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IMPLEMENTATION OF THE CONCEPT OF TAX EXPENDITURES IN THE RUSSIAN FEDERATION: THE EVALUATION METHODOLOGY OF EFFECTS AND EFFICIENCY

Relevance of research topic is due to the ability to use tax incentives as a tool of industrial policy, for example, supporting of priority sectors and activities. Despite the distortions that tax incentives introduced in the market resource distribution mechanism, tax incentives can be used as tool for achieving industrial policy. In this case, the government consciously relies on the generation of distortions in the market resource distribution mechanism, because the government is interested in increasing of resources flow in the industry, which get tax incentives [1].

In the Russian Federation, the concept of tax expenditures in practice has not been applied. Tax incentives are always available in Russia for an indefinite period and without evaluation of the relevant expenditures. Also, the effects appearing from the provision of certain tax incentives have never been evaluated quantitatively. The efficiency of tax incentives has not been evaluated also. As a result, the number of tax incentives in Russia increases every year, but the government and society do not have any exact data on the budget losses related to the provision of tax incentives.

A budget formalization of these processes in line with the generally accepted concept of tax expenditures has been long overdue. But just two years ago a difficult task regarding the optimization of tax incentives has been set for the first time before the Ministry of Finance in the government document "Guidelines for the tax policy of the Russian Federation for 2012 and the planning period of 2013-2014" [6]. In particular, it is necessary to develop a practice of impact assessment of the tax incentives that would allow to make decisions about their renewal or termination, as well as a system of estimating the loss of fiscal revenues resulting from tax incentives for the purpose of their accounting as a tax budget expenditure in the budgets planning processes and budgets performance reports. In this case, the task is accompanied by a target setting of the Russian Government that in the medium term a draft budget law for the next year at all levels of state power and local self-government has to be accompanied by a report indicating budget "tax expenditure" and their efficiency.

Taking into account that this problem in our country (and in general in the former Soviet Union) has not been worked out either in theory or in practice, the possibility of any objective assessment of all tax expenditures and evaluation of the efficiency of all tax incentives within the time frame specified seems to be unrealistic. And this complex (which requires appropriate analysis and evaluation) is significant, if we understand privileges in a broader context as any tax incentive mechanisms. According to preliminary estimates of the Ministry of Finance, the total number of tax incentive mechanisms (privileges and exemptions) amounts to 191 points, 60 of them – regarding the income tax on profits, 80 – regarding the value-added tax, 20 – regarding the property tax, 16 – regarding the land tax, 12 – regarding the income tax on mineral extraction and 3 – regarding the fees for the use of fauna and water biological resources.

Significant impediments to the solution of this problem in Russia are, firstly, the methodological vacuum in the identification and evaluation of tax expenditures, as well as in evaluating the effects and efficiency of the use of different-directed tax incentives, and secondly, the lack of an organizational system, which would monitor and assess these indicators. In fact, even the following question has not yet been answered: who and how will be solving this task?

In this article authors will try to identify some methodological solutions for the task of estimation of tax expenditures and the efficiency of tax incentives in Russia, apart from the organizational and technical aspects of the problem.

As known, tax incentives are not the ideal instrument of state regulation and stimulation of priority processes. Significant use of tax benefits leads to a lower neutrality of the tax system, increases the cost of tax administration, and as a result - reduces the efficiency of the tax system, differentiates the tax burden between different industries and categories of taxpayers, and therefore, reduces the system's fairness and complicates the construction of taxes and the system in general. An alternative tool is the direct government financing (subsidies, grants, loans), which often demonstrates greater flexibility and stimulation targeting.

The competition between the instruments of tax and fiscal stimulation is obvious. It makes it necessary to give preference to one or another instrument. But this choice has to be made not on the basis of theoretical reasoning and qualitative assumptions, as it is being done in Russia now, but it has to be made on the basis of comparative analysis of the alternative instruments efficiency and quantitative estimations (and not only direct estimations, but also side-effects). It should be noted that in Russia the use of fiscal stimulation instruments has long been accompanied by more or less effective control of their expenditure and evaluation of the efficiency of their use. The use of tax incentives is burdened only by the tax authorities' control procedures, quantification of tax expenditures and evaluation of their performance in Russia, unlike most developed countries, is still not being carried out.

The basis for the solution of these problems in Russia should be made up from the works of the founders of the assessment practic-

es of the tax expenditures in the United States [18, 11, 19, 14, 13, 22, 20, 7, and others). The studies of the best practices of tax expenditures assessment in the United States and OECD countries are also extremely important [10, 17, 9, 15].

