IMPORT SUBSTITUTION IN THE AGRO-INDUSTRIAL COMPLEX OF RUSSIA

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Fomin Alexander,

Professor of the State University of Land Use Planning (management), Moscow, ORCID ID: https: / / orcid.org/0000-0002-3881-8348

ANNOTETED

The article deals with the issues of import substitution in the agro-industrial complex of Russia. The materials and recommendations of the meeting of the scientific expert Council of the State Duma Committee on agrarian issues were used in the preparation. In the early 2000s, the stable growth of the livestock sector, which was facilitated by subsidies for the construction of new complexes, ensured the growth of the entire agro-industrial complex and made the industry one of the most attractive in the Russian economy outside the mineral resources sector. At the same time, during the period of active development of the industry, it was not possible to reverse the unfavorable situation in cattle breeding, horticulture, production of melons and, until recently, closed-ground vegetables. The situation is particularly difficult in the dairy cattle sector, where there is a slow decline in both fixed assets (livestock) and the production of the main product – milk. It is possible to state that those directions of domestic agricultural production which

differ in high capital intensity (especially it concerns cultivation of vegetables in the closed soil) and long payback of investment projects (10-15 years, meat and, especially, dairy farming, gardening) remain problematic. Economic realities push the country to diversify the economy beyond the fuel and energy sector, and in this context, the agricultural sector may have very real prospects to develop faster than others.

Keywords: import substitution, food security doctrine, agricultural production, state program, modernization of agriculture, seed production.

For three years Russia has been implementing an import substitution program in connection with the announced sanctions. It was believed that due to the sanctions, the domestic producer will receive an impetus for development. If you take the market of food products, this claim turns out to be true.

If you look at the statistics, you can see: in the field of import substitution has developed a very heterogeneous picture. If we take the average data of Rosstat, of course, there is quite a significant decrease in imports. According to the data for the 2nd quarter of 2017, the share of imported goods (food and non-food together) in the commodity resources of retail trade is 27%, at the same time, at the end of the 2nd quarter of 2014, when sanctions were imposed, it was 37%, that is, the figure decreased by almost 10 percentage points. At the same time, in the segment of non – food products, the reduction in the share of imported products amounted to 8% over the specified period, while in the segment of food products-12%. According to the results of the 2nd quarter of 2017, the share of imported non – food products is about a third, food products-21%. Throughout the sanctions period, the share of imports did not show a steady decline in the quarters (although it did show an annual decrease), increasing every time in the third and fourth quarters, especially in the food segment, which is probably due to the harvest in the fall.

At the end of 2016, Russia's foreign trade turnover decreased by 11.2%. This is not so much about import substitution as it is about falling oil prices and the ruble

exchange rate: given that the bulk of Russia's exports fall on hydrocarbons, it would be wrong to link this fall only with import substitution.

The National security strategy of the Russian Federation approved by the decree of the President of the Russian Federation from December 31, 2015 No. 683, the implementation of rational import substitution and accelerated development of agriculture identified some of the major elements of the state socio-economic policy.

The fundamental document defining the state economic policy in the field of development of the Russian agro – industrial complex is the Doctrine of food security of the Russian Federation approved by the decree of the President of the Russian Federation of January 30, 2010 № 120 (hereinafter-the Doctrine). In accordance with the Doctrine, food security is the provision of the population with safe agricultural products and food, in which the availability of the necessary reserves is a condition for the implementation of the strategic national priority – improving the quality of life of Russian citizens.

Foreign trade turnover of food products and agricultural products is still characterized by a negative balance of the Russian trade balance. According to the FCS of Russia, in 2016, compared with the level of 2015, the trade turnover of the Russian Federation in foreign trade in food products and agricultural raw materials for their production decreased by 2% and amounted to 858.5 million US dollars. At the same time, the volume of imports of these goods in 2016 amounted to 24.9 billion dollars. Us $ (+6.3% by 2015) and us $ 17 billion in exports. USA (+5.2% by 2015). In the commodity structure of imports of the Russian Federation, the share of food products and agricultural raw materials in 2016 amounted to 13.7%.

