

# *The security level of tax contribution of small businesses to the region's consolidated budget*

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**Abstract** — The purpose of the article is to determine the tax contribution of small businesses that is considered to be safe for the regional budget in the face of external and internal threats. The article presents the results of statistical and economic research on tax security of small businesses operating in the Volgograd region. The dynamics of the main indicators of the performance of small enterprises and individual entrepreneurs over a five-year period has been shown. The analysis of tax revenues received from taxpayers under special tax regimes is carried out in the article. The authors formulate their own definition of tax security of small business and distinguish two aspects of tax security: for taxpayers and for the consolidated budget of the region. The main threats to tax security of small businesses and a budget system are given in the text of the article. The reduction in tax contribution of small businesses in the long run is the main threat for the consolidated budget of the region. Tax security indicators and their threshold values are proposed for participants in tax relations. The calculation of the average values of the proposed indicators over a long period and the compilation of a matrix of tax security levels for the consolidated budget indicate the "absolutely safe" level of tax security of small businesses for the budget system.

**Keywords** – indicator, small business, tax security, tax contribution, the region's consolidated budget, tax system

## I. INTRODUCTION

The financial security of small businesses operating in the region is a complex set of investment, credit and tax security subsystems, which together can ensure the stable operation and ongoing development of small business. The most important component of the financial security system is the tax security subsystem since a clear, stable and effective system of

taxes and incentives guarantees not only the timely fulfillment of tax obligations by entrepreneurs, but also the tax contribution of small businesses to budget revenues sufficient to fulfill financial obligations.

Scientific studies of tax security are most often carried out at the macro level of economic systems [1], [2], [3], [4], [5], [6], [7]. In our opinion, the most accurate definition of tax security is given by I.Yu. Timofeyeva: "Under the term "tax security" it is proposed to understand the condition of the tax system that ensures the guaranteed protection of tax interests of the government, business and society from internal and external threats" [8, p.39].

Our previous publications were devoted to tax security at the regional level [9], [10], now we turn to consolidating the tax interests of the region with the tax interests of small forms of business.

By the concept "tax security of small business" the authors mean the condition of the tax system which guarantees the protection of tax interests of entrepreneurs from internal and external threats in the case when these interests are consolidated with the tax interests of the government, federal subjects, and municipalities.

It is obvious that tax security of small business has several aspects that correspond to the interests of the participants in tax relations. For all subjects of tax relations it is important to organize monitoring of tax security of small business, which is a continuous process of controlling and recording the parameters of small business development and of various

aspects of its tax security in comparison with the specified criteria.

In economic literature and economic practice, there is no uniform approach to organizing regular monitoring of small business and its tax security, although scientists, government authorities, and the general public recognize the important role of small business and its economic and social significance [11].

The most difficult and important task is to develop tax security indicators, which can be used for complete and continuous monitoring, and these indicators should have security criteria that would signal the transfer of potential security risk factors to real threats.

The authors of the article are aiming to develop indicators for monitoring tax security of regions in the form of aggregate figures of tax contribution of small businesses to the consolidated budget and their threshold values and then to test the indicators on a specific subject of the Russian Federation.

## II. MATERIALS AND METHODS (MODEL)

The study is carried out within the framework of a systems approach using general scientific methods: analysis and synthesis, induction and deduction, scientific abstractions. The authors have applied the following methods of statistical and economic analysis: data collection; data processing by grouping, time series, relative values, tabular modeling; analysis of results with the use of comparisons, analogies and objective logic.

The informational basis of the study is tax statistics data and materials from the previous studies of the authors [9], [10].

## III. RESULTS AND DISCUSSION

In terms of small business, external threats to tax security include the institutional aspect associated with imperfect tax legislation and the economic aspect, which includes threats of a general decline in production in the small business area, an increase in resource prices and a drop in consumer demand. This leads to a decrease in turnover and reduction in the ability to pay taxes and fees.

Internal threats to tax security of small businesses can be not only economic, but also organizational, consisting in an unreasonable choice of a tax regime, and behavioral, associated with tax offenses and crimes.