A methodological approach to the assessment of tax expenditures and evaluation of the efficiency of their implementation in Russia will then be proposed. However, together with that we want to emphasize that the originality of the approach is related only to the methods of costs and efficiency estimation. The essence of the approach is based on the famous "concept of tax expenditures" [18]. The positive practice of using this concept in the USA and OECD countries during 40 years confirms the need to follow the developing economies in line with this concept.

In general, the assessment of the costs and the assessment of their efficiency are the two independent and large-scale problems, but they are consistently connected: the second problem cannot be solved without the first. In addition, these two problems have different scales of solution. They are necessary for assessment of tax expenditures and their efficiency in the whole country, and also for estimation by industry, regions, and municipalities, as well for estimation of each of tax incentives (or type of tax expenditures). Together with this the solution of the first as well as of the second problem is connected with some issues that are not solved even by those countries that have been practicing the concept of tax expenditures for a long time, not to mention those who have recently joined or are only going to join the process.

It is necessary to make another note on better understanding of tax expenditures.

The founder of the concept of tax expenditures S. Surrey argued that any tax is made up of two elements (parts). The first part is the structural norm, which is necessary for the normal functioning of the tax. The second part are the norms introducing special incentives. He wrote that "these provisions, often called tax incentives and tax subsidies represent deviations from the normal tax structure and are designed for particular industries, activities or groups of taxpayers. They take many forms, such as permanent exclusion from taxable income, deduc-

tions, deferred tax liabilities, tax credits and special tax rates. Whatever form they take, these deviations from the normative tax structure are the government expenditures on exempt activities or groups of taxpayers and made through the tax system rather than through direct expenditures, loans, or other forms of state assistance [18, 19].

As known, there are many definitions of tax expenditures - almost every country has its own. T. Malinina has conducted scrupulous analysis of these definitions (we do not repeat it) and identified four distinctive characteristics [3]. Tax expenditures are:

loss of tax revenue, so they lead to lower budget revenues;

appear from the tax incentives and exemptions relative to the base (normative) tax structure;

used for the realization of the goals of national social and economic policy;

an alternative to direct government expenditures.

In our opinion the first two features are seen as really necessary to identify tax expenditures, and the other two are redundant. But it takes one more - an additional feature - creation of any advantages for certain activities or groups of taxpayers. This is a very important feature, because it allows considering the basic structure of taxes as one that did not originally contain any advantages for certain activities or groups of taxpayers, representing some ideal theoretical tax construction.

However, the OECD [10] recommends distinguishing between the basic and normative tax structure. If the basic structure of taxes should demonstrate uniqueness and universality for the different countries, the normative structure of taxes should reflect the national identity of the tax, i.e. those rules which are recognized as essential parts of the considered tax in the country, although those rules are not established in the framework of the basic structure. And, accordingly, these rules cannot be considered as tax expenditures in this country. This distinction is a very important and promising feature of the process of adaptation of the basic theoretical structure of taxes to the existing national practice of their application, and as a result – of a more precise definition of the standard against which national identification of tax expenditures and a more precise calculation is made.

For example, the basic structure of the income tax, as it is known, is considered to be the comprehensive income Schanz-Haig-Simons model. At least, S. Surrey insisted on it. This model provides for taxation of the difference between revenues and expenses incurred from obtaining these revenues. However, this model provides for taxation in equal measure of all income from all sources: salary, income from business activities, capital income (dividends, interest, rents), inheritance, gift, transfers from the budget (pensions and social assistance), imputed rent for the use of your own home, goods produced and consumed in the household or your own company, and other income. Such a model of the tax is unlikely to be administered in practice.

As a normative structure of Russian income we can consider taxation in various degrees (different rates applied) of different types of income, and the taxation of one part of the total income according to the model Schantz-Haig-Simons [1, 2, 4]. In particular, the taxation of the following is excluded from full income: the imputed rent for the use of own housing, goods produced and consumed in a household or a private firm. Thus most often only those parts of income are excluded, which are almost impossible to administer. Accordingly, if the normative structure of tax (and not the base tax structure) is used as a standard these deviations should not be treated as tax expenditures (incentives). Thus, we offer the following definitions.

The basic tax structure is a set of structural elements (rules), that provides a such tax construction, which does not produce any benefits for certain activities or groups of taxpayers.

The normative tax structure is a set of structural elements (rules) and deviations from them, that provides a tax structure that is adapted to the practical implementation in the current national tax administration system and thus is most relevant to the principle of minimizing the administrative costs.

Tax expenditures are losses of tax revenues of the budget system connected with the application by the legislation of various deviations from the normative tax structure, which in

this case provide some benefits to certain types of activities or groups of taxpayers.

