MODERN MANAGEMENT APPROACHES TO THE FINANCIAL SECURITY OF THE REGION UNDER BUDGETARY DECENTRALIZATION

Iіa Chudaeva¹, Olena Sukach²

Abstract. Nowadays, the main target of economic and investment policies of local authorities is to ensure the increase of their own financial resources in order to strengthen the financial capacity to meet the needs of the maximum administrative units and to attract investment in its development. The modern economic crisis has essentially affected financial possibilities of the majority of regions Ukraine. In these conditions for working out regional economic policy and increasing its realization efficiency, special attention should be given to the analysis of processes of formation and estimation of financial potential of the region opening financial resources of economic entities, factors and conditions of their involving, and also risks and threats arising in the course of use. The main purpose of the article is to study the definition of “financial capacity” and develop a model for the region's financial capacity building based on its assessment. The article deals with the nature, content, and approaches to the interpretation of economic category “financial potential of the region,” the importance of financial potential for sustainable economic growth in the region is proved. It is determined that not all financial resources created in the region are used in its territory and, conversely, a part of the financial resources generated in other regions of the country is used here to meet the needs of the region. Results. This article reflects the present approach of ideas of the financial potential of a region, singles out its basic elements such as tax, investment, budgetary, and credit potential. The existing methods of the formation of the estimation of the regional potential are presented and basic problems of their estimation are formulated. The implementation stages are presented and the elements of the mechanism of the financial potential management of regional development are described. Practical implications. The basic directions of this mechanism implementation to ensure social and economic regional development are proposed. Value/originality. The suggested model can be used by local authorities in determining the actual financial capacity of a region and will also make it possible to evaluate financial capacity under declining subsidies from budgets of other levels.

Key words: region, financial system of region, mechanism of financial potential management of regional economic growth, financial potential of region.

JEL Classification: H71, H72, H77, P24, R13

1. Introduction

In the context of global transformations and the economic crisis that has engulfed the world economy, the adequate and appropriate financial security of regions will contribute to the efficient use of budget funds, encourage financing of the social sphere, help to solve financial problems of structural units, and enable efficient work of local authorities. The improvement of the existing methodology for assessing the local budgets’ financial security as the main source of strengthening the financial capacity of the region will allow timely and complete identification of the region's need for financial and material resources, the level of security of minimum expenses requirements, as well as the local government performance according to citizens' demands.

In fact, decentralization in Ukraine was limited to a change in government representatives. The provision of financial resources, the implementation of socio-economic programs for the development of the region, and the distribution of powers between state
authorities and local self-government bodies remained uncoordinated. Under these conditions, it is necessary to provide local authorities with greater autonomy to generate revenues and implement development programs, which is undoubtedly related to the level of the financial capacity of the region and the mechanisms for its regulation. Hence for working out regional economic policy and increasing its realization efficiency, special attention should be given to the analysis of processes of formation and estimation of the financial potential of the region opening financial resources of economic entities, factors and conditions of their involving, and also risks and threats arising in the course of use.

The main purpose of the article is to study the definition of “financial capacity” and develop a model for the region's financial capacity building based on its assessment.

2. Literature review

The modern system of regional development of European countries is based on the principles of decentralization, which envisages redistribution of powers and authority among different levels of budget system and government, and ensures efficient provision of public services.

Thus, in 2014, the Government of Ukraine adopted the Concept of local self-governance and territorial power reforming in Ukraine (Order of the Cabinet of Ministers of Ukraine, 2014) that provided for the expansion of powers of local authorities in matters of management in such key areas as healthcare, education, and housing and communal services, as well as ensuring the fiscal autonomy of local budgets. Fiscal decentralization has set the new rules of taxes and fees allocation to local budgets. A total of 80% of the environmental tax, 100% of the single tax, 100% of the corporate income tax (paid by municipal enterprises and financial institutions), 100% of the property tax (real estate, land, and transport), and 100% of the excise tax were now paid to local budgets. After the issues of administrative services provision were settled it became possible to pay 100% of the state duty, 10% of corporate income tax (into oblast budgets), and 100% of the land fee to local budgets.

