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# Government Tax Regulation in the Agricultural Sector in Conditions of Import Substitution Policy

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## ABSTRACT

The **relevance** of the research is defined by the promotion of food security improvement for Russia and the importance of government regulation in this process. The **purpose** of the paper is the hypothesis verification on the positive impact of the revealed methods in the government tax regulation on the national agricultural industry development in conditions of import substitution policy with further increase of food security level in the country. The **task** of the paper is the analysis of government regulation methods for the development of agricultural sector. Key **methods** of the research are the collection and analysis of statistical data, their comparative analysis, the study of normative data base in tax regulation of agricultural sector and other documents related to the food security of the country. Authors analyze the dependence of national agricultural industry on import components. Based on that the main problems of food security in the country are revealed including the low seed fund, the lack of breeding stock, the lack of veterinarian vaccines and other medicine, weak investments in fixed capital and productive capacity, the lack of research institutes and laboratories in this sector of economy. In accordance with these reasons, authors consider the tools of government regulation in the agricultural sector of economy including the tax stimulation, grants and subsidies, preferential loans and other mechanisms, which could support the effective development of national agricultural complex. The analysis of statistical data by Federal Tax Service of Russia has indicated the effectiveness of government tax stimulation of agricultural producers, which is proved by the growth of tax revenue from this category of taxpayers, despite their decrease. Researchers indicate the development of government tax regulation measures by targeted use of tax tools for the target of a decrease in the loss of tax revenue and increase investments in fixed capital in the agricultural sector.

**Keywords:** import substitution; agricultural sector of economy; government regulation; agricultural producers; tax support; preferential loans; food security; subsidies; fundings; export; import; investments

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## INTRODUCTION

The development and success of any country's agriculture have a direct impact on its food security, and thus on the survival of the population in a given economy during various types of crises, both natural and man-made. When there is a natural crisis, such as a possible crop failure or natural disasters, there is a possibility of obtaining the necessary products from partner countries or using the harvested products of the past years. If we are talking about man-made crises due to influencing some countries on others or creating competitive advantages of some companies against others, there is a more difficult task of increasing the level of independence of the national agriculture from the external environment, which has become a key goal of the import substitution policy of the Russian Federation since 2014.

The independence of Russian agriculture from imported food was first considered after the collapse of the Soviet Union in 2010 with the adoption of the first Food Security Doctrine.<sup>1</sup> According to this Doctrine, the share of domestic products in the Russian market was to grow to 80–95% by 2020, and also set a goal of price availability of products for the population of the country throughout its territory. The latter includes the possibility of a direct impact on the nutritional balance of the country's citizens, resulting in a reduction in chronic diseases, and thus an increase in life expectancy of all segments of the population.

Based on the latter statistical information, the import substitution policy in the field of agriculture for the last 8 years can be called one of the most successful in comparison with other sectors of the Russian economy: the share of imported products in the retail sector decreased from 36% (2005) to 24% (at the end of 2021), the turnover of plant crops increased

by 3.5 times — to 3.6 trln rub. from 2010, and livestock — twice — to 2.9 trln rub.<sup>2</sup>

Of course, the results are there, and there is a positive dynamic, which indicates the right strategy of support for agriculture by the state, which requires its analysis for use in other sectors of the domestic economy.

## LITERATURE REVIEW

Food Security Issues was also the first to identify at the World Food Conference in Rome in 1974 [1]. In accordance with established Doctrine, the basic principles of food security for all countries were considered: economic accessibility of food, stable access to safe and quality food, availability of food, as well as consumption of the required amount of food according to the relevant dietary standards.

Subsequently, the World Food Summit in 1996 defined food security by which every person must have both physical and economic access to sufficient, safe and nutritious food. Further particular emphasis was placed on socio-economic access to food, which was formalized by the Declaration of the World Summit on Food Security [2, 3].

Among foreign scientists should be noted those who laid the theoretical basis and methodological principles of studying the problem of food security of the country, including P.J. Ericksen, T. Lang and D. Barling, A. Moragues-Faus etc. [4–6]. These scientists were able to identify the interlinkages of the global food production system, including health, trade and logistics, environment, technological and scientific progress, policy and economics in general.

Criteria and indicators for food production include the level of food independence, the level of production of basic agricultural products, and the level of budgetary support for agricultural producers [7].

<sup>1</sup> Decree of the President of the Russian Federation "On approval of the Food Security Doctrine of the Russian Federation". URL: <https://base.garant.ru/73438425/> (accessed on 10.11.2022).

<sup>2</sup> Share of expenses of Russians on food. "Vedomosti". 2020. URL: <https://www.vedomosti.ru/economics/news/2020/12/14/850883-analitiki-otsenili-dolyu-rashodov-rossiyan-na-edu> (accessed on 20.12.2022).

