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ТЕМАТИЧНІ РУБРИКИ

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PROACTIVE BUDGETING IS A TOOL FOR EFFECTIVE MUNICIPAL PROGRAMS

In conditions of strategic planning at the municipal level development the issues of effectiveness of municipal program and determination of the optimal amount of financial provision are being actualized. Usage of modern economic theories (Theory of public choice, Theory of constitutional economy, Theory of budgetary federalism, Theory of city economy etc.) allows to determine optimal amount of social benefits and costs while municipal program planning. A new tool for optimization is public participation in budgeting process – proactive budgeting. The approach makes possible increase of effectiveness of municipal programs.

Keywords: local social benefit, social costs, effectiveness of municipal programs, financial provision, proactive budgeting.

Introduction. In conditions of strategic planning at the municipal level development the issues of effectiveness of municipal program and determination of the optimal amount of financial provision are being actualized. In practice, amount of financial provision in budget sphere more often is determined by cost or resource method. However, in our opinion while planning municipal program it is necessary to apply the basic rule of effectiveness: optimal is such amount of activities which marginal social benefit is equals the marginal social costs. The approach has allowed to reveal new tool for optimizing municipal programs.

Literature review. Nowadays, in scientific works of domestic and foreign researches are widely considered most aspects of local self-government, organization of municipal finances, which creates a sufficient theoretical basis for the research. The theory of public choice, constitutional economics (J. Buchanan, G. Tullock) [1], the theory of budgetary federalism (Chiba Tibu, R. Musgrave, U. Oates) [3], modern studies in the field of urban economics (O'Sullivan A.), The work of domestic scientists (IV Babichev, Y. Dubrovskaya, GA Gadzhiev AA Mishin, and others) became the basis for determining the optimal (effective) amount of funding for municipal programs.

In the process of research, general scientific methods were used: analysis, synthesis, comparison, analogy, modeling, econometrics.

The purpose of the article. In our opinion, since it is the system of local self-government that makes it possible to identify the preferences of residents for various public goods, public participation of citizens in the budget process - initiative budgeting, can become a new tool for increasing the effectiveness of municipal programs, the way to optimization of the ratio of local social goods (benefits) and social costs.

Statement of the main material of article. Let's consider in which way to apply basic effectiveness rule (optimal is such amount of activities which marginal social benefit is equals the marginal social costs) while planning of financial provision of municipal programs.

To determine the optimal level, it is necessary to know the marginal social benefits of the local public good. Let us illustrate what has been said on a simple example, often encountered in objectives of the city economy. For example, within the framework of implementation of the municipal program of greenery of the territory, the settlement should decide how many trees need to be planted. For some reasons, different groups of citizens have different needs for greening the territory, which is expressed in the unequal marginal benefits received from the number of trees by citizens. Assume the opinion of citizens, according to this program, can be divided into three main groups. In this way, the first group estimates the marginal benefits (MB) of planting one tree at 400 rubles, the second one at 240 rubles, the third at 160 rubles. According with the principle of reducing marginal utility,

the value of each subsequent tree is reduced in the first group by 50 rubles, in the second group by 30 rubles, in the third group by 20 rubles. Let us summarize this data in Table 1.

Table 1

Marginal benefits from planting trees

Group of citizens	The firs tree	The second tree	The third tree	The forth tree	The fifth tree	The sixth tree	The seventh tree	The eighth tree
The first	400	350	300	250	200	150	100	50
The second	240	210	180	150	120	90	60	30
The third	160	140	120	100	80	60	40	20
MSB	800	700	600	500	400	300	200	100

Source: developed by the author

Suppose also that the planting of each tree is associated with a cost of 300 rubles, that is, the marginal social costs of planting one tree (MSC) are 300 rubles, and these costs are constant. Based on the available information, we can conclude that if a decision on the number of necessary trees is taken individually by each group, three trees will be planted in the settlement. All of them will be paid by the first group, because only they have the willingness to pay for the trees for the first three seedlings not less than the price that must be paid for each seedling. And now remember that the tree (gardening of the territory) is a local public good. Since the public good is characterized by non-competitiveness, all consumers can simultaneously consume it with full success. Therefore, the curve of market demand for local public goods is the sum of the benefits received by all consumers for each amount of the good.