The results of the implementation of the concept were already visible in 2015, when the amount of local budget revenues increased by 52% (Budget price, 2018). However, not all local budgets received substantial tax revenues. Thus, the new sources of revenue were mainly concentrated at the level of oblast budgets while the budgets of a basic level of self-government remained subsidized. In addition, previously available substantial tax revenues were withdrawn (Budget, 2017). According to I. Lunina, the result of the reforms led to the fact that the state has expanded the revenue base of the regions but has never defined the functions and powers of local self-government bodies. Consequently, de jure, financially independent regions have become de facto more dependent on subventions from the state budget (Lunina, 2016).

3. The role of the financial potential of the region in the context of decentralization

Financial capacity by its nature is a complex and multifaceted phenomenon, which has significant social and economic value. Over the past decade, the concept of financial capacity of the region has been widely used by scientists and practitioners of the world community while its definition, structure, and assessment mechanism still differ significantly.

Existing approaches used for assessing the efficiency of local authorities' financial resources management, as well as for determining the level of financial capacity of a region, can be distinguished according to the following criteria:

1. Optimal planning of revenues and expenditures of the regional budget aimed at ensuring social guarantees.
2. Reduction of fiscal imbalances with the use of budget regulation tools (tax payments, preferential taxation, etc.).
3. Granting fiscal autonomy to the regions based on generated own-source revenues.

The essence of the financial capacity of the region, its structure, and principles of assessment are investigated in the works of both Ukrainian and foreign scholars.

For instance, G. Wozniak describes financial capacity as an aggregate of financial resources that are at the disposal of regional authorities and are used to ensure sustainable development of the region (Vozniak, 2010). L. Natchuk defines both actual and expected financial capacity in the context of the following main elements: budgetary capacity, funds of the financial and credit system, financial resources of the population of the region, financial capacity of enterprises and organizations, external investments and borrowings (Natchuk, 2007).

O. Kushkhov (Kushkhov, 2002) and Yu. Korchagin (Korchagin, 2006) consider financial capacity of the region as the aggregate of regional money funds, the constituent components, structure and quantitative assessment of which determine the peculiarities of supply and distribution of public goods and services in the region and the possibility of internal financing of all activities of the region.

I. Chunitskaya identifies the region's capacity as the ability of the state to attract and efficiently use financial resources in order to ensure economic development.

V. Boronos (Boronos, 2011) highlights the hypothetical ability of a territory to attract, generate, and use financial resources in order to ensure its efficient performance and development. According to G. Golodova, financial capacity of a region is the aggregate of the maximum possible financial resources.
(Golodova, 2010). Conditions created by economic entities and local authorities for mobilization, allocation, and accumulation of such resources are also taken into account. The main goal of these activities is to sustain the long-term development of the regions and the achievement of certain financial results. The financial capacity of the region is characterized by its feasibility to attract necessary financial resources by local authorities at a certain stage of time (Pasichnyk, 2005).

According to O. Demyanchuk, the financial capacity of the region is a cumulative ability of local economic entities operating within the framework of sustainable economic relations to attract, distribute, and use actual and expected financial resources efficiently in order to enable local governments to perform their main function, namely to ensure sustainable socio-economic development (Demianchuk, 2014).

So, among investigated scholars’ approaches towards the definition of the notion of the financial capacity of a region, the resource approach prevails.

Summarizing of the existing approaches to the definition of the notion of financial capacity of a region made it possible to determine it as the maximum possible amount of accumulated own-source and attracted financial resources of the region that can be used to ensure the sustainable functioning of the structural unit and social guarantees of the population.

The study of the definition enabled us to determine components of the financial capacity of a region (Figure 1). Thus, the resource-generating components of the financial capacity of the region are the budgetary capacity, taxable capacity, and financial capacity of regional infrastructure enterprises, which together reflect the ability of local authorities to generate and mobilize financial resources and use them efficiently.

