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## Effectiveness Assessment of Tax Incentives

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**Abstract:** The article examines the role and importance of taxes for the formation of the budget system, highlights the shortcomings of the tax collection system, considers approaches to defining the concept of tax administration, assessing its effectiveness. The existing problems in terms of calculating the efficiency of tax administration have been identified. An assessment method was developed and tested on the example of several tax authorities in the Russian Federation.

The study aims to develop theoretical aspects and methodology for assessing tax administration in the Russian Federation as the basis for ensuring budget revenues.

**Keywords:** tax administration, the efficiency of tax administration, quality of tax administration, tax control, taxes, budget system revenues, tax arrears.

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### INTRODUCTION

Benefits in the taxation system are an integral part of the implementation of state tax policy. They are aimed at achieving economic and social goals. A tax benefit is a kind of preference, exemption from taxation of certain categories of taxpayers, as opposed to having an obligation that the rest of the participants have.

Tax incentives promote interest in these taxes on the part of payers to minimize their tax liabilities. However, the practical use of tax incentives in the tax systems of various states has revealed several shortcomings. A significant part of the payers used tax incentives to hide objects of taxation, the types of activities carried out did not correspond to the types of activities defined in the charters of these organizations. The use of privileged organizations in various schemes to minimize tax payments began to develop.

The negative practice has led to the state abandoning the institution of tax incentives. Instead of privileges used for specific types of activity, broader general economic or social benefits began to be practiced, and incentives for foreign economic activity were supported.

The development of informatization has led to the emergence of an opportunity to monitor the use of tax incentives, assess the effectiveness of their application. But to date, a unified methodology for assessing the effectiveness of tax benefits has not been developed. The creation of such a system will make it possible to more effectively use the mechanism of tax incentives in the implementation of tax policy.

## **METHODS**

Some methods were used to conduct specific aspects of the study. When studying the theoretical issues of assessing tax benefits, general scientific research methods were used, primarily theoretical generalization, the method of analysis and synthesis, the method of scientific abstraction. When analyzing methods for assessing tax benefits and developing our methodology, we used economic and statistical, computational, and constructive methods. In the course of testing the proposed technique, an experimental method was used.

The information base for the study was the regulatory legal acts of the Russian Federation, statistical data of the Federal Tax Service of the Russian Federation, as well as publications by Russian and foreign scientists devoted to the methodology for assessing the effectiveness of tax benefits. Among modern authors, theoretical research in the field of the essence and effectiveness of the use of tax incentives can be distinguished by the works of I.A. Mayburov, Yu.B. Ivanov, E.M. Popova, O.N. Grabovoi, A.E. Suglobov, O.G. Karpovich, Thomsen M. and Vatrina K. (Mayburov, I.A., Ivanov, Yu.B., 2016, Popova E.M., 2019, Grabova ON, Suglobov AE, Karpovich, OG, 2018, Thomsen and Watrin, 2018). Methodological issues of researching the effectiveness of tax incentives are considered in the works of D. Norris, F. Meach, D. Cleary, M. Keane, J. Slemrod, A. Zarat-Marceau, J. Valis-Gimenez, I. Valderrama. (Norris and Mich and Cleary, 2019, Keen and Slemford, 2017, Zárate-Marco and Vallés-Giménez, 2019, Mosquera Valderrama I.J, 2020).

The research plan includes an analysis of approaches to determining the effectiveness of the application of tax incentives, the development of mechanisms for assessing the effectiveness of tax incentives, and the testing of the research results using the example of corporate property tax.

The practical significance of the research results lies in the possibility of using the obtained scientific research results in the development of a methodology for assessing benefits concerning regional and local taxes. The developed integral indicator can be used to assess the effectiveness of tax benefits both in the Russian Federation and in other countries, taking into account the peculiarities and specifics of the tax system of these countries.

## **FINDINGS**

One of the key principles of organizing the signs of tax policy is to ensure its effectiveness. The effectiveness of tax policy is determined by its compliance with the goals and objectives of the tax authorities and society, ensuring the optimal combination of fiscal, regulatory, and incentive functions of taxes. In this regard, the problem of assessing the effectiveness of tax policy acquires particular relevance, this issue is especially acute in the context of the need to ensure a balanced budget, increase the stability of the regional economy, and implement anti-crisis measures by the state and regions.

Compliance with tax rules is a priority of public finance and has an impact on the implementation of the principles of equality and efficiency of taxation (Varotsis, N., Katerelos, I, 2020).

