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**REGIONAL TAX POTENTIAL UNDER INCREASED EXTERNAL**  
**SHOCKS: PROBLEMS AND OPPORTUNITIES**

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**Abstract**

The article examines the possibilities of regulating the tax potential of the region under the influence of external factors in the economic and social sectors of Russia. The authors have developed a method for calculating the regional tax potential. A mechanism for regulating the regional tax potential based on the tax base reduction risks has been developed. Sources, causes and factors of regional potential reduction risks have been identified in the SWOT analysis. Sources, causes and factors of occurrence of these risks have been linked in the diagram of cause-and-effect relationships proposed by K. Ishikav. Based on the hierarchy analysis method developed by T. Saaty, the growth of regional tax potential, depending on the influencing risks, has been linked with additive measures aimed to level the regional potential reduction risks. For the convenience of calculations, a software product has been developed and applied. It allows for calculating the impacts on regional potential reduction risks. The article describes results of a study of the regulation of regional tax potential based on the statistical data of the Chechen Republic, which is average among the regions of the Russian Federation. The external impacts on the economic and social sectors have been taken into account. Conclusions and proposals formulated aim to improve the mechanism for regulating the tax potential growth in the regions of the Russian Federation in the conditions of the COVID-19 pandemic and sanctions against Russia and its residents.

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*Keywords:* Tax potential, tax base, risk, regulation, investment, mechanism



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## 1. Introduction

The hypothesis of the need for several levels of public authorities was substantiated in 1950–1960 (Buchanan, 1960; Buchanan & Tullock, 1962; Tiebout, 1956a); the subsequent development of the principles of distribution of income and expenditure between the levels of the budgetary system laid the foundation for the tax potential in the market economy (Tiebout, 1956b).

The tax potential as a financial indicator of the national economy is correlated with indicators that determine the effectiveness of tax activities of the government (the total tax burden, the tax burden on taxpayers, the specific tax burden, the level of tax intensity of GDP and the tax rate). The dynamics of the tax potential and tax burden on taxpayers makes it possible to assess their relationship. The growth of the tax potential is observed with an increase in gross value added, and the growth of the tax potential decreases both the tax rate and the specific tax burden on the taxpayer.

A comprehensive analysis of the regional tax potential (hereinafter, RNP) allows you to optimize the process of managing financial flows, both in the country as a whole, and in its regions. This is especially true for the regions with a high share of financial assistance from the federal budget, including the Chechen Republic.

Meanwhile, a very important aspect of public finance is the level of tax potential of Russia, its regions, municipalities, companies and individuals. Increasing the tax bases for all federal, regional and local taxes does not solve the problem of budget deficit. It is necessary to ensure a continuous increase in the tax potential for all types of taxes at all levels of government.

## 2. Problem Statement

Regulation of the regional tax potential is a relevant issue. Development of the regional economy requires timely and adequate measures, including targeted investment in fixed assets, which can increase the economic potential of the region and the regional tax potential.

## 3. Research Questions

A comparative analysis of tax revenues of the North Caucasus Federal District has been described in (Protsenko et al., 2014; Tsakaev & Rassukhanov, 2017). It showed that the tax situation of each region influences the country's economy; a qualitative assessment of the tax policy helps to provide information on tax revenues of the regions; a quantitative assessment of tax revenues and the tax potential depends on the size of the territory and the number of population. The degree of influence of each of these factors on the tax potential depends on the following fact: the solvent population is a participant in the budget process, the size of the regional territory gives priority opportunities when choosing an investment object. This creates an additional opportunity to increase the RTP; the area does not necessarily correspond to the number of population.

To identify external and internal factors of the economic development in the Chechen Republic, the SWOT analysis was used (Kotler et al., 2012). It is one of the most balanced method of factor analysis in the real market environment. The hierarchy analysis method (Saati, 2008) was used to identify an

influence of key criteria on the RTP growth. To improve the accuracy and speed of calculating the degree of influence of factors and criteria on the RTP growth, MPRIORITY 1.0 was used (Abakarov & Sushkov, 2005).

The RTP growth is influenced by a wide range of external and internal factors. The results of analysis of threats and opportunities for the development of the economy of the Chechen Republic are presented in Table 01.

**Table 1.** External factors of economic development in the Chechen Republic affecting the risks of reducing the RTP

Opportunities	Threats
<i>1) Political and legal factors</i>	
stable and favorable political situation; availability of state support for enterprises and individual entrepreneurs; lack of direct government control over business activities/entities	the need for licensing certain economic activities; tightening of requirements in standardization and certification of manufactured products; unfavorable changes in the tax policy of the state (growth of personal income tax, etc.); sanctions from the United States and other countries
<i>2) Economic factors</i>	
projects aimed to create points of growth in the economy; production facilities and divisions of large Russian and foreign companies; an increase in the volume of production of competitive products and services by residents of the region	low economic growth; high interest rates; aggravation of competition for products and services; the risk of losing the existing share of the domestic market due to a significant influx of imported goods; the risk of not entering foreign markets
<i>3) Social factors</i>	
social activity and mobility of the working age population; socialization of the family life of the local population; strong family foundations of the local population	self-isolation of the population due to the COVID-19 pandemic; the likelihood of new viral diseases; low professionalism of health and education workers; low pension and social insurance
<i>4) Technical and technological factors</i>	
availability of free production facilities at enterprises and organizations for implementing the latest technologies and modern equipment; high potential for digitalization of industrial and social facilities	poor accessibility of enterprises and organizations in the region to modern technical and technological developments
<i>5) Natural factors</i>	
favorable geo-economic conditions of the Chechen Republic; availability of natural resources for the development of industrial production	high probability of dangerous natural processes and phenomena (earthquakes, floods, landslides, etc.) due to a wide variety of landscape conditions, which can lead to the destruction of objects and casualties among the population