A decrease in turnover, a decline in the average number of employees and the closure of an enterprise, which in turn leads to a drop in the total number of small businesses in the region – all these factors can indicate economic threats.

We will analyze these indicators according to the statistical data of the Volgograd region. A complete statistical observation was carried out only in 2015, and data for other years were obtained by sampling monitoring.

### A. Dynamics of key performance indicators of small enterprises and individual entrepreneurs in the Volgograd region

In the Volgograd region there has been a pronounced downward trend in the number of small businesses (excluding micro-enterprises). Compared to 2013, the number of small enterprises have decreased by 0.6 thousand units. In 2015 there was a decline by 0.3 thousand units, and then this downward trend continued until 2017. The average annual rate of decline was 4.7 percent (Table I).

“The average number of employees (excluding external part-time workers) in small enterprises (excluding micro-enterprises) amounted to 71.3 thousand people in 2017. The highest rate was seen in the organizations engaged in wholesaling and retailing; repair of motor vehicles and motorcycles, which amounted to 19.0% in the past year. The average number of external part-timers was 3.3 thousand people, among which 19.4% was engaged in trade. According to civil contracts enterprises employed 2.7 thousand people, about 40% of them worked at enterprises engaged in real estate operations” [13, p. 138]. Over the five-year period almost 15 thousand people lost their jobs in small enterprises. The facts mentioned above indicate an unfavorable social and economic situation for small business development in the region, but they do not have a direct relationship to tax security since an enterprise that has ceased operations is no longer a tax payer.

TABLE I. KEY FIGURES OF PERFORMANCE OF SMALL BUSINESSES AND INDIVIDUAL ENTREPRENEURS IN THE VOLGOGRAD REGION IN 2013-2017

| Years  | Number of small businesses, thousand units | Average number of employees, thousand people | Turnover/revenue, billion rubles |
|--|--|--|----------------------------------|
| Small businesses ( excluding micro-enterprises ) |  |  |                                  |
| 2013   | 3.4  | 89.4   | 152.7                            |
| 2014   | 3.4  | 93.5   | 163.2                            |
| 2015   | 3.1  | 80.1   | 157.8                            |
| 2016   | 3.0  | 73.1   | 195.3                            |
| 2017   | 2.8  | 74.6   | 211.3                            |
| Individual entrepreneurs                         |  |  |                                  |
| 2013   | 46.9                                       | 46.9   | 136.8                            |
| 2014   | 44.9                                       | 44.9   | 130.5                            |
| 2015   | 37.5                                       | 37.5   | 105.1                            |
| 2016   | 41.4                                       | 41.4   | 163.7                            |
| 2017   | 41.3                                       | 41.3   | 181.0                            |

Compiled by the authors according to [12], [13], [14]

The turnover of small businesses which forms incomes and tax base is quite a different story. Like other performance figures, the decrease in turnover occurred in 2015, but later the downward trend was overcome, and revenue of small businesses started to grow. The average annual growth rate for the period in question was 108.9 percent.

“In 2017, the turnover of small businesses (excluding micro-enterprises) was 211.3 billion rubles. The turnover of the companies engaged in wholesaling and retailing; repair of

motor vehicles and motorcycles accounted for 47.3% in the region as a whole, manufacturing industries - 12.5%, construction - 12.0%, real estate operations - 5.9%.

In 2017, the Volgograd region ranked third in the Southern Federal District behind the Krasnodar and Rostov regions in the number of key performance figures of small businesses (excluding micro-enterprises) (number of enterprises, average number of employees (excluding external part-time workers), turnover)” [13, p. 138].

There was a drop in the number of sole proprietors in 2015. Their number decreased by 7.4 thousand people compared to 2014, and by 9.4 thousand people compared to 2013. “In 2016, there were actually 41.4 thousand individual entrepreneurs in the Volgograd Region. 47.2 percent of the proprietors operated in wholesaling, retailing; repair of vehicles and motorcycles, household goods and goods for personal use; 12.9% - in real estate, renting and service sector; 12.5% - in transport and communication. As of January 1, 2018, the Statistical Register reports about 61.6 thousand individual entrepreneurs in the Volgograd region [13, p.138]. Almost a quarter of them do not operate.

