

The Effect of Enlargement on the Indicators of Fiscal Decentralization of RA Communities

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Խոշորացման ազդեցությունը ՀՀ համայնքների հարկաբյուջետային ապակենտրոնացման ցուցանիշների վրա *Թատոսյան Կրիստինե Մ.*

*ՀՀ պետական վերահսկողական ծառայություն՝ գլխավոր վերահսկող,
Հայաստանի պետական տնտեսագիտական համալսարան՝ դասախոս (Երևան, ՀՀ)*

Ամփոփագիր. Հարկաբյուջետային ապակենտրոնացումը տեղական մակարդակում ուղղված է ֆինանսական ինքնավարության ապահովմանը՝ նպատակ ունենալով ուժեղացնել տեղական ինքնակառավարման մարմինների դերը: Հարկաբյուջետային ապակենտրոնացման մեջ կարևոր է հստակեցնել նաև այն, թե ինչպիսի լիազորություններ են տրված տեղական ինքնակառավարման մարմիններին, որպեսզի նրանք կարողանան որոշել իրենց ծախսային առաջնահերթությունները և ունենան որոշակի կարողություններ տեղական եկամուտների աղբյուրները ընդլայնելու նպատակով:

ՀՀ վարչատարածքային բարեփոխումները, մասնավորապես՝ համայնքների խոշորացումը նոր մարտահրավեր է ՀՀ տեղական ինքնակառավարման համակարգի զարգացման և ինքնուրույնության ապահովման տեսանկյունից, սակայն կայացած տեղական ինքնակառավարման համակարգ ունենալու համար կարևոր է համայնքների սեփական եկամուտների ինչպես բացարձակ, այնպես էլ հարաբերական ցուցանիշների աճը: Հայաստանի համայնքներում 10 տարվա կտրվածքով իրականացված վերլուծության արդյունքները ցույց են տալիս, որ համայնքներն ունեն սեփական եկամուտների կայուն աճի միտում, ինչը սակայն ոչ բոլոր դեպքում է ուղեկցվում սեփական եկամուտների՝ ընդհանուր եկամուտներում ունեցած տեսակարար կշռի մեծացմամբ: Վերջինս պայմանավորված է նրանով, որ չնայած ՀՀ վարչատարածքային բարեփոխումներին, համայնքները շարունակում են էապես կախված մնալ պետական բյուջեից:

ՀՀ վարչատարածքային բարեփոխումներից հետո խոշորացման ազդեցության գնահատման կարևորության շեշտադրմամբ՝ անհրաժեշտություն է առաջանում համայնքներում ներդնել հարկաբյուջետային ապակենտրոնացման մի շարք ցուցանիշների հաշվարկի մեթոդաբանություն, որում հաշվի կառնվեն ոչ միայն տեղական մակարդակով ցուցանիշները, այլ նաև երկրի տնտեսական վիճակը բնութագրող այլ մակրոտնտեսական ցուցանիշներ, ինչպես օրինակ՝ ՀՆԱ-ն:

Հանգուցարաներ՝ հարկաբյուջետային ապակենտրոնացում, եկամուտների ապակենտրոնացում, ծախս, եկամտի կշռված ապակենտրոնացման ինդեքս

Влияние расширения на показатели налогово-бюджетной децентрализации общин РА

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Аннотация. Фискальная децентрализация на местном уровне направлена на обеспечение финансовой автономии с целью усиления роли органов местного самоуправления. При фискальной децентрализации также важно уточнить, какие полномочия даны местным органам власти, чтобы они могли определять свои приоритеты в расходах и иметь определенные возможности для расширения местных источников доходов.