Local authorities are encouraged to search for alternative sources of funding for the programs of socio-economic development of the region, which is implemented with the help of innovative, investment, and lending capacity, as well as money incomes of the population of the region.

Financial capacity of the region, as an economic category, performs the following functions (Figure 2).

- **Distributive function.** Financial capacity of the region displays the process of allocation of financial resources between the state and local authorities in order to determine both actual and expected resources of the region.
- **Support function.** Financial capacity of the region provides for its social and economic development and ensures that the social needs of the population are met.
- **Incentive function.** Financial capacity of the region provides for the implementation of the programs of socio-economic development.
- **Monitoring function.** Financial capacity of the region ensures the implementation of the programs of socio-economic development.
- **Performance function.** Financial capacity of the region ensures the implementation of the programs of socio-economic development.
Incentive function involves the maximum attraction of resources from all possible sources to encourage regional development.

Accumulated financial resources, the level of financial capacity of the region, and the social effects achieved are regulated by the monitoring function. This function assesses the performance of the authorities and the implementation of socio-economic development programs; determines extend to which social guarantees are ensured.

Performance function, which can be measured by the integral performance indicator, determines the ranking of the economic development of the region and local authorities' performance level.

Taking into account the diversity of indicators that determine the efficiency of local authorities' performance in domestic and world practice, a comparative comprehensive and rating assessment method is beneficial (Baranova, 2008).

\[ R_j = \frac{\sum_{i=1}^{n} (1 - x_{ij})}{n} \rightarrow \min \]  

where:
- \( R \) – is an integrative indicator of a region that demonstrates the efficiency of budgetary funds utilization (rating of a region);
- \( x_{ij} \) – is a performance indicator. The indicator is calculated by comparing each element to the best among the compared in dynamics or regions (the growth of the indicator in dynamics shows an increase in the efficiency of using budgetary funds). It is also possible to compare the best indicator among those compared with each element value (a quantitative decrease indicates an increase in the efficiency of using budgetary funds);
- \( j \) – compared regions or periods;
- \( i \) – indicators of the efficiency of the use of budgetary funds.

### 4. Influence of financial capacity on the level of financial support of regions

Budget execution at the regional level in Ukraine is characterized by relatively unstable profitability of own funds and significant dependence of local budgets on various kinds of subsidies from the state budget. In 2013, a share of consolidated budget revenues in GDP amounted to UAH 442.8 billion.

The volatility in the domestic and international markets, as well as the financial crisis that affected a large part of Europe, required of government authorities to implement certain fiscal activities to generate budget revenues at all levels. In 2017, as a result of the budget reform carried out in 2014, the revenues of the consolidated budget of Ukraine amounted to UAH 1017.0 billion (Table 1).

Implementation of the principles of decentralization in Ukraine had both positive and negative consequences. Owing to the expansion of the revenue base of local budgets, the increased share of local budgets in the total consolidated budget of Ukraine is observed. The share of local budgets (without intergovernmental transfers) in consolidated budget revenues of Ukraine amounted to 22%. Nevertheless, local budgets (Table 1) play a much smaller role in the redistribution of GDP than the state budget. Thus, in 2017 the share of local budget revenues in GDP amounted to 7.5% while the share of state budget revenues in GDP amounted to 26.6%. This indicates a significant centralization of the country's financial resources in the state budget and the financial dependence of local authorities on the decisions of the central government.

It should also be noted that in 2017, the share of transfers from the state budget decreased by 1.9% and amounted to 52.4% of the total revenues of local budgets of Ukraine. However, the results of local budget solvency