Some researcher, especially the Scandinavian countries, use the ratio of consumption and household income to evaluate food security, including the value of the market basket in each region of the country [8]. In recent years, there has been much research on the impact of the pandemic on the food security of countries with regard to the gap of global value chains between economies and entire regions [9–11].

As for the import substitution policy in agriculture, the theoretical aspects and the evolution of its development were examined in the papers by Z. S. Podoba, A. A. Moldovan and A. A. Faizova [12]. These theoretical aspects were also considered using mathematical models, including input-output model for various countries, including Russia [13, 14]. The issues of differentiation of consumption of basic agricultural products according to the level of income of the population were studied by V.V. Maslova, V.S. Chekalin and M.V. Avdeev [15]. The problem of dependence of the domestic agro-industrial complex on the supply of imported equipment and other logistics was analysed. At the same time, factors of effective agricultural food import substitution in Russia were presented by M. Lyavina [16].

Thus, food security issues, as well as estimates of its critical level have been studied by both foreign and Russian scientists over the past 70 years, which is explained, on the one hand, by the significant economic growth of the all-world economy, and on the other hand — limited resources, which directly affects the food supply of countries. At the same time, import substitution policy becomes one of the fundamental for the further sustainable development of domestic agriculture, in which connection it is important to consider the positive results of state regulation of the industry, and possible next steps for its development with analyzed problems in this sector of the economy.

## METHODOLOGY

The task of this study — analysis of methods of state regulation for the development of agriculture under conditions of import substitution and its impact on the food security of the country.

The object of the study — agriculture under the conditions of import substitution policy. The subject of the study are measures of state regulation aimed at reducing the dependence of the domestic economy on imported products in agriculture.

The purpose of the paper — verification of hypothesis about the positive impact of the revealed methods of state tax regulation on the development of domestic agriculture in the context of the policy of import substitution with the subsequent increase in the level of food security of the country.

The main methods used in this study include the collection and processing of statistical data, their comparative analysis, the study of the regulatory framework for the tax regulation of the agro-industrial sector and other documents related to food security of the country.

## MAIN RESULTS

If we consider the dynamics of development of import substitution policies in agriculture of the Russian Federation over the last decade, the main successes were achieved in the production of domestic pork (0.2% of imports), flour (1.1% of imports), cereals (1.1% of imports), sausage products (1.3% of imports) and poultry meat (4.7% of imports).

The high import share remains in cheeses (32.5%), animal oils (29.5%), vegetable oils (17%), beef and sub-products (27.6%). In the Russian import structure, the share of food and agricultural raw materials for 2021 was 12%, ranking third after imports of machinery and equipment (47%) and chemical products (18%).<sup>3</sup>

<sup>3</sup> URL: [https://rosstat.gov.ru/storage/mediabank/Ejegodnik\\_2021.pdf](https://rosstat.gov.ru/storage/mediabank/Ejegodnik_2021.pdf) (accessed on 11.11.2022).

The greatest dependence of the Russian economy in agriculture is in the supply of fruits and nuts (17%), various beverages (10%), dairy products, eggs and honey (8.7%), seeds and fruits (7%), fats and oils (6.4%), fish and seafood (6.3%).<sup>4</sup>

The main food suppliers to Russia are Belarus (13.5%), Turkey (5.5%), Brazil (4.7%), Ecuador (4.3%) and China (4.2%).

If we consider the level of self-sufficiency of Russia by product categories, the main attention should be paid to the cultivation of their own fruits and berries in accordance with the climatic zone, and production of food salt also (*Fig. 1*).

Agriculture there are problems that should be dealt with as soon as possible. One such problem is seed shortages for the main agricultural crops of the national selection.

Thus, there are difficulties in the seed bank of sugar beet and potatoes, the seeds of which are imported to Russia mainly from France and Germany. Dependence on sunflower seed supply is almost 75%, and key seed suppliers are Turkey, USA, Spain and France. Dependence on corn is lower, but it is still 55%, and the key countries — suppliers of culture are Romania and Serbia (*Table 1*).

In addition to the seed bank of crops, there are problems in modern livestock: the share of imported bull semen at the end of 2020 amounted to 40%, and a quarter of the data of supply is carried out from the USA. Inseminate cows are also imported: almost 50 thous. cows (15% import) from Germany, Denmark and the Netherlands arrived in 2021. Imports of chicken incubation eggs at the end of 2021 accounted for 20% of the total Russian production, and the main suppliers are also the Netherlands and Germany.

