

The Improvement of the Financial Mechanisms of RA Territorial Balanced Development

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ՀՀ տարածքային համաչափ զարգացման ֆինանսական կառուցակարգերի կատարելագործումը

Բադադյան Գագիկ Զ.

ՀՊՏՀ, կառավարման ֆակուլտետ, ասպիրանտ (Երևան, ՀՀ)

Անփոփոգիր. Տարածքային զարգացման անհամաչափությունների ներկայիս մակարդակը և դրա շարունակական ընդլայնումը ՀՀ տարածքային քաղաքականության կենտրոնական հիմնախնդիրն են: Այդ անհամաչափություններն իրենց արտահայտումն են գտել նաև համայնքների ֆինանսական կարողություններում: Արդյունքում, ստացվում է, որ ՀՀ-ում մարզերը զարգացել և զարգանում են անհամաչափորեն, իսկ մարզերում ընդգրկված համայնքների ֆինանսական կարողությունների շարունակական դիֆերենցումը, ինչպես նաև համայնքների ոչ բավարար ֆինանսական կարողությունները չեն նպաստում տարածքային զարգացման անհամաչափությունների հաղթահարմանը: Այս պարագայում ակնհայտ է դառնում, որ համայնքների բյուջետային կարողությունների կառավարման կառուցակարգերի կատարելագործումն անհրաժեշտություն է:

Հանգուցարաններ՝ տարածքային զարգացում, ֆինանսական կառուցակարգ, դոտացիա, մասհանում, համայնքային զարգացում

Совершенствование финансовых механизмов сбалансированного территориального развития РА

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Аннотация. Современный уровень неравенства территориального развития и его постоянное расширение являются центральной проблемой территориальной политики РА. Эти различия также отражаются на финансовых возможностях сообществ. В результате получается, что регионы в Армении развивались и развиваются неравномерно, а постоянная дифференциация финансовых возможностей общин, входящих в регионы, а также недостаточные финансовые возможности общин не способствуют преодолению асимметрии территориального развития. В этом случае становится очевидным, что совершенствование механизмов управления бюджетным потенциалом сообществ является необходимостью.

Ключевые слова. территориальное развитие, финансовый механизм, дотация, вычет, развитие сообщества

The current level of territorial development disparities and its continuous expansion are the central issue of RA territorial policy. These disparities are also reflected in the financial capacity of the communities. As a result, it turns out that the regions in Armenia have developed and are developing unevenly, and the continuous differentiation of the financial capacities of the communities included in the regions, as well as the insufficient financial capacities of the communities, do not contribute to overcoming the asymmetries of territorial development. In this case, it becomes obvious that the improvement of the budget capacity management mechanisms of communities is a

necessity. That process should involve work in two important directions:

1. The budgetary capacity of communities should be based on their level of development, in particular, the financial capacity of territorial units with a relatively low level of development should be relatively high, and vice versa, because in this way opportunities and potential will be created to overcome disparities in territorial development.

2. Regardless of the volume differentiation of financial resources, the financial capacity in all territorial units should be expanded, because only in this way it is possible to ensure the full implementation of the powers assigned to the

communities, and therefore also the development of territorial units.

The improvement of financial structures with the first component implies the transformation of the relationship between the state and municipal budgets. In particular, it is necessary to build the existing financial flows between the state and municipal budgets in such a way that opportunities are created not only to ensure the realization of the minimum costs of the communities, but also to contribute to the progressive development of underdeveloped territorial units. In this case, the main problem is the improvement of the mechanisms for determining the amount of funds allocated from the RA state budget to the municipal budgets. The relationship between state and municipal budgets, which is subject to improvement in this context, is the provision of dotations allocated to municipal budgets within the framework of financial equalization [3, article 2]: The dotations are divided into "a" and "b" parts. The dotation under "a" is allocated to those communities in which population is less than 3500, as well as to those communities that include border settlements. The amount of dotations allocated under this part is the same for all communities or settlements that meet the conditions, approved annually by the Law of the RA "On the State Budget of the Republic of Armenia" [3, article 6]:

At first glance, it seems that the dotation provided under part "a" is based on the principle of promoting progressive growth in territorial units with a low level of development. Granting dotations under part "a" to border settlements is naturally

encouraged in that context, but it is unclear what the other condition for allocating dotation under part "a" related to having a population of less than 3500 is based on, because it is objectively obvious that having a population above or below that threshold still does not mean that a community is developed or underdeveloped. In this case we have two problems: The condition by which the circumstance of giving a dotation is determined is not identified with territorial development, moreover, this condition implies a yes or no answer, which does not allow to give dotations with different levels to communities. In order to solve the first problem, we propose to establish a different precondition for the provision of dotations in part "a", and it is the level of development of the communities, for the determination of which the weighted average formula can be applied, where the independent variables will be the indicators characterizing the socio-economic development, and the weights will be the importance of each of these indicators, obtained by expert assessment [4]: By carrying out calculations, it will be possible to classify all communities, after which it will also be possible to solve the second problem related to the allocation of dotations of different volumes. We propose to provide dotations in part "a" to all communities with a lower than average level of development, which is based on the principle of giving proportionality to territorial development. Moreover, we propose to distribute the dotations in communities with an average to lower development level with different coefficients according to the decile groups of the development levels of the communities. (table 1):

Table 1. Proposed coefficients and volumes of dotations in part "a" according to developmental levels of communities

| Decile groups formed by community development levels | The ratio and volume of receiving dotations in part "a" in decile group communities |
|--|---|
| Decyl group 1 | 1.0*z |
| Decyl group 2 | 0.8*z |
| Decyl group 3 | 0.6*z |
| Decyl group 4 | 0.4*z |
| Decyl group 5 | 0.2*z |

According to Table 1, we propose that the municipalities with the lowest level of development be given dotations in part "a" with a coefficient of 1.0, and in each subsequent decile group, the coefficient is reduced by 0.2. Other ratios may also be applicable, but this ensures proportionality of distribution among the 5 groups. We consider it worth noting that this proposal does not change the state budget, because the state budget can determine the amount of total dotations in part "a", the dotations of border settlements can be reduced from it and the remaining funds can be distributed

according to the coefficients of table 1. In that regard, the formula for calculating the amount of the dotation allocated to 1 community and provided with a ration of 1.0 is presented below (1).

$$z = y / (DQ1 + 0.8*DQ2 + 0.6*DQ3 + 0.4*DQ4 + 0.2*DQ5) \quad (1),$$

Where: z – The volume of dotations in part "a" given to 1 community, calculated with a ratio of 1.0, without dotations allocated to border settlements, y – The total volume of dotations allocated to municipal budgets from the RA state budget in part "a", reduced by the volume of dotations allocated to

border settlements, *DQ1, DQ2, DQ3, DQ4, DQ5* – the number of communities included in the 1st, 2nd, 3rd, 4th, 5th decile groups, respectively.

By calculating the z indicator and recalculating it with the coefficients presented in table 1, it will be possible to calculate such a volume of dotations in part "a" given to communities, which results from the ideas of providing relatively high financing to underdeveloped communities and differentiated financing according to development.

Part "b" of the financial equalization dotations provided from the RA state budget to the municipal budgets is calculated with a completely different logic, as it is aimed at financing the implementation of minimal expenses in the municipalities. The dotation is provided to municipalities under part "B" if the budget security ratio of the municipality is less than the value of the marginal level of equalization, and the volume of the dotation is 75% of this difference [3, article 7]: The methodology used for this part, compared to the methodology for calculating dotations provided in part "a", is significantly improved, because it is based not on one or two, but on a number of significant factors, as well as their range classifications, however, there are certain improvements directions. In particular, first of all, it is possible to consider how appropriate it is to include the dotations allocated in part "a" in the income capacity of the community, because if the dotations allocated in part "a" are provided to communities with a low level of development or few opportunities, then these dotations can be excluded from the calculation of the income

capacity of the community. As a result, the dotation allocated under part "a" will be considered as an allocation aimed at alleviating development disparities, and the subsidy allocated under part "b" will be directed towards the implementation of minimum costs in the community. Another important area where improvements can be made is the calculation of the expenditure needs of the community. Although it is calculated on the basis of several essential indicators, and they are classified according to hierarchy, nevertheless, it would be advisable to supplement the series of these indicators with several other indicators of a social nature: poverty rate, unemployment rate, average monthly nominal salary, etc. We consider it necessary to note that the presented proposals do not cause additional expenses in the RA state budget, because they are not aimed at increasing the funds allocated from the state budget to the municipal budgets, but at improving the distribution mechanisms of the already allocated funds between communities.

Another direction, within the framework of which there is a need to improve financial mechanisms, is to increase the financial capacity of all communities. In this context, we consider it necessary to refer to the ratio of the actual budget revenues of all the communities of the RA regions to the actual revenues of the RA state budget (without the capital city of Yerevan, taking into account the latter's status and incomparability with other communities).