Evaluation of tax expenditures

Thus, assessment of tax expenditures in Russia should be made for a separate article (tax incentives), for a particular tax, by type of tax, for all taxes and fees. A sequence of estimations of tax expenditures for a specific tax is given below. This assessment should include several successive operations:

first, the development of the normative structure of the tax in the context of all its major elements (of taxpayers, the object of taxation, tax base, tax rate, the tax period, the order and timing of payment)

secondly, completing a list of deviations from the normative structure of the tax (that deviations thus will be the types of tax expenditures);

thirdly, the development of a method of quantitative assessment of tax expenditures and the way of their assessment on practice;

fourth, the preparation of the statisticaly quantifiable indicators, which are necessary for quantitative assessment by the selected method and way;

fifthly, an assessment of tax expenditures on this tax.

Overall assessment of tax expenditures will be the result of adding quantitative estimations of these expenditures for the full range of Russian taxes and fees.

As to the choice of the estimation method of tax expenditures, the OECD Review of the best practices (Best, 2004) suggests the possible use of three methods.

1. Assessment of tax expenses based on income loss. This method involves the assessment of tax expenditures as the amount of tax revenue that the budget system will not receive as a result of (or loses as a result of the action) of any incentives.

2. Assessment of tax expenditures based on reduced income. This method involves the assessment of tax expenditures as the amount of tax revenue that the budget system can receive as an additional result of the proposed cancellation of incentives. It provides a fairly complex accounting of economic agents behavioral effects due to the abolition of incentives.

3. Assessment of tax expenditures based on equivalent costs. This method involves the assessment of tax expenditures as the sum of the direct costs of the budget, which must be paid to all taxpayers who use incentives so that their total income would be the same as when using this incentive.

Most practical relevance is the method of income loss. According to experts [20], it is the most simple and reliable method. A practical way of calculating the tax cost of this method is reduced to the following steps. To assess the existing incentives one should consider the difference between the amount of tax that would have been obtained in the absence of the analyzed tax incentives, and the actual amount of the tax, which comes to the budget system in terms of the incentives.

Evaluation of annual tax expenditures based on the analyzed incentives

The formula for this calculation will be the following:

$$TE^t = TI^i_{w/i} - TI^i + \Delta ICTA^i + \Delta ICTH^i,$$

where i – year, of the given incentives' introduction;

TE^t – tax expenditures i-th year;

$TI^i_{w/i}$ – the sum of tax revenue from taxpayers using this incentive, calculated in the absence of incentive in i-year (if data are used by i-1, they need correction and reduction to the i-th year);

TI^i – the sum of tax revenue from taxpayers using this incentive, calculated in terms of providing incentives in the i-th year;

$\Delta ICTA^i$ – the increasing of the tax administration costs due to additional costs of administering state incentive in the i-th year;

$\Delta ICTH^i$ – the increasing of the tax harmonization costs due to additional costs for the use of taxpayers' incentives in the i-th year.

Evaluation of tax expenditures for the period analyzed incentive

For the purpose of tax incentive efficiency evaluating the tax expenditures should be evaluated not for one year but for period from its establishment to the display of effect - t. Then all parameters are summarized by year. In addition, for comparability they are brought to the

same point in time by discounting. The simplified formula would look like:

$$\sum_{i=1}^{t} TE^t = \sum_{i=1}^{t} TI_{w/i}^i - \sum_{i=1}^{t} TI^i + \sum_{i=1}^{t} \Delta ICTA^i + \sum_{i=1}^{t} \Delta ICTH^i,$$

where t – the period of time from the establishment to the end of the display of effect of this incentive;

$\sum_{i=1}^{t} TE^t$ – tax expenditures of the period t;

$\sum_{i=1}^{t} TI_{w/i}^i$ – the sum of tax revenue from taxpayers using this incentive, calculated in the absence of incentive of the period t;

$\sum_{i=1}^{t} TI^i$ – the sum of tax revenue from taxpayers using this incentive, calculated in terms of providing incentives of the period t;

$\sum_{i=1}^{t} \Delta ICTA^i$ – the increase of the tax administration costs due to additional costs of administering state incentive of the period t;

$\sum_{i=1}^{t} \Delta ICTH^i$ – the increase of the tax harmonization costs due to additional costs for the use of taxpayers' incentives of the period t.

