ;

$x_{ti}$  – value of indicator type  $i$  for community type  $t$ ;

$x_{ti}^*$  – normalised value of indicator type  $i$  for community  $t$ ;

$x_i^{\min}$  – minimum value of indicator type  $i$ ;

$x_i^{\max}$  – maximum value of indicator type  $i$ ;

$x_i^*$  – best value of indicator type  $i$ , deviation from which in either direction worsens the situation.

For stimulants, normalisation is performed according to formula 1:

$$x_{ti}^* = \frac{x_{ti} - x_i^{\min}}{x_i^{\max} - x_i^{\min}} \quad (1)$$

For destimulators, normalisation is performed according to formula 2:

$$x_{ti}^* = \frac{x_i^{\max} - x_{ti}}{x_i^{\max} - x_i^{\min}} \quad (2)$$

For indicators with an optimum U-type, where values up to the inflexion point are destimulators and values after the inflexion point are stimulants (a rare case for financial stability), normalisation is performed using formula 3:

$$x_{ti}^* = \frac{|x_{ti} - x_i^*|}{\max \left( x_i^{\max}, x_i^{\min} \right)} \quad (3)$$

where  $x_{ti}^* \in [0, 1]$  ( $1$  is the optimum,  $0$  is the worst possible value within the range).

For indicators with an optimum of  $\cap$ -type, where values up to the inflexion point of the line are stimulants and values after the inflexion point are destimulants, normalisation is performed using formula 4:

$$x_{ti}^* = 1 - \frac{|x_{ti} - x_i^*|}{\max \left( x_i^{\max}, x_i^{\min} \right)} \quad (4)$$

where  $x_{ti}^* \in [0, 1]$ , ( $0$  is the optimum,  $1$  is the worst possible value within the range).

Thus, at this stage, after normalisation, the table of indicators for assessing the financial stability of territorial communities will look like Table 3.

Table 3. Indicators for assessing the financial stability of territorial communities.				
Indicator	Indicator 1	Indicator 2	...	Indicator n
Community				
Community 1	$x_{11}^*$	$x_{12}^*$	...	$x_{1n}^*$
Community 2	$x_{21}^*$	$x_{22}^*$	...	$x_{2n}^*$
⋮	⋮	⋮	⋮	⋮
Community T	$x_{T1}^*$	$x_{T2}^*$	...	$x_{Tn}^*$

The next stage of integrated assessment of the financial stability of a territorial community is the calculation of weighting coefficients.

Let the indicators be divided into  $J$  blocks, each of which contains  $M_1, M_2, \dots, M_J$  elements ( $M_1 + M_2 + \dots + M_J = n$ ).

The weight coefficient, which determines the degree of contribution (significance) of the  $j$ -th block to the integral index of financial stability of the territorial community, is determined by formula 5:

$$f_j = \frac{\bar{e}_j}{\sum_{k=1}^J \bar{e}_k}, j = \overline{1, J}, \quad (5)$$

where  $\bar{e}_j$  – average expert assessment that characterizes the degree of contribution (significance) of the  $j$ -th block of indicators to the integral index of financial stability of the territorial community. The average expert assessment is defined as the arithmetic mean of the expert assessments of 20 experts (practitioners and scientists) obtained from the results of a survey in the form of interviews using a ten-point scale for each answer to the question;  $j$  – index of the type of block of indicators that characterises the financial stability of the territorial community,  $j = \overline{1, J}$ ;  $k$  – summation index that runs through all indicator blocks from 1 to  $J$ ;  $J$  – number of types of indicator blocks that characterise the financial stability of the territorial community;  $f_j$  – weight coefficient that determines the degree of contribution (significance) of the  $j$ -th block to the integral index of financial stability of the territorial community.

The weight coefficient that determines the degree of contribution (significance) of the  $i$ -th indicator of the  $j$ -th block of indicators to the integral index of financial stability of the territorial community is determined by formula 6:

$$l_{ij} = \frac{\bar{e}_{ij}}{\sum_{s=1}^{M_j} \sum_{k=1}^J \bar{e}_{sk}}, i = \overline{1, M_j}, j = \overline{1, J}, \quad (6)$$

where  $\bar{e}_{ij}$  – average expert assessment that characterises the degree of contribution (significance) of the  $i$ -th indicator of the  $j$ -th block of indicators to the integral index of financial stability of the territorial community by blocks. The average expert assessment is defined as the arithmetic mean of the expert assessments of 20 experts (practitioners and scientists) obtained from the results of a survey in the form of interviews using a ten-point scale for each answer to the question;  $i$  – index of the type of indicator that characterises the financial stability of the territorial community;  $M_j$  – the number of types of indicators that characterise the financial stability of the territorial community and are included in block type  $j$ ;  $l_{ij}$  – the weight coefficient that determines the degree of contribution (significance) of the  $i$ -th indicator of the  $j$ -th block to the integral index of the block;  $k$  – summation index for indicator blocks,  $k = 1, \dots, J$ ;  $s$  – summation index for indicators within the  $j$ -th block,  $s = 1, \dots, M_j$ .

To introduce the integral index by blocks, we will rename the normalised value of indicator type  $i$  for community type  $t$ , assigning a superscript that indicates the type of indicator block.

The table of normalised indicator values by blocks for assessing the financial stability of territorial communities will look like Table 4.

