

Improvement of the Calculation Procedure of Tax Burden with Digital Technologies

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Abstract—This research paper studies the tax policy of Uzbekistan, specifically the issue of tax burden, the essence of tax burden indicator and different approaches of calculating it. In this article, international experience of using digital technologies to improve taxation system and the situation of Uzbekistan in this matter are proposed. Analyzing different sources in this theme, conclusion and suggestions are given.

Keywords— Tax system, tax calculation, tax indicator, tax base, enterprise, revenue, legal entities, B2G, block chain, mobile sector, electronic invoice, mobile tax, revenue

I. INTRODUCTION

In scientific research carried out to determine and optimize the tax burden in the economy in the context of globalization, the main emphasis is on the optimization of the tax burden by unifying the types and rates of taxes, abolishing ineffective tax benefits, determining the indicator of the tax burden of legal entities as the ratio of all the taxes paid by them to the state budget of taxes and payments with value added tax, calculating the indicator of the tax burden on enterprises as a net and total tax burden for its optimization at the micro level. At present, the conceptual tasks of reforming the tax system of the Republic of Uzbekistan are not defined: "continuation of the course to reduce the tax burden and simplify the taxation system, improve tax administration" [1].

II. TAX POLICY IN UZBEKISTAN

One of the directions of the Concept for improving the tax policy of the Republic of Uzbekistan is determined: reducing the level of tax burden on the economy, as well as eliminating disparities in the level of tax burden between economic entities paying taxes according to the simplified and generally established taxation system [2].

The development and reform of the tax system of the Republic of Uzbekistan, aimed at reducing the number of taxes and fees and optimizing tax bases and rates, makes the issue of calculating the tax burden indicator, which determines the effectiveness of state tax policy at the macroeconomic level and tax planning of an enterprise at the micro level, urgent.

If we consider the essence of the tax burden, which is an effective indicator of the relationship between taxes and subjects of taxation, in fact, it is primarily characterized by the fact that a certain part of the financial resources of the population and the private sector is alienated in favor of the state. Therefore, the scientific discussion about the expression of the tax burden using quantitative indicators has always been relevant. Currently, research on optimization of the tax burden by unifying the types and rates of taxes, on justifying the elimination of ineffective tax benefits, on determining the indicator of the tax burden on enterprises and regions of the Republic of Uzbekistan is becoming relevant.

The fiscal and regulatory functions of tax relations are important for determining and optimizing the tax burden. The fiscal component of the tax burden is manifested in the fact that it serves to centralize financial resources of the private sector in the interests of society, meanwhile, the function of regulating public relations is the ability to indirectly influence production processes through the tax mechanism. The tax burden can be recognized as a factor that partially restricts the freedom of taxpayers in the economic sphere, and as a kind of "price" for services rendered by the state.

III. ISSUE OF TAX BURDEN

The problem of studying the impact of the tax burden on the national economy is inextricably linked with the search for an economically justified ratio of taxes and fees levied by the state to the gross domestic product. There are many different methodological approaches to calculating the optimal amount of the tax burden as a solution to this problem, and the scientific results obtained are inherently contradictory. At the same time, the variety of scientific approaches and analytical methods opens up wide opportunities for scientific analysis of the problem of the tax burden at the macroeconomic level.

As the results of scientific research show, an increase in the tax burden on taxpayers (increase in tax rates, abolition of tax incentives) will initially lead to an increase in tax revenues, but after reaching a peak value, a downward trend begins to appear. As a result, budget revenues begin to decline, and a certain part of taxpayers will find themselves in a crisis situation, when, like the rest, they will evade taxes in various and not always legal ways, and as a result, they will go into the shadow economy.

The impact of the tax burden and tax policy on the macroeconomic situation is so great that the change in the volume of gross domestic product created in the country is directly related to the effectiveness of tax policy. The impact of the tax burden on the macroeconomic situation can be assessed by such criteria as the impact of taxes on aggregate demand and aggregate supply, on the investment climate, consumption, and economic stability.