Taking into account the time lag of the incentive action and the costs of tax administration increases the accuracy of the estimation. But even taxation expenditures calculated by such a complicated way will be not exact. The main sources of these errors are:

this method takes into account only the primary effects of tax incentives, it is not possible to take into account its secondary effects on changes in the tax base, in particular, due to changes in the behavior of recipients of incentives;

enability of accurate determination of the amount of the tax that the state loses by giving exemptions to taxpayers, especially if this exemption is valid for a long time;

the complexity of an accurate assessment of time t can lead to using as a time t the period of incentives exemption or any extended period (5-6 years), when the effect of benefits must clearly appear. All these assumptions will reduce the accuracy of the estimation;

the precise estimation of the increase of the tax administration costs and tax harmoniza-

tion costs is a costly and difficult task, simplified procedures will not consider these indicators.

So the simplified formula for calculating the tax expenditures for the period would have the form:

$$\sum_{i=1}^{t} TE^t = \sum_{i=1}^{t} TI_{w/i}^i - \sum_{i=1}^{t} TI^i.$$

Initial requirements for assessing the incentives efficiency

Significant problems arise in formulating this methodology. Evaluation of tax expenditures has been learned by most developed countries (this process has been improved there for decades, especially in the USA), but adequate assessment of the efficiency of these tax expenditures still has not been elaborated. Moreover, there are opinions that a scientifically based methodology for evaluating the efficiency of incentives is extremely difficult to create. There are several reasons. Let`s formulate them.

First, during the provision of incentives it is impossible to predict how the process of its shifting in each case will end, who will get this benefit, who will be the final beneficiary of it. The shifting processes in the taxation are difficult for studying and exact description in general. All this applies also to the incentives shifting. Even a long-term operation of an incentive sometimes doesn't allow identifying who is the final beneficiary, predicting its future behavior and carrying out its planning. So it is impossible to plan who would bear the newly introduced incentives. This problem is not significant for the tax incentives for individuals (the tax on personal income, transport and property), as opposed to tax incentives from legal entities. For example, the incentive in form of accelerated depreciation is given to a particular enterprise. This company reduces its liability on income tax, but doesn't spend its freed funds on purchasing fixed assets, and spend them, for example, on increasing the salaries of the employees. Thus, the final beneficiary of these incentives suddenly becomes a person to whom this privilege was not intended.

Second, the time lag before the affect appears after the introduction of appropriate incentives is not certain, which (lag) may be specific for each incentive, so it is not clear when the

expected effect of incentives will be experienced. It should be noted that the existence of a significant time lag between the introduction of the incentives and the real impact of its actions is a characteristic feature of this type of preferences. Identification of the time lag is required to adequately relate the cost of the relevant tax period (year) to the corresponding effect (fiscal, economic, social) of the period, in which the effect becomes visible. Correct time correlation of tax expenditures and effects is a necessary requirement (if it comes about an adequate assessment) for an adequate assessment of incentives.

For example, the investment tax credit is given for promotional activities of the company in the years i-th and i +1, respectively. Let's suppose that the process of implementing covers a two-year period of the credit, but a different kind of effect will occur with different time lags due to objective time processes. The real expansion of the tax base will start much later - after commissioning works, approaching to the planned production capacity, debugging logistics and distribution operations, etc. Thus, increase of the tax revenue actually will start, for example, in the 4-th year, and the increase of the living standards of the area will be seen with a greater lag of 5-6 years. How should we relate tax expenditures and effects in this case? If one make all assessments relating to the year of these costs incurrence, the effect will be negative as well as efficiency, but if the time lag is identified correctly, the evaluation of the efficiency and outcome may be fundamentally different. One basic conclusion can be made: efficiency of the tax incentives may be defined only for a full period t - from its introduction to the end of the action (although this conclusion can be also discussed because the effects can also occur after the application of the incentives). This requirement will be very important in the transition to total determining of the period of the incentives' action and their effectiveness evaluation during their limited use period with a following obligatory examination of their extension feasibility.

Third, besides identification and accounting the time lag under the circumstances of a significant inflation the problem of the different cost of tax expenditures and the corresponding

effect (fiscal, economic, social) of the period arises. It is necessary to reduce the values being compared to the same period of time by discounting.

Fourth, it is not always clear how much the resulting effect of the introduction of the incentives will be free of influence from the actions of others (objective and subjective) factors that lead to the formation of the same effect, regardless of the application of the privilege. Thus it is required to separate the effect of incentives from the effect produced by the action of a general economic process and other economic instruments: stimulating (budget subsidies, for example) and other regulatory.