Source: compiled by the authors

The results of an analysis of strengths and weaknesses of the Chechen economy are presented in

**Table 2.** Internal factors in the development of the economy of the Chechen Republic affecting the risks of reducing the RTP

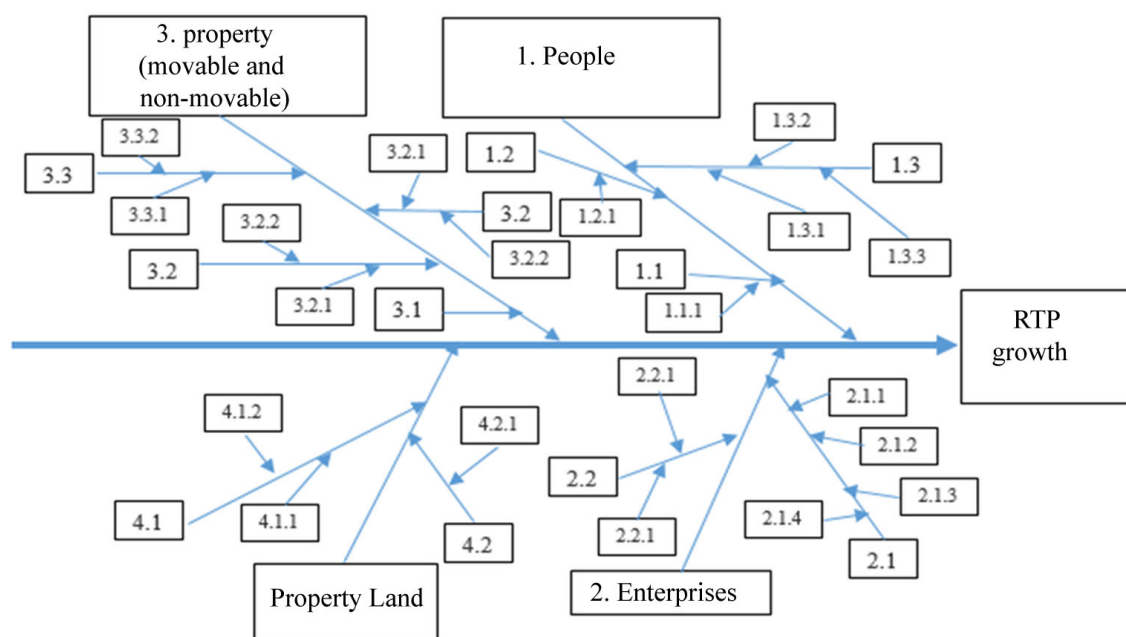
Strengths	Weaknesses
<i>1) Production</i>	
Well-coordinated production infrastructure; availability of opportunities for further increase in the volume of production; wide range and high quality of products	Low level of utilization of production facilities; high production costs; shortage of energy capacity and low level of development of the energy infrastructure

2) Marketing	
High capacity of the domestic and foreign markets for products manufactured by local enterprises and organizations	Not all industrial enterprises have a quality management system; the ineffective system of product positioning; lack of stable sales channels for enterprises
3) Enterprise management	
Optimal organizational and management structure of enterprises; appointment of heads of state-owned enterprises on a competitive basis	Lack of economic and marketing services at some enterprises; low professional and qualification level of employees
4) Finance	
Availability of various financial instruments of state support for enterprises and organizations	Lack of working capital; limited availability of credit resources due to insufficient funds for servicing accounts payable; low investment attractiveness of enterprises and organizations
5) Staff	
Close cooperation of educational organizations of the chechen republic and other regions; employee training programs	Absence of a multilevel base for training, retraining and advanced training of workers; high staff turnover
6) Material and technical supply	
The procurement system at enterprises	Making purchases on a prepayment basis; high transport and logistics costs
7) The nature of interaction with customers	
Prompt processing of orders; warranty service	Limited use of the discount system due to high production costs; delivery on a prepaid basis
8) Innovation activities	
Availability of state support for r&d; the opportunity to participate in the digitalization program of the russian economy	Lack of the own research base; the lack of opportunities for enterprises and organizations to independently finance r&d; limited state support for r&d

**Source** : compiled by the authors.

The early research (Protsenko et al., 2014; Tsakaev, 2017) allowed us to identify criteria for the RTP growth: the profit tax base – PTB; the individual income tax base – IITB; the excise tax base – ETB; the property tax base – PTB.