IV. ESSENCE OF TAX BURDEN INDICATOR

A reasonable tax system that meets the needs of the state for financial resources does not have a negative impact on the production and business activities of taxpayers, but, on the contrary, has a positive effect on the search for effective ways of doing business. Consequently, the indicator of the tax burden of the taxpayer will be sufficient to assess the quality of the country's tax system.

The need to use the indicator of the tax burden in the economy is manifested in the use of the calculation and definition of this indicator in the development of the tax policy

of the state. The tax burden of the country is used to assess the tax base and the impact of taxes on the economy (Fig. 1).

In Uzbekistan, in the complex socio-economic development of regions in the context of the implementation of a medium-term development strategy, special attention is paid to the development and implementation of road maps with the identification of growth points by establishing the specialization of the territory and identifying driver spheres. For the purpose of a comparative analysis of the tax burden, it is advisable to establish the practice of calculating the tax burden in the context of the levels of the economy, in particular, calculating the amount of taxes and payments levied in the regions in relation to the gross regional product.

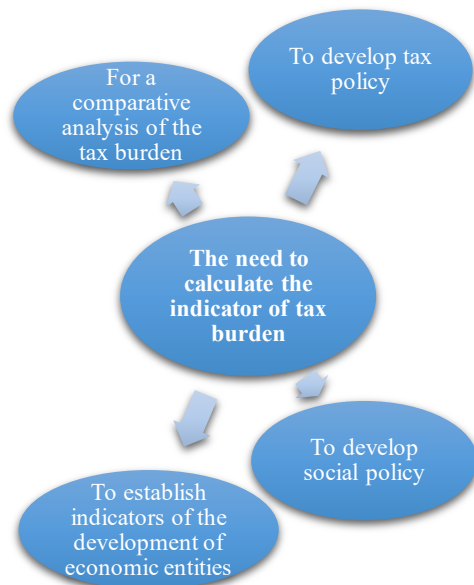


Fig. 1. The need to calculate the indicator of tax burden

The indicators of the tax burden affect the social policy of the state. The state, based on the results of this indicator, develops its social policy. Plans spending on social protection, education, medicine, science, investment, defense and security. To achieve these goals, taxes are levied on taxpayers, individuals and legal entities. At the same time, the essence of the problem lies in determining the optimal level of the tax amount, since the taxpayer wants to receive services from the state in proportion to the taxes paid to the state. Based on this, the state determines the tax burden and returns these funds to taxpayers through spending on the provision of various services.

In addition, the indicators of the tax burden are also used to determine the optimal areas of economic activity of economic entities. They determine the priority directions of capital investments in production. The indicator of the tax burden helps in solving such issues as the development and reduction of production, regulation of the economy, solution of industrial sectoral issues, creation of new jobs, rationing of consumption and savings of business entities, investment orientation.

V. LITERATURE REVIEW

The author's work [3] proposes a methodology for assessing the tax burden of an enterprise, which allows, on the basis of optimization criteria, to analyze the value of the

indicator of the tax burden of an enterprise, taking into account the production and sectoral specifics of its activities.

The purpose of the methodology for optimizing taxation of an enterprise is to regulate the tax system of an enterprise so that during the implementation of tax planning, control and regulation procedures, the value of the tax burden indicator is within the "tax corridor". The author proposes the economic concept of "tax corridor", which has lower and upper boundaries. The lower limit is the minimum allowable value of the tax burden indicator, at which the enterprise does not fall into the group of enterprises with the maximum tax risks and the enterprise's activity remains economically profitable. The upper limit is the value of the indicator of the tax burden at which the profitability of the enterprise is comparable to the increase in the tax burden, i.e. the company maintains a stable financial position and has sufficient resources for further development.

