Food Caught in the Sanctions War: is Food Security a Casualty?*

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ABSTRACT
This article examines changes in food security conditions in Russia following the introduction of general and commodity-specific embargo.

While the physical availability of food increased with growth in agricultural production, the effect was offset by a decline in imports. Consumer prices rose due to reduced economic availability of meat and milk. Food insecurity in Russia is caused by increasing prices. There is no import dependence as measured by the division of food import by a total merchandise export.

We have discovered that increasing food prices in the Russian Federation during the 2013–2015 periods affected not only products placed under embargo, but as much other commodity groups. Embargos were imposed on goods whose prices were less likely to rise. At the same time, similar food produced in Russia was not competitive on the world market. Therefore, import substitution of this kind necessarily led to decline in the quality of food and a reduction of food security. In our opinion, fish and apples aren't a suitable object for sanctions unlike some other goods such as eggs or flour.

KEYWORDS
protectionism, embargo, sanctions, competitiveness, food security, import

Продукты питания, вовлеченные в войну санкций: действительно ли страдает продовольственная безопасность?

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РЕФЕРАТ

В статье исследуются изменения в условиях продовольственной безопасности в России после введения продовольственного эмбарго.

В то время как физическая доступность продуктов питания увеличилась с ростом сельскохозяйственного производства, эффект был нивелирован снижением импорта. Потребительские цены повысились из-за снижения экономической доступности мяса и молока. Снижение продовольственной безопасности в России было вызвано ростом цен. Не отмечено значительной зависимости от импорта, измеренной путем деления импорта продуктов питания на общий товарный экспорт.

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Мы обнаружили, что рост цен на продовольственные товары в Российской Федерации в период 2013–2015 гг. затронул не только продукты, помещенные под эмбарго, но также и другие товарные группы. Эмбарго было наложено на товары, цены на которые менее вероятно могли бы вырасти. В то же время подобные продукты питания, произведенные в России, не были конкурентоспособны на мировом рынке. Импортозамещение такого рода ведет к снижению потребительских свойств предлагаемых населению продуктов, что сокращает продовольственную безопасность. По нашему мнению, рыба и яблоки — это не подходящий объект для санкций в отличие от некоторых других товаров, таких, как яйца или мука.

КЛЮЧЕВЫЕ СЛОВА
протекционизм, эмбарго, санкции, конкурентоспособность, продовольственная безопасность, импорт

Two events of 2014 — a political crisis caused by events in neighboring Ukraine and depreciation of ruble — impacted food prices for consumers in the Russian Federation. The first of these events triggered economic measures against some countries as an answer on Western sanctions[1]. The subject of economic measures was foodstuff imported in previous period in large volumes. Two and a half years later, it became clear that the sanctions war would be a long one. Statistics are available for 2014 and part of 2015 allowing us to estimate the effects of the food embargo introduced by the Russian President on 6 August 2014 on food security of the Russian Federation.

Introduction

The Russian Federation and the international community use two different concepts of food security. According to the definition of the Food and Agriculture Organization of the United Nations (FAO), food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, 2003). The doctrine of food security of the Russian Federation underlines the value of food independence: national self-sufficiency with regard to the main types of food[2]. If self-sufficiency is the overarching aim, then the food embargo directly serves for achievement of this purpose, and trade liberalization contradicts it.

"Proponents of self-sufficiency believe in protecting local production of food staples arguing that local production supports jobs, builds community and protects national food security", — authors of "The regulation of International Trade" write (Trebilcock and Howse 2005). They propose several responses to this argument. One of them is: even focusing on food it would be surprising if the social pathologies said to be afflicting the agricultural sector are due to international trade. Authors stress: agriculture remains the most protected sector in the international economy. "The empirical evidence suggests that agricultural protectionism in the USA, Western Europe and Japan entails average costs of over a $ 1000 per household per year for the countries concerned — a large and regressive hidden 'tax' on ordinary consumers of basic staples" (Trebilcock and Howse 2005: 18).

Measures of state policy in the field of the agricultural industry are not designed to support the consumer. The agricultural policy monitoring of the Organisation for Economic Cooperation and Development (OECD) includes the "Consumer Nominal Assistance

[1] The Presidential of the Russian Federation Decree of August 6, 2014 N 560 "About application of separate special economic measures for the purpose of safety of the Russian Federation".