For example, how can we cleanse the effect of the application of the incentives in the form of exemption for 3 years from the tax on property of organizations in relation to the newly commissioned facilities with high energy efficiency and the effect of the introduction of the same facilities as a result of the overall scientific and technological progress and the natural desire of the company to reduce their costs for electricity. In fact, the approach to such cleansing of the effect should be a three-step algorithm. In the first step it requires the initial identification of the effect of newly high energy efficiency facilities, which is achieved without the action of the incentives. In the second step - the identification effect achieved under the same terms but with using tax incentives. Finally, the third step – obtaining a purified effect by subtracting from the effect achieved under conditions of actual incentives and effect that would be achieved under the same conditions, but without incentives.

Fifth, it is important to consider the process of interdependence of some tax bases, which leads to the fact that the tax incentive for one can influence the change of revenues for other taxes to which this incentive was not introduced. Thus, incentives administered by a specific tax can also affect a different tax due to the interpenetration of the tax bases. For example the tax base for the personal income tax and social contribution and income tax, business property tax, and transportation taxes are interdependent. For example, the incentive of the income tax in the form of accelerated depreciation reduces not only the income tax in the early

periods of equipment using, but also deform obligations of the enterprise for the property tax, as the residual values begin to be measured nonlinearly. This process can bring a significant distortion into the determination of the tax incentives efficiency (monetary, fiscal). Interdependence of tax bases on the value added tax and profit is more obvious, so any benefit to the value added tax will deform the profit obligations of the enterprise.

The problem of the tax expenditures efficiency measuring requires finding the adequate indicators of tax incentives. The Russian practice of assessment is very inferior and methodologically undeveloped. It is formed in a pioneering manner at the municipality level, and sometimes – at the level of the subjects of the Russian Federation. In this case, regional and local practice of incentives assessment is based on a "random walk". After analyzing more than 20 of these techniques, one can make the following conclusions, which are not comforting.

1. There are no typical methods. Every municipality is developing their own indicators and way of incentives selection for their use.

2. In general fiscal and social efficiency indicators are measured, the first - quantitatively, the second - qualitatively.

3. Efficiency evaluation is often replaced with the estimation of annual effect as some gross indicator, for example, the tax base increase as a result of the incentives.

4. These techniques do not consider any of the above requirements for assessing the efficiency.

The essence of the proposed approach

It is offered to evaluate the efficiency of tax incentives proceeding from the definition of the economic, social, fiscal and budgetary efficiency. It is important to understand that calculations for different types of efficiency of the aggregate activity of tax incentives are not very needed (except to prove the efficiency of tax incentives as a whole). It is important to evaluate the efficiency of every specific incentive, in some cases – of a group of incentives that focus on recurrent or unidirectional effects. Also we do not take into account factors of taxes shifting, but it is offered to consider the time lag of the incentives, inflation, the process of the tax bases interaction, as well as the presence of other factors that influence the receipt of this effect.

In addition, it is important to understand that during the introduction of incentives all kinds of effects should not become apparent. They will still appear, but their value and even the direction is different. And we cannot claim only the positive evaluations of the effects of any specific incentives (excluding the effect on the budget). Therefore, different effects should be considered, because the objectives of each different incentive are different, so the situation when the incentives achieve just one or two kinds of effect including a budgetary one is normal. This incentive shall be considered effective. We want to offer an original methodological approach to the definition of the relevant types of effects and the efficiency of tax incentives.

The fiscal impact of the tax incentives should be a subsequent increase in tax revenues over the current tax expenses. Increase in tax revenues is the difference between the sum of tax revenue from a number of interdependent taxes, which is calculated in terms of incentives submitted in the period when a real effect from the action of the incentives takes place, and the sum of tax revenues in the absence of incentives in a period of the same duration before their introduction. All indicators are considered for the period t, they should be discounted to the same period of time. If the desired value is positive and exceeds the sum of tax expenditures (i.e., the budget revenues exceed the expenditures on incentives provision - the loss of the budget), the provision of this incentive has a fiscal effect, otherwise – no:

$$FE^t \succ \sum_{i=1}^{t} TE^t;$$

$$FE^t = \sum_{i=1}^{t} TI^i - \sum_{i=1}^{t} TI_{w/i}^i,$$

where FE^t – fiscal effect of tax incentives;

t – the period of time from the introduction to the end of action of the effect of this incentive;

$\sum_{i=1}^{t} TI_{w/i}^i$ – the sum of tax revenue from

taxpayers using this incentive, calculated in the absence of incentives over the period t;

$\sum_{i=1}^{t} TI^i$ – the sum of tax revenue from tax-payers using this incentive, calculated in terms when incentives are provided over the period t.