The Ishikawa diagram (1985) allows us to build a causal diagram of the RTP growth (Figure 01).



**Figure 1.** Sources, causes and factors influencing the growth of the RNP in the Chechen Republic

For the study, MPRIORETY 1.0 was used (Abakarov & Sushkov, 2005).

The use of a software product allows for processing a large array of possible alternatives – measures aimed to ensure the RTP growth.

The decree of the Government of the Russian Federation "On territories of advanced socio-economic development" of 22.06.2015. No. 614 is applied in the Far East, Mordovia, Udmurtia, Yaroslavl and Saratov regions. By creating such territories in 10 years, these regions will be able to attract more than 20 billion rubles, and it is planned to create about 6 thousand jobs. Therefore, the involvement of other regions in this mechanism of attracting investments in fixed assets will increase the regional tax potential.

#### 4. Purpose of the Study

To provide a balanced basis for developing priorities for enhancing investment flows in the real economic sector, it is necessary to solve a number of problems of state regulation. The problems of the tax potential growth in Russia and other countries with market economies make the research on the mechanism for increasing the RTP relevant under the sanctions, trade wars, the COVID-19 pandemic, cryptocurrency expansion, etc. This circumstance determined the choice of the purpose of our study whose results are presented in this article.

#### 5. Research Methods

Within this study, general scientific methods of cognition were used: observation and collection of factual material, scientific abstraction, analysis and synthesis of the process of regulating the regional tax potential growth, covering escalating internal conditions and intensifying external impacts on the Russian

economy. Special methods such as a SWOT-analysis (Humphrey, 2005; Kotler et al., 2012) made it possible to identify a set of external and internal factors in the RTP growth of; graphical studies and determination of the most significant causal relationships between the factors (causes and sources) and consequences (risks) of a RTP decrease (Ishikawa, 1985) allowed us to link sources and causes with the factors of occurrence of RTP risks; the method for analyzing hierarchies, the mathematical tool for a systematic approach to complex decision-making problems (Saaty, 2008), in particular, substantiation and selection of alternatives for RTP growth, were also used. In addition, MPRIORETY 1.0 (Abakarov & Sushkov, 2005) allowed us to process a large array of possible alternatives – measures aimed to ensure the RTP growth.

## 6. Findings

The hierarchy analysis (Saaty, 2008) in ensuring the RTP growth in the Chechen Republic made it possible to decompose the goal (the RTP growth) when solving four specific tasks based on a preliminary assessment of their priority:

1. Increasing the accrual base (tax base) of the corporate income tax (operating profit) – the priority was 0.46;
2. Increasing the base for calculating the personal income tax (average monthly wages by economic activity) – the priority was 0.26;
3. Increasing the base for calculating the excise tax (the volume of products sold) – the priority was 0.14;
4. Increasing the base for calculating the property tax (cost of fixed production and non-production assets) – the priority was 0.14.

The resulting prioritization of measures aimed to ensure the RTP growth in the Chechen Republic, based on the use of the hierarchy analysis method (Saaty, 2008) and MPRIORITY 1.0 (Abakarov & Sushkov, 2005) is as follows:

1. Justification of the choice of production types for each cluster of the regional economy – OVVKRE, the priority was about 0.21;
2. Supplementing the adopted republican target programs – DRCP, the priority was about 0.17;
3. Development of proposals for adjusting the federal target program – PpKTsP, the priority was about 0.14;
4. Development of measures for developing the banking sector – RMRBS, the priority was about 0.12;
5. Development of proposals to reduce the level of accounts payable and receivable – RPSUKDZP, the priority was about 0.10;
6. Calculation of the lower thresholds for the medium term level of wages – RNPUOTSP, the priority was over 0.09;
7. Development of a program for involving the unemployed population in home work – RPNVNT, the priority was over 0.07;
8. Calculation of the taxable base for property taxes – RNBIN, the priority was over 0.06;

9. Conducting an inventory of land plots allocated to organizations and individuals, the priority was about 0.06.

## 7. Conclusion

Urgent measures aimed to increase the regional tax potential in Russia include: improvement of the current budgetary and tax legislation by expanding the fiscal powers of regional and tax authorities; an increase in the share of own tax revenues due to the consolidation of a part of federal taxes on a long-term basis; transfer of legal powers to make economic decisions on attraction and placement of investments from the federal to the regional level; increasing the effectiveness of mechanisms used in the regions, improvement of the efficiency of management, contributing to the expansion of the tax base; increasing the level of business activity of the population, creating conditions for the development and strengthening of small businesses, so that income from small businesses becomes one of the main sources of the regional budget; ensuring the further development of information interaction between the regional government in assessing the RTP.

In the context of persistence and strengthening of external impacts on the economy of Russia, these measures will contribute to the RTP growth in almost every region and increase tax revenues of regional and local budgets, which will provide a significant increase in tax revenues of the consolidated budget as a whole.

The unified approach to the RTP growth regulation can significantly increase the efficiency and investment activity in the regions. In addition, in the regions with surplus labor resources, it is necessary to implement a mechanism to ensure the RTP growth both on the basis of priority development territories and partnership finance opportunities.

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