[2] The Presidential of the Russian Federation Decree of January 30, 2010 N 120 "About the approval of the Doctrine of food security of the Russian Federation".

Coefficient" (consumer NAC), which is the ratio between the value of consumer spending on agricultural commodities (at farm gate) and that valued at border prices (measured at farm gate). Consumer protection takes place if the ratio is below 1. As we can see from the tab. 1 consumer assistance takes place in one OECD country — United States. Other OECD countries, as well as Russian Federation, devote less to consumer assistance (fig. 1).

Historically, impoverishment in Russia has been reflected in changing parterns of food consumption. According to data from Rosstat, in 2015 the consumption of fruits, milk and dairy products, meat and sugar was lower than in 2013 (the last full year without the embargo), while an increase was recorded in the consumption of vegetables and potatoes. At the same time, the consumption of bread and eggs did not change. (Olipra 2017)

It should be noted that after introduction of the embargo, the Government of the Russian Federation took a number of measures to support producers and protect consumers. For the purpose of supporting producers, in October 2014 the Government accepted the action plan ("road map") on import substitution assistance in the agricultural industry for 2014–2015.

New priority directions were added to the 2020 National Agricultural Development Programme. They are: the development of potatoes and vegetable production in the open ground; the development of vegetable production in protected soil; the development of dairy and meat cattle breeding; the development of the selection and genetic engineering in subsectors of crop and livestock production; the development of the wholesale and distribution (logistic) centers for the purchase, processing, storage and sale of agricultural products; and the development of a financial credit system in agrarian and industrial sectors. The government-planned development of wholesale and logistics centers is aimed on consumer support, social food supply has to become a function of those centers. However, the funds allocated for the centers were not mastered owing to an insufficient initiative on the part of final recipients and bureaucratic procedures. As a result, as we see from tab. 1, consumer NAC grew in 2014, reflecting a reduction in consumer assistance.

Table 1

Consumer Nominal Assistance Coefficient, selected countries

Country	2012	2013	2014	2015
Australia	1.00	1.00	1.00	1.00
Canada	1.19	1.15	1.11	1.11
Chile	1.00	1.00	1.00	1.00
Iceland	1.41	1.29	1.54	1.80
Israel	1.09	1.07	1.12	1.15
Japan	1.91	0.75	1.66	1.62
Korea	1.92	1.90	1.81	1.81
Mexico	1.03	1.01	1.00	1.00
New Zeland	1.03	1.02	1.03	1.02
Norway	1.54	1.58	1.70	1.77
Switzwrland	1.43	1.36	1.56	1.76
Turkey	1.16	1.18	1.16	1.14
United States	0.87	0.85	0.89	0.93
European Union	1.04	1.05	1.04	1.05
Brazil	1.02	1.01	1.00	1.00

Conti…

Country	2012	2013	2014	2015
China	1.18	1.20	1.19	1.26
Kazakhstan	1.10	1.10	1.05	1.03
Russia	1.11	1.10	1.15	n.a.
South Africa	1.02	1.01	1.01	1.02
Ukraine	0.97	0.95	0.87	0.89

Source: http://stats.oecd.org/viewhtml.aspx?QueryId=70968&vh=0000&vf=0&l&il=&lang=en

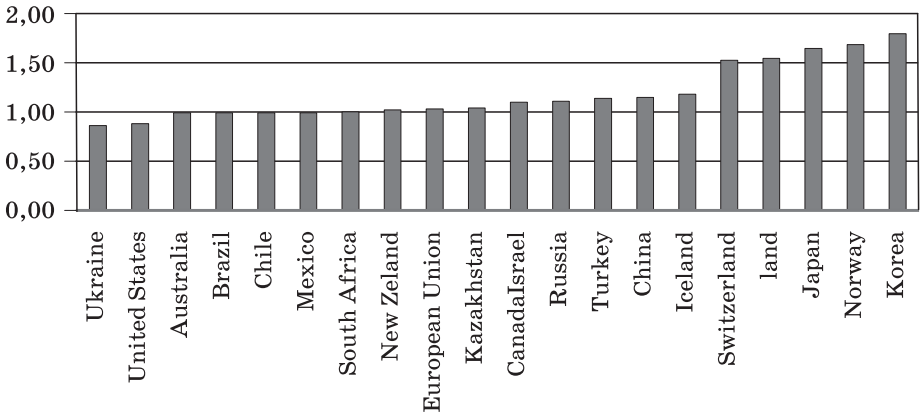

Figure 1. Consumer Nominal Assistance Coefficient, 2014, selected countries

Source: Table 1.

