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OPTIMIZATION OF TAXATION IMPACT ON THE LEVEL OF PROFITABILITY AND SOLVENCY

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Abstract

This article is devoted to the disclosure of the problems and features of the taxation impact on the organizations' financial stability that are taxpayers in the Russian Federation. The purpose of the study is to identify factors that cause problems in the distribution of the tax burden in taxing the income of organizations, which the state should take into account in the process of improving the corporate income tax and other taxes paid by them. The study used a systematic approach to justify the impact of taxation on economic growth, as well as general logical research methods. In particular, the methods used are generalization, analysis, and modeling. A methodology is proposed for determining the parameters of the tax burden and solvency of the payer under the influence of changes in the rate of aggregate tax on his income. A developed model takes into account the interdependence of indicators characterizing the state of taxation depending on the changes occurring in these indicators. It is proved that the rate of growth of the tax amount is an order of magnitude lower than the rate of growth of the rate. As for income and net profit, i.e., discretionary income remaining at the disposal of the taxpayer after-tax, these indicators do not grow as the amount of profit but decrease. At the same time, the rate of decline in discretionary income is higher than the rate of decrease in total taxpayer income.

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1. Introduction

Tax revenues are accumulated in the state budget system and the budgets of state extra-budgetary social funds. Taxes come to these funds as part of the payers' funds, i.e., individuals and legal entities. If you make a diagram of this movement, you get the following sequence of cash flows: $(P \rightarrow N \rightarrow B)$, where: P – taxpayers; N – taxes; B – budget.

In the first paragraph of this article, we examined the role of taxes in the formation of the state budget and the budgets of state extra-budgetary social funds, namely, the Pension Fund, the Social Insurance Fund, and the Mandatory Health Insurance Fund.

In the course of the study, we justified the distribution function of taxes. The essence and role of taxes lie in the distribution of funds of economic entities and the formation of funds of socio-economic and political importance. But this applies only to a part of the cash flow scheme we have given, namely $(N \rightarrow B)$.

At the stage of reaching money in the form of taxes to the budget, capital is converted into finances, budget, and extra-budgetary funds are formed. The socio-economic importance of these funds is different. They are, by nature, divided into social, budgetary, extrabudgetary, economic, and other types of funds.

2. Problem Statement

The tax system of the Russian Federation still faces specific methodological and organizational problems. Taxation problems are closely related to the formation of the state budget. Therefore, one of the urgent issues of the government is a chronic budget deficit and lack of funds for the country's economic development (Onaolapo, Aworemi, & Ajala, 2013).

The solution to this problem is to optimize taxation. It is necessary to draw up tax mechanisms depending on the prerequisites to implement this tax policy (Panskov, 2010).

The fiscal nature that emerged in the process of reforming the tax system, the overload of the system and the complexity of the legislation affected the aggravation of the transformation crisis and the criminalization of the economy (Shatalov, 2012).

Transfers of the federal government are addressed to the regions as a means of solving national problems of increasing economic efficiency and maintaining social justice (Gorsky, 2011).

Revenues go to the federal budget through the collection of federal taxes. Tax collection affects the inter-regional ration of disposable income due to the distributed nature of certain charges and various existing tax bases in different regions (Artemenko, 2011).

The tax system bears the burden of distributive financial relations. The tax system can normalize the economic and social situation by vertically and horizontally aligning regional development and applying various taxation methods (Kimberly, 2013).

Creating a solid financial base for regional economic development and solving pressing social problems is not systemic (Alan, 2012).

The problem of the tax burden depends on the level of taxation and the profitability level. It turns out that this is affected by a decrease (increase) in the tax rate and deferred tax payment (installment plan). All this can increase (decrease) incentives to attract real investments (Norman & John, 2012).

It must be borne in mind that effective measures to optimize taxation taken by the state may encounter opposition in the form of lobbying by interested parties in government bodies (Ponomareva, 2012).

Besides, these measures lack a differentiated approach to setting the tax rate. This circumstance is important for comparing the tax rate with the tax base, since income may be hidden depending on its earnings (Abdugaliyev, 2014).

