



The effect of Russia's in-progress import substitution strategy on its agri-food security

El efecto de la estrategia de sustitución de importaciones actuales en la seguridad agroalimentaria rusa

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ABSTRACT:

This paper observes that all regions within the Russian Federation are now keenly engaged in the pursuit of the nation's policy of import substitution. The government has signed off on a set of sectoral action plans on facilitating import substitution within the agro-industrial complex. Under these conditions, the profound modernization and transformation of the economies of Russian regions by way of import substitution strategy may help ensure their maximum self-sufficiency and the anti-crisis sustainability of Russia's model of economic growth. The authors emphasize that, to achieve this objective, there is an imperious need to put in place and activate a set of potential economic growth areas in Russian regions, especially agrarian/industrial ones. The nation's regional import substitution strategy can be implemented successfully only on condition that there will be worked out uniform approaches to resolving relevant conceptual issues with extensive support from the federal Center and regional authorities. The paper analyzes the current structure of agricultural production in the Russian Federation and groups the constituent entities based on an agricultural production index. With regard to working out some future areas for ensuring food security, the authors note that, on the whole, the first three years of

RESUMEN:

Este documento observa que todas las regiones dentro de la Federación de Rusia están ahora comprometidas en la política de sustitución de importaciones de la nación. El gobierno ha firmado un conjunto de planes de acción sectoriales para facilitar la sustitución de importaciones dentro del complejo agroindustrial. En estas condiciones, la profunda modernización y transformación de las economías de las regiones rusas mediante una estrategia de sustitución de importaciones puede ayudar a garantizar su máxima autosuficiencia y la sostenibilidad anticrisis del modelo de crecimiento económico de Rusia. Los autores enfatizan que, para lograr este objetivo, existe una necesidad imperiosa de establecer y activar un conjunto de áreas de crecimiento económico potencial en las regiones rusas, especialmente las agrarias / industriales. La estrategia regional de sustitución de importaciones de la nación se puede implementar con éxito solo a condición de que se elaboren enfoques uniformes para resolver los problemas conceptuales relevantes con el amplio apoyo del Centro Federal y las autoridades regionales. El documento analiza la estructura actual de la producción agrícola en la Federación de Rusia y agrupa a las entidades constitutivas en base a un índice de producción agrícola. Con respecto a la

implementation of a policy of import substitution in Russia's agriculture may be considered successful. Yet, there still remain a number of problem areas which need to be addressed as part of the nation's relevant in-progress programs and food security strategy.

Keywords: food security, import substitution, agriculture, region, agricultural organizations.

elaboración de algunas áreas futuras para garantizar la seguridad alimentaria, los autores señalan que, en general, los primeros tres años de implementación de una política de sustitución de importaciones en la agricultura de Rusia pueden considerarse exitosos. Sin embargo, todavía hay una serie de áreas problemáticas que deben abordarse como parte de los programas en curso relevantes de la nación y la estrategia de seguridad alimentaria.

Palabras clave: seguridad alimentaria, sustitución de importaciones, agricultura, región, organizaciones agrícolas.

1. Introduction

The implementation of a policy of import substitution in the Russian Federation is largely associated with a focus on ensuring economic security as a component part of the system of national security, as without reliable protection for people's vital interests and the stable provision of the national economy with goods and services the state will be unable to guarantee it. The need of the nation and its regions for a policy of import substitution objectively appears to arise at a time when mounting imports are starting to pose a threat to their economic security. In the past four years, the Russian government has taken serious measures to implement a policy of import substitution with a view to ensuring the nation's food security (Bruton, 1998).

The Russian government has signed into law a new version of 'The State Program for the Development of Agriculture and Regulation of Markets for Agricultural Output, Raw Materials, and Food for the Period 2013–2020' (Resolution of the Government of the Russian Federation, 2012), 'The Doctrine of Food Security in the Russian Federation' (Decree of the President of the Russian Federation, 2010), 'The Strategy for the Development of the Food and Processing Industry in the Russian Federation for the Period through to 2020' (Ordinance of the Government of the Russian Federation, 2012), 'The Concept on the Sustainable Development of Rural Territories in the Russian Federation for the Period through to 2020' (Ordinance of the Government of the Russian Federation, 2010), and 'The Strategy for the Sustainable Development of Rural Territories in the Russian Federation for the Period through to 2030' (Ordinance of the Government of the Russian Federation, 2015), as well as a set of other federal and local special-purpose programs aimed at resolving relevant issues in the development of the nation's agro-industrial complex and ensuring its food security.