The purpose of this article is to assess changes in the condition of food security in the Russian Federation after an embargo introduction in general, and on separate commodity categories.

Russian Federation food security assessment after imposing sanctions

The relevance of the issue of food security was disclosed in the country during the mid-nineties in connection with a sharp reduction in the agricultural production, when there was an increase in food prices and food import and a decrease in food consumption by most of the population in the country. In tab. 2 we estimate these indicators to see the differences in the state of food security between 2013 and 2014.

The physical availability of food grew in connection with the growth of agricultural production by 17% in rubles, but this achievement was partly compensated by an import decline of 7% in dollars. An import decline can be coordinated with the import substitution growth and consequently the country's self-sufficiency that leads to food independence. However import was reduced not because of the competition, but as a result of an embargo and the depreciation of the ruble at the end of 2014. As a result consumer prices grew by 8%, having reduced the economic availability of meat and milk, i. e. food categories having insufficient production in Russia.

According to the estimates of the United States Department of Agriculture, the strongest production growth among the product groups, covered by the embargo, was

Table 2

Indicators Characterizing Food Security in the Russian Federation

Indicators	2012	2013	2014	2014 by 2013, %
Agricultural production, million rubles	3 339 159	3 687 075	4 319 047	117
Consumer price index, food products, December by December of the previous year, %	107.5	107.3	115,4	108
Import: Food products and agricultural raw materials (groups 1–24), million dollars	40 384	43 075.9	39 905	93
Consumption of meat and meat products per year, kg	74	75	74	99
Consumption of milk and dairy products per year, liters	249	248	244	98
Consumption of potato per year, kg	111	111	111	100
Consumption of vegetables per year, kg	109	109	111	102

Source: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/catalog/doc_1138623506156.

recorded in the poultry sector (+24.6 per cent in the years 2013–2016). A higher production of poultry was stimulated by a strong domestic demand for this type of meat resulting in a relatively low price. Strong growth was also recorded in the case of pork (+15.4 per cent in the years 2013–2016). In this case the effects of scale (20 of the largest plants account for approx. 60 per cent of the overall production) have a favorable effect on the industry's development. Meanwhile the embargo has particularly impacted the beef industry (a decline in production by 3.2 per cent in the years 2013–2016). It is characterized by a strong fragmentation which significantly hampers any investment aimed at increasing the productive capacity. In the case of fruit and vegetables, the growth of their production is inhibited by high fragmentation and lack of specialization. The development of mariculture is very slow due to an insufficient level of investment in the industry (Olipra 2017).

The statistical base of FAO food security indicators figures out the following changes in Russian Federation's food security (tab. 3, 4).

Average dietary energy supply adequacy did not change for the studied period. This indicator in Russia exceeds the mean value of the world by 11%. The domestic food price index was rising. The domestic food price index level is an indicator of the relative price of food in a country. Specifically, the ratio of food and non-alcoholic beverages expenditures to actual individual consumption is calculated in the purchasing power parity terms relative to the United States. To control inflation, this ratio is forecasted and backcasted using the ratio of a country's Food Consumer Price Index (FPI) and General Consumer Price Index (CPI) using a 2011 base year, relative to the United States. The world's average increase in food prices was 1.5 times lower than in the Russian Federation. This testifies to a vulnerability of the situation in the Russian Federation. The indicator «Value of food imports over total merchandise exports» provides a measure of vulnerability and captures the adequacy of foreign exchange

Table 3

Food Security Indicators of the Russian Federation according to FAO

Indicators	2012	2013	2014	2015
Availability				
Average dietary energy supply adequacy	135	136	136	136
Access				
Domestic food price index	4.18	4.25	4.30	n.a.
Stability				
Value of food imports over total merchandise exports	6	6	n.a.	n.a.
Domestic food price volatility	5.1	5.5	5.2	n.a.
Per capita food production variability	20.7	22.7	n.a.	n.a.

Notes: n.a. = not available.
Source: http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/.WI-O8jk3Xcu

Table 4

Food Security Indicators. Mean Values for the World

Indicators	2012	2013	2014	2015
Availability				
Average dietary energy supply adequacy	121	122	122	123
Access				
Domestic food price index	2.85	2.93	2.85	n.a.
Stability				
Value of food imports over total merchandise exports	5	5	n.a.	n.a.
Domestic food price volatility	6.9	7.8	6.4	n.a.
Per capita food production variability	2.0	2.8	n.a.	n.a.