Table 4. Normalised values of indicators for assessing the financial stability of territorial communities by blocks.													
Indicator	1st block				2nd block				...	J-th block			
	Ind. 1	Ind. 2	...	Ind. $M_1$	Ind. 1	Ind. 2	...	Ind. $M_2$		Ind. 1	Ind. 2	...	Ind. $M_j$
Community 1	$x_{11}^{*(1)}$	$x_{12}^{*(1)}$	...	$x_{1M_1}^{*(1)}$	$x_{11}^{*(2)}$	$x_{12}^{*(2)}$	...	$x_{1M_2}^{*(2)}$	...	$x_{11}^{*(J)}$	$x_{12}^{*(J)}$	...	$x_{1M_j}^{*(J)}$
Community 2	$x_{21}^{*(1)}$	$x_{22}^{*(1)}$	...	$x_{2M_1}^{*(1)}$	$x_{21}^{*(2)}$	$x_{22}^{*(2)}$	...	$x_{2M_2}^{*(2)}$	...	$x_{21}^{*(J)}$	$x_{22}^{*(J)}$	...	$x_{2M_j}^{*(J)}$
⋮	⋮	⋮	...	⋮	⋮	⋮	...	⋮	...	⋮	⋮	...	⋮
Community $T$	$x_{T1}^{*(1)}$	$x_{T2}^{*(1)}$	...	$x_{TM_1}^{*(1)}$	$x_{T1}^{*(2)}$	$x_{T2}^{*(2)}$	...	$x_{TM_2}^{*(2)}$	...	$x_{T1}^{*(J)}$	$x_{T2}^{*(J)}$	...	$x_{TM_j}^{*(J)}$

The integral index of a territorial community by blocks is determined as the sum of the products of the normalised assessment (value) of indicators characterising the financial stability of the territorial community and the weight (significance) of each of the indicators according to formula 7:

$$B_{tj} = \sum_{i=1}^{M_j} x_{ti}^{*(j)} l_{ij}, t = \overline{1, T}, j = \overline{1, J}, \quad (7)$$

where  $x_{ti}^{*(j)}$  – normalised value of indicator type  $i$  of block  $j$ , for community  $t$ ;  $B_{tj}$  – integral index of community  $t$  for block  $j$  type.

The integral index of financial stability of a territorial community is determined as the sum of the products of the integral indices by blocks (financial component, inclusive component) and the weight (significance) of each of the blocks according to formula 8:

$$FS_t = \sum_{j=1}^J B_{tj} f_j, t = \overline{1, T}, \quad (8)$$

where  $FS_t$  – integral index of financial stability of a territorial community of type  $t$ .

The results of determining the integral index of financial stability of a territorial community make it possible to group communities according to their level of financial stability. We suggest using the gradation of financial stability levels shown in Table 5.

Table 5. Characteristics of the levels of financial stability of the territorial community depending on the value of the integral index.			
Level of financial stability	Indicators of the "Financial Component" block	Indicators of the "Inclusive Component" block	General characteristics
High 0,75 – 1,00	<ul style="list-style-type: none"> <li>▪ high tax revenues, income per capita;</li> <li>▪ high share of own revenues, low dependence on transfers;</li> <li>▪ significant capital expenditures, budget surplus, low debt burden</li> </ul>	<ul style="list-style-type: none"> <li>▪ high expenditure on inclusive development;</li> <li>▪ widespread implementation of gender-responsive budgeting;</li> <li>▪ active participation of the population in the budget process</li> </ul>	Communities with a strong financial base, capable of financing large-scale development projects, supporting innovation, and social integration
Medium 0,50 – 0,74	<ul style="list-style-type: none"> <li>▪ medium income and expenditure indicators;</li> <li>▪ moderate dependence on transfers;</li> <li>▪ limited capital expenditure, budget deficit/surplus within normal limits</li> </ul>	<ul style="list-style-type: none"> <li>▪ medium level of implementation of participatory and gender practices;</li> <li>▪ participatory budgeting projects are being implemented, but their share is small</li> </ul>	Financially stable communities capable of ensuring development, but limited in terms of investment scale and in need of improved resource management efficiency
Low 0,25 – 0,49	<ul style="list-style-type: none"> <li>▪ low tax revenues and own revenues;</li> <li>▪ high dependence on transfers;</li> <li>▪ budget deficit, low capital expenditures, growth of debt, and accounts payable</li> </ul>	<ul style="list-style-type: none"> <li>▪ limited funding for inclusive programs;</li> <li>▪ participatory tools are being implemented, but cover only a small share of the population</li> </ul>	Financially vulnerable communities with limited investment opportunities but a desire to increase transparency and engage the public
Extremely low 0,00 – 0,24	<ul style="list-style-type: none"> <li>▪ very low incomes, critical dependence on transfers;</li> <li>▪ high budget deficit, minimal capital expenditures;</li> <li>▪ significant debt burden, accumulated accounts payable</li> </ul>	<ul style="list-style-type: none"> <li>▪ inclusive practices are implemented partially or formally;</li> <li>▪ low citizen participation in the budget process</li> </ul>	Communities at high risk of financial instability require state support and financial recovery programs

Determining the integral index of financial stability of a territorial community makes it possible to analyse the level of financial stability of the community and the ability of local self-government bodies to ensure its inclusive development, form a rating of territorial communities, and develop recommendations for improving the effectiveness of management at the local level.

Using the example of territorial communities in the Ternopil region, we will conduct an integral assessment of a territorial community's financial stability to ensure its inclusive development. The analysis covers data for 2024. The list of indicators given in Tables 1 and 2 was calculated based on data from the State Budget Web Portal for Citizens (Ministry of finance of Ukraine, 2025) and the websites of territorial communities in the Ternopil region. After the calculations were made, the indicators were normalised using formulas 1–4.

To calculate the integral indices for assessing the financial stability of territorial communities using formulas 5 and 6, it is necessary to determine, using the expert assessment method. These weighting coefficients reflect the significance of the blocks and indicators in the integral index of the financial stability of the territorial community (Table 6).