For ensuring a taxation balance, the conditions for shifting the tax burden from producer to consumer are needed. The creation of these conditions would allow developing products and increase the demand for domestic goods (Jennifer, 2013).

3. Research Questions

For solving this issue, it is necessary to study the financial and economic status of taxpayers grouped as legal entities and individuals.

If we consider this issue in the process of movement of monetary resources, then a solution can be found by studying the evolution of funds at the stage of transformation of taxpayer money, that is, at the scene of distribution of financial resources.

The stage of distribution of funds – ($P \rightarrow N$) is of no less importance for the study of the value of taxes in economic processes.

It is necessary to determine the economic essence of the movement of money in this part of the general process of their tendency to disclose this stage of cash flows.

During the movement of money at the stage ($N \rightarrow B$), the state needs for financial resources are met, and during the change of money at the scene ($P \rightarrow N$), alienation (transfer of property – payment of one person to the property of another person) of the taxpayer's funds in favor of the state.

Thus, the state budget acts as a difficult subject for funds, and taxpayers as a supply subject of these funds. In the scheme of cash flows when paying taxes to the budget, demand corresponds to ($N \rightarrow B$), and supply corresponds to ($P \rightarrow N$).

The high tax burden on the organization is the reason for the decrease in its financial condition. Its financial situation leads to a further reduction in the solvency of this organization.

In practice, many factors affect the level of taxation and the solvency of an organization. These factors include changes in prices for goods and services, inflation growth; falling production volumes; penalties for violation of civil, budget, tax, and other laws of the country; foreign sanctions. These factors affect the activities of the organization will be a decrease in its level of profitability. A change in the taxpayer's profitability is a direct factor in reducing the organization's ability to fulfill tax obligations and falling solvency.

4. Purpose of the Study

The study aims to identify factors affecting the level of taxation and solvency of the organization. In practice, many factors affect the level of tax and the stability of an organization. These factors include the change in prices for goods and services, inflation growth; falling production volumes; penalties for violation of civil, budget, tax, and other laws of the country; foreign sanctions. These factors affect the activities of the organization will be a decrease in its level of profitability. A change in the taxpayer's profitability is a direct factor in reducing the organization's ability to fulfill tax obligations and falling solvency.

5. Research Methods

We give a conditional example. The organization's income is 100 units. The tax rate is set as the aggregate rate in the amount recognized as optimal, i.e., 33 %. With each change in the rate, the tax amount will increase simultaneously. However, this will lead to a decrease in the amount of income remaining at the disposal of the payer. We are taking into account the conditions of our example, namely, changes in the aggregate tax rate. It is possible to establish changes in the amount of taxpayer income, which ultimately leads to a decrease in the amount of tax paid and the deterioration of its solvency.

With an aggregate tax rate of 33 %, the tax amount is 33 units. With a total tax rate of 40 %, the tax amount will be 40 units. With an aggregate tax rate of 50 %, the tax amount will be 50 units. When the total tax rate is 66 %, that is, doubled, the tax amount will be 66 units. The change in income and tax parameters due to the increase in the aggregate tax rate is shown in Table 1.

Table 01. The effect of changes in the aggregate tax rate on the amount of tax payable and payer income after tax

Change in the aggregate tax rate	Changes in the amount of payer income and fee payable after a difference in the total tax rate		
	Amount of income * in units	The amount of tax in units	Amount after tax (gr2-gr3)
Base rate 33 %	100	33	67
Tax rate 33 % + 7 %	100	33 + 7	67 - 7 = 60
Tax rate 33 % + 17 %	100	33 + 17	67 - 17 = 50
Tax rate 33 % + 33 %	100	33 + 33	67 - 33 = 34

* In this case, income is defined as the difference between gross income and expenses incurred to obtain this income — source: compiled by the author.

Table 1 shows the provisional figures showing the change in the aggregate tax rate upwards. Moreover, a change in the tax rate in its increase direction is given because, as a rule, in the modern Russian tax system, the level of the tax burden does not decrease but improvements. The condition of the example is a fixed amount. A rate change leads to a change in the amount of tax paid, and accordingly to a change in the amount of income remaining at the payer disposal. If the amount of income received does not change. The difference in income residing at the payer destruction occurs in proportion to the change in the tax rate and the amount of tax payable, which is reflected in the third and fourth columns of Table 1.