*B. Analysis of tax contribution of small businesses to the region’s consolidated budget*

TABLE II. TAX REVENUE OF SMALL BUSINESSES AND INDIVIDUAL ENTREPRENEURS IN THE VOLGOGRAD REGION UNDER SPECIAL TAX REGIMES IN 2013-2017, MILLION RUBLES

| Year                     | STS  | ASTOI | SAT | PTS | Total |
|--------------------------|------|-------|-----|-----|-------|
| 2013                     | 2234 | 1150  | 83  | 5   | 3472  |
| Including organizations  | 1258 | 381   | 45  | X   | 1684  |
| individual entrepreneurs | 976  | 769   | 38  | 5   | 1788  |
| 2014                     | 2510 | 1277  | 134 | 17  | 3938  |
| Including organizations  | 1353 | 406   | 67  | X   | 1826  |
| individual entrepreneurs | 1157 | 871   | 67  | 17  | 2112  |
| 2015                     | 2807 | 1283  | 252 | 65  | 4407  |
| Including organizations  | 1566 | 408   | 131 | X   | 2105  |
| individual entrepreneurs | 1241 | 875   | 121 | 65  | 2302  |
| 2016                     | 3274 | 1154  | 288 | 19  | 4735  |
| Including organizations  | 1732 | 343   | 132 | X   | 2207  |
| individual entrepreneurs | 1542 | 811   | 156 | 19  | 2528  |
| 2017                     | 3764 | 1100  | 338 | 47  | 5249  |
| Including organizations  | 1931 | 306   | 136 | X   | 2373  |
| individual entrepreneurs | 1832 | 794   | 202 | 47  | 2875  |

Compiled by the authors according to [15].

Small businesses (SB) and individual entrepreneurs (IE) as subjects of tax relations choose various ways of income taxation including special tax regimes. These are a simplified taxation system (STS), a single tax on imputed income (ASTOI), a single agricultural tax (SAT), a patent taxation system (PTS).

Analysis of tax revenue of small businesses and individual entrepreneurs in the Volgograd region under special tax regimes was conducted for the years 2013-2017 (Table II).

The tax contribution of each special tax regime can be seen in the structure of tax revenue (Table III).

TABLE III. STRUCTURE OF TAX REVENUE OF SMALL BUSINESSES OF THE VOLGOGRAD REGION UNDER SPECIAL TAX REGIMES IN 2013-2017, PERCENT

| Tax regime | 2013  | 2014  | 2015  | 2016  | 2017  |
|------------|-------|-------|-------|-------|-------|
| STS        | 64.4  | 63.7  | 63.7  | 69.1  | 71.7  |
| ASTOI      | 33.1  | 32.4  | 29.1  | 24.4  | 21.0  |
| SAT        | 2.4   | 3.4   | 5.7   | 6.1   | 6.4   |
| PTS        | 0.1   | 0.5   | 1.5   | 0.4   | 0.9   |
| Total      | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

A simplified taxation system takes the largest share in the structure of tax revenue from special tax regimes. It has from 63.7% (2014, 2015) to 71.7% (2017). Since 2015 the proportion of STS in tax revenue has been steadily increasing.

The next most important tax regime is a single tax on imputed income, its share in the structure of tax revenue is 21.0% - 33.1%. This tax regime shows a tendency of regression in tax contribution. From 2013 to 2017, the share of ASTOI in total tax revenues from special tax regimes decreased by 12.1 percent.

According to a single agricultural tax, there is an increase in tax contribution from special tax regimes. The most rapid growth is seen in 2014 and in 2015, later the increase slows down to 0.4-0.3 percent. The overall progress during the analyzed period is 4 percent.

According to the figures of PTS there was significant progress up to 2015, then its share in total tax revenues from special tax regimes was less than 1 percent.