**Table 6. Weighting coefficients for calculating integral indices for assessing the financial stability of local communities.**

Block name	Block/indicator designation	Average expert assessment characterising the degree of contribution (significance) of the block/indicator to the integrated index of financial stability of the territorial community by blocks, $\bar{e}_{ij}$	Weight coefficient value
Blocks	Block 1	7	0.7
	Block 2	3	0.3
Indicator block "Financial component"	$x_1$	8	0.042
	$x_2$	7	0.037
	$x_3$	7	0.037
	$x_4$	8	0.042
	$x_5$	7	0.037
	$x_6$	7	0.037
	$x_7$	8	0.042
	$x_8$	9	0.047
	$x_9$	8	0.042
	$x_{10}$	8	0.042
	$x_{11}$	7	0.037
	$x_{12}$	6	0.031
	$x_{13}$	6	0.031
	$x_{14}$	7	0.037
	$x_{15}$	9	0.047
	$x_{16}$	7	0.037
	$x_{17}$	7	0.037
	$x_{18}$	7	0.037
	$x_{19}$	6	0.031
	$x_{20}$	8	0.042
	$x_{21}$	8	0.042
	$x_{22}$	8	0.042
	$x_{23}$	8	0.042
	$x_{24}$	7	0.037
	$x_{25}$	7	0.037
	$x_{26}$	6	0.031
Indicator block "Inclusive component"	$x_1$	10	0.080
	$x_2$	10	0.080
	$x_3$	8	0.064
	$x_4$	8	0.064
	$x_5$	6	0.048
	$x_6$	9	0.072
	$x_7$	8	0.064
	$x_8$	8	0.064
	$x_9$	9	0.072
	$x_{10}$	9	0.072
	$x_{11}$	7	0.056
	$x_{12}$	7	0.056
	$x_{13}$	7	0.056
	$x_{14}$	6	0.048
	$x_{15}$	7	0.056
	$x_{16}$	6	0.048
Indicator block "Inclusive component" in the absence of information	$x_1$	8	0.178
	$x_2$	8	0.178
	$x_3$	10	0.222
	$x_4$	9	0.200
	$x_5$	5	0.111
	$x_6$	5	0.111

The calculation of integral indices by blocks (financial component, inclusive component) and the integral index of financial stability of the territorial community was carried out using formulas 7–8, and the results are shown in Table 7.

**Table 7. Integral indices for assessing the financial stability of local communities in the Ternopil region in the context of ensuring their inclusive development.**

Name of the territorial community	Integral index for the "Financial component" block	Integral index for the "Inclusive component" block	Generalised integral index of financial stability of the territorial community
Baikivtsi	0.780	0.889	0.812
Berezhany	0.357	0.533	0.410
Bila	0.532	0.422	0.499
Bilobozhnytsia	0.412	0.667	0.489
Bilche-Zolote	0.410	0.644	0.480
Borsuky	0.385	0.311	0.363
Borshchiv	0.418	0.822	0.539
Buchach	0.417	0.200	0.352
Vasylkivtsi	0.404	0.822	0.529
Velyka Berezovytsia	0.556	0.822	0.636
Velyki Birky	0.593	0.422	0.542
Velyki Hai	0.604	0.600	0.603
Velyki Dederkaly	0.379	0.311	0.358
Vyshnivets	0.361	0.311	0.346
Hrymailiv	0.449	0.600	0.494
Husiatyn	0.461	0.533	0.483
Zavodske	0.456	0.422	0.446
Zalishchyky	0.391	0.822	0.520
Zaliztsi	0.393	0.489	0.422
Zbarazh	0.436	0.711	0.519
Zboriv	0.474	0.422	0.458
Zolotnyky	0.452	0.778	0.550
Zoloty Potik	0.338	0.311	0.330
Ivane-Puste	0.369	0.644	0.452
Ivaniv	0.453	1.000	0.617
Kozova	0.448	0.822	0.560
Kozliv	0.338	0.422	0.363
Kolyndiany	0.324	0.422	0.353
Kopychyntsi	0.383	0.644	0.461
Koropets	0.263	1.000	0.484
Kremenets	0.417	0.667	0.492
Kupchyntsi	0.427	0.422	0.426
Lanivtsi	0.428	0.822	0.546
Lopushne	0.396	0.644	0.470
Melnytsia-Podilska	0.345	0.600	0.421
Mykulyntsi	0.404	0.422	0.410
Monastyryska	0.404	1.000	0.583
Nahirianka	0.453	0.822	0.564
Naraiv	0.428	0.600	0.480
Ozerna	0.395	0.489	0.423
Pidvolochysk	0.451	0.489	0.463
Pidhaitsi	0.468	1.000	0.628
Pidhorodnie	0.598	0.644	0.612
Pochaiv	0.370	0.533	0.419
Saranchuky	0.373	0.422	0.388
Skala-Podilska	0.334	0.822	0.480
Skalat	0.426	0.489	0.445
Skoryky	0.502	0.600	0.531
Terebovlia	0.410	0.822	0.534
Ternopil	0.564	1.000	0.695
Tovste	0.368	0.644	0.451
Trybukhivtsi	0.718	0.822	0.749
Khorostkiv	0.466	0.822	0.573
Chortkiv	0.385	0.644	0.462
Shumsk	0.381	1.000	0.567

We will use the gradation of levels of financial stability of the territorial community depending on the value of the integral index (shown in Table 5) and visualise the results of calculations in Figures 1–3.

