Methodological approaches to assessing and forecasting the tax potential of the region

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Abstract: The research paper describes o of methods and problems of forecasting tax budget revenues, taking into account the specifics of the Uzbekistan situation, is presented. Particular attention is paid to the use of time series techniques, discussion of issues related to benchmarking, "edge effects", the need to identify the structural and market components of tax revenues. It is concluded that the objective limitation of constructing correct and reliable long-term predictions of tax revenues is the lack of sufficiently long time series of comparable data. The forecasting horizon should correspond to the period during which trends are identified and estimates of dynamics parameters are made. In this regard, the use of the developed traditional econometric methods of analysis turns out to be impossible for long-term tax planning. For short-term forecasts, the necessary information is available, and they can be useful in the practical planned work of state bodies.

1. Introduction

Efficiency of the tax authorities is mainly assessed by the final results of their work. Accordingly, increasing tax revenues and ensuring their stability largely depend on qualified tax forecasting and planning.

Modern science defines tax forecasting as an assessment of the tax potential and receipts of taxes and fees in the budgetary system (republican, regional, district, city budgets, as well as off-budget state trust funds). It is carried out on the basis of a forecast of the socio-economic development of the state.

In the current situation, the effectiveness and positive effect of financial transformations is largely determined by competent tax regulation of the economy and planning in the field of taxation, the ability and real ability of state bodies to clearly respond to changes in macroeconomic indicators and predict their further changes. The ultimate goal of this area of state regulation of the economy is effective taxation at all levels of government.

A special place in the tax process belongs to tax planning. Tax planning and forecasting in the tax system of Uzbekistan, the reform of the current tax administration system is of increased interest today, due to the ongoing reforms, changes aimed at creating an economically and politically justified system of taxes and fees.

Currently, tax planning in Uzbekistan has begun to actively develop. Despite the fact that this concept is not found in regulations, such planning has become a part of the activities of state authorities, citizens and legal entities. However, it is still inconsistent, due to the insufficient degree of scientific substantiation of planning and forecasting tax flows. In modern conditions, there is a need for further theoretical and methodological study of the problems of effective taxation, planning the receipts of compulsory payments to the budget and ensuring the ongoing tax reforms.

Insufficient knowledge of the problem, despite constant searches in the field of factors of growth of tax potential and methods of state regulation of the economy, attaches great importance to the scientific analysis of the problems of tax planning and forecasting.

The initial prerequisite for objectively determining the tax base and calculating the tax potential on this basis should be the formation of a system of indicators that determine the trends in the development of the macroeconomic situation in the region, as well as the impact of sectorial and regional factors and the existing structure of financial flows that affect the state of the tax base and prospects its development.

Tax forecasting is designed to assess not only the generated income of taxes and fees in the budget system, but also the consequences of the transformation of legislation, to analyse the dynamics of the volume of shortfalls in income, to assess the tax and fee arrears.

One of the existing topical issues in the tax system of the Republic of Uzbekistan is the problem of high-quality analysis and forecasting of tax revenues to the State budget of the country.

2. Methods of research

In accordance with Article 11 of the Budget Code of the Republic of Uzbekistan, tax revenues to the budgetary system are projected for their specific sources.

Particular attention should be paid to the development and testing of methods for planning and forecasting tax revenues. The presence of such an information base will create the basis for calculating the total income of the regions, their economic, and financial and tax potential and the corresponding indicators in general. The current system of forecasting budget revenues should be more closely linked with forecasting the sectorial structure of the gross regional product. This model will allow taking into account both various conditions of taxation of industries and an industry forecast of the economic situation. Forecasting without taking into account the structure of the gross regional product can lead to certain distortions in the results of estimates.

Unfortunately, the indicators of the tax potential, the collection of taxes and fees, as well as the method of calculating the tax base, on the basis of which the tasks for the receipt of revenues in the budget system are determined, are still not recognized economic and statistical indicators. The uncertain status of these indicators reduces the efficiency of the fiscal process. A decrease in the average collection rate by several percent entails a significant shortfall in taxes. That is why indicators of tax potential and tax collection, as well as factors affecting tax collection, methods of their assessment should be considered as full-fledged tools for budgetary and tax planning and statistical accounting.