Административно-территориальные реформы РА, в частности, укрупнение общин, являются новым вызовом с точки зрения развития и независимости системы местного самоуправления РА, но иметь устоявшееся местное самоуправление В системе очень важно повысить как абсолютные, так и относительные показатели собственных доходов общин. Результаты анализа, проведенного в общинах Армении за 10 лет, показывают, что в общинах наблюдается тенденция устойчивого роста собственных доходов, которая, однако, не всегда сопровождается увеличением доли собственных доходов в совокупные доходы. Последнее связано с тем, что, несмотря на

административно-территориальные реформы РА, общины продолжают оставаться в значительной зависимости от государственного бюджета.

Учитывая важность оценки влияния укрупнения общин после административно-территориальных реформ РА, возникает необходимость внедрения методики расчета ряда показателей фискальной децентрализации в общинах, которая будет учитывать не только показатели местный уровень, но и другие макроэкономические показатели, характеризующие экономическое положение страны, такие как ВВП.

Ключевые слова: фискальная децентрализация, децентрализация доходов, расходы, индекс децентрализации, взвешенный по доходам

Introduction

Fiscal decentralization is traditionally identified as a specific form of redistribution of financial powers between different levels of the public administration system. However, if fiscal decentralization is not accompanied by improving the skills of the local apparatus and increasing political accountability, it can have a negative effect, contributing to the emergence of corruption risks and the provision of poor-quality public services [1, p. 125].

The relevance of the choice of the topic is due to the need to analyze the current state of fiscal decentralization after the enlargement of communities in the field of local self-government of RA. The purpose of the research is to evaluate the impact of RA administrative-territorial reforms, particularly the enlargement of municipalities, on fiscal decentralization and expenditure levels of enlarged municipalities in relatively early stages, proposing to introduce a methodology for calculating fiscal decentralization indicators in municipalities.

The main problems of the research are: to study examples of fiscal decentralization calculation applicable in international practice, as well as to develop a methodology that will allow to calculation of the levels of income decentralization and expenses of the enlarged communities of RA to assess the impact of enlargement, weigh the latter indicators against the GDP.

Literature review

In general, economic growth and well-being are key aspects of decentralization impact assessment, with decentralization indicators having positive relationships with national GDP, investment in human and physical capital, and key educational outcomes. Several foreign scholars note that fiscal autonomy is generally positively related to the country's economic development, increasing real GDP growth.

There is also an opinion that as a result of income decentralization, it is more effective to achieve income growth than in the case of expenditure decentralization [2, p. 1].

In one of the local studies, the author studied the effects of per capita expenditures of communal budgets in Yerevan and ten regions on the socio-economic indicators of the given territorial unit, as a result of which he concluded that fiscal decentrali-

zation in Armenia has positive results in terms of access to social services of the population and their consumption. However, from the point of view of having an impact on the real social situation, municipal budgets are not effective, because local governments are not able to reduce poverty and unemployment levels by increasing budget expenditures. At the same time, municipal budgets are not effective in terms of influencing economic activity [3, p. 115].

It should also be noted that the Organisation for Economic Co-operation and Development (OECD) has a database on fiscal decentralization that provides comparative information on several indicators, analyzing examples of member countries from 1965 to 2020. Among those indicators are the relative weights of revenues and expenses in municipal and state budgets, the structure of revenues in municipal and state budgets, the balance and debt of local and regional budgets, consolidated expenditures according to functions, tax autonomy in municipal and state budgets, spending autonomy in municipal and state expenditures, etc.

Below we present the various methods of calculating fiscal decentralization proposed by the International Monetary Fund.

- Tax and revenue decentralization ratio, which is calculated using the following formulas: revenue decentralization=local own revenue/total government revenue, tax revenue decentralization=local tax revenue/government tax revenue) [4, p. 9].

- The cost decentralization ratio includes the share of local spending in total government spending. This excludes the part of costs that are transferred from other levels of government, foreign governments, and international organizations [4, pp. 10-11].

- Dependence on transfers and vertical fiscal imbalances. The vertical fiscal imbalance reflects the difference between own expenditures, and own revenues at a given level of government. (Vertical fiscal decentralization=1-own revenues/own expenses).