Notes: n.a. = not available.
Source: http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/.WI-O8jk3Xcu

reserves to pay for food imports which has implications on the national food security depending on the production and trade patterns. In Russia this value in 2013 was slightly higher than the world average (6 against 5), but this difference should not cause concern as it is far from critical. In fig. 2, data on this indicator for CIS countries is provided.

The domestic food price volatility index measures the variability in the relative price of food in a country. The indicator is calculated from the monthly domestic food price level index using monthly consumer and general food price indices and purchasing power parity data from the International Comparison Program conducted by the World Bank. Month-to-month growth rates are calculated and the standard deviations of these growth rates are calculated over the previous 8 months. The average of these standard deviations is then computed to obtain an annual volatility indicator. Domestic food price volatility in Russia lowers from 2013–2014. Its meaning is less than world average. Other indicators are not available for 2014. Data analysis has shown that the food insecurity of Russia is caused by an increase in prices for food, rather low domestic food price volatility is present and there is no serious dependence on import.

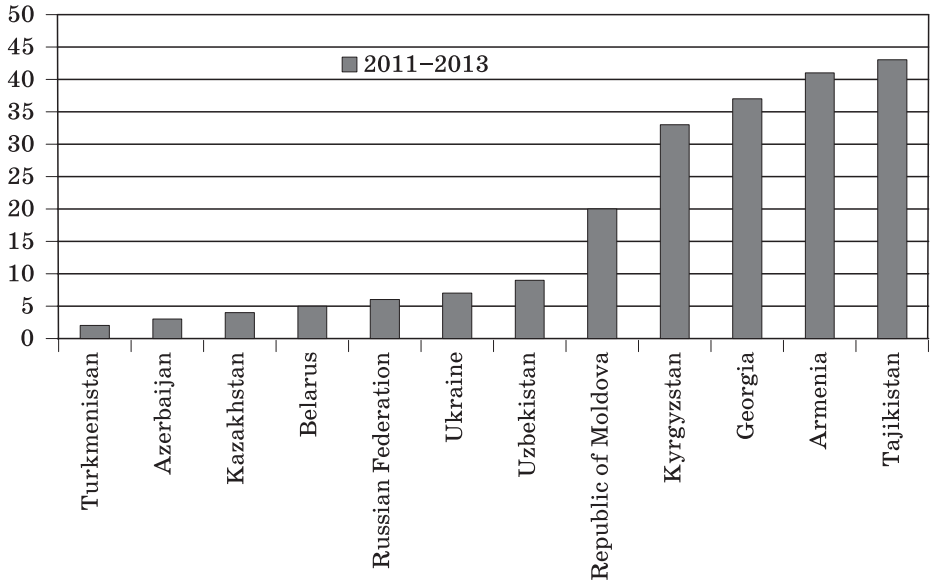

Figure 2. Value of food imports over total merchandise exports for CIS countries

Source: http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/.WI-O8jk3Xcu

A further task was to define categories of agricultural products which can be involved in geopolitical games without undermining the food security of the country.

Price movement of the foods which went and did not undergo embargo

As a result of an aggravation of a foreign policy situation, the Russian Federation by Resolution of the Government N 778 (Resolution), found it possible to introduce on August 7, 2014 an embargo on the import of a number of food products from the countries — key trading partners, keeping import on other items unrestricted. Further we group commodities for the purpose of price analysis (tab. 5).

One should specify a commodity category which is brought out of the Resolution's scope by a special instruction. These goods have social value but they are not produced in the Russian Federation enough. They are whitebaits of an Atlantic salmon, trout, flounder turbot, ordinary lavrak, live decorative fish; juveniles of oysters, mussels, shrimp (Litopenaeus vannamei); specialized delactosed milk and dairy products for dietary clinical and preventive foods; potatoes and onion seeds; hybrid sweet corn and peas for crops; dietary supplements; specialized food products for athletes; vitamin and mineral complexes; food additives; concentrates of proteins and their mixes; food fibers; nutritional supplements.

The price movement of goods which undergo embargo is given in tab. 6 and in fig. 3.