Tax potential means the ability to contribute the maximum possible amount of tax payments to the budget from the region or the national economy as a whole. Currently, the concepts of "tax potential of the region" and "tax potential of the national economy" are used. However, it is quite correct to talk about the tax potential of an individual economic entity, as well as a citizen of the country.

Improving the methodology of tax planning is currently one of the areas of improving the budgeting process in general. At the same time, it is of great importance to develop a new approach to quantifying budget allocations based on the real tax base and the corresponding tax potential.

The accuracy of the analysis and forecast of tax revenues depends on a number of factors. These factors include the systems of indicators of tax statistics accepted for research, the collection of data used in the statistical study of the trend of changes in tax revenues.

The tax potential indicator is of great analytical value and can be used for various purposes:
• firstly, for forecasting and planning tax revenues to the budget;
• secondly, to determine transfers in
the process of regulating interbudgetary relations in favor of regions in need of financial assistance;
• thirdly, to address development issues, restructuring, etc. the tax system of the state when considering alternative approaches to its formation, when alternative options should be compared with each other according to a number of parameters, including the tax potential inherent in each of them.
Subsequently, the previously cited definitions of the tax potential require significant adjustments, since if there is a target to change the current taxation system, it is unlawful to focus on "... the maximum possible amount of tax and levy charges under the current tax legislation" for the following reasons:
• since the issues of changes in legislation are being considered, and it is no longer possible to rely on the existing taxation procedure;
• the new taxation system (or significant changes within the existing system) should be focused not on the maximum, but on the optimal level of tax rates.

Based on the above, it is advisable to clarify the definition of tax potential.
When analysing tax revenues, it is necessary to take into account such factors that affect the size of the tax base.
In the course of the analysis, it is necessary to assess the following indicators of tax statistics:
- the number of taxpayers registered with the bodies of the state tax service of the Republic of Uzbekistan;
- the volume of gross domestic product produced in the country in recent years;
- the volume of products manufactured, work performed, services rendered both in the republic as a whole and in the context of the country's regions;
- proceeds from the sale of products by objects of taxation and taxable bases;

- the volume of exports and imports carried out by taxpayers;
- index and tendency of changes in consumer prices in the markets of the Republic of Uzbekistan;
- the volume of accounts receivable and payable by categories of taxpayers, in the context of the branches of the country's economy;
- the volume of arrears and overpayments by types of taxes and other obligatory payments;
- the volume of income, profits, proceeds and losses of legal entities;
- the salary fund of legal entities;
- the number of individual entrepreneurs by type of activity;
- monetary incomes of the population;
- migration and immigration processes;
- the index of changes in the inflation rate in the country.

The methods used in the analysis are diverse: statistical, econometric, index. In the statistical analysis of tax revenues, it is necessary to calculate the absolute and relative indicators expressing the dynamics of changes in tax revenues, the above macroeconomic indicators, factors affecting the size of the taxable base of each type of taxes.

Medium-term planning (up to 5 years) and long-term (up to 10 years and more) are more correct to refer to forecasting.

Tax planning uses various methods, each of which in one way or another takes into account the following points:
- background level of tax revenues;
- seasonal changes in the volume of tax revenues;
- event component (for example, events in the development of a political situation, changes in tax legislation);
- unaccounted for factors.

The most widespread in the practice of tax planning are trend and expert methods.

The trend or extrapolation method is based on information on the receipt of specific taxes and fees for a certain previous period, on the volume of lost income, on the status of tax arrears, on analyzes of the trend in the development of the taxable base, the structure of tax payers, and so on.

The expert method for developing forecast estimates is used to calculate the possible collection of specific taxes and fees.

The expert method determines the tax bases for each tax and collection, monitors the dynamics of their receipts over several periods, calculates the collection rates of taxes and fees, the amount of lost income, assesses the status of tax arrears and the results of changes in tax legislation.

The initial component of tax planning is the determination of the tax base for each type of tax at the federal level and in the regional context.