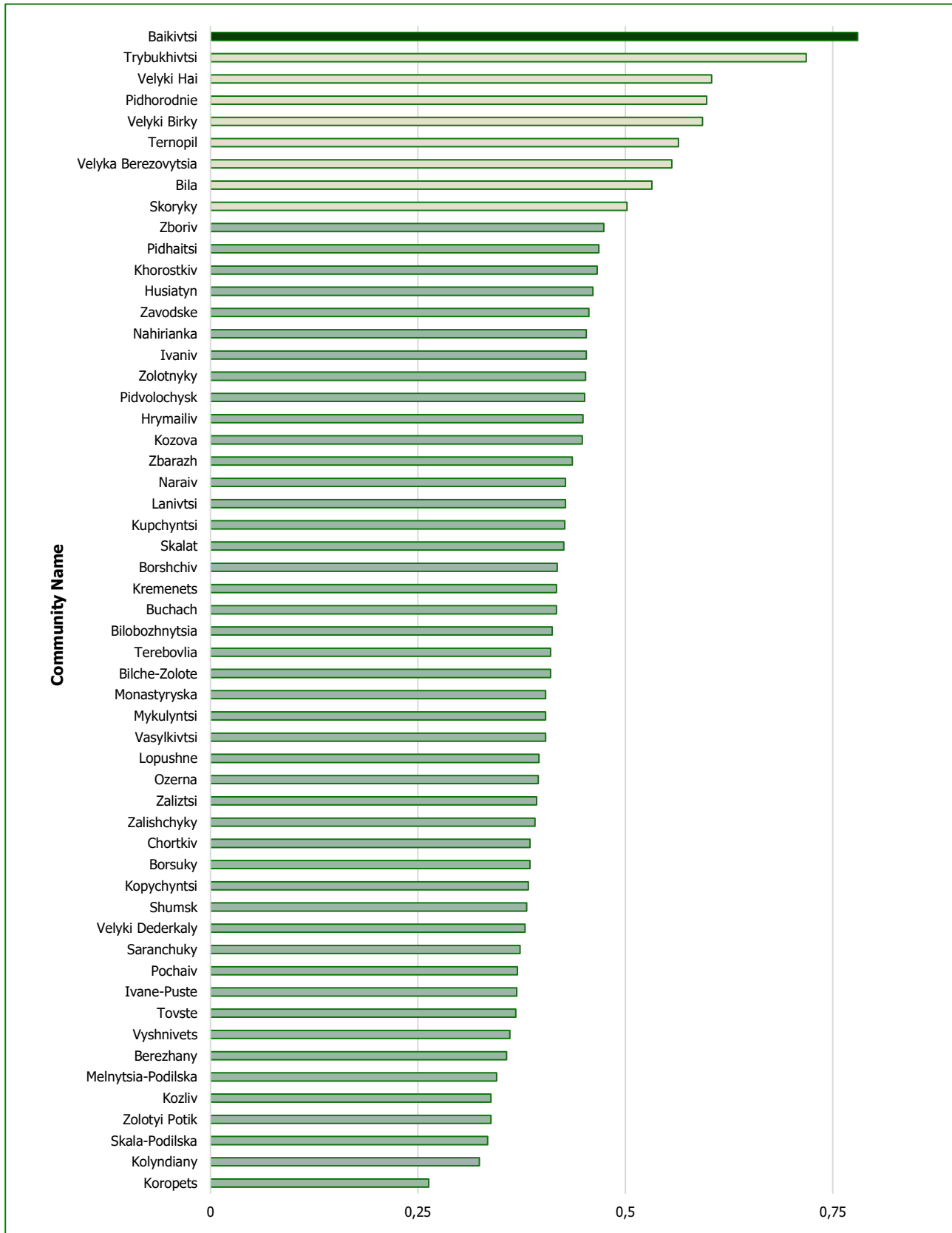


Figure 1. Visualisation of the results of integral modelling based on the integral index of the "Financial Component" indicator block.