2. Methods

In conducting this study, the authors employed methods of statistical analysis, correlation/regression analysis, expert assessment, and forecasting. The study's basis is grounded in certain tenets of systems analysis as well. To visualize statistical data, the authors utilized table and graph methods. To carry out their calculations and process and evaluate some of the information used in this work, the authors employed a set of software products, including Excel.

3. Results

In the period 2014-2015, agriculture continued to develop in complex social/economic conditions due to the devaluing ruble and ongoing foreign sanctions, which provided the basis for accelerated import substitution in the internal agri-food market (Ushachev, 2015). During the last year, the sector demonstrated more sustainable development versus other industries. Statistically, holdings of all categories exhibited positive dynamics in agricultural production, where farming holdings reached the maximum growth. Note that this particular category of holding also leads the way in growth in the fifth period of assessment starting in 2010 (Table 1).

Table 1
Agricultural Output across the Categories of Holding, million rubles

Year	Holdings of all categories	Agricultural organizations	Residents' holdings	Peasant (farming) holdings, individual entrepreneurs
2010	2,587,751	1,149,954	1,250,466	187,331
2011	3,261,695	1,540,605	1,426,854	294,236
2012	3,339,159	1,600,823	1,440,863	297,473
2013	3,687,075	1,755,991	1,569,763	361,321
2014	4,319,050	2,139,044	1,750,261	429,745
2015	5,165,709	2,657,960	1,932,768	574,981
2017	5,653,953	2,979,623	1,956,267	718,062
<i>2017 to 2010</i>	<i>218.48</i>	<i>259.1</i>	<i>156.44</i>	<i>383.3</i>

Note. Compiled based on data from the Russian Federal State Statistics Service (n.d.).

Sectorally speaking, in 2017 livestock farming had the smallest relative share across all the categories of holding, while in 2010 the situation was exactly opposite: across agricultural organizations livestock farming accounted for 57.7% and across residents' holdings – 54.2%. Only with holdings run by individual entrepreneurs the share of crop farming was, and still is, greater than that of livestock farming. The situation is similar when it comes to the rate of growth within the livestock farming sector in the period 2014–2015, which was characterized by a steady decline in the relative share of livestock farming across all the categories of holding. Thus, given the considerable severity and complexity of issues facing the sector at the moment, the government may need to come up with a well-thought-out action plan of state support for the industry, while resolving most of those issues may also require quite some time (Table 2).

Table 2
Relative Share of Crop Farming and Livestock Farming Output in Total Agricultural Output (%)

Holdings	Sectors of agriculture	Years						<i>2017 to 2010</i>
		2010	2011	2012	2014	2015	2017	
Holdings of all categories	crop farming	46.0	52.2	49.0	51.5	54.0	55.8	<i>104.9</i>
	livestock farming	54.0	47.8	51.0	48.5	46.0	44.2	<i>94.8</i>
Agricultural organizations	crop farming	42.3	50.3	46.1	45.5	49.2	58.8	<i>108.1</i>
	livestock farming	57.7	49.7	53.9	54.5	50.8	41.2	<i>93.2</i>

Residents' holdings	crop farming	45.8	49.0	46.9	52.4	53.0	54.0	101.1
	livestock farming	54.2	51.0	53.1	47.6	47.0	46.0	98.7
Peasant (farming) holdings, individual entrepreneurs	crop farming	71.2	77.9	74.4	76.9	80.0	81.0	104.0
	livestock farming	28.8	22.1	25.6	23.1	20.0	19.0	86.6

Note. Compiled based on data from the Russian Federal State Statistics Service (n.d.).