The analysis result marks out the following types of commodities:

1. Commodities in which an increase in prices has started from 2014 and it is presumably connected with an introduction of embargo (beef; fish frozen, salty, marinated, smoked; apples). The highest values of growth relate to fish and apples — 1.4–1.5 times from 2013 to 2015.
2. Commodities in which an increase in prices was connected with the introduction of the embargo, but then stopped (pork, poultry, potato, cabbage and onion). At the

Table 5

Commodities Grouping for the Purpose of the Price Analysis

Category	HS code	Note concerning data compatability
Goods which undergo embargo		
Bovine meat	0201, 0202	The Resolution — beef of all types; Rosstat — beef, except boneless
Pork	0203	The Resolution — beef of all types; Rosstat — pork, except boneless
Poultry meat cooled and frozen	0207	There are no discrepancies in a scope
Sausage	1601	
Fish frozen not cut	0303	
Fish salty, marinated, smoked	0305	
Butter	0405	In the Resolution it is specified as dairy products
The whole drinking milk pasteurized	0401	In the Resolution it is specified as milk
Cheese	0406	Import ban was specified later
Potato	0701	Prohibition does not cover seed potato
Fresh white cabbage	0704	There are no discrepancies in a scope
Onion	0703	Prohibition does not cover seed onion
Apples	0808	There are no discrepancies in a scope
Goods which didn't undergo embargo		
Beef and pork tinned	1602	HS code is not present in the Resolution
Canned fish	1604	
Sunflower oil	1512	
Eggs	0407	
Sugar	1701	
Black tea	0902	
Wheat flour	1101	
Bread and bakeries	1905	
Rice	1006	
Pasta	1902	

Source: The Resolution of the Government of the Russian Federation of August 7, 2014 N 778. About measures for implementation of presidential decrees of the Russian Federation of August 6, 2014 N 560, of June 24, 2015 N 320 and of June 29, 2016 N 305. URL: http://base.garant.ru/70712500/ixzz4XLSTj85L

Table 6

Dynamics of the Average Prices (rub/kg) on the Goods Which Went under Embargo

Level and price performance at the consumer market	2011	2012	2013	2014	2015	2015 by 2013
Prices increase is presumably connected with embargo						
Bovine meat	234.49	248.47	244.55	272.28	314.94	1.3
Fish frozen not cut	86.79	85.67	90.79	110.65	138.16	1.5
Fish salty, marinated, smoked	247.73	247.61	252.52	292.21	352.58	1.4
Apples	63.59	62.54	63.26	76.70	87.43	1.4
Price increase was connected with embargo but then stopped						
Pork	210.89	220.09	214.18	272.36	271.08	1.3
Poultry meat cooled and frozen	103.57	117.26	107.03	136.14	133.73	1.2
Potato	14.26	16.07	23.18	26.66	19.91	0.9
Fresh white cabbage	10.61	15.65	17.30	25.55	22.68	1.3
Onion	16.03	16.70	21.36	26.47	24.64	1.2
The tendency to price increase was outlined in a previous period						
Butter	256.48	260.84	308.92	357.54	397.75	1.3
Whole drinking milk pasteurized	32.52	33.88	38.64	43.81	47.61	1.2
Cheese	273.43	272.57	326.89	388.81	418.61	1.3

Source: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/tariffs/

same time the prices of pork and poultry decreased earlier — in 2013 — following the year Russia acceded to the World Trade Organization.

3. Commodities which had a tendency for a price increase in a previous period (butter, milk and cheese). Food self-sufficiency of Russian Federation is sensitive to the production of dairy products which are present in this group.

In tab. 7 and in fig. 4 the price performance on the goods which did not undergo an embargo is given.

Consumer prices on some foods (tab. 7) grew even more in comparison with those commodities which went under embargo. We shall mark out the following categories:

1. An increase in prices that can be connected with the embargo because of the general source of raw materials (canned fish and beef). In this group there is a strong increase in prices — observed 1.5 times over 2 years.
2. Export commodities in which there is a binding of internal prices to the dollar (sunflower oil).
3. Fluctuations at world markets for commodities having a high dependence on import (rice, tea, sugar).
4. Commodities with a rather stable price level.

The literature source[1] discussing an increase in prices for canned products notes that the Russian producers had an opportunity to raise the prices thanks to the fact that the competition in their market was considerably decreased.