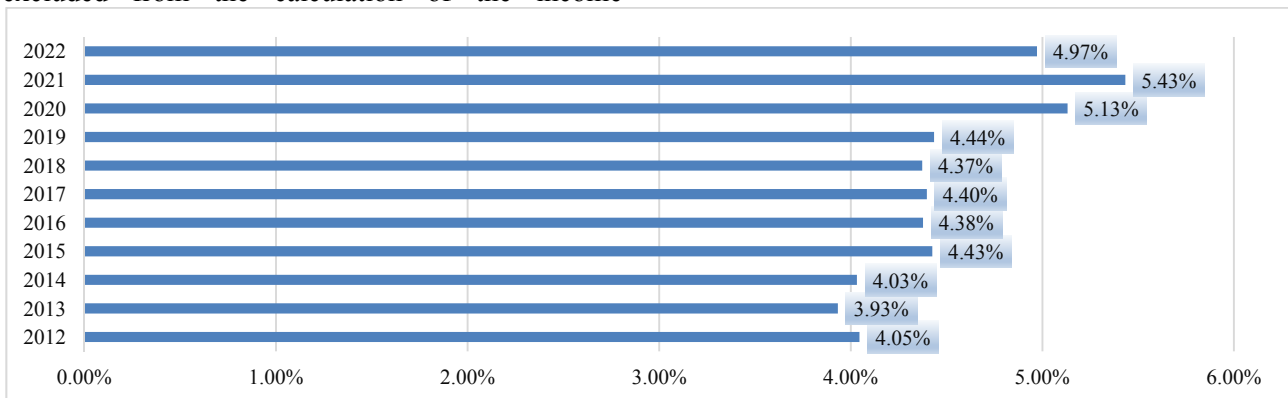


Figure 1. The ratio of the actual budget revenues of the municipalities of the RA regions to the actual revenues of the RA state budget (author's calculations) [5; 6]

Examining the data in Figure 1, it becomes obvious that the continuous expansion of the powers of local self-government bodies in RA has not been accompanied by financial decentralization, moreover, the current level of decentralization is quite small, because the ratio discussed in 2012-2022 was on average 4.50%, and in 2022 it was 4.97%. In other words, community management bodies have many powers and insufficient financial

capabilities. So there is a need to understand from which sources budget revenues of communities can increase.

Deductions from the state budget to the municipal budgets can be used as a tool to increase the revenues of the municipal budgets. The possibility of making deductions is defined by Article 28 of the RA Law "On the Budgetary System of the Republic of Armenia", according to

which the deductions made from the taxes and mandatory payments can be input to the budget of the RA communities (in the amounts determined by the law on the state budget for each year) [2]:

However, in practice, this provision has never been used in RA, but it is obvious that financial decentralization can take place in RA through it. We also consider it necessary to record that the current system of these deductions is based only on the state budget laws, which objectively cannot prevent arbitrariness. Therefore, in this regard, it is necessary to develop a system of deductions in the form of legal regulations, the current implementations of which can be in the frame of the state budget laws.

We will present a proposal for the design of the deduction system only on the example of the income tax. First of all, we consider it necessary to record that these changes are aimed at all the communities of RA, except for the capital Yerevan, because taking into account the latter's status and characteristics, the goal of the changes is for other communities to come closer to the city of Yerevan in

terms of development, therefore, it is possible not to consider the discussed deductions for Yerevan. The mechanism of deductions from income tax can be based on the principle of residency of taxpayers. Moreover, the system of deductions can be applied only to incomes that are wages. Since there are no public statistics in this regard in RA, there is a need to extract the income tax amounts paid by resident employees in RA regions in order to understand by what mechanisms partial deductions can be made. We will perform the prototype calculation using the number of employed people in regions and average monthly nominal salaries. The data for the years 2020-2022 will be the basis for the calculations, because a flat rate of income tax is applied in RA starting from January 1, 2020 [1]. Naturally, the calculations will be made at the level of regions, taking into account the absence of such statistics for communities. In this part of the analysis, the observations will be made by regions, and we suggest applying the obtained results by communities. Calculations of income tax amounts paid by residents of regions are presented in table 2.

Table 2. Amounts of income tax paid from salaries by residents of regions, calculated according to the number of employees, average monthly nominal salaries and the RA Tax Code (author's calculations) [1; 5; 7]