Effective production of local public goods will be realized under the condition: MSC = MSB = ΣMB, where MSC - the marginal social costs of production of local public goods; MSB - the marginal social benefits of using the local public good; ΣMB is the sum of the marginal individual benefits from the use of the public good. In this way, an effective number of trees, which should be planted, will be 6 seedlings (Fig. 1.). Exactly with such amount of trees the magnitude of the marginal public benefits from trees will be equal to the marginal costs associated with their planting.

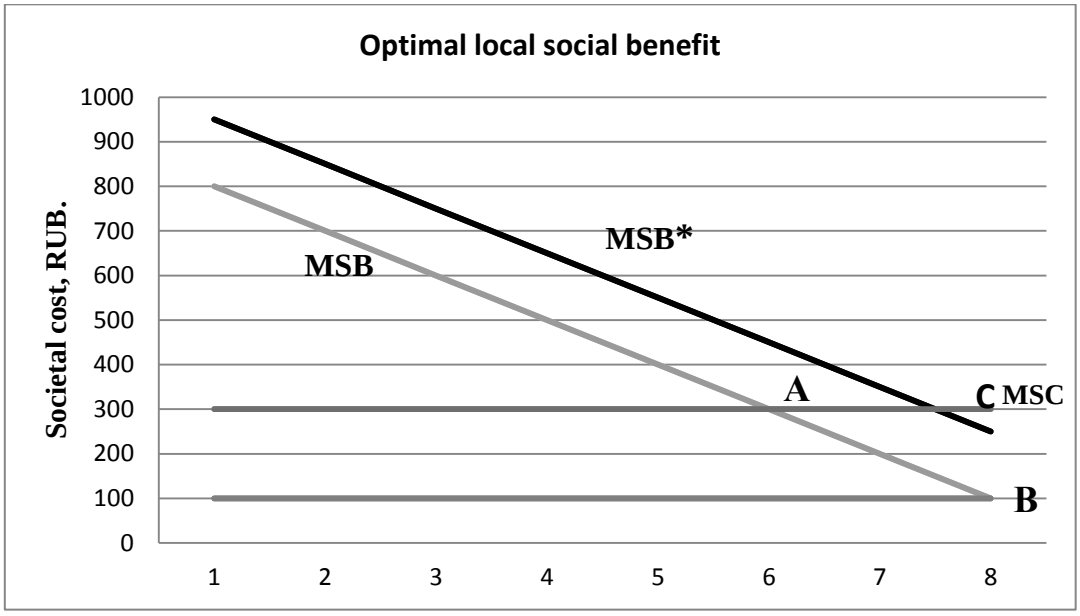

Fig. 1. Optimal and equilibrium supply of local social good
Source: developed by the author

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Suppose that greenery of settlements has the following characteristics:

1. Lack of high tree seeding density. In a certain range of use of plantations, their area is sufficiently small and therefore there is no high tree seeding density.

2. Lack of overflow between settlements. Plantings do not create benefits or costs for residents of other areas.

Under these conditions, the green territory is exclusively a local public good. If there is no high tree seeding density, then all three groups of citizens can enjoy the plantations; If there is no overflow, then there is no need to worry that citizens of other territories can take advantage of these benefits. At any value, less than 6 - residents of the settlement will be willing to pay more than 300 rubles for an additional tree. Suppose that at first only one tree was planted (can be any examples with local public goods: installation of street lamps, allocation of acres of lands to the park, etc., the principle remains the same). At this point, the willingness to pay for the planting of trees (Picture 1) is at 800 rubles, and the costs are only 300, so planting additional trees will bring significant net benefits. Similarly, for any value exceeding 6 trees (point A at Picture 1), the willingness to pay will be lower than the public costs, so it is more efficient to have less trees. How can the local authorities decide how many trees to plant? There are several options. The first involves holding elections in which voters decide which programs are priority, how much to spend on local public goods. The second method allows citizens to "vote with their feet" when they move for living to a different location, which is provided with the best combination of public goods and taxes (costs). The next method is the public participation of citizens in the budget process.