*C. Justification of indicators of tax security of small business for the region’s consolidated budget*

In order to justify the indicators of tax security of small business in terms of a budget system we put forward the hypothesis that a safe system of taxation of small businesses and individual entrepreneurs must be accompanied by an increase in tax revenues to the consolidated budget of the regional budget system, and the tendency of tax revenue growth should be long-term.

Let  $TRGR_{str}$  denote tax revenue growth rate under special tax regimes.

Safe indicator value

$$TRGR_{str} \geq 100\% \tag{1}$$

We will analyze the dynamics of tax revenue from special tax regimes for small businesses and individual entrepreneurs over the five-year period (Table IV).

Tax revenues under all tax regimes grew in general by more than 10 percent over a long period. The patent taxation system demonstrates the largest average annual growth. There is also a noticeable increase in the single agricultural tax. The tax contribution of the simplified taxation system increases by 14 percent. The single tax on imputed income is lower than other taxes, but so far its regression is slow.

TABLE IV. DYNAMICS OF TAX REVENUE OF SMALL BUSINESSES IN THE VOLGOGRAD REGION UNDER SPECIAL TAX REGIMES IN 2013-2017, PERCENT

| Tax regime | Tax revenue growth rate <b>TRGR<sub>str</sub></b> |             |             |             |                |
|------------|---|-------------|-------------|-------------|----------------|
|            | 2014 / 2013                                       | 2015 / 2014 | 2016 / 2015 | 2017 / 2016 | average annual |
| STS        | 112.4   | 111.8       | 116.6       | 115.0       | 114.0          |
| ASTOI      | 110.0   | 100.5       | 89.9        | 95.3        | 98.9           |
| SAT        | 161.4   | 188.1       | 114.3       | 117.4       | 145.3          |
| PTS        | 340.0   | 382.4       | 29.2        | 247.4       | 249.8          |
| Total      | 113.4   | 111.9       | 107.4       | 110.9       | 110.9          |

The threat of reduction of tax revenues from the use of special tax regimes from the point of view of budgets' incomes in the period under analysis has not displayed itself and the following indicator proves this

$$TRGR_{str} = 110 > 100. \tag{2}$$

Another indicator of tax security of small business in terms of budgets is the indicator of the growth of the share of tax revenues from special tax regimes in the total amount of tax revenues of the region's consolidated budget.

This indicator is denoted by  $\Delta g_{str}$

Safe indicator value

$$\Delta g_{str} \geq 0 \tag{3}$$

We will analyze this indicator over a five-year period (Table V).

TABLE V – THE SHARE OF TAX REVENUE FROM SPECIAL TAX REGIMES IN TAX REVENUE OF THE CONSOLIDATED BUDGET OF THE VOLGOGRAD REGION IN 2013-2017.

| Tax revenue   | 2013  | 2014  | 2015  | 2016  | 2017  |
|---|-------|-------|-------|-------|-------|
| Tax revenues of the consolidated budget, million rubles                                   | 66156 | 74457 | 79003 | 86967 | 87879 |
| Taxes on aggregate income, million rubles   | 3472  | 3938  | 4407  | 4735  | 5249  |
| The percentage of taxes on aggregate income in tax revenues of the consolidated budget, % | 5.2   | 5.3   | 5.6   | 5.4   | 6.0   |
| Growth (+), decrease (-) of $\Delta g_{str}$  | X     | 0.1   | 0.3   | -0.2  | 0.6   |

Compiled by authors according to [15]

Over the five-year period the share of taxes on aggregate income in tax revenues of the consolidated budget of the Volgograd region was in the range of 5.2-6.0 percent, with the

tendency of growth of this share, except one year. On average, over the five-year period, the increase in the share of taxes on aggregate income amounted to 0.2 percent.

Thus, the safe value of the indicator is achieved.

$$\Delta g_{str} = 0, 2 > 0 \tag{4}$$

The combination of the values of the two indicators may be different, which, in our opinion, indicates different levels of tax security.

We distinguish four levels of tax security:

1. Absolutely safe.
2. Safe.
3. Conditionally safe.
4. Dangerous.

The combination of the indicators presented above is shown in matrix form (Table VI).