4. Discussion

Apart from the above-mentioned prevalence of crop farming in terms of agricultural output in the reporting year, exemplary is the large share of grain and grain legume crops in the total volume of crop farming output among farming holdings (42.1%) and agricultural organizations (25%), while the way is still convincingly led by residents' holdings on potatoes (22.6%). Across the livestock farming industry, the priority is with agricultural organizations, among which 33.2% is accounted for by meat and poultry production. However, the prevalence of milk production (18.6%) among the rest of the livestock farming sectors specifically with residents' holdings is testimony to there being a problem with organizational mechanisms underlying management within the dairy cattle breeding sector, as it is this indicator on which Russia has been unable to meet the threshold value of the Doctrine of Food Security for several years now, still exporting primary milk produce in large quantities.

2015 saw a 3% growth in agricultural production, including a growth of 2.9% in crop farming production, and that is mainly owing to an increase in gross grain yield, as well as a growth of 3.1% in livestock farming production, owing to boosts in the nation's production of meat and meat products.

Growth in agricultural production in 2016 resulted in declines (a drop of 33.6%) in the import of both primary agricultural raw materials and food products, its size totaling in 2016 \$26.5 billion versus \$39.9 billion in 2014. This was facilitated not only by a boost in domestic agricultural production but also by Russia's embargo imposed against the EU, the US, Canada, and other nations, which resulted in an expansion of the niche for domestic producers in the internal market for agri-food.

Based on a preliminary report by the Russian Federal State Statistics Service, in 2017 the agricultural production index in holdings of all categories (in comparable prices) came in at 103.8%, surpassing the State Program's target indicator by 1.7 p.p. The index of crop farming production in holdings of all categories (in comparable prices) totaled 107.8%, which was 5.3 p.p. above the target indicator, and that was facilitated by boosts in sugar-beet production (an increase of 31.6%), sunflower seeds (18.6%), and grain and grain legume crops (15.2%). The index of livestock farming production totaled in 2016 101.5%, which was below the target value by 2.3 p.p. and below the 2015 level by 0.7 p.p. The decline in the index of livestock farming production iwa, inter alia, associated with a decline in milk production in holdings of all categories (Table 3).

Table 3
Fulfillment of the State Program's Major Indicators

Indicators	2014	2015	2016		
			target	actual	variance

Index of agricultural production in holdings of all categories (in comparable prices) (over the previous year, %)	103.5	102.6	103.1	104.8	+1.7 p.p.
Index of crop farming production in holdings of all categories (in comparable prices) (over the previous year, %)	104.9	103.1	102.5	107.8	+5.3 p.p.
Index of livestock farming production in holdings of all categories (in comparable prices) (over the previous year, %)	102.0	102.2	103.8	101.5	-2.3 p.p.
Index of the physical volume of investment in fixed assets in agriculture (over the previous year, %)	95.9	86.9	104.8	114.1	+9.3 p.p.
Profit margins of agricultural organizations (inclusive of subsidies) (%)	16.1	20.3	13.0	17.3	+4.3 p.p.
Number of highly-productive jobs (thousand jobs)	368.2	318.2	397.9	994.9	84.2%

In 2015, the relative share of agricultural output, raw materials, and food produced domestically in the total volume of resources (inclusive of carryover stocks) was on most indicators of crop farming (above all – grain, vegetable oil, and potatoes) above the threshold values of the Doctrine of Food Security, but on milk, dairy products (on a milk basis), meat, and meat products (on a meat basis) it was lagging behind considerably. In 2016, the threshold values of the Doctrine of Food Security were achieved on the following types of agricultural output and food: grain – 99.2%, which exceeded the threshold value (95%) by 4.2 p.p.; sugar made from sugar-beet – 88.7%, which exceeded the threshold value (80%) by 8.7 p.p.; vegetable oil – 83.6%, which exceeded the threshold value (80%) by 3.6 p.p.; potatoes – 97.7%, which exceeded the threshold value (95%) by 2.4 p.p.; meat and meat products – 89.7%, which exceeded the threshold value (85%) by 4.7 p.p.

The relative share of domestic output in the total volume of resources (inclusive of carryover stocks) remains below the threshold values of the Doctrine of Food Security: on milk and dairy products – 81.5% (8.5 p.p. below the threshold value (90%)); on dietary salt – 64.2% (20.8 p.p. below the threshold value (85%)) (Ananiev, Lukhovskaya, & Vasilchuk, 2017).

In the two-year period under review, the agricultural production index rose by more than 10% in 7 Russian regions, while 31 constituent entities posted a decline in this indicator (Table 4).