The effect of changes in the aggregate tax rate on the amount of tax paid can be expressed as the following formula:

$$N = D - (D - (D \cdot C)),$$

where:

N – the amount of the total tax on the organization;

D – the amount of basic income;

C – aggregate tax rates.

Substituting in the formula the data shown in table 1, we obtain the following system of equations:

$$33 = 100 - (100 - 100 \cdot 33: 100);$$

$$40 = 100 - (100 - 100 \cdot 40: 100);$$

$$50 = 100 - (100 - 100 \cdot 40: 100);$$

$$66 = 100 - (100 - 100 \cdot 66: 100).$$

The effect of changes in the aggregate tax rate on the amount of income of the payer after tax can be expressed as the following formula:

$$D_{sk} = D - (D \cdot C), \text{ where:}$$

D_{sk} – the discretionary income of the payer.

Substituting in the formula the data shown in table 1, we obtain the following system of equations:

$$67 = 100 - (100 \cdot 33: 100);$$

$$60 = 100 - (93 \cdot 40: 100);$$

$$50 = 100 - (83 \cdot 50: 100);$$

$$34 = 100 - (67 \cdot 66: 100).$$

In the economic literature, this income is referred to as discretionary income, which is presented as part of the consumer's net income remaining after inevitable expenses, taxes, and expenses for satisfying the necessities of life.

Table 2 shows the data characterizing the changes in the taxpayer's profitability and solvency under the influence of the growth of the aggregate tax rate.

Table 02. The effect of changes in the aggregate tax rate on the level of profitability and solvency of the payer

Change in the aggregate tax rate	Changes in the amount of payer income and tax payable after a change in the aggregate tax rate		
	The amount of income in units	The amount of tax in units	Amount after tax (gr2-gr3)
1	2	3	4
Base rate 33 %	100	33	67
Tax rate 40 %	$100 - 7 = 93$	37,2	55,8
Tax rate 50 %	$100 - 17 = 83$	41,5	41,5
Tax rate 66 %	$100 - 33 = 67$	44,2	22,8

The data shown in columns 2 and 4 of Table 02 show the change in the total income and income remaining at the disposal of the payer, i.e., discretionary income minus contributed to the budget in this

reporting period of the aggregate tax. In column 2, income is defined as the difference between gross income and the total cost of goods (work, services). Column 4 shows the profit equal to the difference between the income reflected in column 2 and the total tax paid to the budget after taxation of the income shown in column 2.

The effect of changes in the aggregate tax rate on the payer's profitability using the data shown in table 2 can be expressed in the form of the following formulas:

$$1. D = (D \cdot C) + D - (D \cdot C)$$

In this case, the total income of the payer is taxed at the base rate (33 %). The size of the base rate corresponds to the optimal level of taxation, which many researchers recommend as such.

Substituting the data from Table 2 into the formula, we can obtain the following equation: $100 = (100 \cdot 33: 100) + 100 - (100 \cdot 33: 100)$;

$$2. D_1 = D - (D - (D \cdot C)) - [(D - (D \cdot C)) - (D \cdot C_1)].$$

In this case, the total income of the payer is taxed at the rate of (40 %), i.e., According to the condition of our task, the base rate increases by 7 % (33 % + 7 %).

Inserting the corresponding data from table 2 into the formula, we obtain the following equation:

$$93 = 100 - (100 - (100 \cdot 33: 100)) - [(100 - (100 \cdot 33: 100)) - (100 \cdot 7: 100)];$$

$$3. D_2 = D - (D - (D \cdot C)) - [(D - (D \cdot C)) - (D \cdot C_2)].$$

In this case, the total income of the payer is taxed at a rate of 50 %. This rate indicates a significant increase in the organizations' taxation level, which leads to a decrease in the level of production and a shortage of goods.