Regional tax planning, in turn, is based on the results of the analysis of the fulfillment of current tax obligations and the forecast of the macroeconomic situation in the regions.

Of great importance in planning is a reliable assessment of tax receipts until the end of the current period (month, quarter, half year, year), which is carried out on the basis of comparable actual data.

The development and communication to the tax authorities of indicative indicators for the mobilization of taxes and fees, the budgetary system is carried out by periods: year, quarter, month.

To assess the forecast (planning) of tax revenues, a comprehensive and multifactorial analysis of data on the tax base, revenues to the budget system, as well as analysis of trends in socio-economic development is carried out. This requirement applies to all tax payments without exception.

In tax practice, the following types of forecasting tax revenues are used:
- deterministic forecasts of tax revenues;
- forecasts of time series of tax receipts based on their own dynamics;
- forecasts using models with several variables (Fig. 1.).

Title	Application options for the method	Scope of use
1 deterministic forecast	1-conditional method for forecasting tax revenues (statistical and dynamic models) 2- method of tax "calculator"	- to obtain predicted values of aggregate receipts to take into account the direct effects of impact on the tax base and tax structure
2. Time series forecast	1-BCC method 2-double exponential smoothing method 3-Holt-Winters method 4-method ARMA	-for modeling income tax and income tax
3. Forecast models	1- structural economic models 2- linear and non-linear equations 3- indicator models	-for forecasting tax revenues in any aspect

Fig. 1. Forecasting methods, their characteristics

Under the influence of a number of interconnected and interdependent, exogenous and endogenous factors of the country's macroeconomic development, market conditions, financial and economic activities of taxpayers, tax legislation, there is a tendency to change the dynamics of tax revenues.

To study the tendencies and regularities of changes in tax revenues to the budget, econometric methods of analysis are used. For this, a model for the analysis of tax revenues will be built from empirical data characterizing the factors. When constructing a model, the most significant influencing factors are selected as independent variables.

Constructing the series of dynamics makes it possible to identify and study trends and patterns, expressed by the relationship between various indicators of socio-economic development of the Republic of Uzbekistan and tax revenues of the state budget of the country. In addition, econometric analysis based on the construction of an econometric model makes it possible to carry out a comparative analysis of the dynamics of tax revenues in the Republic of Uzbekistan and other developed and developing countries, as well as to construct, based on the analysis data, short-term and medium-term forecasts of tax revenues.

Scientific validity, objectivity of the results of the analysis and forecasting depend on the quality and completeness of the data used in the construction an econometric model for forecasting tax revenues.

3. Results

The data used in the analysis and construction of an econometric model of tax revenues must meet the following criteria:
- the reliability of the data;
- correspondence of the collected data to reality;
- completeness of coverage of data characterizing factors;
- data comparability;
- measurability of data collection.

The data used in the analysis and forecasting of tax revenues is collected from tax reports submitted by taxpayers, reports of tax authorities, including information on the receipt and accrual of taxes and fees, as well as arrears on them. The use of only tax reporting in the analysis and forecasting does not provide a full coverage of the actual state of tax revenues to the state budget of the country. This is because the tax system works in conjunction with other systems of the country's national economy.

In addition, there are other sources of data used in the analysis and forecasting of tax revenues (data from statistical agencies).

4.   Conclusion

All processes occurring in the economic and social spheres, in foreign economic relations, affect the tax system of the Republic of Uzbekistan. This means that practically all macroeconomic indicators have an impact on the collection of taxes and other obligatory payments to the country's budget.

State statistics data on such indicators as the volume of GDP, the volume of industrial production, investment in fixed assets, the inflation rate, the consumer price index, the volume of agricultural products, proceeds from the sale of goods, works, services, allows us to identify many factors influencing the receipt of taxes and other obligatory payments.

Consequently, comprehensive implementation of the above recommendations will help both to improve the efficiency of tax policy and to optimize costs in achieving the solution of the set tasks. In turn, increasing the efficiency of tax policy will have a positive impact on the economic growth of the country, the welfare of the population and the improvement of the business environment for business entities.

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