[1] http://www.retailer.ru/print/id/111928/

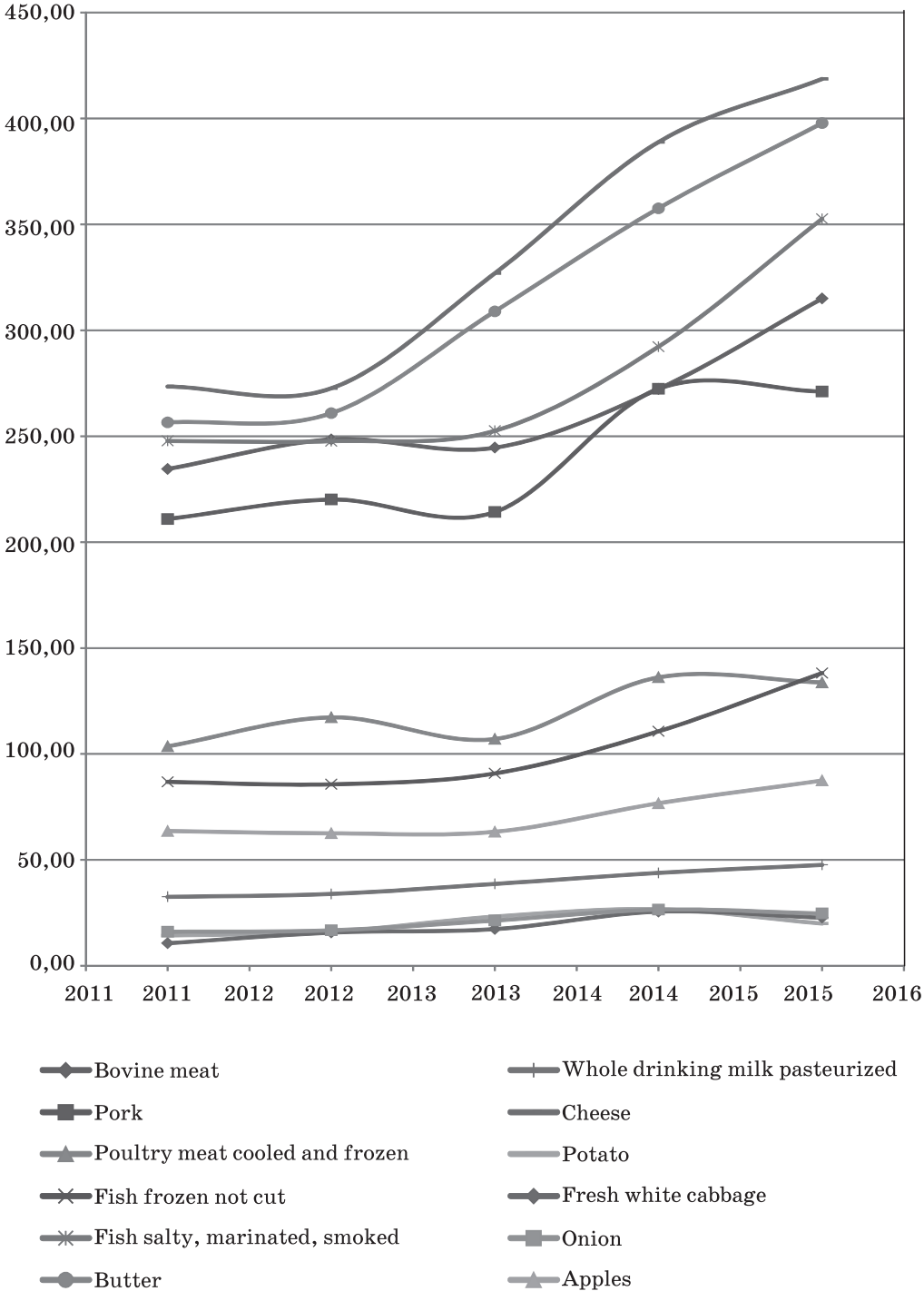

Figure 3. Dynamics of the average prices (rub/kg) on the goods which went under embargo

Source: Table 6

Table 7

Dynamics of the Average Prices (rub/kg) on the Goods Which Did Not Undergo Food Embargo