Inserting the corresponding data from table 2 into the formula, we obtain the following equation:

$$83 = 100 - (100 - (100 \cdot 33: 100)) - [(100 - (100 \cdot 33: 100)) - (100 \cdot 17: 100)];$$

$$4. D_3 = D - (D - (D \cdot C)) - [(D - (D \cdot C)) - (D \cdot C_3)]$$

In this case, the total payer income is taxed at a rate of 66 %. This rate indicates a twofold increase in the level of taxation. Such a tax increase in practice is allowed in exceptional cases for the economy and society, and theory may take place. Substituting the data from table 2 into the formula, we can obtain the following equation:

$$67 = 100 - (100 - (100 \cdot 33: 100)) - [(100 - (100 \cdot 33: 100)) - (100 \cdot 33: 100)].$$

6. Findings

The solution of the system of equations we have given allows establishing the effect of changes in the tax rate, as a result of the tax policy pursued by the state, on the profitability of the taxpayer, and the fulfillment by the payer of tax obligations assigned to him.

Based on our example, we have tested a relationship system of taxation and indicators such as tax level, the solvency of the organization. The calculations are presented in tabular form, which facilitates the observation of this relationship.

The study of the relationship of these indicators is in the solution of the equations. This solution can be presented as a methodology for determining the parameters of the tax burden. This method is the payer solvency under the influence of changes in the aggregate tax rate on his income.

In this technique, we are taking into account all the factors of this interaction in a simple way. We consider the whole spectrum of economic relations arising between the state and the taxpayer in the process of distribution of taxpayer income is presented in the context of a changing fiscal policy of the country.

The tax policy of the Russian state is such that it, of course, depends not only on the situation on the world hydrocarbon market, which, in principle, determines the financial condition of the state and budget parameters. The state tax policy also depends on the political situation evolving around the Russian Federation over the past year.

The second side of this problem is the increase in spending on the development of the country's military-industrial complex. These expenses are also carried out at the cost of the state budget. An increase in the expenditure side of the budget involves strengthening the fiscal policy of the state.

The methodology for changes effective determining in the value of the aggregate tax rate, regardless of the rate increases or decreases, by the amount of tax and the amount of discretionary income. The given technique makes it possible to reduce the values of the equations for each specific case of increasing the aggregate tax rate to a common denominator of the expression of their essence. Their general essence can be expressed by one equation, which, in our opinion, can serve as a model that takes into account the interdependence of indicators characterizing the state of taxation depending on changes occurring these indicators themselves. The following equation can become such a model:

$$D = (D \cdot C (1 \dots n)) + D - (D \cdot C (1 \dots n)).$$

Where: $C_{(1 \dots n)}$ – the aggregate tax rate from 1 % to n %.

7. Conclusion

Thus, our example shows that the increase in the tax rate has its limit. And this limit should be determined by the parameters necessary to continue the pace of economic growth.

The most important of these parameters are, as already mentioned, the income remaining after cost recovery, i.e., the full cost of goods or services produced, and taxes to the budget system. As agreed, this income is also called discretionary income. Discretionary income shows the financial capacity of the payer for further entrepreneurial activities. Its availability insufficient size allows the entrepreneur, organization ensuring expanded not only reproduction but also economic growth. Of course, for economic growth on an innovative basis, the presence of a sufficient amount of discretionary income is not enough; for this organization, it is necessary to pursue a policy of creative economic development.

However, an increase in the aggregate tax rate is not so bad if there is no decrease in the level of profitability. If, in the context of a taxation level increase, a reduction in the payer's profitability also occurs, then a decrease in his solvency will occur. This situation is very harmful that is not desirable for the organization – the taxpayer.

The practice of taxation of organizations in our country shows that in recent years the fiscal policy of the state has not undergone significant changes. One can only say that over the past ten years, the aggregate level of taxation has not decreased, but increased. Moreover, inflation has always been above acceptable limits, which indicates the financial instability of Russian organizations, not to mention the giant monopolies in the oil and gas business. The solvency of Russian organizations, and the taxation

level, is supported by the state through budgetary allocations and the use of reserve funds – this way, formed from the proceeds from the sale of hydrocarbons abroad.

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