As a result of applying the above calculation formulas, both positive and negative indicators of fiscal decentralization indicators can theoretically be obtained, which makes it possible to interpret the

levels of expenditure and income decentralization in several countries of the world.

Research methodology

Quantitative analysis and comparative analysis methods were used in this analysis. During the calculations of the methodology proposed in the study, the methods of weighted decentralization of income, as well as the calculation of weighted indices of expenses were used.

It should be noted that in the study, the indicators of expenses and incomes of the enlarged communities were calculated as a result of summing up the corresponding indicators of income and expenses before enlargement in the settlements included in the enlarged community (former

communities) to ensure the comparability of the data after enlargement.

Results

The existence of decentralization in developed and high-income countries is mainly aimed at ensuring high economic efficiency due to the high level of tax revenues and human capital. At the same time, in lower-income countries, the application of decentralization tools at the local level can provide significant positive results, especially in rural communities [5, pp. 1-3].

In essence, scaling up can have both positive and negative effects on municipal income and expenditure decentralization indicators.

Table 1. Temporal trends in income decentralization indicators within enlarged communities of RA (2012-2022, %) [6]:

Community/ Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Tsaghkahovit	35.8	30.5	30.9	26.8	28.9	29.0	27.5	26.4	18.9	24.3	23.8
Alagyaz	41.9	41.0	37.4	33.2	31.3	34.5	35.7	24.2	15.1	16.7	23.4
Byureghavan	29.4	29.0	27.4	27.3	25.8	31.4	29.6	28.6	24.5	26.0	27.5
Charentsavan	36.7	36.3	34.0	33.2	33.7	39.6	43.9	43.3	32.9	36.9	39.3
Jrvezh	60.8	64.0	59.8	56.8	56.6	63.9	63.3	66.1	66.6	43.7	61.8
Areni	22.8	24.5	25.1	20.1	23.6	26.7	25.9	25.3	24.4	27.0	15.1
Yeghegis	16.7	16.3	17.6	16.6	20.7	22.5	19.7	19.9	17.1	12.7	10.9
Kapan	32.5	31.6	28.5	24.3	25.4	26.4	28.8	30.0	23.8	23.7	26.3
Kajaran	64.1	62.6	64.5	66.1	57.9	68.1	63.4	41.8	32.8	42.0	22.2
Goris	18.2	17.5	20.0	18.3	19.8	24.5	24.6	24.0	18.7	23.8	24.6
Meghri	36.1	33.3	35.2	36.5	39.8	39.4	49.0	37.4	23.5	30.6	39.1
Tegh	35.0	31.0	28.5	20.6	25.8	28.4	32.2	36.2	26.0	25.1	28.5
Tatev	31.0	21.0	23.5	21.8	16.0	23.2	25.1	24.8	17.1	19.5	21.1
Ani	31.6	29.4	26	24.4	24.4	27.2	24.3	23.3	17.9	18.1	19.7
Stepanavan	22.8	23.3	23.5	24.8	27.1	28.9	32.8	30.0	22.1	25.5	21.6
Gyulagarak	30.3	33.0	30.6	27.6	25.1	28.2	25.3	31.1	23.0	24.6	22.9
Lori Berd	44.0	41.0	38.1	34.8	33.7	32.2	32.0	33.0	31.8	36.4	25.3
Berd	22.7	22.8	26.0	20.0	25.0	20.4	24.8	21.2	15.5	71.7	12.7
Dilijan	37.1	37.4	36.6	27.5	28.5	34.8	39.0	37.0	23.3	50.0	31.0

The calculations were made by the author based on the 2012-2022 budget reports of the analyzed enlarged communities. The income decentralization calculation was made as a result of relating the municipalities' own incomes to the total incomes.