The author's work [4] provides a model of the relationship between the tax burden and the gross regional product developed by her, taking into account the resource potential of the territory with the determination of the marginal productivity of its factors to maximize the volume of the gross regional product by forming the permissible level of the tax burden.

In the work of I.A. [5] proposed approaches to managing the tax burden of organizations, which consist in the development of assessing the tax burden by an indirect method, differentiating the tax burden between industries, using the resource-tax model to determine the optimal tax burden and resource base of enterprises, taking into account the provision of a certain level of profitability and growth rates of the main capital at current tax rates. According to the author, averaging the indicator of the tax burden by industry without its permissible deviation leads to a distortion of the decisions of the tax authorities at the stage of choosing a taxpayer for an on-site tax audit. Since the tax burden of organizations depends on the resource base, the formation mechanism of which has its own specific features within each industry, the introduction of the permissible deviation of the tax burden by industry will allow the tax authorities to more rationally determine the policy for planning field tax audits within the control function of the tax authorities.

The authors of the article [6] T., investigating the problem of tax evasion, present a correlation model for assessing the tax burden for an enterprise with the following variables: the ratio of total tax expenses to profit before tax; the ratio of taxes paid to profit before tax. According to the authors, the ratio of tax expenses to profit is a key indicator of the study of tax evasion problems.

The authors of the article [7] propose to assess the tax burden not of an individual economic entity, but of a group of integrated business entities. In their opinion, a scientifically grounded approach to the analysis of the tax burden, which can identify the factors of its growth and predict its future value, can help top management and business owners make informed decisions to optimize the tax base instead of impulsive efforts to minimize tax payments at the expense of the most easily accessible ones, but not always in legal ways.

VI. USAGE OF ICT FOR INCREASING THE EFFICIENCY OF TAXATION SYSTEM

According to the latest OECD interim report, dedicated to the transition of the tax system to digital technologies, the growing popularity of digital platforms facilitates integration into the official economy. Those transactions that were previously conducted without registrations are now carried out on these platforms, which makes it possible to better track them for electronic audit and optimize income reporting. Thus, multilateral Internet platforms are capable of stimulate growth and increase profitability by providing new opportunities for economic activity and intensification of the transition to official economy. To improve tax discipline, this information can be included in matching analysis data - for example, for cross-checking transactions with VAT [8].

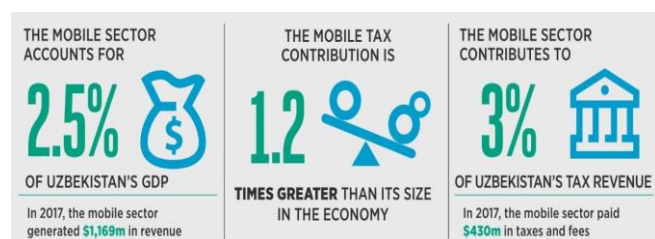


Fig. 2. Mobile sector tax contribution in the economy of Uzbekistan. [8]

In this respect, the potential interest for tax administration introduces technology block chain, as it is able to reduce tax burden. Blockchain is a distributed technology accounting, allowing you to store data or information without centralized inspection body. By registering transactions without a centralized inspection body, blockchain offers a number of useful tax application bodies, for example - a reliable way registration and authentication of taxpayers and documenting transactions.

This technology can significantly expand tax administration capabilities, increase the effectiveness of measures to improve tax discipline, optimize services for taxpayers and reduce labor to ensure compliance. Some examples of successful experiences related to with additional opportunities for tax administrations that open thanks to dissemination and use of digital technologies are studied by authors.

In Russia, the Federal Tax Service has implemented a system allowing the monitoring of VAT compliance on a nationwide basis mostly in real time, drastically reducing opportunities for fraud. The approach is based on an automatic cross-matching of all VAT paid against all VAT claimed across all transacting parties. This led to an increase in VAT collection by 8.5% in 2015 [8].

Over €500 million in risky VAT was identified over a two-year period in the Slovak Republic following the introduction of electronic invoice data matching processes [8].