The tax policy of the state is closely related to the replenishment of the state budget, which is the guarantor of the state's fulfillment of its obligations. The effectiveness of tax policy affects the financial condition of the country (Fedotova G.V., Ilyasov R.H., Gontar A.A., Ksenda V.M., 2019).

Tax incentives are an important element of tax policy because they perform two functions simultaneously. First, it acts as an integral element of the taxation system. Secondly, they are an instrument of state regulation of the economy. According to research conducted by the United Nations, which involved 1,700 firms from 19 countries, tax incentives were in 11th place among the factors influencing the activities of organizations (Popova E.M., 2019).

Subnational government tax incentives in tax policy have been the subject of much theoretical research (Buettner, T., Krause, M. 2020).

Until now, there is no consensus among economists about the need to use tax incentives in tax legislation. There is a different attitude towards tax benefits for the following reasons:

- zero-address;
- plurality;
- presence fact.

The negative attitude to the provision of tax incentives is associated with the fact that they represent a direct deduction from the tax that is payable to the state budget, thus the benefits are directly the lost revenue of the state. On this basis, benefits are viewed as a negative phenomenon, the scale, and effect of which should be minimized. Western economists often view tax incentives as a government subsidy mechanism provided in the form of more favorable tax conditions for certain categories of taxpayers. Many countries adhere to this approach, if tax benefits are still provided, then they must be justified and established by law. So, for example, in the Belgian Constitution in part 2, article 170, it is determined that it is possible by law to establish such exemptions from taxation, which are due to an objective necessity. And article 101 of the Luxembourg Constitution generally prohibits the use of tax benefits (no tax privileges can be established). Instead of establishing tax incentives, the idea of expanding the tax base and using lower tax rates is supported.

Economists have often been skeptical about tax incentives and instead supported broad tax bases to enable low rates (Klemm, A., 2010).

The other side speaks of the need to establish tax incentives, since they fulfill the stimulating function of taxes, provide the necessary favorable conditions for the development of certain industries and reduce the tax burden on socially unprotected segments of the population. For this reason, the benefits are a positive point, since they correct economic and social inequalities in society. However, here it should be borne in mind that the provision of tax incentives leads to a decrease in budget revenues and a complication of tax control processes (Troyanskaya, 2015).

Tax incentives can have different goals: for developed countries to promote exports, research, and development, for developing countries, to attract foreign direct investment and improve economic conditions (Mosquera Valderrama I.J. 2020).

The presence of negative consequences of the application of tax incentives led to the need to assess their effectiveness. The main objectives of assessing the effectiveness of tax benefits are:

- assessment of budget losses from tax incentives;
- increasing the efficiency of usage depending on the implementation purpose;
- search for reserves for increasing budget revenues (Nesterenko, 2015).

Foreign countries have introduced an assessment of tax incentives' effectiveness for a long time. So, the German government in 1959 decided to include information on tax benefits in the budget reporting in the form of indirect (tax) subsidies (indirect spending). Further, this approach was supported in Canada, in Great Britain back in the 1970s of the last century, and from the mid-1980s it began to be applied in other countries, i.e. members of the Organization for Economic Cooperation and Development.

However, until now, the assessment of tax incentives in many countries is carried out not during the entire period of their application, but only at the stage of introduction, which leads to the impossibility of determining the effectiveness of a tax incentive to achieve the goals and objectives of its provision (Giyasov, 2020).

Various approaches were also applied to the procedure for introducing a system for assessing tax benefits. So, in particular, in the UK in 2019, the Office for the Simplification of the Tax System was formed. To assess the effectiveness of tax benefits, at the first stage, a list of tax benefits was formed, at the second stage, the largest fiscal benefits were assessed and recommendations were made for their adjustment or replacement. In Germany, the Ministry of Finance announced a competition among researchers to assess the effectiveness of tax incentives. In France, the assessment of tax incentives was carried out by specialists from individual government structures, united in the Committee for the Assessment of Tax Expenditures (Zherdeva A.I., Nemirova A.S., 2015).

If we consider specific methods for assessing the effectiveness of tax benefits, it can be noted that a unified methodology has not yet been developed. On the territory of the Russian Federation, methods for assessing the effectiveness of tax incentives are developed directly by the constituent entities of the Russian Federation.

In this regard, individual authors offer various quantitative and qualitative criteria for such an assessment.

Some scholars propose to use indicators such as the size of the tax burden, the amounts not received due to the provision of tax benefits, the degree of use of preference by payers (Kononchuk I., Prigodich I., Kievich A. 2020).