Level and price performance at the consumer market	2011	2012	2013	2014	2015	2015 by 2013
Increase in prices can be connected with embargo						
Beef and pork inned	70.35	75.22	79.33	94.42	117.04	1.5
Canned fish	53.95	57.76	60.50	70.12	91.94	1.5
Sausages	270.28	288.23	302.94	310.54	344.81	1.1
A binding of the internal prices to dollar exists						
Sunflower oil	76.79	78.51	75.47	78.09	107.62	1.4
A high dependence on import						
Sugar	30.22	31.58	32.32	44.97	52.14	1.6
Black tea	367.68	391.06	422.62	496.40	685.73	1.6
Polished rice	40.65	39.80	43.51	53.03	67.87	1.6
A stable price level						
Eggs	41.25	43.34	56.01	58.76	65.02	1.2
Wheat flour	19.76	25.19	26.83	29.46	32.78	1.2
Bread and bakeries	45.36	50.51	55.11	58.75	64.8	1.2
Pasta	46.18	48.87	50.67	55.18	66.01	1.3

Source: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/tariffs/

FAO data of annual food price indexes (tab. 8) relate to meat, dairy products, cereals, vegetable oil and sugar. All these prices decreased at the world market from 2013 to 2015. It complicates the understanding of the fact that the rice and sugar, which did not undergo embargo in the Russian Federation, rose in price.

According to the notification about the state support of the agricultural industry for 2014 provided by the Russian Federation to the WTO there were wheat, rye and barley which had a price support estimated on price differences on border and domestic

Table 8

Annual Food Price Indices (2002–2004=100)

Year	Food Price Index	Meat Price Index	Dairy Price Index	Cereals Price Index	Oils Price Index	Sugar Price Index
2011	229.9	183.3	229.5	240.9	254.5	368.9
2012	213.3	182.0	193.6	236.1	223.9	305.7
2013	209.8	184.1	242.7	219.3	193.0	251.0
2014	201.8	198.3	224.1	191.9	181.1	241.2
2015	164.0	168.1	160.3	162.4	147.0	190.7
2016	161.6	156.6	153.8	146.9	163.8	256.0