Import substitution of agricultural products

The doctrine defines the criteria for assessing the state of food security through the share of domestic agricultural, fishery and food products in the total volume of commodity resources (taking into account the changing stocks) of the domestic market of relevant products, having thresholds in respect of: grain-not less than 95

percent; sugar-not less than 80 percent; vegetable oil-not less than 80 percent; meat and meat products (in terms of meat) – not less than 85 percent; milk and milk products (in terms of milk) – not less than 90 percent; fish production-not less than 80 percent; potatoes-not less than 95 percent; salt food – not less than 85 percent. For a number of items, such as grain, vegetable oil, sugar, potatoes, as well as meat and meat products, benchmarks have generally been achieved. Thus, the gross harvest of grain and leguminous crops in farms of all categories in 2016 amounted to 120.7 thousand tons, which determined Russia's self-sufficiency in grain at the level of 99.2%. At the same time, this year, as of November 16, against the background of increased yields and crop area, the gross grain harvest has already reached 137.7 million tons (11.2% more than a year earlier). According to preliminary estimates of the Ministry of agriculture of Russia, self-sufficiency in grain in 2017 will reach 99.3%

The production of oilseeds amounted to 17.5 million tons, which determined a strong raw material base for the production of vegetable oils, self-sufficiency in which in 2016 was at 82.8%, and in 2017 is estimated at 84%.

To satisfy the domestic consumption of sugar, as well as significantly increase its exports, an increase in 2016 sugar beet production – 51.4 million tons (31.6% more than a year earlier). Self-sufficiency in sugar reached 94.9% in 2016 and is estimated at 96.5% in 2017.

Gross potato harvest in farms of all categories in 2016 amounted to 31.1 million tons, of which 24.2 million tons (77.8%) of products were produced in households. The volume of potato imports in 2016 amounted to only 737 thousand tons (2.3% of domestic production). The Ministry of agriculture determines the self-sufficiency of potatoes in the amount of 97.4% in 2016 and estimates at 97.6% in 2017.

Production of cattle and poultry in farms of all categories increased by 3.49% and amounted to 9.9 million tons in slaughter weight. In this regard, self-sufficiency in

this product reached 89.7% in 2016 and is estimated at 90.2% in 2017 (5.2% above the threshold).

At the same time, attention should be paid to a significant change in the structure of meat production – cattle meat is replaced with pork and poultry. Thus, 3.4 million tons of pork meat and 4.6 million tons of poultry meat were produced in 2016. Beef meat was produced only 1.6 million tons, which is 16.3% of the total production. At the same time, in 1990, cattle meat accounted for 42.8% of the total meat production.

The increase in the domestic production of meat has led to a decrease in its imports. In 2014, 1.9 million tons of meat and meat products (21.5% of domestic production) were imported to Russia, and in 2016 – 1.25 million tons (12.6% of domestic production).

Considering stated, the question of import substitution is actual for a number of names of agricultural production, including, for meat of beef, milk and dairy products. The absence in the Doctrine of control values of self-sufficiency in fruit and berry products – one of the key products that make up the food basket-should also not be overlooked.

Over the past 25 years, the efficiency of livestock production in the Russian Federation has changed significantly. The greatest decline occurred in beef cattle. Production of beef meat by 2016 decreased 2.7 times compared to 1990 and amounted to 1619 thousand tons. At the same time, according to customs statistics, 366.4 thousand tons of cattle meat (22.6% of domestic production) were imported. Milk production for 26 years decreased by 1.8 times and by 2016 (in farms of all categories) amounted to 30.7 million tons. Imported milk and dairy products on the territory of Russia in 2016, was 7.5 million tons (24.5% of domestic production). It is important to pay attention to the structure of milk production in Russia. Thus, commodity farms produced only 17.3 million tons of milk (56% of gross production) in 2016. The volume of milk production in households amounted to 13.5 million tons. (44% of gross production).

At the root of the current situation in animal husbandry are significant changes in the production base, and in the first place – a reduction in the number of farm animals. In General, in Russia from 1990 to 2016 the number of cattle in farms of all categories decreased by more than 3 times, the milking herd decreased by 2.5 times. The situation is aggravated by the current structure of the livestock of farm animals-42.7% of cattle and 44.9% of cows are in the households.

The important question of productivity of dairy cattle as the main factor contributing to the growth of production volumes of milk on the decline in the livestock population. The increase in milk productivity of cows in different categories of farms has been noted for several years. On average for Russia, in farms of all categories, for the period from 1990 milk yield increased by 1.5 times – from 2731 kg to 4134 kg per 1 cow. At the same time, the best dynamics on milk yield is demonstrated by agricultural organizations – for 25 years, the average productivity of cows in such farms has increased 1.8 times (from 2783 kg to 5140 kg per 1 cow). At the same time, the dynamics of milk yield in LPH is less pronounced – in comparison with 1990, the productivity of 1 cow increased from 2576 kg to 3500 kg.