Other scientists put forward the following indicators as evaluation criteria: the coefficient of the effectiveness of incentives, calculated as the ratio of tax savings to the gross turnover of the organization, the coefficient of preferential taxation, defined as the ratio of tax benefits to the amount of tax liability (Karlovszkaya E.A., Rybakov E.E., 2019).

In general, when developing the Methodology, the constituent entities of the Russian Federation rely on the draft assessment methodology published on the website of the Ministry of Finance of the Russian Federation.

For assessment purposes, all benefits fall into two main groups:

- stimulating tax incentives, which as their goal put forward support for investment and innovation;
- social tax benefits, providing for measures to support enterprises in certain industries and certain categories of citizens;
- financial tax incentives are designed to optimize cash flows between budgets of different levels (Savina O.N., 2016).

Analysis of regional experience shows that when assessing the effectiveness of tax incentives, preference is given to conducting a study of budget losses from its provision, i.e. the main type of efficiency is budget efficiency (Popova E.M., 2019).

Evaluation of budgetary efficiency is carried out according to formula 1.

$$Бэ = \frac{Трн}{Трнл} \quad (1)$$

Бэ – budget efficiency of tax incentives;

- Трн – tax revenue growth rate;

- Трнл – growth rate of tax incentives.

Tax incentives are considered effective if they lead to a value of the budget efficiency indicator greater than 1.

This technique is distinguished by the sufficient simplicity of the calculations, the availability of an information base for the assessment.

It should be noted that this methodology considers only the budgetary aspect of efficiency, but does not assess social and economic efficiency.

In connection with these shortcomings, it was proposed to modify the used methodology and supplement it with an assessment of social and economic efficiency.

Social efficiency is considered as the demand for tax benefits, it is determined on the basis of formula 2.

$$Cэ = \frac{KН}{Kо} \quad (2)$$

Cэ – social effectiveness of tax incentives;

KН – the number of taxpayers who actually use the tax credit;

Kо – the number of taxpayers who, in accordance with the law, can apply the tax incentive.

Economic efficiency allows us to evaluate the economic effect of using tax incentives as an increase in the indicators of the socio-economic development of the region and is calculated using formula 3.

$$Ээ = \frac{Трэ}{Трнл} \quad (3)$$

Ээ – economic efficiency of tax incentives;

Трэ – growth rate of individual economic indicators of regional development.

After determining the individual indicators, an integral indicator of the effectiveness of tax incentives is calculated. When calculating the integral indicator, specific weights are assigned to individual types of efficiency:

- budget performance indicator – 0,5;
- social performance indicator – 0,25;
- economic efficiency indicator – 0,25.

Thus, the formula for calculating the integral indicator takes the following form (4)

$$Эобщ = 0,5Бэ + 0,25Cэ + 0,25Ээ \quad (4)$$

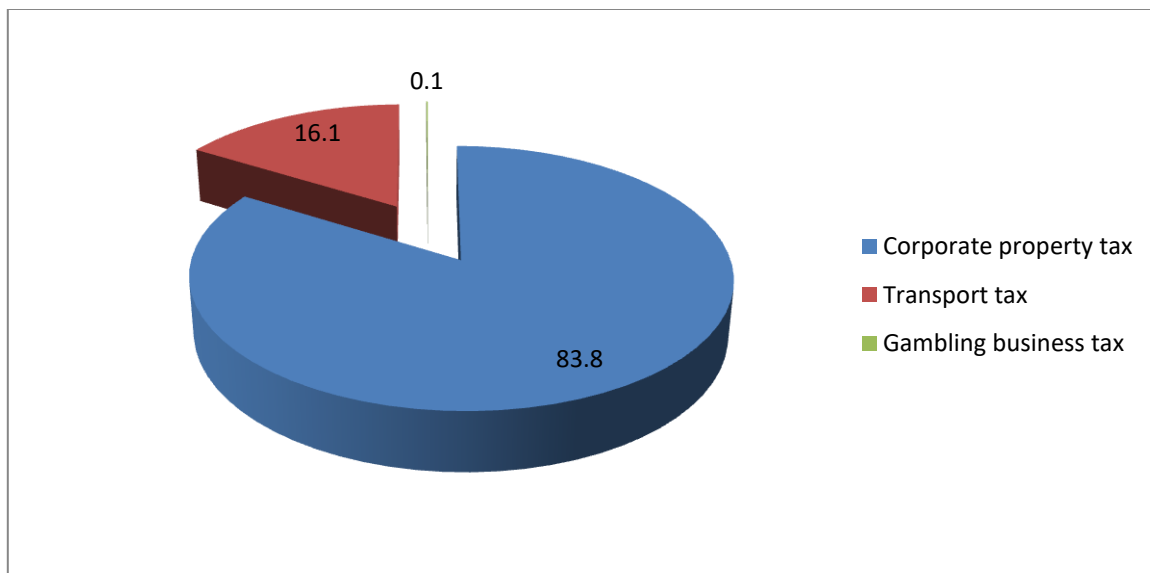
Эобщ – integral indicator for assessing the effectiveness of the use of tax incentives.