### Table 1

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<td>The consolidated budget of Ukraine, UAH billion</td>
<td>442,8</td>
<td>456,1</td>
<td>652</td>
<td>782,9</td>
<td>1017,0</td>
<td>56,0</td>
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<td>State budget *, UAH billion</td>
<td>337,6</td>
<td>355</td>
<td>531,6</td>
<td>612,1</td>
<td>793,4</td>
<td>49,2</td>
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<td>share of state budget revenues in GDP, %</td>
<td>23,2</td>
<td>22,7</td>
<td>26,9</td>
<td>25,7</td>
<td>26,6</td>
<td>-1,1</td>
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<td>share of state budget revenues in the consolidated budget, %</td>
<td>76,2</td>
<td>77,8</td>
<td>81,5</td>
<td>78,2</td>
<td>78,0</td>
<td>-4,3</td>
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<tr>
<td>Local budgets *, UAH billion</td>
<td>105,2</td>
<td>101,1</td>
<td>120,5</td>
<td>170,7</td>
<td>223,6</td>
<td>85,6</td>
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<td>share of local budget revenues in GDP, %</td>
<td>7,2</td>
<td>6,5</td>
<td>6,1</td>
<td>7,2</td>
<td>7,5</td>
<td>22,9</td>
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<tr>
<td>share of local budget revenues in the consolidated budget, %</td>
<td>23,8</td>
<td>22,2</td>
<td>18,1</td>
<td>21,8</td>
<td>22,0</td>
<td>19,0</td>
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<td>share of transfers from the state budget to local budget revenues, %</td>
<td>52,4</td>
<td>56,4</td>
<td>59,1</td>
<td>53,4</td>
<td>52,4</td>
<td>-1,9</td>
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<tr>
<td>share of transfers from local budgets to state budget revenues, %</td>
<td>0,5</td>
<td>0,6</td>
<td>0,6</td>
<td>0,7</td>
<td>0,7</td>
<td>16,7</td>
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Source: calculated and compiled by the authors based on data provided by the Treasury Service of Ukraine: URL: http://www.treasury.gov.ua/main/uk/publish/category/22813 and the State Statistics Service of Ukraine: URL: http://www.ukrstat.gov.ua/
show a positive dynamic in certain industries. According to the experts of the Association of Ukrainian Cities, in the years of 2014–2017, the number of treasury loans granted has decreased by 57 times, which undoubtedly shows a strengthening of local budgets’ solvency. In 2017, due to decentralization, the number of subsidized local budgets decreased by 24% while the number of donor budgets increased by 12.5%. That year, the state community development financial support increased 2.2 times (Palchuk, 2017).

In 2017, the own revenues of the general fund of local budgets of Ukraine per resident increased, as compared to 2016, by 19.3% and amounted to 4,488.5 hryvnias.

Legislative innovations on redistribution of budget revenues sources contributed to the change in the structure of local budget revenues in 2017. In particular, compared to 2014, a significant increase in tax revenues is observed (see Figure 3). The main growth factor is the increase in single tax revenues, which, according to the amendments and additions made to the Budget and Tax Codes of Ukraine, is credited to a special fund of local budgets. In the reporting period, there was an increase in tax revenues due to personal income tax (+ 0.7%), local taxes and fees (+ 1.0%), and other tax revenues. On the other hand, according to the results of budgets execution in 2016, non-tax revenues dropped by 13.9% while in 2015 they amounted to 18.4%.

Transformations that are taking place in the budget sphere of Ukraine have also changed the approach to the use of regional resources. Thus, to support the socio-economic development of the regions, only UAH 0.5 billion were allocated from the state budget in 2014, while in 2017, the amount of funds for infrastructure projects increased by almost UAH 8.2 billion, which enabled the fulfilment of 5989 projects. As of 1 January 2018, the total budget support amounted to UAH 16.1 billion.

The main concerns of local budgets are their relatively irregular incomes and significant dependence on state budget transfers. In 2014, subsidies to local budgets amounted to 96.3% while only 3.7% of local budgets donated to the state budget. Compared to 2017, the number of local budgets subsidized from the state budget decreased by 23.8%. In turn, the volume of donor budgets grew by 12.5% and amounted to 16.2%. The indicators of local budget revenues generation, presented in Table 1 and Figure 3, indicate that local budgets still have a very limited level of fiscal autonomy in terms of revenues. According to the principle of autonomy of local budgets, defined by the Budget Code of Ukraine, the amount of own-source revenues should exceed the funds received in the result of redistribution of resources between the budgets, which characterizes the level of the financial potential of the region.