On milk yield per cow Russia still considerably concedes to such countries as Israel (11580 kg), the USA (9841 kg), Denmark (8529 kg), the Netherlands (7577 kg), France (6583 kg), Australia (5575 kg) and Belarus (4571 kg).

In terms of fruit and berry production, the following should be noted. The order of the Ministry of health of the Russian Federation of August 19, 2016 № 614 established scientifically sound standards of healthy eating for the consumption of fresh fruit – it is 100 kilograms per year. At the legislative level, the food basket in the Russian Federation determined that an adult able – bodied person should consume at least 60 kilograms of fruits and berries, and children-118 kg per year. However, own production of fruits and berries in Russia meets only a small part of the domestic needs. Thus, in 2016, only 3.3 million tons of fruit and berry products were produced in farms of all categories, of which 2.4 million tons-in households.

At the same time, fruit imports to the territory of the Russian Federation in 2016 amounted to 6.5 million tons, of which 1.6 million tons were imported fruits and berries (apples, pears, quince, apricots, cherries, plums).

The production of fruit and berry production was significantly affected by the reduction in the area of perennial plantings. In all categories of farms of the Russian Federation, the area of perennial plants in 2016 amounted to 517,0 thousand ha of which commercial farms accounted for only 161,6 thousand hectares While in 1990 agriculture organization had 468 thousand hectares of orchards and berry fields. The average yield of fruits and berries in 2016 in farms of all categories amounted to 85.6 t / ha, including agricultural organizations 119.3 t/ha, in peasant (farm) households, including individual entrepreneurs – 67.5 t/ha, in households – 79.3 t / ha.

Import substitution of agricultural machinery and equipment.

In agriculture, there is a tendency to reduce the indicators of technical support. Part of its disadvantage is compensated by the acquisition of energy-saturated, high-performance equipment and the introduction of resource-saving technologies using combined tillage and sowing units. However, the equipment of agricultural producers remains at a level that does not allow to perform all technological operations in the normative agro technical terms, which leads to losses of production and, therefore, to reduce the efficiency of import substitution of agricultural products. So, for example, in the current year, amid unfavorable agro-climatic conditions, crop losses due to the lack of agricultural machinery are estimated at 10-15 million tons of grain.

In 2016, 233.4 thousand tractors, 59.3 thousand combine harvesters, 13.3 thousand forage harvesters, 2.2 thousand beet harvesters, 24.1 thousand milking machines were registered in agricultural organizations. Compared with 1990, the number of machinery in agricultural organizations decreased by 6-10 times. At the same time, a significant proportion of the equipment used is very outdated. The share of tractors with a service life of more than 10 years in 2016 amounted to 59.6% (in

2015 – 60.3%). For combine harvesters, this figure remained at the level of 2015 – 45,4%, forage-increased to 44,4% (in 2015 – 42,9%). The pace of renewal of the fleet of agricultural machinery, although showing growth, is still at a low level. In 2016, 18 198 tractors and combines were purchased by agricultural producers through all sales channels, which is 7.8% more compared to the level of 2015, including 11 287 tractors (4.2% more than in 2015), 6193 combine harvesters (15.2% more), 718 forage harvesters (7.2% more). Of this number, 68% of tractors were purchased abroad. On combines this indicator is much lower-only 2%.

In this regard, the share of imported machinery in agricultural organizations today is: tractors – 67,8%, combine harvesters – 22,1%, forage harvesters – 20,7%. It is also important to note that only 43 per cent of tractors produced in the Russian Federation are Russian models, and 80 per cent are harvesters. As a measure of state support for the technical and technological modernization of agriculture and the renewal of the fleet of equipment, subsidies are provided to agricultural producers to compensate for the costs of production of equipment sold to agricultural producers at a discount in the amount and according to the list, which are approved by the Government of the Russian Federation of December 27, 2012 No. 1432 “on approval of rules for granting subsidies to agricultural machinery manufacturers” (hereinafter – resolution No. 1432).