The proposed methodology for assessing the effectiveness of tax benefits, even though it provides for more complex calculations, but allows you to evaluate different aspects of the use of tax benefits and make an informed decision about the need for its use in the regional tax system.

Next, we will determine the mechanism for using the methodology based on the budget of the Novosibirsk region. Regional budgets act as a source of meeting various needs of the population, increasing the rate of production and economic growth in their territory (Simonova N.Yu., Ivanova E.V., Uraeva A.I., 2019).

The authorities of the constituent entities of the Russian Federation have an impact primarily on regional taxes, which include the tax on the property of organizations, transport tax, and gambling business tax.

The structure of revenues to the budget of the Novosibirsk region from regional taxes is shown in figure 1.



**Fig.1: Structure of proceeds from regional taxes to the budget of the Novosibirsk region in 2019**

It can be noted that the most significant fiscal is the tax on the property of organizations, the proceeds from which make up 83.8% of the total amount of regional taxes.

Property tax is a significant tax for financing local government not only in Russia. For example, in the United States, approximately 21% of all state and local government spending was financed through property tax (Michael Chirico, Robert P. Inman, Charles Loeffler, John MacDonald, and Holger Sieg, 2016). For the largest cities, this percentage is much higher.

Housing tax credits stimulate home consumption (David Albouy and Andrew Hanson, 2014).

Analysis of Russian legislation for the calculation methodology assumes two options for granting benefits: benefits provided at the federal level and implying complete exemption from paying this type of tax, as well as benefits that are established and introduced by the constituent entities of the Russian Federation (Musaeva K., Alieva P., Mirzabalaeva F., Mirgorod E., Kerimova Z. Espacios. 2019).

An analysis of the budgetary efficiency of the application of tax incentives is presented in Table 1.

**Table 1: Assessment of the budgetary efficiency of property tax incentives for organizations in the Novosibirsk region**

Indicators	2017	2018	2019
Property tax, mln RUR	10169,4	11868,0	14410,6
Growth rate of corporate property tax, %	-	116,7	121,4
Losses of budget revenues in connection with the provision of tax benefits, mln RUR	1774,5	4032,4	4943,6
Growth rate of granted regional tax incentives, %	-	227,2	122,6
Assessment of the budgetary effectiveness of tax incentives	-	0,51	0,99

One can note a rather low level of budgetary efficiency of the benefits provided in the Novosibirsk region for the property tax of organizations.

The assessment of the social effectiveness of the benefits provided is shown in Table 2.

**Table 2: Assessment of the social efficiency of property tax benefits for organizations in the Novosibirsk region**

Social performance indicators	2017	2018	2019
The number of taxpayers who are eligible for benefits	4719	5773	3418
Number of taxpayers using the right to benefits	4716	5765	3398
Social effectiveness benefits	1,00	0,99	0,99

The assessment of social efficiency showed that tax incentives for the tax on the property of organizations are quite in demand and have a high proportion of their use.

To assess the economic efficiency, it is necessary to highlight the areas of socio-economic development to which the benefits are directed. The provided benefits can be divided not two groups:

- benefits that stimulate the investment activity of business entities, in this case, benefits are provided by participants in investment projects;
- benefits aimed at accelerating the turnover of fixed assets in organizations.

Based on these provisions, an increase in the volume of investments and an increase in the cost of fixed assets are considered as criteria for assessing the economic efficiency of tax benefits.

The results of assessing the economic efficiency of property tax benefits for organizations are presented in Table 3.

**Table 3: Assessment of the economic efficiency of property tax incentives for organizations in the Novosibirsk region**

Indicators	2017	2018	2019
Fixed capital investments, bln RUR	168,3	185,1	203,0
Investment growth rate, %	-	169,4	109,7
Property value of economic entities, bln RUR	9397,3	11375,6	13593,3
Growth rate of property of economic entities, %	-	121,1	119,5
Average growth rate of investment potential,%	-	145,3	114,6
Losses of budget revenues from the provision of benefits, mln RUR	1774,5	4032,4	4943,6
Growth rate of regional tax incentives in%	-	227,2	122,6
Assessment of the economic efficiency of property tax incentives for organizations	-	0,64	0,97

Thus, it can be noted that in the analysis of economic efficiency, tax incentives are ineffective.