Based on the main data of Table 1, it can be stated that the dynamics of decreasing income decentralization level can be observed, for example, in the Alagyaz community, where this indicator was on average around 37% before the enlargement and around 25% after the enlargement. In the Kajaran community, the increase in absolute values of own incomes was accompanied by a decrease in relative values, which was 63% on average for five years before enlargement, and 45% on average after enlargement. In the Tatev community, there is again a general increase in own incomes, under the conditions of which, however, the share of own incomes in total incomes was on average 25% before the increase, and about 21% after the increase.

As a result, several communities, even after the enlargement, continue to depend on the state budget

and, as a result, remain limited in both the exercise of powers and the opportunities to freely collect real "own" revenues, which leads to a decrease in the rate of income decentralization in several RA communities.

However, in the context of assessing the impact of enlargement, it is necessary to take into account the changes in a number of socio-economic indicators that occurred in RA in the period before and after enlargement (state of emergency and martial law caused by the pandemic and war situations, the entry of a large number of foreigners into RA caused by the Russian-Ukrainian war and etc.), which had their direct and indirect impact on a number of indicators characterizing the country's macroeconomic situation (for example, GDP).

In such conditions, there is a strong need to develop a methodology that will not only take into

account the relative indicators of own incomes or expenses but also allow them to be analyzed under the conditions of weighting against the GDP indicator.

Below, we will present a set of formulas of the proposed methodology, as well as their practical applicability with examples of enlarged communities in relatively early stages, focusing the analysis on the changes in the relevant indicators of community decentralization in the periods before and after the enlargement.

It should also be noted that the applied methodology aims to obtain a comprehensive measure of revenue decentralization by integrating the relevant economic variable (GDP in our example). The method includes the set of basic formulas below:

$$\Delta R_d = (R_{d2017} - R_{d2012}) / R_{d2012} * 100 (\%),$$

where`

ΔR_d ` change in income decentralization index (for the period 2012-2017)

R_{d2017} ` level of revenue decentralization (2017)

R_{d2012} ` level of revenue decentralization (2012)

$$\Delta GDP = (GDP_{2017} - GDP_{2012}) / GDP_{2012} * 100,$$

where`

ΔGDP ` change in the GDP indicator (for the period 2012-2017)

GDP_{2017} ` GDP indicator for 2017

GDP_{2012} ` GDP indicator for 2012

$$IWDI = \Delta R_d / \Delta GDP,$$

where` IWDI` income-weighted decentralization index

Using the above formulas, the change of the income decentralization index for 2017 compared to 2012 (as the period before the enlargement of municipalities) was first calculated, and then the change of the income decentralization index for 2022 as compared to 2018 (as the period after the enlargement of municipalities) was calculated.

With the same logic, the change in the GDP index between the periods before and after the enlargement was also calculated. Then, the income-weighted decentralization index was obtained by relating the income decentralization change and GDP change indicators to each other. The set of proposed formulas is also applicable after the enlargement in 2018-2022. for the data analysis of the period, so to evaluate the effect of enlargement, the same figure was calculated for the period after enlargement in Table 2 below.

Table 2. Assessment of the ratio of revenue decentralization and GDP index of the enlarged communities of RA in 2012-2022 (income-weighted decentralization index).

Community/ data	Changing the level of revenue decentralization	GDP change, %	Income- weighted decentralizati on index (before enlargement)	Changing the level of revenue decentralizatio n	GDP change, %	Income- weighted decentralizati on index (after enlargement)
	Growth rate of 2017 compared to 2012, % (before enlargement)			Growth rate of 2022 compared to 2018, % (after enlargement)		
	(1)	(2)	(1) / (2)	(3)	(4)	(3) / (4)
Tsaghkahovit	-19%	30 %	-0.6	-13%	41%	-0.3
Alagyaz	-18%		-0.6	-34%		-0.8
Byureghavan	7%		0.2	-7%		-0.2
Charentsavan	8%		0.3	-10%		-0.2
Jrvezh	5%		0.2	-2%		-0.04
Areni	17%		0.6	-42%		-1
Yeghegis	35%		1.1	-45%		-1
Kapan	-19%		-0.6	-9%		-0.2
Kajaran	6%		0.2	-65%		-1.6
Goris	35%		1.2	0%		0
Meghri	9%		0.3	-20%		0.5
Tegh	-19%		-0.6	-11%		-0.3
Tatev	-25%		-0.8	-16%		-0.4
Ani	-14%		-0.5	-19%		-0.5