Fiscal efficiency of tax incentive is the ratio of the fiscal effect of the provision of incentives received in the period t, when a real effect from the action of the incentives appears to the tax expenditures in the same period t

$$Ef_{fiscal} = \frac{FE}{\sum_{i=1}^{t} TE_i} = \frac{\sum_{i=1}^{t} TI^i - \sum_{i=1}^{t} TI^i_{w/i}}{\sum_{i=1}^{t} TE_i},$$

where Ef_{fiscal} – fiscal efficiency of the tax incentive;

$\sum_{i=1}^{t} TE^t$ – tax expenditures on this incentive of the period t.

If $Ef_{fiscal} < 1$, then the analyzed tax incentives are inefficient. If $Ef_{fiscal} = 1$, then increase of taxes incomes is equal to tax expenditures, so this incentives is fiscally neutral. And if $Ef_{fiscal} > 1$, an increase of taxes incomes exceeds tax expenditures and the incentive is fiscally efficient.

Social impact of the tax incentives is to be seen in the increase of the standard of living of the population, the preservation and development of socially significant spheres of activity, the formation of favorable living conditions for vulnerable categories of the population, preserving and creating jobs. The demonstration of this effect for the area is clear, but it precise quantification is difficult. There are two main reasons for this.

First, it is necessary to separate this effect from the overall natural background of increasing living standards and improving social well-being of the population area, which is difficult to do, because in this area several companies may exist (and benefits they receive, of course, can be different) that form this effect. But the main analyzed error causes the possibility of achieving this effect by the means of the social program financed by the budget system.

Secondly, there is no single indicator of the population social well-being of a territory, increase of which over the natural level could be evaluated in relation to the social effect of the action of any additional stimulus in the area. Of course, there are integral factors of the United Nations (UN) like "index of quality of life" and "human development index", but they are supported only in the cross-country dimension. These indicators are not calculated by the statistical authorities of the municipality and the region. Here it is necessary to use a range of well-known indicators of the population life quality of the area interactively.

Thus, the accurate calculation of the social impact is difficult. For some incentives purely focused on production, this effect will be almost absent (for example, exemption from the value added tax on the importing to the Russian territory of process equipment analogues which are not produced in Russia is not accompanied by any noticeable social impact). In this case, the social effect of such incentives will be zero. For an approximate estimation of the socially orientated incentives we can offer two approaches.

The 1st basic approach. If for the social orientation incentives it is possible to set appropriate territorial social indicators (for example, giving tax preferences on disabled persons labor will be well correlated with indicators of disabled persons employment and wages levels of persons with disabilities), then the analyzed effect of social incentives should be assessed in relation to the dynamics of cost estimations of these parameters. This dynamic will adequately reflect the effect of the tax incentives under the terms of constant budget financing of relevant social programs. If a significant change in the budget financing takes place it is necessary to carry out appropriate correction of the increase of indicators. As a result, the social effect can be represented as a result of the excess of social indicators in terms of providing incentives for the period t over the corresponding indicators in its absence. The social effect will take place under the condition that the occurred difference exceeds the amount of tax expenses over the period:

$$Se \rangle \sum_{i=1}^{t} TE^t.$$

If a positive difference is absent the budget will benefit from achieving this effect using the money that must come in the form of tax when the tax incentive is absent.

$$Se = \sum_{i=1}^{t} SI_l^t - \sum_{i=1}^{t} SI_{w/il}^t,$$

where Se – social impact of the tax incentives;

$\sum_{t=1}^{t} SI_l^t$ – total cost estimations of social indicators, calculated in terms when incentives are provided for the period of t years;

t – the period of time from the introduction to the end of the action of the effect of this incentive;

$\sum_{t=1}^{t} SI_{w/l}^t$ – total cost estimates of social indicators, calculated in terms of absence of the incentive for the period of t years.

The 2nd auxiliary approach. When a strict correspondence between social indicators and social orientation incentives is difficult to define (in particular, when the dynamics of social indicators determines the unidirectional effect of not one but several benefits) it is necessary to calculate the social effect for several incentives, and then divide it by the number of incentives that form it.

$$Se = \frac{\sum_{i=1}^{t} SI_l^t - \sum_{i=1}^{t} SI_{w/l}^t}{n},$$

where n – number of incentives forming the social effect.

Social efficiency of the tax incentive is the ratio of the social impact of the provision of incentives received in the period t, when the real effect of the action of this incentive appears to the amount of tax expenditures over the same period t.

$$Ef_{soc.} = \frac{Se}{\sum_{i=1}^{t} TE} = \frac{\sum_{i=1}^{t} SI_l^t - \sum_{i=1}^{t} SI_{w/l}^t}{\sum_{i=1}^{t} TE},$$

where $Ef_{soc.}$ – social efficiency of tax incentive;

$\sum_{i=1}^{t} TE^t$ – tax expenditures over the period t.