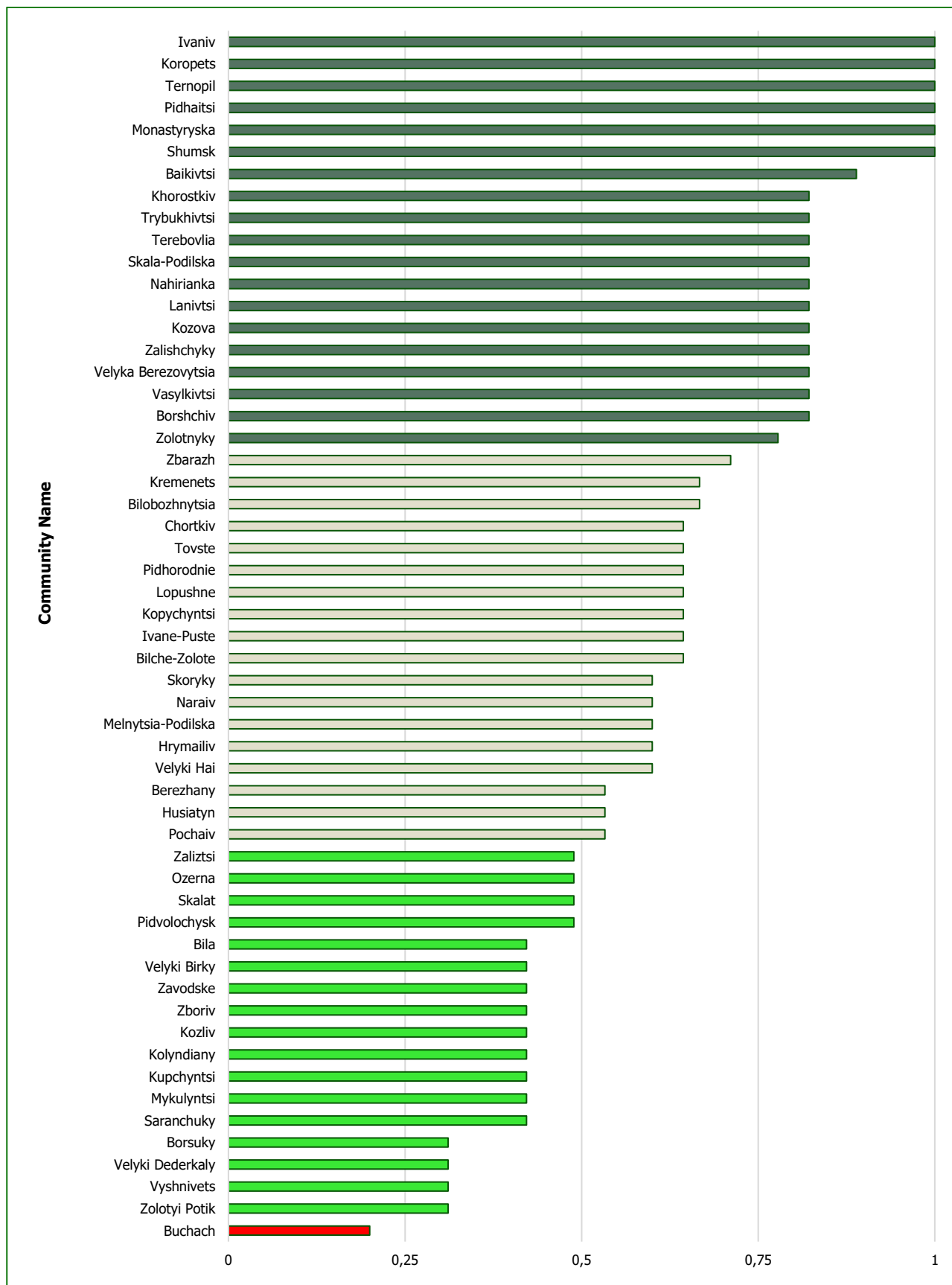
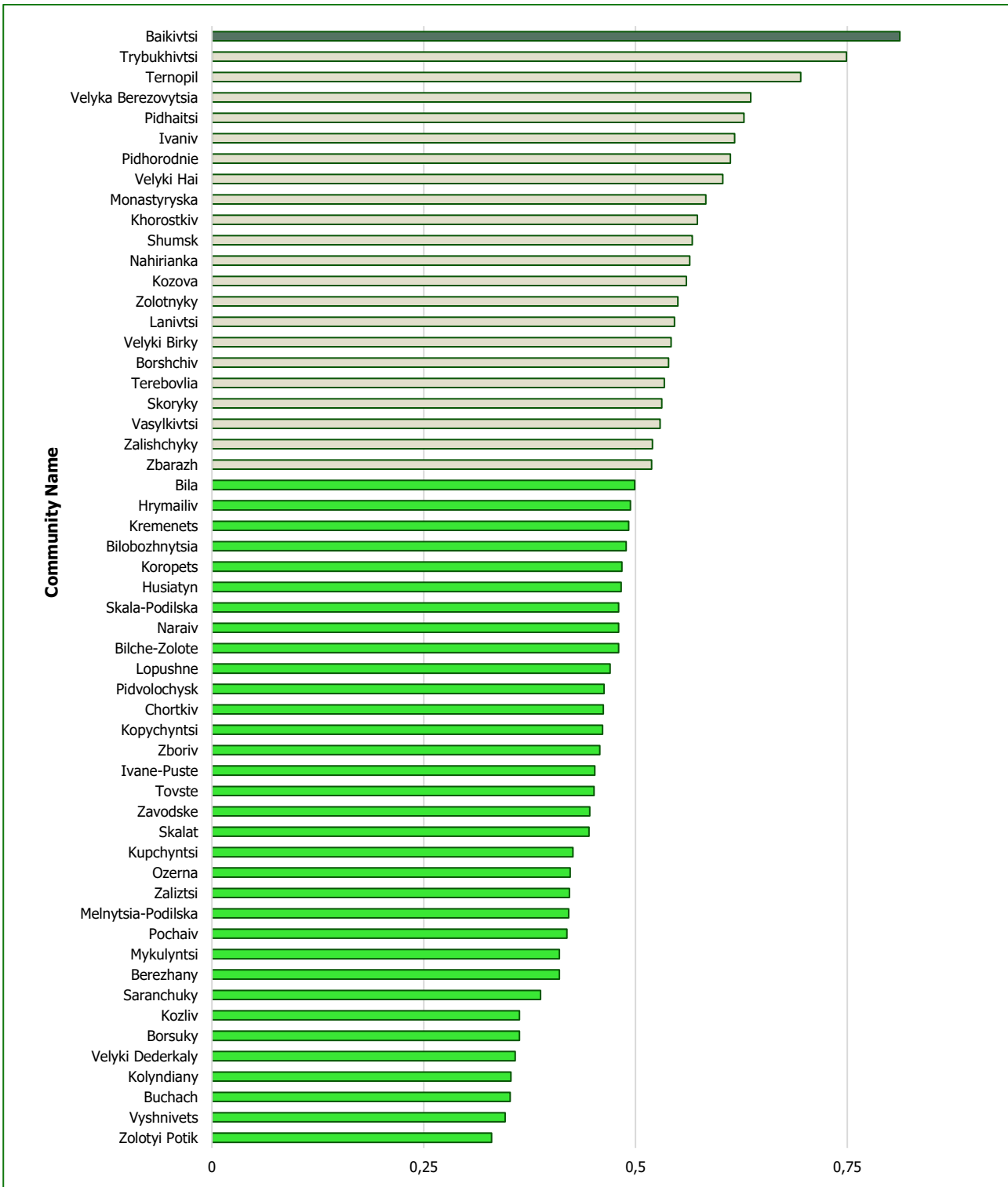


Figure 2. Visualisation of the results of integral modelling based on the integral index of the "Inclusive Component" indicator block.



**Figure 3. Visualisation of the results of integral modelling based on the integral index of financial stability of the territorial community.**

According to the results of calculating the integral index of the "Financial Component" indicator block, which reflects the level of balance of financial flows in conditions of shock effects of endogenous and exogenous threats, 1 community has the highest level of financial stability, 8 communities have an average level, and 46 communities in the Ternopil region have a low level. This gives grounds to assert that there is a critically high level of differentiation among communities in the region in terms of financial stability in the "Financial Component" section. Only a few territorial formations can ensure their own financial independence, financial balance, and adequately finance their own investment needs. At the same time, the absolute dominance of a group of territorial communities with a low level of financial stability according to the first set of indicators is a signal of systemic problems in the financial capacity of local self-government in the region.