We agree with I. Lunina (Lunina, 2016) that the following indicators are significant in determining the financial capacity of the region:
- revenue decentralization ratio – the share of local budgets revenues in the consolidated budget, %;
- financial autonomy ratio – the share of local taxes and fees in local budget revenues, %;
- leverage ratio – the share of transfers from the state budget of Ukraine in local budget revenues, %.

The region is considered financially sustainable provided that 60 to 70% of regional budget revenues are its own-source; moderate at 40 to 50%; the unstable state is fixed within 20-30%; crisis state within 5–10%.
During 2017 generated revenues of the general fund of local budgets of Ukraine (excluding intergovernmental transfers) amounted to UAH 192.7 billion, which is by UAH 46.0 billion (+ 31%) more than in 2016 (Table 2). During the period of financial decentralization implementation revenues of local budgets showed a 2.8-fold increase. This was made possible due to the expansion of powers and growing interest of local authorities in increasing revenues to local budgets, measures taken to attract alternative sources of budgets revenues generation, as well as to improve the efficiency of taxes and fees administration.

The results of the calculations showed that starting from 2014, the dependency ratio is permanently decreasing but is still at a critical level (54.4%), which indicates a significant dependence of local budgets on the redistribution of funds and insufficient own financial capacity. The results of decentralization have had some success. So, in 2017, the level of revenues decentralization amounted to 18.9%. The increase in fiscal autonomy has also become positive. Namely, single tax and excise duty paid into local budget made it possible to increase the level of the indicator to 10.5%, while in 2013 it was 3.3%. Summarizing the results of the study, we can state that the nationwide indicator of the financial sustainability of the regions is at the level of 52-55%, which is the norm.

However, not all regions have sustainable sources of revenues. Thus, having studied the experience of economically developed countries, considering the assessment of financial security as an indicator of sustainable development of the region, certain discrepancies in approaches to the assessment methods were revealed. An indicator of the overall financial and economic independence of the region can be considered as the main criteria for financial capacity assessment (Golodova, 2010). This indicator efficiently determines the level of financial security of the region and is calculated by the following formula:

\[ R_a = \frac{(MP + I)}{(CB – PB)} \]  

where:
- \( R_a \) – the level of financial and economic security;
- \( MP \) – total amount of money incomes of the population of the region;
- \( I \) – a profit of enterprises of regional infrastructure;
- \( CB \) – total expenditure of the regional budget;
- \( PB \) – own-source revenues of the regional budget.

The main advantage of this indicator is the quantitative measurement of the level of financial and economic security of the region; however, it does not show the level of security of regional territorial units in terms of financial capacity of local authorities.

Accordingly, when assessing the level of security of the region, it is also expedient to apply the method suggested by T. Rassolova, which includes: the calculation of indicators that determine the amount of local taxes and fees; the degree of capacity utilization; revenues-expenditures balance ratio (Davydova, Rassolova, 2009). The methodology involves the calculation of the following:

1) the ratio of local own-source revenues to current expenditures;
2) capacity utilization ratio, which is a ratio of the actual capacity to the expected one;
3) the ratio of local budget’s revenues and expenditures equilibrium:

\[ R_z = \left(1 – \frac{R_v}{R_p}\right) \]  

According to the calculation of the local budget revenues-expenditures equilibrium ratio, amount of financial assistance from the state budget will be smaller if the value of the indicator decreases and vice versa.

As it was mentioned earlier, not all regions of Ukraine, as a result of the implemented reform, received a sufficient amount of funds and managed to increase their financial
capacity. Using Granberg and Rassolova methods, we can assess the level of the financial capacity of a region on the example of the Cherkasy region (Table 3).