| The region | The amount of income tax calculated for 2020, 1,000 AMD | The amount of income tax calculated for 2021 is AMD 1,000 | The amount of income tax calculated for 2022 is AMD 1,000 |
|--|---|---|---|
| Aragatsotn | 1,362,845 | 1,549,129 | 1,613,732 |
| Ararat | 4,263,870 | 4,328,065 | 4,323,109 |
| Armavir | 3,969,123 | 4,065,990 | 4,354,393 |
| Gegharkunik | 2,010,913 | 2,136,851 | 2,270,455 |
| Lori | 2,713,875 | 2,953,104 | 2,049,409 |
| Kotayk | 3,450,461 | 3,514,634 | 2,965,702 |
| Shirak | 2,207,099 | 2,439,414 | 1,950,076 |
| Syunik | 3,623,712 | 4,011,533 | 4,169,762 |
| Vayots Dzor | 508,906 | 595,533 | 603,886 |
| Tavush | 1,223,901 | 1,232,522 | 1,233,615 |
| TOTAL | 25,334,705 | 26,826,774 | 25,534,139 |
| <i>The share of the calculated income tax in the actual receipts from the income tax of state budget</i> | 6.2% | 6.3% | 5.4% |
| <i>The share of the calculated income tax in the actual receipts of state budget</i> | 1.6% | 1.6% | 1.2% |

According to the data of Table 2, it becomes obvious that the base for making partial deductions from income tax in RA in 2020-2022 could amount to 25.9 billion AMD on average, which is 5.9% of the income tax revenues of the RA state budget, and

which is 1.5% of the total revenues of the RA state budget. In other words, it turns out that the amounts to which deductions can be applied do not have a significant share in the RA state budget, moreover, this only refers to the base amount, and it is obvious

that the amounts to be deducted will not be 100%, therefore, deductions from income tax under the proposed conditions (income tax amounts paid by residents of RA communities and only for income generated from salaries) will be insignificant compared to the RA state budget and will not become a big burden for redistribution. However, as much as these amounts have a small relative weight in relation to the RA state budget, their size in relation to the budgets of the communities is not so small. For this purpose, we also consider it necessary to present the specific weight of the calculated income tax in relation to the actual

budget revenues of the communities of the RA regions (figure 2). As we can see, the ratios in all regions are significant, which means that it is possible to extract from the existing base such amount of deductions that can significantly increase the budgetary capacity of the municipalities, while at the same time becoming a small burden for the state budget of the Republic of Armenia. However, the discussed ratio is significantly differentiated in regions. This implies that deductions should also be implemented in a differentiated manner, applying different deduction rates for different regions / communities.

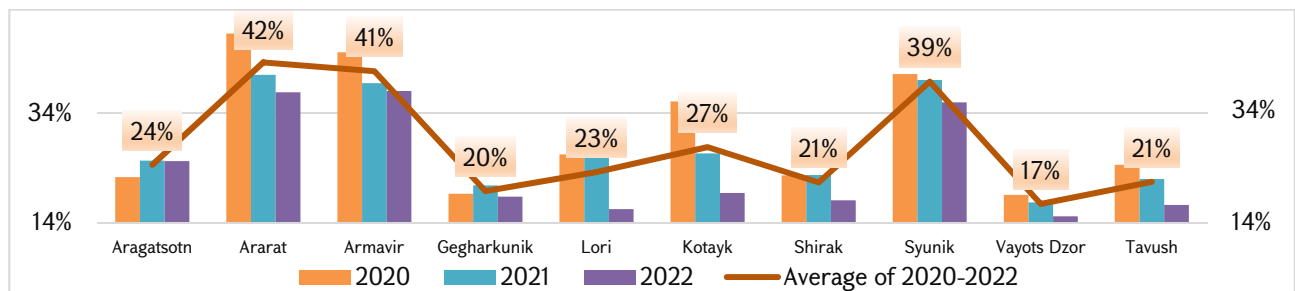


Figure 2. The specific weight of the deduction base calculated from the income tax in the revenues of the municipal budgets of the RA regions [author's calculations] [1; 5; 6; 7]

For the implementation of deductions, we suggest to apply the principle of decile classification of territorial units in this case too, but in this case we suggest to carry out the classification according to the size of the deduction base (the larger the

deduction base, the lower the percentage of deduction, and vice versa). Having the decile groups, we propose to carry out deductions in each group with separate coefficients, a prototype of which is presented in table 3.

Table 3. Coefficients of deductions from income tax according to the size of the deduction base of territorial units

| The decile group | The coefficient applied to the deduction base | The decile group | The coefficient applied to the deduction base |
|------------------|---|------------------|---|
| 1 | 10*x % | 6 | 5*x % |
| 2 | 9*x % | 7 | 4*x % |
| 3 | 8*x % | 8 | 3*x % |
| 4 | 7*x % | 9 | 2*x % |
| 5 | 6*x % | 10 | 1*x % |

The x part of the mentioned coefficients can be specified every year depending on the state budget revenues of the given year. However, we also carried out a scenario analysis using different values of x. Naturally, the higher the value of this coefficient, the higher the financial capacity of regional communities. For the scenario analysis, in the coefficients presented in table 3, instead of x, we used the quantities 1, 2, 3, 4 and 5. We considered the financial capabilities of the communities only in the form of the communities' own incomes, adding

the deduction to them. This step is due to the fact that the amount of dotations allocated to communities from the RA state budget also depends on deductions from the state budget, as these deductions are included in the income capacity of communities. As a result of the scenario analysis, the total indicators of own incomes and deductions per capita of the communities of the regions are presented in table 4. Indicators for regions are averaged.