The second unresolved problem in agriculture is the number of imported veterinary vaccines or their components on the Russian market. At the moment,

the industry itself of veterinary products according to the classifiers of economic activities does not exist, so there can be no question of subsidies from the State. Hungary (1 532 tons), the Netherlands (1 262 tons), the USA (849 tons), Spain (657 tons), Mexico (323 tons) and Belarus (309 tons) were the main importers of veterinary vaccines over the past five years.

Belarus, which was in a better position after the collapse of the Soviet Union and was able to maintain research and development and fixed assets in strategic sectors of the economy, can help to solve this problem.

Third problem remains the issue of investment in fixed capital and productive capacity in agriculture. If investments in fixed assets from 2017 to 2020 increased by 65.5 billion rubles, amounting to 466 billion rubles, then most of the equipment is imported from other countries, taking into account the constant indicators on the production of basic agricultural machinery, i.e. investments received are spent on the acquisition of missing equipment (*Table 2*).

At the same time, it is worth mentioning the development of research institutes and laboratories in the field of agricultural development, which, for the most part, after the collapse of the Soviet Union, were bankrupted and closed for the purpose of purchasing imported products. Work in this direction is carried out. Budget financing of such institutes in the sphere of agricultural sciences increased from 6.6 bln rub. in 2013 to 15 bln rub. in 2021. 114 new laboratories in the field of selection, seed production and molecular genetics have been created in the last three years with the involvement of 1.1 thous. new researchers.<sup>5</sup>

Another problem is the uncompetitive wages of this sector of the economy as

<sup>4</sup> URL: [https://rosstat.gov.ru/storage/mediabank/Ejegodnik\\_2021.pdf](https://rosstat.gov.ru/storage/mediabank/Ejegodnik_2021.pdf) (accessed on 11.11.2022).

<sup>5</sup> Website of the Ministry of Science and Higher Education of the Russian Federation. The funding of the research institute in the sphere of agriculture is doubled. 01.02.2022. URL: <https://minobrnauki.gov.ru/press-center/news/novosti-ministerstva/46630/> (accessed on 14.11.2022).