Stepanavan	27%		0.9	-34%		-0.8
Gyulagarak	-7%		-0.2	-9%		-0.2
Lori Berd	-27%		-0.9	-21%		-0.5
Berd	-10%		-0.3	-49%		-1.1
Dilijan	-6%		-0.2	-25%		-0.6

The calculations were made by the author based on the data in Table 1, as well as the tools of the methodology proposed in the research

The results of the analysis allow us to conclude that in the period before and after enlargement, an increase in the income-weighted decentralization index is observed in very few municipalities. In particular, a very small increase is observed in Tsaghkahovit, Kapan, Meghri, Tegh, Tatev, as well as Lori Berd communities.

The proposed formulas are applicable for the period 2018-2022 after the enlargement with the

same logic. Therefore, let's try to show the practical application of the calculation formulas from the point of view of the effect of enlargement on the changes in the expenses of the communities, as a result of which it will be possible to conduct comparisons between the indicators of the decentralization of the incomes and expenses of the communities, evaluating the effect of the enlargement.

Table 3. Evaluation of the ratio of the expenditures of the enlarged communities of RA to the GDP index for the period 2012-2022 (weighted index of expenditures).

Community/ data	Change in cost level	GDP change, %	Cost- weighted index (before enlargement)	Change in cost level	GDP change, %	Cost-weighted index (after enlargement)
	Growth rate of 2017 compared to 2012, % (before enlargement)		(1) / (2)	Growth rate of 2022 compared to 2018, % (after enlargement)		(3) / (4)
	(1)	(2)		(3)	(4)	
Tsaghkahovit	54%	30 %	1.8	86%	41%	2
Alagyaz	37%		1.2	303%		7.4
Byureghavan	60%		2	-9%		-0.2
Charentsavan	34%		1.1	42%		1
Jrvezh	-9%		-0.3	0.1%		0
Areni	59%		1.9	209%		5
Yeghegis	57%		1.9	206%		5
Kapan	41%		1.9	167%		4
Kajaran	53%		1.8	310%		7.5
Goris	45%		1.5	78%		1.9
Meghri	82%		2.7	43%		1
Tegh	72%		2.4	75%		1.8
Tatev	151%		5	76%		1.8
Ani	46%		1.5	-77%		-1.9
Stepanavan	51%		1.7	124%		3
Gyulagarak	32%		1	109%		2.6
Lori Berd	60%		2	227%		5.5
Berd	60%		2	221%		5
Dilijan	49%		1.6	70%		1.7

The table was built according to the logic of the previous Table 2, based on the set of proposed formulas.

Analyzing the data in Table 3, it can be stated that the enlargement has mostly positively affected the expenses of the communities.

However, there are communities where certain reductions in the cost index are observed after enlargement, such as Byureghavan, Meghri, Tegh, Tatev, as well as Ani communities.

Thus, the results of the analysis of the level of income decentralization of the enlarged communities allow us to conclude that as a result of the enlargement, expenses in the communities increased to a greater extent than their incomes, as a result of which the growth of expenses in the enlarged communities of RA, compared to their incomes, proceeds at a faster pace. Let's try to present what has been said based on examples of specific communities.

From the data in the above graphs, it can be concluded that the average rate of growth of

personal income in the Alagyaz community for 5 years after enlargement was 6%, while the average rate of growth of official grants was 11%. In the Tsaghkahovit community, the average growth rate of own incomes was 7%, while the average growth rate of official grants was 9%, in the Lori Berd community, the average growth rate in terms of own incomes was 18%, the average growth rate of official grants was 7%, and in Kajaran community are the same percentage proportions, making 11%. It turns out that as a result of the enlargement, the degree of dependence on the state budget in the communities has generally increased to a greater extent than their incomes, under which conditions opportunities have been created in the communities in the direction of infrastructure improvement and modernization.