The results of the analysis show that most communities are financially vulnerable. This increases the risks to the sustainable socio-economic development of the region, reduces the effectiveness of local strategies, and increases the dependence of territorial communities on external budgetary support. Therefore, the policy of local self-government bodies should be aimed at creating conditions for expanding the revenue base and increasing local budget revenues, stimulating investment in the local economy, and improving the efficiency of financial resource management.

According to the results of calculating the integral index of the "Inclusive Component" indicator block, which reflects the level of use of inclusive practices in communities, the highest values were recorded in 19 communities, average values in 18 communities, low values in 17 communities, and critically low values in 1 community in the Ternopil region. These results give grounds to assert that a sufficiently mature model of local finance management is being formed in the region's communities, focused on considering the interests of various social groups and involving citizens in decision-making. High or moderate spending on inclusive development and the active use of inclusive practices in the budget process characterise more than two-thirds of the region's communities. However, to consolidate these results and ensure their sustainability, some communities need to increase the scale and quality of these initiatives. At the same time, many local communities demonstrate fragmentation in applying inclusive approaches to local finance management and insufficient funding for inclusive development programs. This indicates the persistence of institutional, financial, or organisational barriers that limit the ability of such communities to move toward more inclusive governance models.

The results of the calculation of the generalised integral index of financial stability of the territorial community led to changes in the ranking of communities. Only the Baikivtsi community has the highest level of financial stability in terms of ensuring its inclusive development; 21 communities have a medium level: Trybukhivtsi, Ternopil, Velyka Berezovytsia, Pidhaisi, Ivaniv, Pidhorodnie, Velyki Hai, Monastyriska, Khorostkiv, Shumsk, Nahirianka, Kozova, Zolotnyky, Lanivtsi, Velyki Birky, Borshchiv, Terebovlia, Skoryky, Vasytkivtsi, Zalishchyky, Zbarazh; low level – 33 communities – Bila, Hrymailiv, Kremenets, Bilobozhnytsia, Koropets, Husiatyn, Skala-Podilska, Naraiv, Bilche-Zolote, Lopushne, Pidvolochysk, Chortkiv, Kopychyntsi, Zboriv, Ivane-Puste, Tovste, Zavodske, Skalat, Kupchyntsi, Ozerna, Zaliztsi, Melnytsia-Podilska, Pochaiv, Mykulyntsi, Berezhany, Saranchuky, Kozliv, Borsuky, Velyki Ddederkaly, Kolyndiany, Buchach, Vyshnivets, Zoloty Potik.

The results of integrated modelling show that in 2024, only 40% of communities will have a high or medium level of financial stability and ensure their inclusive development, while 60% of communities will have a low level of both financial stability and opportunities to ensure inclusive development. The identified disparities in the management of financial resources of territorial communities make it possible to form the priorities of the financial policy of local self-government bodies when developing strategies for the socio-economic development of communities aimed at strengthening financial resilience and achieving inclusive development.

## DISCUSSION

The study results indicate the feasibility of applying an integrated approach to assessing the financial sustainability of local communities, based on the calculation of a generalised index that considers indicators from two key areas: financial and inclusive components. This methodology allows combining traditional quantitative indicators that characterise the state of local finances with qualitative characteristics of public participation, inclusiveness of the budget process, and gender sensitivity of programs. The proposed approach allows for a comprehensive characterisation of the level of financial sustainability, which distinguishes it from other approaches based solely on indicators of the effectiveness of financial resource management in local communities. This approach provides the opportunity for comparative analysis of communities, determining their place in the ranking by level of financial sustainability, and forming informed management decisions to increase financial resilience and ensure inclusive development at the local level.

The results are consistent with the conclusions of L. Kostyrko and N. Velenteichyk (2016), who justify the advantages of a comprehensive analysis of financial balance, autonomy, and efficiency of local budgets. At the same time, our study expands their approach, namely, it supplements it with indicators that reflect the level of social inclusion and participation of the population in the budget process. This also corresponds with the conclusions of M. Deevy, A. Hasler, and A. Lusardi (2021), who emphasise that the financial stability of the system depends not only on available resources but also on the methods of managing them. In our work, this is reflected through the integration of indicators of the use of modern budgeting tools (gender and participatory).

The limitations of the study are related to the low availability of official statistics on certain indicators of inclusive development, which requires the use of expert assessments and may affect the accuracy of the integrated index. In addition, the weighting coefficients for calculating the integrated indices for assessing the financial stability of local

communities were determined using the expert assessment method, which involves a subjective factor and may differ for different communities or time periods.

Despite these limitations, the results of the study are of considerable practical value. The proposed methodology makes it possible not only to diagnose the current level of financial stability, but also to identify problem areas that should be addressed by the financial policy of local self-government bodies.

## CONCLUSIONS

The study confirmed that the financial stability of a territorial community is a key indicator for assessing the effectiveness of financial instruments used to implement the financial policy of inclusive development of territorial communities. It determines the ability of local governments to maintain balanced financial flows, counteract risks, and restore financial potential after crises, ensuring the continuity of high-quality public services.

The systematization of scientific approaches has enabled a refinement of the definition of the financial stability of a territorial community. It may be understood as the capacity of the community and its local self-government bodies to employ adaptive tools and technologies for managing financial resources in order to withstand the negative consequences of shocks arising from endogenous and exogenous threats, restore financial parameters after such shocks, and reduce vulnerability to them. Furthermore, financial stability presupposes the continuous provision of accessible, high-quality public services within the community and the promotion of its inclusive development.