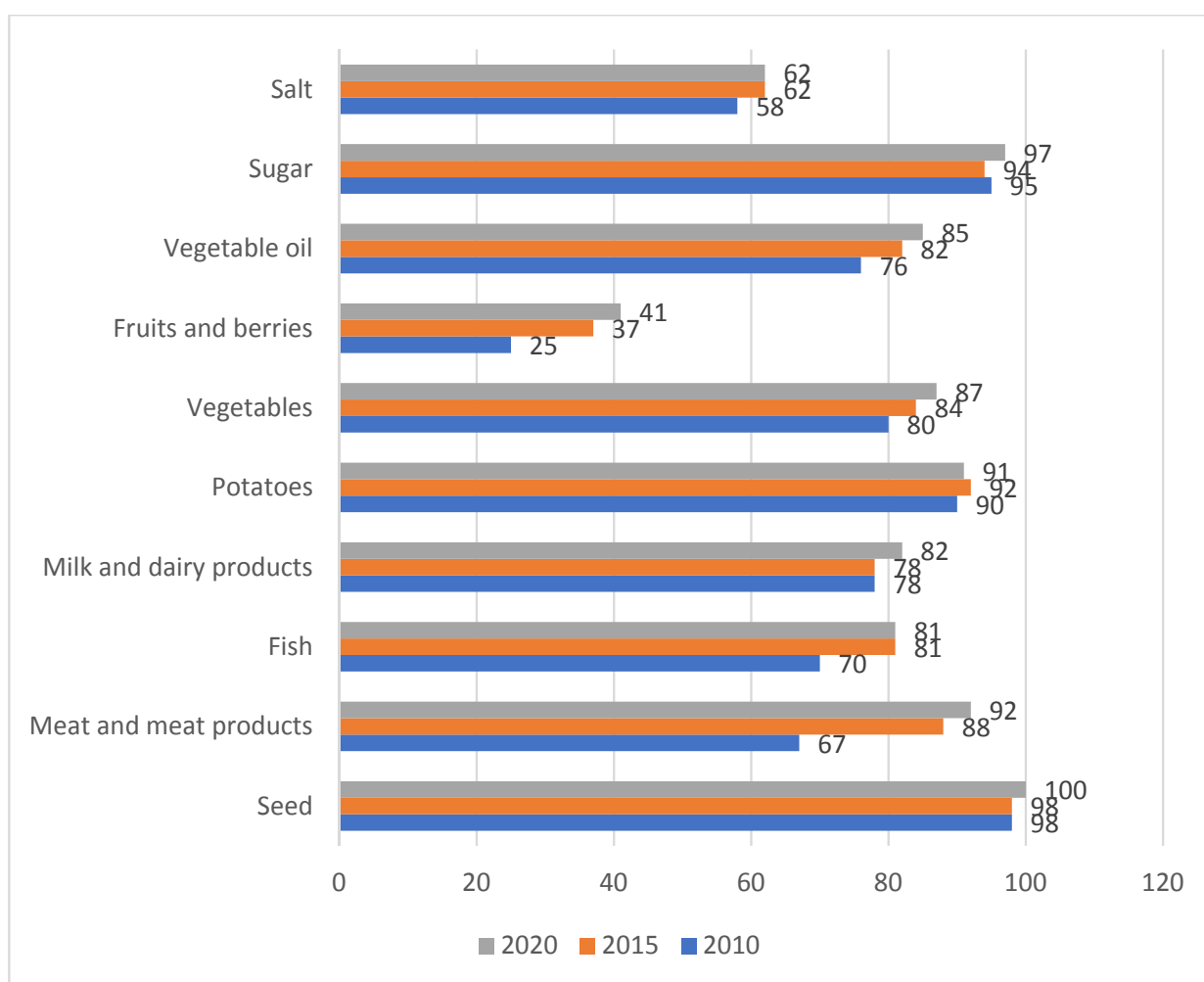


Fig. 1. Share of Russian Food Products in the Domestic Market, %

Source: tatistical manual 2021. URL: [https://rosstat.gov.ru/storage/mediabank/Ejegodnik\\_2021.pdf](https://rosstat.gov.ru/storage/mediabank/Ejegodnik_2021.pdf) (accessed on 11.11.2022).

Table 1

### Share of the Russian Seeds by Various Crops in the Russian Agricultural Sector, 2021

Variety of crops	Volume of seeds (thousands of ton)	Share of Russian seeds (%)
Winter wheat	3330.4	90.5
Spring wheat	2454.4	82.2
Barley	1702.9	63.2
Sugar beet	3.9	0.6
Vegetable crops	5.3	43
Sunflower	37.2	26.5
Potatoes	777.3	9.7
Corn	77.7	45.8
Rapeseed	9.3	31.7
Soybean	346.2	41.8

Source: Ministry of Agricultural Industry in Russia. URL: <https://mcx.gov.ru/upload/iblock/46c/3gb0awoe1q4k2amabk3g36tzi9rwwfmp.pdf> (accessed on 11.11.2022).



Table 2

**Production of the Main Types of Agricultural Machinery Equipment (Thousand Pieces)**

Category	2018	2019	2020
Tractors	7,1	6,6	7,2
Cultivators	40,7	47,5	43,6
Rippers	33,4	30,1	35,7
Machines for tilling the soil	5,9	5,7	5,2
Press for straw and hay	3,3	3,3	3,4
Harvesters	4,6	4,8	5,4

Source: Statistical manual 2021. Rosstat. URL: [https://rosstat.gov.ru/storage/mediabank/Ejegodnik\\_2021.pdf](https://rosstat.gov.ru/storage/mediabank/Ejegodnik_2021.pdf) (accessed on 11.11.2022).

compared to other sectors, which hinders the development of agriculture.

Agriculture, health, education, manufacturing based on average wages in the country are not considered as priority and strategically important sectors for the domestic economy (*Fig. 2*).

Nevertheless, Russia has all the opportunities to make agriculture its competitive advantage [17]. This is a strategic area where economic sovereignty can be achieved. State support mechanisms for the agricultural sector include not only grants and subsidies for agricultural producers, but also preferential loan programmes and tax preferences. Tax solutions help to stimulate import substitution, attract investment in agriculture and increase employment in this industry [18]. Tax mechanisms can compensate for budget losses over time by increasing the number of taxpayers and broadening the tax base in the future.