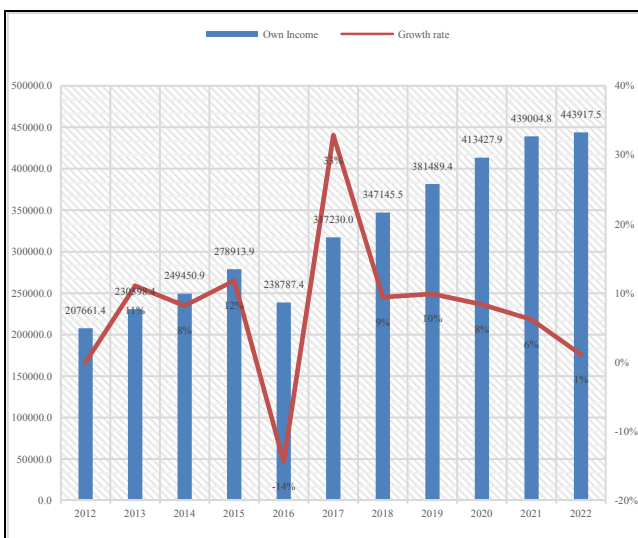


Figure 1. Annual growth rate of Kajaran community's own income in 2012-2022 (thousand AMD) [6].

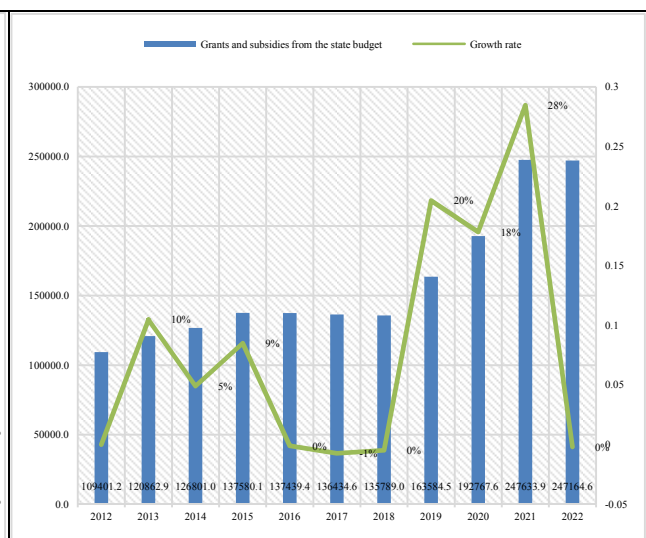


Figure 2. Annual growth rate of non-own incomes of Kajaran community in 2012-2022 (thousand AMD) [6].

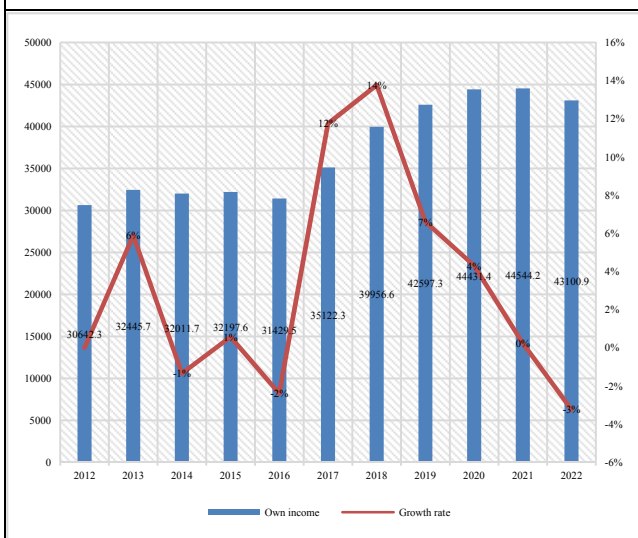


Figure 3. Annual growth rate of own incomes of Alagyaz community in 2012-2022 (thousand AMD) [6].