In Hungary, the introduction of electronic cash registers saw an increase of VAT revenue by 15% in the targeted sectors, exceeding the costs of introducing the new system [8].

In Rwanda, in the two years since the introduction of electronic cash registers in March 2013, VAT collected on sales increased by 20%.

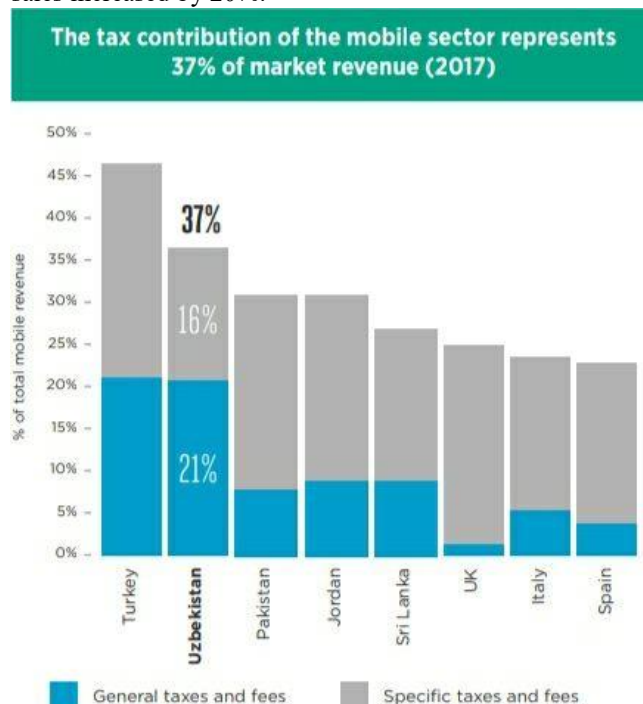


Fig. 3. The tax contribution of mobile sector of the market revenue. [8]

Some of the above examples of successes can also be used in Uzbekistan. In addition to positive impact on tax collection procedures, this approach also meets the objectives of the Action Strategy in five priority areas of development of Uzbekistan for 2017–2021. One of the stated in the strategy tasks is that it is necessary to reform government system through improvements system of public services, improving efficiency, quality and public and business access to government services.

VII. SUGGESTIONS AND CONCLUSION

The efficient organization of the tax system and the strengthening of its stimulating role affect the activities of enterprises. In this regard, the simplicity and accuracy of the tax system will contribute to the timely and complete fulfillment by taxpayers of their obligations. Despite the existence of many studies in the field of determining the tax burden on enterprises, in our opinion, there are some methodological flaws that make it possible to simply and quickly assess the tax burden of an enterprise.

To fill this gap, we propose: the tax burden of legal entities should be calculated as the ratio of the sum of all taxes and fees paid by them to the newly created value. When calculating the tax burden for legal entities, it is advisable to calculate the net and total tax burden. Here, the net tax burden represents the burden of all taxes, budgetary and extra-budgetary contributions paid by a legal entity, while the total tax burden covers tax, budgetary and extra-budgetary contributions of legal entities, as well as taxes and deductions from employees' wages. In particular:

- a) the net tax burden of legal entities:

$$H_{\text{нб}} = X_{\text{тбс}}/C_{\text{с}} \quad (1)$$

where: $H_{\text{нб}}$ is the net tax burden of a legal entity;

$X_{\text{тбс}}$ - all taxes paid by a legal entity, deductions to the budget and off-budget funds;

$C_{\text{с}}$ - newly created value or added value of a legal entity.

It is advisable to define the tax burden of legal entities as the ratio of all taxes, fees and deductions paid to the state budget to value added. The source of all taxes and fees paid by a legal entity in our proposed methodology is value added. Calculating the tax burden in relation to value added will deduct costs. The tax burden calculated using this method allows us to determine the actual level of the tax burden on the shoulder of the enterprise.

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