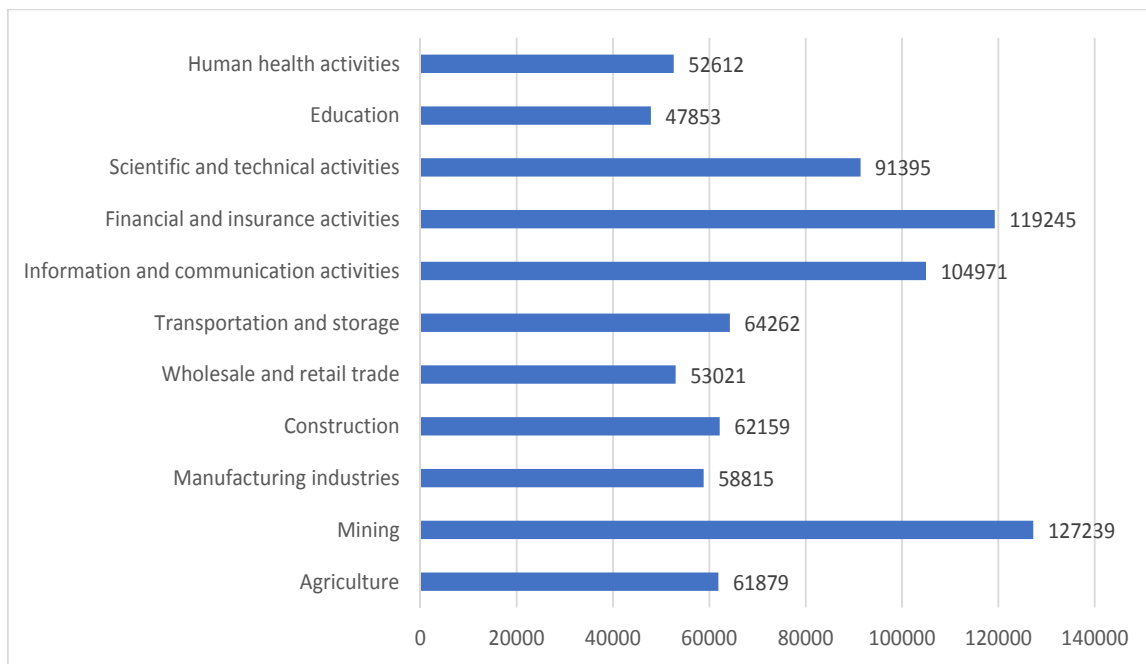
Agricultural producers can apply special tax regimes, which significantly reduces the tax burden. The most attractive conditions for this category of taxpayers provide unified agricultural tax (UAT),<sup>6</sup> but conditions of transition to it — the most difficult among all special tax regimes. Only those organizations and individual entrepreneurs whose share

of proceeds from the sale of own-made agricultural products makes at least 70% can apply UAT. The UAT rate is 6% with the difference between income and expenses, while the organization are exempt from tax on profits paid at 20%. In addition, the use of UAT exempts from the need to pay a tax on real estate used in agricultural activities. FTS data show a steady increase in UAT's budget revenues, both from organizations and individual entrepreneurs (*Fig. 3*). It should be noted that the number of UAT tax payers for the same period has been constantly decreasing (*Fig. 4*). This, in our view, confirms the positive impact of the tax regulatory function. The use of UAT allowed successful agricultural producers to significantly increase the tax base, which had a positive impact on the tax revenues of the budget.

UAT — this is not the only special tax regime that agricultural producers can apply to optimize their tax payments. Simplified tax system (STS) is available for the organization and individual entrepreneurs of this sphere, and when operating in Moscow, Moscow or Kaluga regions, and also in Tatarstan can be used by a new experimental regime of taxation — automated simplified tax system (ASTS). In addition, individual entrepreneurs can use the patent system of taxation and professional income tax.

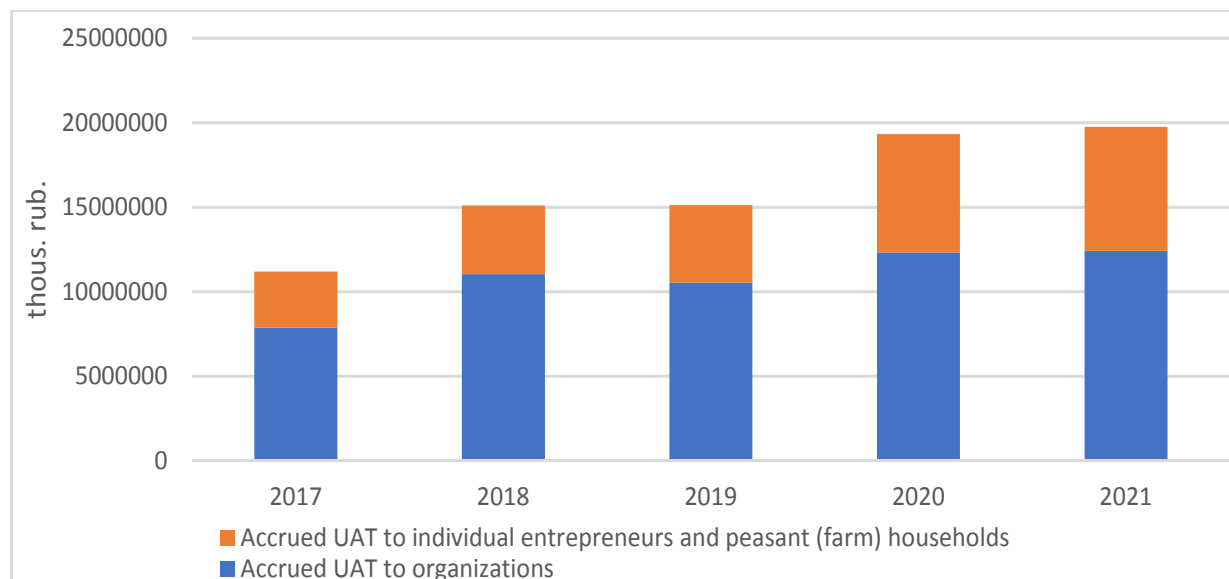
Under the general taxation regime, an organizational income tax credit can be used, which provides for zero rate of return on

<sup>6</sup> Chapter 26.1 of the Tax Code of the Russian Federation. URL: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_28165/6e115134a13db9e972d7d94237b5ed95fcb00d14/](http://www.consultant.ru/document/cons_doc_LAW_28165/6e115134a13db9e972d7d94237b5ed95fcb00d14/) (accessed on 20.12.2022).