Next, we will conduct an integral assessment of the effectiveness of corporate property tax benefits. The calculation results are presented in Table 4.

**Table 4: Integral assessment of the effectiveness of property tax incentives for organizations in the Novosibirsk region**

Indicators	2018	2019
Budget efficiency assessment	0,51	0,99
Social effectiveness assessment	0,99	0,99
Economic efficiency assessment	0,64	0,97
Integral indicator of the benefits effectiveness	0,66	0,99

The integral indicator shows the normal effectiveness of tax incentives. The work carried out in the Novosibirsk region to optimize tax incentives turned out to be productive.

The new methodology provides a comprehensive account of the impact of tax incentives both directly on the economic entity itself, and on budget revenues, and the socio-economic development of the territory.

## DISCUSSION

The advantage of the developed methodology for assessing the effectiveness of tax benefits is the multidimensionality of this process study, which consists in determining not only the budget effect but also the assessment of the economic effect manifested through the development of business entities that have received the right to tax benefits and social efficiency, as the degree of demand for tax benefits. The authors consider these aspects to be the most important; the use of several criteria allows a comprehensive assessment of the tax benefit. However, it should be noted that this methodology does not take into account the mechanisms for granting tax incentives depending on the level of their adoption (federal and regional). According to the authors, it is necessary to abandon the practice of granting federal tax benefits for regional taxes, and, if necessary, to provide for a mechanism to compensate for lost income by regional budgets. This will allow the benefits of regional taxes not provided by the federal government.

Further improvement of the methodology for assessing the effectiveness of tax benefits will be carried out by including additional indicators in the calculation of economic efficiency, which will make it possible to more accurately determine the value of the integral indicator and the impact of benefits on the development of the regional economy. The level of growth of innovative products in the gross regional product can be used as such indicators, as Savina O.N. suggests doing in her works. (Savina, 2016).

The proposed methodology is quite simple in calculations and clear, however, to obtain a more complete overview of the situation, it is possible to supplement it with indicators of the economic development of the region, determined depending on the purposes of providing tax benefits.

## CONCLUSION

The results of the study are to obtain the following scientific results:

1. Research into the theoretical aspects of the use of tax incentives, two main approaches to their provision have been identified: on the one hand, it is necessary to limit tax incentives, while expanding the tax base and reducing tax rates, on the other hand, at present, it is not possible to completely abandon tax benefits. benefits, since it is necessary to carry out state regulation of economic development aimed at forming an optimal production structure in the country, supporting priority sectors of the economy, which, in turn, will guarantee the growth of the quality of life of the population;
2. Analysis of the methodology for assessing the effectiveness of tax incentives showed that currently there are no uniform assessment criteria. As for indicators, the value of the tax burden, the amounts not received due to the provision of tax benefits, the degree of use of preferences by payers, the coefficients of the effectiveness of benefits, preferential taxation are used. There is currently no single methodology. All regions use the budget efficiency indicator for assessing the effectiveness of tax incentives. Some regions supplement this indicator with other criteria. However, the use of one indicator does not allow a comprehensive assessment of the effectiveness of tax incentives, and the use of different methods in different regions makes the results of the assessment incomparable. In this regard, a unified method is proposed for assessing tax benefits through the calculation of a comprehensive indicator of the effectiveness of tax benefits, including the calculation of not only budgetary efficiency but also the assessment of the social and economic efficiency of tax benefits.
3. The proposed methodology was tested based on the property tax of the Novosibirsk region. The choice of the tax was dictated by its importance for the formation of regional budget revenues and the degree of influence of regional legislation on tax elements. The mechanism for conducting a comprehensive assessment of the effectiveness of tax incentives has been demonstrated. The results obtained show the scope of application of this methodology: conducting a comparative analysis of the effectiveness of tax



incentives for various taxes, for the constituent entities of the Russian Federation, which makes it possible to assess the effectiveness of regional tax policy and actions of regional authorities concerning the implementation of their powers in the field of taxation. This technique can be effectively used on the territory of other countries, taking into account the specifics of the distribution of powers to establish taxes between the levels of government and the specifics of the tax system in the country.

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