On the implementation of the subprogram “Technical and technological modernization, innovative development” in 2016, in accordance with the Law on budget for 2016 was envisaged budget appropriations in the amount of RUB 1862,0 million was Additionally allocated 8 billion rubles (decree of the Government of the Russian Federation of 14 April 2016 No. 674-R) and 1.3 billion rubles (decree of the Government of the Russian Federation from December 17, 2016 No. 2699-p), the Total amount of subsidies made up of 11.16 billion. (more than twice the amount of subsidies received by producers of agricultural machinery in 2015).

During the period of the subsidy program for agricultural machinery manufacturers (in 2013-2016) the amount of the grant amounted to 18.4 billion rubles, which allowed producers to supply additional agricultural machinery in the amount of 81.5 billion rubles. For 6 months of 2017, 28.0 thousand units of agricultural machinery were shipped to agricultural producers.

As a result of the implementation of the program of subsidizing of producers of agricultural engineering of the Russian manufacturers in all segments of the market of agricultural machinery has considerably increased production and increased market share. Thus, the production of seeders increased by 2.9 times in 2014-2016, rake — by 2.1 times, tillers — by more than 50%, sprayers — by 84%, balers-by 53%. The production of self — propelled agricultural machinery also grew at a record pace: the production of four — wheel tractors increased 3.4 times, forage harvesters-almost 2 times, grain harvesters-by 41%. According to forecasts of the Ministry of industry and trade of the Russian Federation, in 2017 the volume of production of domestic agricultural machinery will amount to 114 billion rubles, which is 27% more than in 2016. But at the same time, imports will grow by 31.9%, reaching an estimated 91 billion rubles.

It is equally important to pay attention to the import of equipment. The largest share in the import of equipment for agricultural production in 2016 was occupied by poultry equipment. The volume of imports of incubators, brooders and other equipment in 2016 amounted to 1.7 million units in the amount of 97.5 million. USA. The second place in the volume of imports of equipment is equipment for milk production

Import substitution in seed and livestock breeding.

The efficiency of the entire agriculture depends on seed production, because in modern conditions the use of biological factor is the most economical way to increase the production of agricultural products, reduce their cost, improve the quality and competitiveness in the domestic and foreign agro — food markets. Currently, Russia is in critical dependence on seed imports. For crops such as

potatoes, sugar beet, sunflower, as well as for a number of vegetable crops, the dependence reaches 90%. In 2016, 47 thousand tons of vegetable seeds, cuttings and layering of vegetables, fruit crops and grapes, mycelium mushrooms were imported into the territory of the Russian Federation. The value of imports of vegetable crops reached $ 66.2 million. Us $ 13.7 million, Luka-sevka. Us $ 5.2 million, mushroom mycelium. USA.

The main parameters for the development of breeding and seed production are defined By the strategy for the development of breeding, seed production and technologies for the cultivation of cereals and other crops in the Russian Federation for the period up to 2020. it, in particular, provides for the creation of a new adaptive gene pool of crops; increasing the productivity potential of varieties and hybrids of crops by 25-30% compared to 2006-2010; increasing patent activity, the share of intangible assets in the total assets of breeding institutions of the country (by 2018 to 35% and by 2020 to 45%).%); the formation of a highly effective seed system that provides quality seeds of major crops at least 75% of the need for varietal seeds; updating the material and technical base of selection by 90%; modernization of the material and technical base of seed growing, updating the machine and tractor fleet by 50%.

About 417 thousand tons of elite seeds are required for variety and variety renewal for all cultivated crops. In 2016, RUB 1411.9 million (or 41.8% less than in 2015) was allocated from the Federal budget to reimburse part of the costs for the purchase of elite seeds by agricultural producers. The provision of subsidies from the Federal budget for the purchase of elite seeds in the framework of the main event "development of elite seed" in 2016 provided the sowing of elite seeds on the area of 6 million. ha, which is 8% in the total area of planting (not less than in previous years), but the allocated funds allowed to reimburse only 11.3% of the costs of agricultural producers for the purchase of elite seeds (for comparison, in 2015 – 24.1% of the costs).