**Fig. 2. Average Salary in Various Sectors of the Russian Economy, 2021**

Source: Statistical manual 2021. Rosstat. URL: [https://rosstat.gov.ru/storage/mediabank/Ejegodnik\\_2021.pdf](https://rosstat.gov.ru/storage/mediabank/Ejegodnik_2021.pdf) (accessed on 11.11.2022).



**Fig. 3. Tax Accruals for UAT**

Source: data of the Federal Tax Service of Russia in the form 5-UAT. URL: [https://www.nalog.gov.ru/rn77/related\\_activities/statistics\\_and\\_analytics/forms/](https://www.nalog.gov.ru/rn77/related_activities/statistics_and_analytics/forms/) (accessed on 20.11.2022).

agricultural products produced and processed by the taxpayer himself.<sup>7</sup> The scale of the benefit is confirmed by the data of the Federal Tax Service of Russia, according to which, due

to the application of zero rate by organizations of agricultural producers in 2021 in the consolidated budget, 142 690 339 thous. rub. were underpaid, which is 24.6% more than in 2020.<sup>8</sup>

<sup>7</sup> Art. 284, Para. 1.3 of the Tax Code. URL: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_28165/eb9180fc785448d58fe76ef323fb67d1832b9363/](http://www.consultant.ru/document/cons_doc_LAW_28165/eb9180fc785448d58fe76ef323fb67d1832b9363/) (accessed on 20.12.2022).

<sup>8</sup> Data of the Federal Tax Service of Russia on No. 5. URL: [https://www.nalog.gov.ru/rn77/related\\_activities/statistics\\_and\\_analytics/forms/](https://www.nalog.gov.ru/rn77/related_activities/statistics_and_analytics/forms/) (accessed on 20.12.2022).