Public participation of citizens in the budget process can be divided into two types: 1) active participation - initiative budgeting, when the citizen directly participates in the project or by voting on the allocation of budget funds (public hearings, crowdsourcing, etc.), or participates with his own funds - crowdfunding etc., the key is the manifestation of citizens' initiative; 2) passive participation - raising the budget awareness of citizens, including municipal programs, services, etc.

When discussing a municipal program, the following options are possible for residents to choose the number of local public goods:

Suppose that the settlement divides the cost of planting trees in equal shares between their three groups of citizens. If the marginal cost is 300 rubles, then each group pays 100 rubles for the received public good. The preferred number of trees for a resident is when the marginal private costs are equal to the marginal private benefits. On the graph (Picture 1) the marginal private costs represent at the level of 100 rubles. If each group of citizens pays 100 rubles, then the preferred number of trees will be 8 (point B at Picture 1). In the conditions of voting by a simple majority, the preferred size is selected for the median group of citizens is (8 trees). In conditions of the benefit principle, citizens pay an amount (per tree) equal to its marginal benefit with the optimal amount (the optimal result is 6 trees, Point A), so the landing of the optimum amount receives universal support. The outcome of voting depends only on the position of the marginal benefit curve of the median voter. Voting by a simple majority is becoming ineffective, because the costs in this case to produce the public good are divided equally among the three voting groups and if for the first group the difference between willingness to pay and payment is significantly higher than for example in the third group (400-100 $\geq$ 160-100).

Alternatively, you can distribute costs in accordance with the willingness to pay for local social good, this approach to making local decisions is called the Lindal approach (named Eric Lindal). In accordance with which, the tax liabilities are based on the benefits received from public goods: the more the citizen is willing to pay, the higher his tax obligations. This thesis can be formulated regarding the financial provision of municipal programs in this way: the greater the need for local public goods, the higher the citizen's willingness to participate with his own funds in the program. Therefore, if a citizen is willing to participate in co-financing of a municipal program (even a purely symbolic amount),

this already indicates the need for the created benefits, which means that the program is effective. Public participation of citizens, initiative budgeting becomes a new tool for determining the effectiveness of municipal programs.

Suppose, because of conducted hearings and interviews, the authorities know the curves of the marginal benefits of citizens of a given territory. Citizens are ready to participate in the landscaping program with their own funds: for example, citizens of the first group decided to contribute 150 rubles for the implementation of the gardening program, of the second group 90 rubles, and the third group – 60 rubles. These costs are much lower than the willingness to pay, which makes planting 6 trees an acceptable option for everyone. Taking these private costs into account, all three groups of citizens have a landing size that they prefer. In this case, the authority is sufficiently informed to calculate how many individuals are willing. to pay for the local public good of various levels, and it sets the recommended amount to each group of citizens in accordance with their marginal willingness to pay. How does the principle of benefits in public participation work in real life? A similar question is considered for taxation, but it seems to us that citizens prefer to participate in specific social projects with a real result. One of the problems associated with this method is that the authorities do not represent the shape of the marginal benefits curves of individual citizens, so they are not able to calculate approximate amounts for them. Moreover, taxpayers with relatively high benefits do not have any sense to disclose their willingness to pay for local public goods: if they do this, then higher amounts will voluntarily be paid. Citizens with high needs will act more rationally if they hide their true preferences in the hope that someone else will pay for this public good. In this case, the public good cannot be produced at all.