The following factors hinder the effective development of seed production in the country and increase the economic interest of producers in the predominant use of seed material of higher reproductions of domestic breeding:

the decrease in the level of state support in the conditions of weak purchasing power and insolvency of many producers, which complicates the purchase of seeds of higher reproductions, which leads to non-compliance with varietal renewal and varietal and at the same time to difficulties in the implementation of seeds of the elite of agricultural research institutions of the country;

chronic personnel shortage, deterioration of material and technical base of breeding centers and seed organizations and, as a consequence, low quality of seeds, instability of their production and sales;

the lack of a proper system of promotion and effective sales technology of domestic seeds of crops compared to sales technologies of foreign suppliers, which reduces their competitiveness;

imperfection of the existing organizational and economic relations of breeding centers, seed organizations with commodity farms, as well as the legal basis for the payment of remuneration for selection achievements;

irrational organization of the process of seed crops, as a whole in the country and in many of its regions.

2584 breeding herds of farm animals (67 breeding herds more in comparison with the beginning of 2016), including cattle of dairy and meat productivity directions, sheep, goats, pigs, horses, fur animals and rabbits, camels, mulberry, fish, reindeer and antler, yaks were registered in the state breeding register at the end of 2016. Positive dynamics of breeding stock of farm animals is observed. In comparison with the level of 2015 the conditional uterine number of breeding farm animals increased by 6.5%. In particular, as of January 1, 2017, the breeding stock of dairy cattle increased by 54.2 thousand heads, meat production by 15 thousand heads, pigs – by 7.5 thousand heads, sheep – by 37.4 thousand heads. The sales of

pedigree cattle dairy productivity in 2016 was 70.9 thousand goals (94.5% of the level of implementation in 2015)

At the same time, the total import volume to the territory of the Russian Federation of pedigree farm animals in 2016 was estimated at $ 85 million. United States, in which the proportion of cattle is 77% (66,3 million. And pigs and poultry-10% ($8.3 million). USA.) The dependence on imported breeding animals (at the level of 80% – on imported crosses of initial and ancestral forms) remains high in pig and poultry farming. Imports of breeding stock amounted to $ 193.5 million. The U.S., of which 94% was accounted for by hatching eggs, 4% – on the seed material of cattle.

Import substitution of agrochemicals, vaccines and premixes

In the cost of production of livestock feed occupy from 40% to 60%. One of the most important elements of animal feeding are premixes, which are a mixture of biologically active additives added to feed. At the same time, in 2016, these products were imported into the territory of the Russian Federation in the amount of $ 343 million. USA.

High import dependence was also formed on veterinary vaccines. The volume of imports of these drugs in 2016 amounted to more than 133 million dollars. USA.

In the last few years, there has been a steady increase in the use of chemical plant protection products in the cultivation of basic crops (cereals, oilseeds, sugar beet), as well as in the planting of vegetables in open and protected soil. Domestic production of chemical means of plant protection in 2016, made up of 49.9 thousand tones imported to the territory of the Russian Federation was 109.3 thousand tons. Herbicides (46%) and fungicides (26%) formed the basis of imports.

Import substitution of machinery and equipment for the food industry

Food and processing industry is the backbone of the country's economy, which forms the agro-food market, food and economic security, retains a leading position in the structure of industrial production in Russia, occupying a share of 15.4%, and

along with metallurgical production and the fuel industry is among the leaders in the production of industrial products.

Food engineering covers more than 30 directions, and more than 200 small and micro enterprises located in 50 subjects of the Russian Federation and having staff more than 8 thousand people are engaged in production.

The dynamics of the equipment output is generally positive and shows an increase of 1.5 times over the past 5 years. For 9 months of 2017, the production of food equipment reached 10.1 billion rubles, exceeding the same indicator last year by 7%. The highest growth is observed in the production of machines for the sugar industry (+52%), meat and poultry processing (+22%), as well as for milk production (+16%). It is important to note that one third of the machines and equipment for the food processing industry produced in the territory of the Russian Federation are exported.

Including for these reasons, for the three quarters of 2017, the share of imports in the Russian market of food equipment in monetary terms decreased by 29% compared to the same period last year. However, foreign machinery and equipment still dominate the market with a share of 78% of current domestic consumption.

Taking into account the above, the use of international best practices and the introduction of the best agricultural technologies, saving, support and development of agricultural science should become one of the most important directions of state agrarian policy, not on paper, but by the speedy implementation of the whole complex of measures.

Following the stage of import substitution, as the experience of foreign countries shows, the stage of expansion of the most competitive sectors of the food complex beyond the local market and the development of exports follows.

Import substitution is not an idea that emerged at one point, in the case of Russia – thanks to the introduction of "anti-sanctions", but should be part of a consistent agrarian policy of the country.

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