To assess the level of financial stability of a territorial community in the context of ensuring its inclusive development, a scientific and methodological approach has been developed based on the calculation of an integral index of financial stability of a territorial community. The integral modelling process considers the complex impact of indicators grouped into blocks of financial and inclusive components. This made it possible to comprehensively consider the results of financial resource management and the level of citizen participation in the budget process, the financing of inclusive programs, and the application of participatory and gender-oriented practices.

An integral approach to assessing the financial stability of territorial communities provides a systematic view of the state of local finances and their capacity for resilient development. Its application allows for comparative and cluster analysis, identification of disparities in the inclusive development of communities and the management of their financial resources, and the formulation of targeted recommendations for improving financial balance and social inclusion. Further research should focus on improving indicators, increasing their relevance, and developing automated tools for monitoring the financial sustainability of communities over time.

---

## ADDITIONAL INFORMATION

---

### AUTHOR CONTRIBUTIONS

*All authors have contributed equally.*

### FUNDING

*The Authors received no funding for this research.*

### CONFLICT OF INTEREST

*The Authors declare that there is no conflict of interest.*

## REFERENCES

- Androshchuk, I. O., & Riedrieiev, R. A. (2024). The Conception of Local Economic Development as an Instrument for Sustainable Economic Growth of Territories: Ukrainian Aspect. *Biznes Inform*, 7, 114-124. <https://doi.org/10.32983/2222-4459-2024-7-114-124>
- Antoniuk, N., & Krukevych, N. (2018). Methodological approaches to assessing the financial stability of budgets. *Scientific Notes of Lviv University of Business and Law*, 19, 10-16. <https://nzlubb.org.ua/index.php/journal/article/view/41>
- Arunachalam, M., Chen, Ch., & Davey, H. (2017). A model for measuring financial sustainability of local authorities: model development and application. *Asia-Pacific*

- Management Accounting Journal (APMAJ)*, 12(1), 39–76.  
<https://ir.uitm.edu.my/id/eprint/29936/>
4. Bisogno, M., Cuadrado-Ballesteros, B., Manes-Rossi, F., & Peña-Miguel, N. (2024). Financial Sustainability and Sustainable Development in Local Governments: Empirical Insights. *Public Performance & Management Review*, 47(3), 784–811. <https://doi.org/10.1080/15309576.2024.2340116>
  5. Bondaruk, T., Bondaruk, I., & Dubyna, M. (2019). Methodological tools for assessing the financial sustainability of local budgets of Ukraine. *Svit finansiv*, 2(59), 60–72.  
<https://dspace.wunu.edu.ua/handle/316497/36268>
  6. Deevy, M., Hasler, A., & Lusardi, A. (2021). Financial Resilience in America. Report. Stanford Centre on Longevity. Global Financial literacy Excellence Center.  
<https://gflec.org/wp-content/uploads/2021/08/Financial-Resilience-in-America-Report-August-2021.pdf>
  7. Dzigbede, K. D., Pathak, R., & Muzata, S. (2022). Budget systems and post-pandemic economic resilience in developing countries. *Journal of Public Budgeting, Accounting & Financial Management*, 35(3), 333–353.  
<https://doi.org/10.1108/JPBAFM-03-2021-0036>
  8. Ferry, L., & Murphy, P. (2017). What about Financial Sustainability of Local Government! – A Critical Review of Accountability, Transparency, and Public Assurance Arrangements in England during Austerity. *International Journal of Public Administration*, 41(8), 619–629.  
<https://doi.org/10.1080/01900692.2017.1292285>
  9. Jurewicz, D. (2018). Financial Sustainability of Local Government. *The WSB University in Poznan Research Journal*, 1(78), 103–116.  
<https://doi.org/10.26349/zn.wsb.w.poznaniu.0078.06>
  10. Kaminska, I. M. (2008). Diagnostics of the financial sustainability of Ukrainian regions. *Zbirnyk prats Lutskoho natsionalnoho tekhnichnoho universytetu*, 5(20), 168–182.
  11. Kotina, H., Stepura, M., Matviichuk, D., & Maister, A. (2024). Sustainability of local public finance and regional development: challenges and opportunities in times of crisis in Ukraine. *Financial and Credit Activity Problems of Theory and Practice*, 2(55), 144–160.  
<https://doi.org/10.55643/fcaptop.2.55.2024.4314>
  12. Kostyrko, L. A., & Velenteichyk, N. Yu. (2016). Methodological principles of comprehensive analysis of the financial sustainability of local budgets. *Finansovyi prostir*, 1, 83–92.  
[http://www.library.univ.kiev.ua/ukr/host/viking/db/ftp/univ/peredplata/fp/fp\\_2016\\_01.pdf](http://www.library.univ.kiev.ua/ukr/host/viking/db/ftp/univ/peredplata/fp/fp_2016_01.pdf)
  13. Liuta, O. V., Boiarko, I. M., & Pihul, N. H. (2012). Improvement of methods for assessing the financial sustainability of the local budget. *Actual Problems of Economics*, 9(135), 194–201.  
[https://www.researchgate.net/publication/292366243\\_Improving\\_the\\_methods\\_for\\_evaluation\\_of\\_financial\\_sustainability\\_of\\_local\\_budget](https://www.researchgate.net/publication/292366243_Improving_the_methods_for_evaluation_of_financial_sustainability_of_local_budget)
  14. Lysiak, L. V., & Diachenko, M. K. (2011). Assessment of budgetary sustainability: Regional aspect. *Visnyk Dnipropetrovskoi derzhavnoi finansovoi akademii*, 2, 62–68.  
[http://dx.doi.org/10.21511/pmf.09\(1\).2020.05](http://dx.doi.org/10.21511/pmf.09(1).2020.05)
  15. Lysiak, L. V., & Kushnir, A. I. (2019). Financial sustainability of local budgets: Theoretical aspect. *Molodyi vchenyi*, 1, 472–481. <https://doi.org/10.32839/2304-5809/2019-1-65-109>
  16. Magis, K. (2010). Community resilience: An indicator of social sustainability. *Society & Natural Resources*, 23(5), 401–416. <https://doi.org/10.1080/08941920903305674>
  17. Ministry of Finance of Ukraine (2025). *State web portal "Budget for Citizens" (Open Budget)*.  
<https://openbudget.gov.ua/>
  18. Mulska, O. (2023). Financial stability of households and territorial communities under instability conditions: elasticity to the economic progress. *Svit finansiv*, 2(75), 155–168.  
<https://doi.org/10.35774/sf2023.02.155>
  19. Navarro-Galera, A., Rodríguez-Bolívar, M. P., Alcaide-Muñoz, L., & López-Subires, M. D. (2016). Measuring the financial sustainability and its influential factors in local governments. *Applied Economics*, 48(41), 3961–3975.  
<https://doi.org/10.1080/00036846.2016.1148260>
  20. Rodríguez Bolívar, M. P., Navarro Galera, A., Alcaide Muñoz, L., & López Subirés, M. D. (2015). Risk Factors and Drivers of Financial Sustainability in Local Government: An Empirical Study. *Local Government Studies*, 42(1), 29–51.  
<https://doi.org/10.1080/03003930.2015.1061506>
  21. Schick, A. (2005). Sustainable Budget Policy: Concepts and Approaches. *OECD Journal on Budgeting*, 5(1), 107–126.  
[https://www.oecd.org/content/dam/oecd/en/publications/reports/2005/11/oecd-journal-on-budgeting-volume-5-issue-1\\_g1gh49fa/budget-v5-1-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2005/11/oecd-journal-on-budgeting-volume-5-issue-1_g1gh49fa/budget-v5-1-en.pdf)
  22. Stehnei, M. I., & Lintur, I. V. (2017). Financial sustainability of local budgets as a factor influencing the investment attractiveness of the region. *Ekonomika ta suspilstvo*, 9, 1053–1060.  
[https://economyandsociety.in.ua/journals/9\\_ukr/181.pdf](https://economyandsociety.in.ua/journals/9_ukr/181.pdf)
  23. Voznyak, H., Mulska, O., Kaplenko, H., Sorokovyi, D., & Patytska, K. (2023). Financial determinants of ensuring the resilience of Ukrainian regions. *Investment Management and Financial Innovations*, 20(4), 83–98.  
[http://dx.doi.org/10.21511/imfi.20\(4\).2023.08](http://dx.doi.org/10.21511/imfi.20(4).2023.08)
  24. Voznyak, H., Patytska, K., Mulska, O., Zhreblylo, I., & Sorokovyi, D. (2024). Resilience of territorial communities amid the war against Ukraine: The role of budgetary instruments. *Public and Municipal Finance*, 13(1), 41–54.  
[http://dx.doi.org/10.21511/pmf.13\(1\).2024.04](http://dx.doi.org/10.21511/pmf.13(1).2024.04)
  25. Wilson, G. (2012). Community resilience, globalization, and transitional pathways of decision making. *Geoforum*, 43, 1218–1231.  
[https://www.academia.edu/28966955/Community\\_resilience\\_globalization\\_and\\_transitional\\_pathways\\_of\\_decision\\_making](https://www.academia.edu/28966955/Community_resilience_globalization_and_transitional_pathways_of_decision_making)