If the municipalities have a discrepancy in the need of public goods and budgetary security, i.e. funds of local budget and citizens is not enough to plant the optimal number of trees, subsidies should be the necessary part of the financial provision of the municipal program. Remember that today in practice for the implementation of municipal programs the following resources are used: local budget funds, subsidies from the higher budget, other sources - the funds of citizens and organizations.

In his works, O. Sullivan [2] considers in some detail the low efficiency of the non-target subsidy (the model of Filimon, Romer and Rosenthal, the "Velcro effect"), because of that we will only consider the option with a targeted subsidy for the implementation of the municipal program. Suppose for the improvement of the regional budget allocated 150 rubles for planting one tree. In this case, the social goods curve will move upwards parallel to the original value by half (300: 150), MSC = MSB * the point will move to the right (Point C, Picture 1), i.e., at the marginal social costs, the number of marginal social goods can be produced more. Or 150 rubles evenly distributed between groups of citizens for 50 rubles, which further increases the profitability of public goods, the satisfaction of citizens. The targeted and share subsidy, directed to the financial provision of municipal programs, with the condition co-financing of other economic entities (funds of citizens, enterprises) will stimulate local authorities to develop proactive budgeting, therefore, to improve the effectiveness of programs. At the same time, it is necessary to abandon the use of a single subsidy, because officials can seek to save on programs for the implementation of social goods most in demand by citizens, for which they are ready to pay more, and send the remaining amounts to the programs in demand, which proves the expediency of applying a targeted, shared subsidy.

Conclusions and prospects for further research. In this way, the use of initiative budgeting in the implementation of municipal programs makes it possible to identify the optimal correlation of local social goods and social costs, which increases the efficiency of municipal expenditures. Initiative budgeting becomes a new tool for determining the effectiveness of municipal programs. Targeted share subsidies of higher budgets for the implementation of municipal programs also increase the effectiveness of programs, reduce

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private marginal costs, which increases the profitability of local social goods for citizens, and as a result, citizens' satisfaction increases.

References

1. *Buchanan, J.* (1997). Constitution of economic policy. Calculation of consent. Boundaries of freedom. Moscow: Taurus Alfa, 482.

2. *O'Sullivan, A.* (2002). The economy of the city. 4th ed.: Trans. With the English. - Moscow: INFRA-M, 706.

3. *Oates, W.* (1972). Fiscal Federalism. N. Y: Harcourt, Brace, Jovano-vich.

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Києвич А., Морунова Г.

Проактивне бюджетування - інструмент ефективності муніципальних програм

В умовах стратегічного планування на муніципальному рівні актуалізуються питання ефективності муніципальної програми і визначення оптимального обсягу фінансового забезпечення. Використання сучасних економічних теорій (теорія суспільного вибору, теорія конституційного господарства, теорія бюджетного федералізму, теорія міського господарства тощо) Дозволяє визначити оптимальний обсяг соціальної допомоги і витрат при плануванні муніципальних програм. Новий інструмент для оптимізації - участь громадськості в процесі складання бюджету - випереджаюче бюджетування. Підхід уможливлює підвищення ефективності муніципальних програм.

Ключові слова: місцева соціальна вигода, соціальні витрати, ефективність муніципальних програм, фінансове забезпечення, випереджаюче бюджетування..

Киевич А., Морунова Г.

Проактивное бюджетирование - инструмент эффективности муниципальных программ

В условиях стратегического планирования на муниципальном уровне актуализируются вопросы эффективности муниципальной программы и определения оптимального объема финансового обеспечения. Использование современных экономических теорий (теория общественного выбора, теория конституционного хозяйства, теория бюджетного федерализма, теория городского хозяйства и т. д.) позволяет определить оптимальный объем социальных пособий и издержек при планировании муниципальных программ. Новый инструмент для оптимизации - участие общественности в процессе составления бюджета - упреждающее бюджетирование. Подход делает возможным повышение эффективности муниципальных программ.

Ключевые слова: местная социальная выгода, социальные издержки, эффективность муниципальных программ, финансовое обеспечение, упреждающее бюджетирование.

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