The performance of the assessed region indicates a positive impact of the budget reform. Thus, during the study period, the region’s own-source revenues increased 3 times, which positively influenced both the actual and expected capacity of the region. The level of financial and economic security declined from 11.91 points in 2013 to 8.77 points in the reporting period, which also indicates a decrease in the dependence of the region on subsidies from the state budget. This is confirmed by the increase in local own-source revenues to current expenditures ratio, as well as in actual capacity to the expected capacity ratio.

Based on the results of the analysis and findings regarding the provision of local authorities with financial resources, we consider it expedient to create tools for designing a model of the region’s financial capacity.

Therefore, taking into account the current practice of administration of financial resources in Ukraine, we can highlight the following basic conceptual goals of the development of the financial capacity of the region:

1. Establish a favourable climate for the economic development of the region in accordance with the priorities of the regional strategy.
2. Develop revenue-generating resources to ensure the main activities of local authorities, taking into account social guarantees ensuring.
3. Create favourable conditions for attracting investment and increasing the region’s investment attractiveness.
4. Enhance sustainability and credit attractiveness of the regional banking system for robust financing of fixed and working capital of business entities and the population of the region, etc.

Based on the outlined goals, as well as using strategic planning approaches to the socio-economic development of the region, we have designed and proposed a model for the development of the financial potential of the region (Figure 4).

The suggested model includes:

1. Comprehensive analysis of the internal and external factors of socio-economic development of the region, revenues base and performance expenditures as a result of the region’s activities.
2. Balancing the revenues and expenditures of the region. This enables identifying the actual and expected financial capacity of the region.
3. Prediction of changes in the financial capacity of the region resulting from the risk factors and uncertainties in the implementation of a socio-economic development strategy aimed at assessing the real resources for sustainable regional development.
4. Monitoring and timely correction of indicators of the financial capacity of the region.

The following main hypotheses have been highlighted based on the suggested model of the regional financial capacity development:

1. Financial capacity development involves four main stages: analysis, identifying resource capacities, forecasting and planning of expenditures, and assessment of the final result.
2. Construction of the financial and economic system, which is carried out on the basis of a hierarchical principle, means that all elements are coordinated and have their own concepts that are a part of the general one.
3. Assessment of financial capacity is a continuous process subject to constant adjustment in order to ensure maximum sustainability of the region.

Practical application of such a model makes it possible to use budgetary resources in the most efficient

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<td><strong>The level of financial capacity security of the region</strong></td>
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<td>Net profit of regional infrastructure enterprises, UAH mln.</td>
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<td>The value of real money incomes of the population of Cherkasy region, UAH mln.</td>
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<td>Cherkasy region budget expenditures, UAH mln.</td>
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<td>Own-source budget revenues of Cherkasy region, UAH mln.</td>
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<td>Budget revenues of Cherkasy region (including transfers), UAH mln.</td>
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<td>Expected capacity of the region, UAH mln.</td>
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<td>The actual capacity of the region, UAH mln.</td>
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<td>Level of financial and economic security</td>
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<td>The ratio of local own-source revenues to current expenditures</td>
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<td>Capacity utilization ratio</td>
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<td>Revenue-expenditure equilibrium ratio</td>
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Source: compiled by the authors
5. Conclusions and future prospects

The results of the research on ensuring the financial capacity of the regions have revealed a significant dependence of local authorities on the transfers of budgetary funds at the national level, which in turn hinged on the extent to which planned budget revenues have been generated. Regarding the revealed trends in local budgets’ revenue generation and their share in state budget revenue, the need for further fiscal reform and greater local authorities’ autonomy become apparent.

It has also been determined that, when assessing the level of financial security of the region, analysis of revenues and expenditures of local budgets is crucial. On the other hand, the level of development of the investment sector and credit system, revenues of business entities, use of regional infrastructure facilities, etc. are not taken into account.

As a result, we have presented a model for the regional financial capacity development, which is based on a comprehensive analysis of the financial and economic activities of the region and its development priority setting. The suggested model can be used by local authorities in determining the actual financial capacity of a region, and will also make it possible to evaluate financial capacity under declining subsidies from budgets of other levels.

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