If $Ef_{soc} < 1$, then analyzed tax incentives are socially inefficient. If $Ef_{soc} = 1$, so this incentive is socially neutral. And if $Ef_{soc} > 1$, the increase of social indicators exceeds tax expenditures and the incentive is socially efficient.

The economic effect of the tax incentives becomes evident in the form of growing financial resources of the taxpayer that are at his disposal due to the absence of the need to transfer the funds to the state budget in the form of taxes. This can significantly improve the financial condition of the enterprise, by giving it a higher paying ability and liquidity to solve the problems of rapid modernization of fixed assets, to increase profits, etc. The effect can be seen in the outperformance of fixed investment, in expansion and upgrading of production and technology in order to increase the volumes of production of competitive products and create new jobs (including upgraded) and in the profits increase.

The economic effect is increasing of the following economic indicators taxpayers who use this incentive over current tax expenditures for this incentive. It is proposed to use the amount of working capital as a result economic indicator. This indicator is supported by the state statistics and called "organizations turnover". The organizations turnover include the cost of shipped goods of own production, works and services performed in-house, as well as revenue from the sale of previously acquired on the side of the goods (excluding VAT, excise duties and similar payments).

The excess of this indicator is understood as the difference between the sum of enterprises sales, calculated in terms of providing incentives to the period of appearance of the real effect of the action of the incentives, and the sum of organizations sales in the absence of incentives in a period of the same duration before its introduction. All indicators are calculated for the period t, thus they should be discounted to a single period of time. If the desired value is positive and exceeds the sum of tax expenditures, the provision of this incentive has an economic effect, otherwise – no:

$$Ee \rangle \sum_{i=1}^{t} TE^t.$$

$$Ee = \sum_{i=1}^{t} OT_l^t - \sum_{i=1}^{t} OT_{w/l}^t,$$

where Ee – economic effect of the tax benefits;

$\sum\limits_{t=1}^{t} OT_l^t$ – turnover of organizations using this incentive, calculated in terms of providing benefits for the period of time of *t* years;

t – the period of time from the introduction to the end of the action of the effect of this incentive;

$\sum\limits_{i=1}^{t} OT_{w/l}^t$ – Turnover of organizations using this incentive, calculated in the absence of incentives for the period of time of *t* years.

The economic efficiency of the tax incentives is the ratio the economic effect from the provision of incentives received in the period t, when the real effect of the action of this incentive appears to the sum of tax expenditures of the same period *t*.

$$Ef_{econ} = \frac{Ee}{\sum\limits_{i=1}^{t} TE^t} = \frac{\sum\limits_{i=1}^{t} OT_l^t - \sum\limits_{i=1}^{t} OT_{w/l}^t}{\sum\limits_{i=1}^{t} TE^t},$$

where Ef_{econ} – economic efficiency of the tax incentives;

$\sum\limits_{i=1}^{t} TE^t$ – tax expenditures on this incentive of the period *t*.

If $Ef_{econ} < 1$, then the analyzed tax incentives are economically inefficient. If $Ef_{econ} = 1$, then the increase of economic indicators is equal to tax expenditures, so this incentive is economically neutral. And if $Ef_{econ} > 1$, the increase of economic indicators exceeds the tax expenditures and the incentive is economically efficient.

Budgetary effect of tax incentives is evident not only in the future increase in budget revenues generated through the expansion of the tax base as a result of the incentive, but also in a saving of the budget funds spent previously on solving social and economic problems that due to the exemption companies have to solve themselves. Thus as a result of the incentives there are additional budget funds that can be spent on the most territories of the country. These additional budget money is a result of the increase in tax revenue, i.e. budget revenues and budget savings during the realization of some socio-economic tasks, i.e. expenditures.

Part of the budgetary effect consists of an increase of tax receipts, i.e. budget revenue is a fiscal effect. If the budget savings are considered from the standpoint of alternative costs, i.e. consider budget subsidies granted by the budget of businesses in the absence of incentives to address certain socio-economic problems, then this economy can be regarded as the approximation of the sum of social and economic effects. As a result, it can be said that the budget effect includes three previously presented effects of the individual terms, and the budgetary effect is a kind of integral index, which must be positive. We offer the following approach to the definition of budgetary effect.