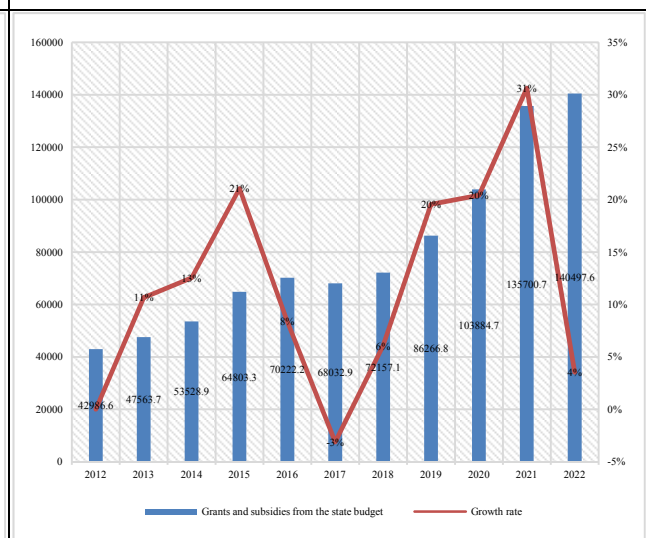


Figure 4. Annual growth rate of non-own incomes of Alagyaz community in 2012-2022 (thousand AMD) [6].

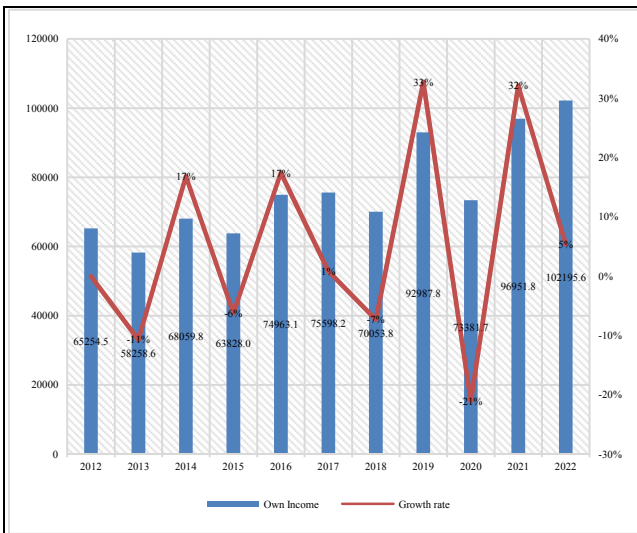


Figure 5. Annual growth rate of own incomes of Tsaghkahovit community in 2012-2022 (thousand AMD) [6].

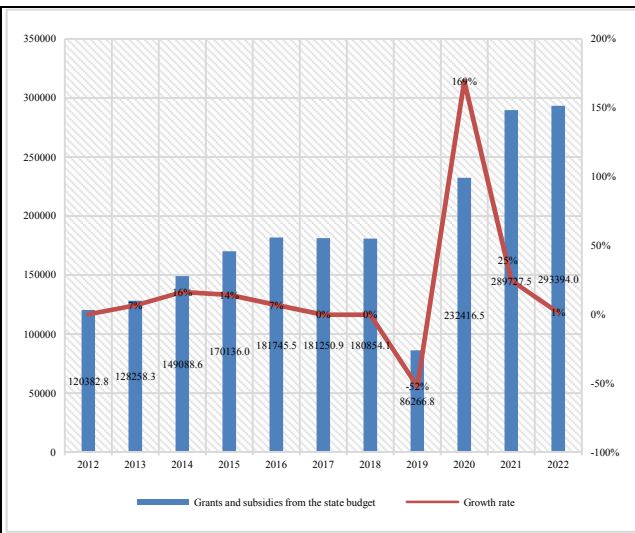


Figure 6. Annual growth rate of non-own incomes of Tsaghkahovit community in 2012-2022 (thousand AMD) [6].