Table 4
Russia's Constituent Entities as Grouped by the Value of the Agricultural Production Index (in Holdings of All Categories) (% over the previous year)

2016 index value	Constituent entities
less than 100%	Chukotka Autonomous Okrug, Moscow, Saint Petersburg, Samara Oblast, Saratov Oblast, Ulyanovsk Oblast, Kirov Oblast, Kostroma Oblast, Oryol Oblast, Smolensk Oblast, Volgograd Oblast, Arkhangelsk Oblast, Murmansk Oblast, Sakhalin Oblast, Amur Oblast, Irkutsk Oblast, Tyumen Oblast, Jewish Autonomous Oblast, Khabarovsk Krai, Primorsky Krai, Zabaykalsky Krai, Kamchatka Krai, Perm Krai, Sakha Republic, Republic of Karelia, Komi Republic, Tuva Republic, Republic of Khakassia, Republic of Buryatia, Republic of North Ossetia-Alania, and Magadan Oblast
from 100 % to 110 %	Kaliningrad Oblast, Leningrad Oblast, Vologda Oblast, Belgorod Oblast, Vladimir Oblast, Tula Oblast, Yaroslavl Oblast, Kursk Oblast, Lipetsk Oblast, Ryazan Oblast, Moscow Oblast,

	Voronezh Oblast, Ivanovo Oblast, Kaluga Oblast, Nizhny Novgorod Oblast, Orenburg Oblast, Astrakhan Oblast, Rostov Oblast, Kemerovo Oblast, Novosibirsk Oblast, Omsk Oblast, Kurgan Oblast, Sverdlovsk Oblast, Chelyabinsk Oblast, Chuvash Republic, Udmurt Republic, Altai Republic, Republic of Tatarstan, Republic of Mordovia, Mari El Republic, Republic of Bashkortostan, Republic of Adygea, Republic of Kalmykia, Altai Krai, Stavropol Krai, Krasnodar Krai, Krasnoyarsk Krai, Chechen Republic, Karachay-Cherkess Republic, Kabardino-Balkar Republic, Republic of Dagestan, and Republic of Ingushetia
over 110 %	Bryansk Oblast, Penza Oblast, Novgorod Oblast, Pskov Oblast, Tambov Oblast, and Tver Oblast

Note. Compiled based on data from the Russian Federal State Statistics Service (n.d.).

5. Conclusion

At the moment, a concern that remains with regard to Russia's Doctrine of Food Security is its production of milk and dairy products, albeit there are projections of milk production increasing in holdings of all categories to 31 million tons (Ushachev, 2015). The uptrend in milk production across agricultural organizations and peasant (farming) holdings is expected to persist at a level of 2–2.5%. The ongoing decline in milk production in residents' holdings may need to be compensated for through the introduction of new, or renovation of existing, facilities within the dairy cattle breeding sector, as well as provision of additional grants toward the creation of peasant (farming) holdings.

To help boost the investment attractiveness of the dairy cattle breeding sector and create the conditions for building up the cow population in Russia, the following objectives were slated to be undertaken in 2017 and now form part of the state's midterm plans: selecting top investment projects on creating (modernizing) dairy cattle breeding complexes (dairy farms); providing support to the milk industry in the way of price regulation, as well as carrying on providing support to smaller entrepreneurs (e.g., beginner farmers and family-run livestock farms) engaged in dairy cattle breeding and providing subsidies (e.g., per kilo of sold milk and/or milk directed to own processing) aimed at boosting productivity within the dairy cattle breeding sector.

A search for new strategic approaches to resolving relevant issues associated with the import substitution of agricultural output has exposed the inadequacy of the organizational/economic mechanism underpinning the implementation of Russia's current agrarian policy. This leads to the understanding that at this time a worthwhile strategic priority for the development of the entire agrarian complex is consistent intensification within agriculture that is based on the qualitative buildup of its key structural elements (Centre for Human Technologies, 2014). This kind of policy will help ensure the reliable provision of the population in all of Russia's constituent entities with quality and economically accessible domestic food. At the same time, it is also worth keeping in mind the competitiveness of Russia's agricultural output in a climate of the openness of markets, factoring in the inherent differences in natural conditions for running agriculture, as well as its actual structure across the different categories of holding.

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