Budgetary effect of tax incentives may be represented as the sum of the fiscal, social and economic effects, and if any of these effects is negative, it will decrease the budgetary effect. However, the most important characteristics of budgetary effect should be a comparison of the sum of all growth indicators (income tax, social indicators, organizations turnover) obtained during the period *t*, when the real effect of the action of this incentives takes place with the amount of tax expenditures for the same period *t*. In our opinion, we should not calculate the arithmetic average of these effects, they need to be just summarized.

So, if the sum of these effects exceeds tax expenditures, the budgetary effect is present, if less - no. Incentive will be effective if the budgetary effect exceeds the effect of tax expenditures

$$Be \rangle \sum\limits_{i=1}^{t} TE^t$$

$$Be = Fe + Se + Ee = \sum\limits_{i=1}^{t} TI_l^t - \sum\limits_{i=1}^{t} TI_{w/l}^t +$$

$$+ \sum\limits_{i=1}^{t} SI_l^t - \sum\limits_{i=1}^{t} SI_{w/l}^t + \sum\limits_{i=1}^{t} OT_l^t - \sum\limits_{i=1}^{t} OT_{w/l}^t,$$

where Be – budgetary effect of tax incentives.

Budget efficiency of tax incentive is the ratio of the sums of fiscal, social and economic effects from granting the incentives received in the period t, when the real effect of the action appears to the tax expenditures of the same period t. Again, the specific nature of the integral indicator is that we are not dealing with the arithmetic average of the three types of efficiencies, we relate to the sum of the effects from tax expenditures.

$$Ef_{bud} = \frac{Be}{\sum\limits_{i=1}^{t} TE^t} = \frac{Fe + Se + Ee}{\sum\limits_{i=1}^{t} TE^t} = \frac{\sum\limits_{i=1}^{t} TI_l^t - \sum\limits_{i=1}^{t} TI_{w/l}^t + \sum\limits_{i=1}^{t} SI_l^t - \sum\limits_{i=1}^{t} SI_{w/l}^t + \sum\limits_{i=1}^{t} OT_l^t - \sum\limits_{i=1}^{t} OT_{w/l}^t}{\sum\limits_{i=1}^{t} TE},$$

where Ef_{bud} – budget efficiency of the tax incentive.

If Ef_{bud} < 1, then analyzed tax incentives are budgetary inefficient. If Ef_{bud} = 1, then the increase of all indicators is equal to tax expenditures, so this incentive is budgetary neutral. And if Ef_{bud} > 1, the increase of all indicators exceeds tax expenditures and the incentive is budgetary efficient.

The allocation of the environmental effects is the controversial question. On the one hand, the process of active development of environmental taxation in all countries indicates that it is necessary to allocate, as well as, the searching of adequate tax incentives for reproduction of environmentally oriented behavior of taxpayers. On the other hand, complex quantitative estimate of this effect can be done only in perspective but not in the nearest future.

But it should be noted that the allocation of environmental effects is necessary, it requires by realities. Contents of environmental impact should be reflected in reduced damage to the environment and human health. In our opinion, the evaluation of this effect should be made on two parameters. There are amounts of avoided environmental damage and improvement of health of population.

In conclusion it should be noted that each of the indicators of the tax incentives efficiency (fiscal, social, economic) can serve as a criterion by which one can estimate the efficiency (or inefficiency) of any incentives. The presence of even one type of the effect, i.e. exceeding of the increase of any type of indicators over tax expenditures (i.e. a positive effect) allows us to assume that this exemption is effective. But only the budget efficiency can be the integral index, as it accumulates the three other efficiencies. When one of the effects from the incentives can be seen clearly, this incentive has to be considered effective. In this case we have a positive effect, for example, the fiscal or social. It is likely that the budgetary effect would be positive also. Much more complicated is the case with incentives having an impact on several areas of activity. In this case, each of the effects (fiscal, social, economic) may not be as great and may seem vague. And the individual growth of all kinds of indicators will not exceed the tax expenditures, but in the aggregate the value of the total increase of these parameters may exceed the tax expenditures. Therefore, this exemption should also be considered effective.

Thus, the indicator of fiscal efficiency has to make sense as the final criterion indicator, basing on the positive value of which the efficiency of the relevant incentives is stated.

Directions for further research. To find a successful solution to the problem stated by the Russian Government it is necessary first of all to work out theoretically the full range of problems associated with the use of tax incentives in Russia:

to form a new understanding of the tax incentives;

to develop a normative structure for all taxes;

to identify the whole range of deviations from the normative structure as tax expenditures;

to develop a qualimetry methodology for these tax expenditures;

to develop a methodology of efficiency assession assessment of the tax expenditure implementation;

to develop new approaches to a statistical state-supported indicators and statistic reports.

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