TABLE VI- THE MATRIX OF THE LEVELS OF TAX SECURITY OF SMALL BUSINESS FOR THE REGION'S CONSOLIDATED BUDGET

|                      | <b>TRGR<sub>str</sub> &gt; 100%</b> | <b>TRGR<sub>str</sub> = 100%</b> | <b>TRGR<sub>str</sub> &lt; 100%</b> |
|----------------------|-------------------------------------|----------------------------------|-------------------------------------|
| $\Delta g_{str} > 0$ | 1. Absolutely safe                  | 2. Safe                          | 3. Dangerous                        |
| $\Delta g_{str} = 0$ | 4. Safe                             | 5. Safe                          | 6. Dangerous                        |
| $\Delta g_{str} < 0$ | 7. Conditionally safe               | 8. Conditionally safe            | 9. Dangerous                        |

Of the nine quadrants of the matrix, only the first quadrant demonstrates the "absolutely safe" level of tax security, at which the positive dynamics of tax revenues of small business is achieved and the share of taxes on aggregate income in the total tax revenues of the region's consolidated budget is increasing.

The fourth quadrant shows a "safe" level, since tax revenues from small businesses are growing and their share in the tax revenues of the consolidated budget is stable.

The safe level is kept in the second and fifth quadrants with stable tax revenues from small businesses and a constant or growing share in the tax revenues of the consolidated budget.

The seventh quadrant of the matrix corresponds to the "conditionally safe" level, when tax revenues from small businesses are growing, but more slowly than other tax revenues, and the share of small business in the total tax revenues is decreasing.

The third, sixth and ninth quadrants of the matrix signal the loss of tax security of small businesses for the consolidated regional budget, since tax revenues from small businesses are declining: in the third and sixth quadrants, along with general tax revenues, and in the ninth quadrant - faster than the total tax revenues of the consolidated budget.

Using the matrix, we conclude that small business of the Volgograd region has the “absolutely safe” level of tax security in terms of formation of the consolidated budget, that is, it corresponds to the first quadrant of the matrix.

#### IV. CONCLUSION

Tax security monitoring is a continuous process of controlling and recording parameters of the regional tax system and businesses operating in the region with the use of safety indicators in comparison with the specified criteria.

The importance of monitoring tax security of the regions and business entities is due to the presence of external and internal security threats that impede the full use of the tax and budgetary capacities of the territory. Only a safe and effective regional tax system is a reliable basis for the fulfillment of budget obligations by the subjects of the Russian Federation.

By tax security of small business the authors understand the condition of the tax system which ensures the guaranteed protection of tax interests of entrepreneurs from internal and external threats in the case when these interests are consolidated with the tax interests of the government, federal subjects, and municipalities.

It is obvious that tax security of small businesses has several aspects that correspond to the interests of the participants in tax relations.

To justify the indicators of tax security of small business in terms of a budget system the authors hypothesized that a safe system of taxation of small businesses and individual entrepreneurs must be accompanied by an increase in tax revenues to the consolidated budget of the regional budget system and the tendency of tax revenue growth should be long-term.

In accordance with the proposed hypothesis, two indicators of the safe level of tax contribution of small businesses to the consolidated budget of the region have been developed.

1. The growth rate of tax revenues from special tax regimes with a threshold value of at least 100 percent in the long run.
2. The increase in the share of tax revenues from special tax regimes in the tax revenues of the consolidated budget of the region with a threshold value of at least zero.

After calculating average values of the proposed indicators over a long period and compiling a matrix of levels of tax security for the consolidated budget, the authors came to the conclusion about the absolute tax safety of small businesses for the budget system.

However, despite the absolute tax safety of small business for the consolidated budget, an unfavorable environment for

small enterprises has been created, and the consolidation of tax interests has not been achieved.

To minimize the threats to tax security of small business, urgent measures are needed to reform the tax system, especially at the regional level, in the direction of strengthening the incentive effect of maintaining and developing small businesses.

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