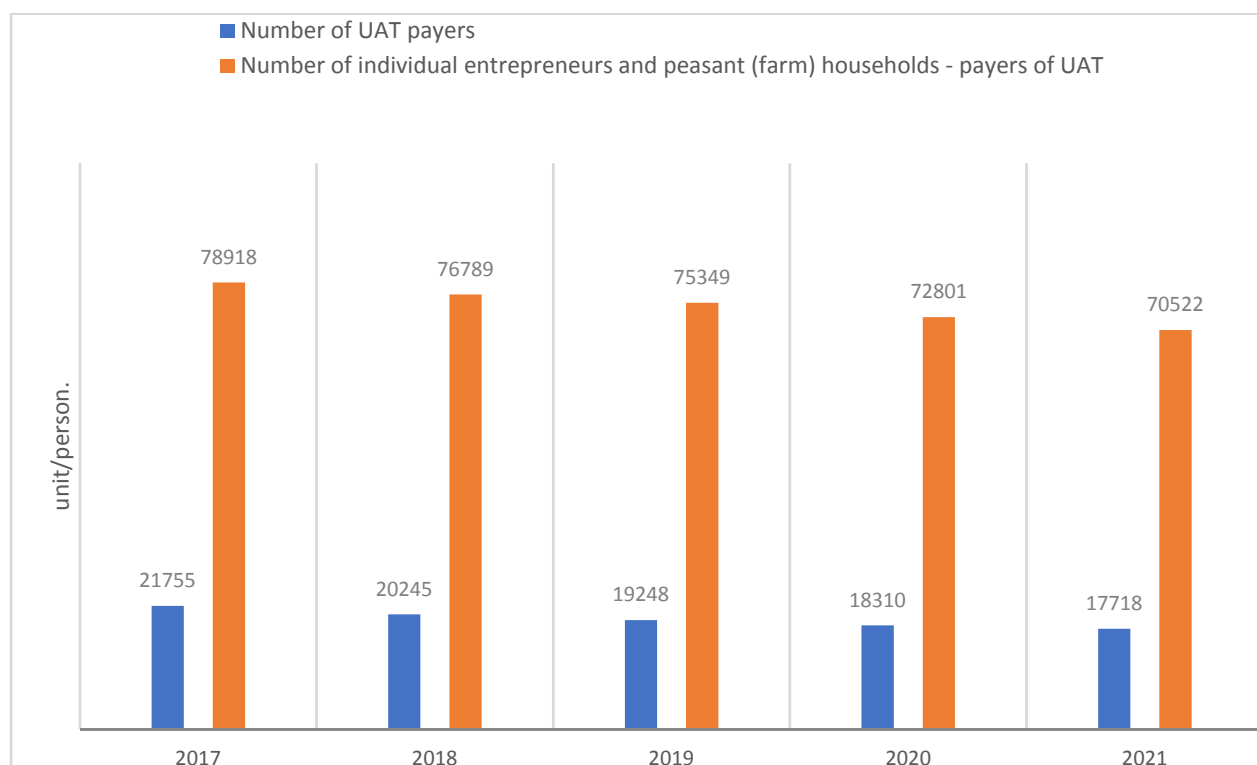


Fig. 4. Number of Taxpayers Paying UAT (Unit/Person)

Source: data of the Federal Tax Service of Russia in the form 5-UAT. URL: [https://www.nalog.gov.ru/rn77/related\\_activities/statistics\\_and\\_analytics/forms/](https://www.nalog.gov.ru/rn77/related_activities/statistics_and_analytics/forms/) (accessed on 20.12.2022).

The effectiveness of tax incentives can be judged by the number of agricultural producers, the volume and structure of tax revenues from this category of taxpayers (*Table 3*) [19]. According to the Federal Tax Service of the Russian Federation, 6,275 agricultural cooperatives were registered in the Unified State Register of Legal Entities (USRLE) as of 1 January 2022, 6 216 peasant (farm) households and 117 732 peasant (farm) households were registered in the Unified State Register of Individual Entrepreneurs (USRIE). These indicators show a negative trend on 1 December 2022. Thus, the number of agricultural cooperatives decreased by 6.27%, of peasant (farm) households in the USRLE — by 1.37%, of peasant (farm) households in the USRIE — by 8.14%. Data on the number of legal entities registered and terminated indicate that in recent years there has been a decrease in the number of both registered and terminated agricultural cooperatives (*Fig. 5*).

Tax revenues in the consolidated budget are increasing despite the decrease in the number of taxpayers in this category. *Table 4* shows the growing popularity of the new special tax regime such as the professional income tax [20]. Tax revenues increased by 41 times in 2021 compared to 2020, while the patent tax system increased the budget in the same period by 3.4 times. These indicators point to an increasing demand for experimental tax treatment by the self-employed in the agricultural sector. This is a positive sign also because many taxpayers in this category have previously conducted business without registration and have not paid taxes at all.

A significant factor in the growing revenue in state extrabudgetary funds (*Table 3*) indicates an increase in the wage fund in crop and livestock production. This trend continued even during coronavirus infection. This is despite the fact that agricultural producers, registered as small and medium-sized enterprises, apply reduced insurance



Table 3

**Tax Revenues from Crop and Livestock Production (Thous. Rub.)**

Year	TOTAL taxes received by the consolidated budget of the Russian Federation from crop and livestock production	Of them		Insurance contributions to state off-budget funds
		taxes provided for by special tax regimes		
		Patent taxation system	Professional Income Tax	
2021	134877467	141099	34911	153365636
2020	89591943	41955	852	141116315
2019	94369832	40825	0	134043098
2018	82646638	–	–	127038741
2017	76359175	–	–	119405820

Source: Data of the Federal Tax Service of Russia in the form 1-NOM. URL: [https://www.nalog.gov.ru/rn77/related\\_activities/statistics\\_and\\_analytics/forms/](https://www.nalog.gov.ru/rn77/related_activities/statistics_and_analytics/forms/) (accessed on 20.12.2022).

premiums. In total, this rate is 15% instead of 30% and applies to the taxable monthly payments to each employee, but only to the part that exceeds the federal minimum wage.