*Лободіна З., Горин В., Березька К., Булавинець В., Труш В., Костенюк Т.*

## **ІНТЕГРАЛЬНЕ МОДЕЛЮВАННЯ ФІНАНСОВОЇ СТІЙКОСТІ ТЕРИТОРІАЛЬНИХ ГРОМАД У КОНТЕКСТІ ЗАБЕЗПЕЧЕННЯ ЇХНЬОГО ІНКЛЮЗИВНОГО РОЗВИТКУ**

Трансформаційні виклики, зумовлені реформуванням місцевого самоврядування, євроінтеграційними процесами, цифровізацією та війною, актуалізують необхідність пошуку інноваційних підходів до управління фінансами територіальних громад із метою підвищення їхньої фінансової стійкості. Забезпечення здатності громад протистояти зовнішнім і внутрішнім загрозам, відновлювати фінансовий потенціал після криз і зменшувати вразливість до шоків є важливою передумовою інклюзивного розвитку та сталого функціонування місцевого самоврядування.

Систематизація наукових підходів дала змогу уточнити дефініцію фінансової стійкості територіальної громади як ступінь здатності громади застосовувати адаптивні інструменти й технології управління фінансовими ресурсами територіальної громади для подолання негативних наслідків шоккових впливів, відновлення фінансових можливостей і зменшення вразливості до загроз.

Метою дослідження є поглиблення теоретико-методичних засад оцінювання фінансової стійкості територіальних громад у контексті забезпечення їхнього інклюзивного розвитку та розроблення інтегрального підходу для її вимірювання.

Основним результатом дослідження є розроблення інтегрального індексу фінансової стійкості територіальної громади, що включає два блоки показників: фінансову та інклюзивну компоненти. Такий підхід дає змогу всебічно оцінити рівень фінансової стійкості, урахувавши й результати управління фінансовими ресурсами, і стан інклюзивного розвитку громади.

Сформовані теоретико-методичні засади дали змогу провести компаративний аналіз територіальних громад за рівнем їхньої фінансової стійкості, виявити диспропорції в розвитку та формувати пріоритети фінансової політики органів місцевого самоврядування, спрямовані на зміцнення фінансової резильєнтності й досягнення інклюзивного розвитку.

**Ключові слова:** територіальні громади, фінансова стійкість територіальних громад, органи місцевого самоврядування, інклюзивний розвиток, фінансові ресурси, управління місцевими фінансами, інтегральне оцінювання, інтегральне моделювання

**JEL Класифікація:** H61, H72