Table 4. *The sum of own incomes and deductions from income tax of the municipalities of the regions (per capita), according to different scenarios (in the form of the average of indicators of 10 regions) (author's calculations) [1; 5; 6; 7]*

| | 2020 | 2021 | 2022 |
|--|--------|--------|--------|
| Average per capita own incomes of regions without deductions | 12,323 | 14,958 | 16,994 |
| Average per capita own income of regions with deductions, where x=1 | 12,906 | 15,552 | 17,615 |
| Average per capita own income of regions with deductions, where x=2 | 13,488 | 16,147 | 18,237 |
| Average per capita own income of regions with deductions, where x=3 | 14,071 | 16,741 | 18,858 |
| Average per capita own income of regions with deductions, where x=4 | 14,654 | 17,336 | 19,480 |
| Average per capita own income of regions with deductions, where x=5 | 15,236 | 17,930 | 20,101 |

Presumably, both the indicators of all regions and the averaged indicators of regions continuously increase with the increase of the x part of the coefficient, which implies the expansion of the financial capabilities of communities. However, in this context, it is essential to understand to what extent the specified increase in financial capabilities contributes to overcoming the existing disparities between the financial capabilities of communities. The analysis carried out shows that, other things being equal, the magnitude of x has a positive effect

on these disparities when it varies between 1 and 5, because in the x=6 scenario, disparities in financial capabilities widen. In this context, we consider it necessary to present how much the deductions contribute to overcoming the disparities of income capacities in the case of the 5 discussed scenarios. In this case too, the observation was carried out for the sum of own incomes and deductible funds per capita, and for the assessment of disparities a relative standard deviation calculation was carried out.

Table 5. *Disparities in the financial capabilities (sum of own income and income tax deductions per capita, according to different scenarios) of communities of the RA regions (author's calculations)[1; 5; 6; 7]*

| | 2020 | 2021 | 2022 |
|--|--------|--------|--------|
| Disparities in the financial capabilities of communities according to their own incomes per capita without deductions | 29.32% | 28.28% | 24.24% |
| Disparities in the financial capabilities of communities according to their own incomes per capita with deductions, where x=1 | 28.57% | 27.49% | 23.53% |
| Disparities in the financial capabilities of communities according to their own incomes per capita with deductions, where x=2 | 28.04% | 26.91% | 23.02% |
| Disparities in the financial capabilities of communities according to their own incomes per capita with deductions, where x=3 | 27.67% | 26.53% | 22.70% |
| Disparities in the financial capabilities of communities according to their own incomes per capita with deductions, where x=4 | 27.46% | 26.32% | 22.53% |
| Disparities in the financial capabilities of communities according to their own incomes per capita with deductions, where x=5 | 27.36% | 26.24% | 22.50% |

As the data in table 5 shows, the proposed system of income tax deductions has a positive effect on existing disparities in terms of the financial capabilities of communities, in particular, the deviation from the average of the financial capabilities of the regions' communities has continuously decreased with the increase of the coefficient of deductions up to x=5. This implies that the proposed mechanism both increases the financial capacity of communities and reduces disparities in the financial capacity of communities, and does not become a big burden for the RA state budget. All three mentioned claims can justify the possible effectiveness of the proposed mechanism. We consider it necessary to note that in addition to

income tax, the proposed system of deductions can be applied to other types of taxes.

Let's note that this methodology of deductions does not exclude the dotations allocated from the RA state budget to the municipal budgets, moreover, the deductions also form the coefficient of the financial capabilities of the communities, which is the basis of the dotations. It should also be noted that due to the scarcity of data, the mechanism of deductions was applied to regions, but the effectiveness will be higher if applied to communities, therefore, it is also essential to improve the current informational and statistical base.

Thus, summarizing the discussion of the financial mechanisms that promote the overcoming

of territorial development disparities in the process of territorial development of RA, let us record that the existing problems in that regard in RA are in two groups: small volume of financial capacities of territorial units and disproportions of these volumes. In order to solve these two problems, proposals were made to improve the methodology of calculation of dotations and the methodology of implementation of deductions, which can contribute to the solution of some of the financial problems of the sector.

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