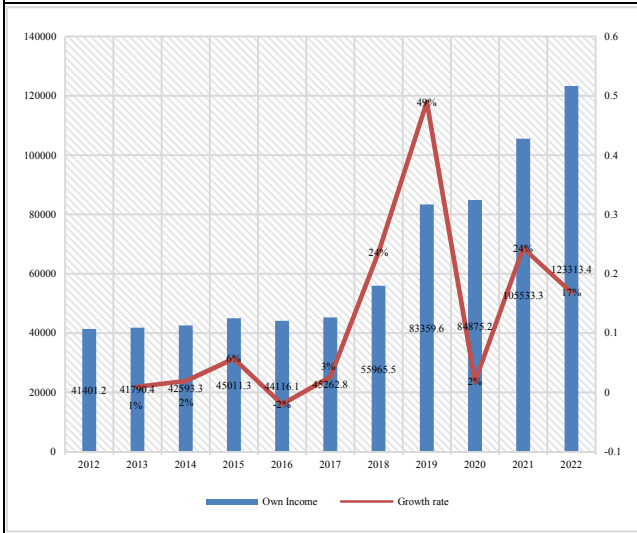


Figure 7. Annual growth rate of own incomes of Lori Berd community in 2012-2022 (thousand AMD) [6].

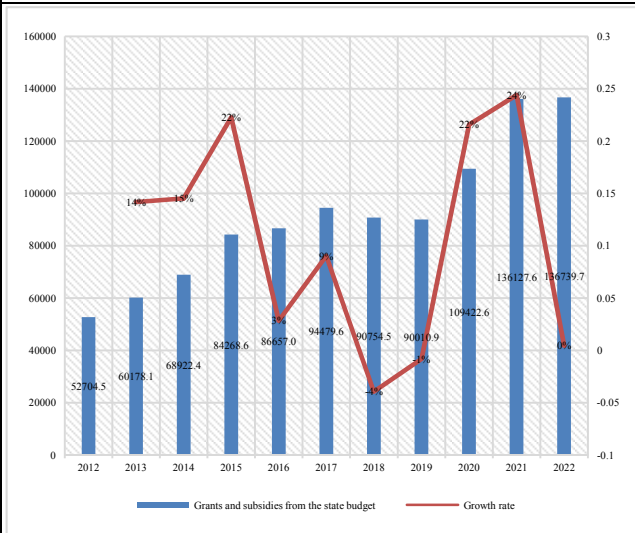


Figure 8. Annual growth rate of non-own incomes of Lori Berd community in 2012-2022 (thousand AMD) [6].

The calculations were made by the author based on the 2012-2022 budget reports of the analyzed enlarged communities.

In this context, it is also important to note that the community enlargement factor has its special role and significance in increasing the volume of subsidy programs provided to communities in recent years because as a result of enlargement, human capital capabilities, and capacities, as well as the community's financial capabilities, have increased.

Conclusion

Thus, to evaluate the impact of enlargement in the period 2012-2022 using the toolkit proposed in the main part of the research, the analysis of the incomes and expenses of the municipalities led to the conclusion that the enlargement mainly negatively affects the indicator of decentralization of the incomes of the municipalities, while having a positive effect on the expenses.

It should also be noted that the use of this toolkit will allow the communities to carry out the analysis of income and expenses within the framework of the assessment of the impact of enlargement, taking into account the GDP index in the calculation methodology.

It may have wide opportunities for future application both in the calculation of indicators characterizing the level of community decentralization by local self-government bodies and in the processes of evaluating the impact of enlargement on them.

At the same time, the analyses carried out in specific communities allow us to state that as a result of the enlargement, the official grants received from the state budget in the communities increased to a greater extent than their incomes.

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