### CONCLUSION

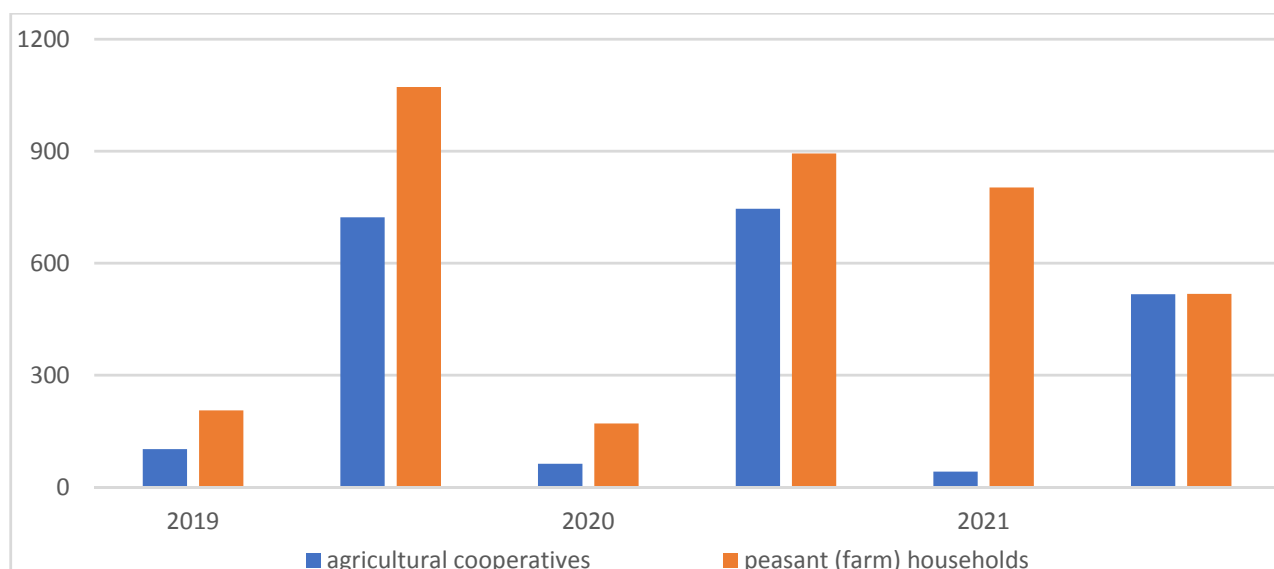
The conducted analysis in the field of state regulation of agriculture under the conditions of import substitution policy suggests the following conclusions for this sector of the economy:

- Agriculture is one of the few sectors of the domestic economy that has shown a positive trend in reducing dependence on imports of relevant products in their field.
- Further effective development of the agro-industrial sector of the domestic economy largely depends on overcoming such current problems as: high dependence on seed imports from western producers, especially sugar beet and potatoes; Lack of domestic veterinary vaccines and other medicines for livestock development; low level of investment in fixed assets and

productive capacities of the industry; lack of research institutes and agricultural development laboratories.

The sustainable development of the country's agro-industrial complex has a direct impact on the share of the population's expenditure on food from all available monthly income. At the moment, Russia occupies intermediate positions in the international ranking, which indicates the problem of the food production cycle within the economy in comparison with poor countries, cannot afford to support domestically produced food due to climatic conditions (Nigeria, Cameroon, Algeria).

Analysis of the statistical data of the Federal Tax Service of the Russian Federation showed the effectiveness of measures of state tax stimulation of agricultural producers, which is confirmed by the growth of tax revenues from this category by the taxpayer, despite the decrease in their number. Further development of measures of state tax regulation should be carried out through the



**Fig. 5. The Number of Registered and Terminated Agricultural Cooperatives and Peasant (Farm) Enterprises According to the Unified State Register of Legal Entities (Un.)**

Source: Data of the Federal Tax Service of Russia in the form 1-YUR. URL: [https://www.nalog.gov.ru/rn77/related\\_activities/statistics\\_and\\_analytics/forms/](https://www.nalog.gov.ru/rn77/related_activities/statistics_and_analytics/forms/) (accessed on 20.12.2022).

point application of tax instruments and their adjustment following the monitoring of the effectiveness of the provided benefits. Priority areas for tax incentives should be agricultural research and investment in fixed assets for agricultural production and processing. In that regard, we suggest:

- to supplement the list approved by the Government of the Russian Federation No. 988 from 24.12.2008, on the right to apply an increase factor of 1.5 to actual expenditures in the calculation of corporate income tax, R&D in agriculture;
- to include a list, approved by the Government of the Russian Federation No.1299 from 20.06.2017, allows an increase factor of not more than 2 to the depreciation rate, agricultural equipment of domestic production.

In addition, tax exemptions for those taxpayers who do not use not only agricultural land but also property complexes will help reduce budget losses.

Thus, the efficiency of further development of domestic agriculture depends on the state regulation of various programs, including as tax preferences, and various subsidies and grants to support the strategic sector of the domestic economy.

Further research is planned to be conducted by constructing an empirical mathematical model on the basis of the correlation measurement, allowing to determine the optimal level of reduction of the regional rate UAT. This rate should not only reduce the tax burden of agricultural producers, but should not have a negative impact on the level of tax revenues under the UAT.

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**M.E. Kosov** — formulation goals and objectives of the study, hypothesis development of the article and its verification based on the data obtained.

**E.V. Golubtsova** — research and description of the results obtained by the tax analysis.

**E.S. Novikova** — the literature review in accordance with the study, the analysis of the government regulation at the macro level.

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