Source: http://www.fao.org/worldfoodsituation/foodpricesindex/en/

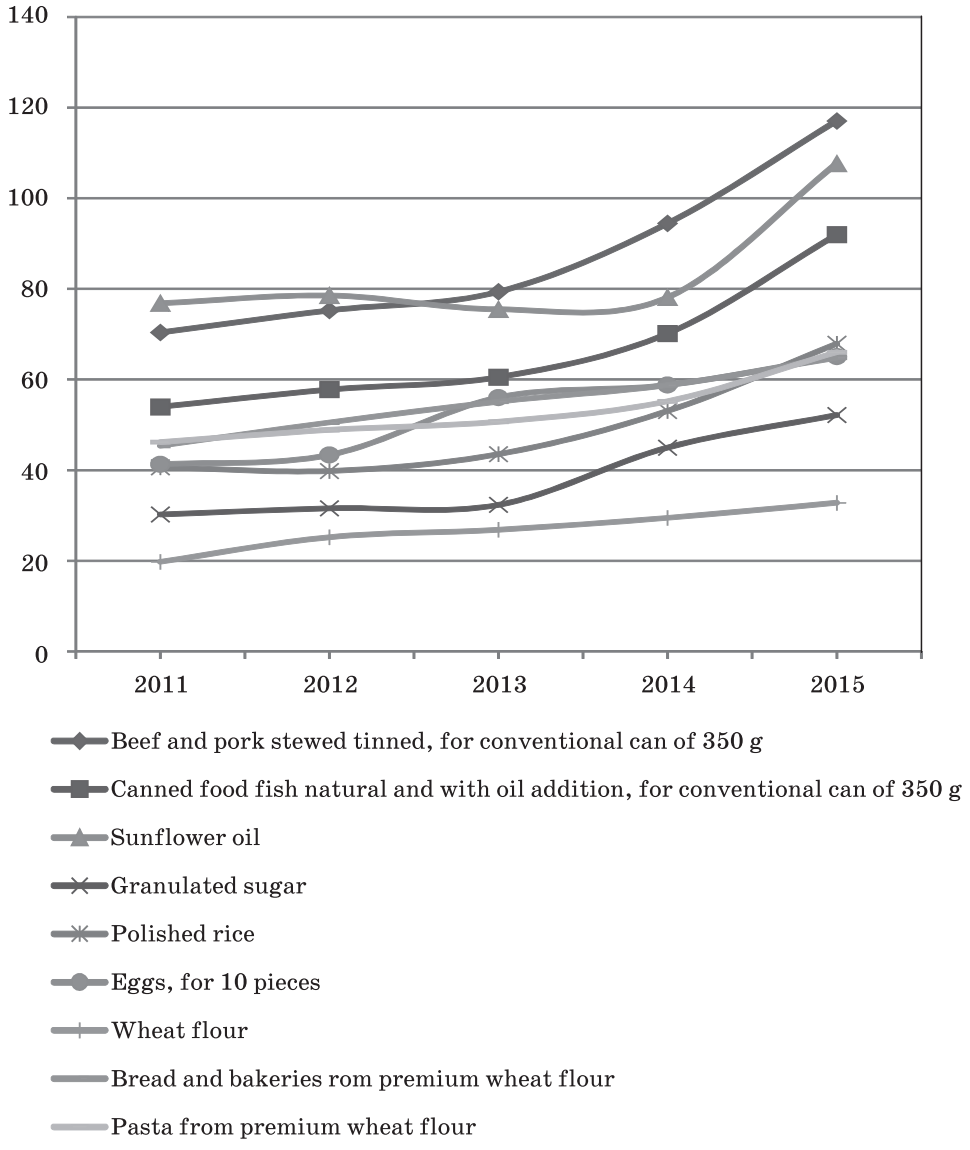

Figure 4: Dynamics of the average prices (rub/kg) on the food which did not undergo embargo (without data on tea and sausage)

Source: Table 7

ones. Product-specific Aggregate Measure of Support (AMS) did not exceed *de minimis* for the considered products. The absolute sum was considerable for cattle and milk production (tab. 9). It can partly explain just a moderate increase in price for the specified products.

We have discovered that an increase in food prices in the Russian Federation for 2013–2015 extended not only to products which went under embargo, but also not to a lesser extent on those commodity groups which did not undergo an embargo. It puts pricing factors of the world market in the forefront.

Table 9

The Product-Specific Aggregated Measures of Support — in Russia in 2014, million dollars

Description of basic products	Product-specific AMS	%	Description of basic products	Product-specific AMS	%
Plant Products			Livestock Products		
Flax and Hemp	11.85	1	Cattle	218.27	19
Wheat	0.13	0	Sheep and Goats	19.87	2
Buckwheat	0.03	0	Deer	40.76	4
Potatoes	2.38	0	Horses	5.09	0
Rye	0.06	0	Swine	23.14	2
Rice	0.53	0	Poultry	21.03	2
Maize	0.09	0	Milk	671.34	60
Barley	7.11	1	Meat	63.17	6
Grapes	14.36	1	Eggs	24.78	2
Sugar Beet	2.57	0	Wool	0.04	0
			Total product-specific AMS	1126.60	100

Source: Russian Federation. The notification concerns domestic support commitments for the calendar year 2014. G/AG/N/RUS/13 URL: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(%20@Symbol=%20g/ag/n/rus/*)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true

Competitiveness of Russian food products in world markets and other indicators of sufficiency

According to FAO the linkages between food security and international trade are complex and context-specific. Policies that affect food exports and imports contribute to determining relative prices, wages and incomes in the domestic market, and hence shape the ability for poor people to access food. Trade, in itself, is neither a threat nor a panacea when it comes to food security. The opportunities and risks to food security associated with trade openness should be carefully assessed and addressed through an expanded set of policy instruments. (FAO, IFAD and WFP 2015: 26)

In the doctrine of the Russian Federation food security (Doctrine), it is specified that exceeding the actual level of food independence over its threshold value characterizes the availability of export potential. It is possible to conclude that products delivered on export markets are present enough in the domestic market. The government when introducing an embargo can obviously operate freely with those goods which are widely produced in the country and are exported.

In the years 2014–2016, Russia closed its market to countries that in 2013 accounted in total for more than half of Russian imports on pork, poultry, fish and seafood, vegetables and dairy products. Before the introduction of the embargo in 2014, Russia strongly depended on the import of fruits (domestic production covered less than 40 per cent of consumption), meat and meat products, fish and seafood, milk and dairy products (approx. 80 per cent) as well as vegetables (approx. 90 per cent). Meanwhile, in the case of agricultural commodities such as cereals, potatoes or oil plants (except for soy) Russia was a net exporter or its dependence on imports was small. Jakub Olipra argues

that the Russian embargo on Western food was applied to the agricultural and food products the least accessible in Russia. (Olipra 2017)

Competitiveness of Russia in the world market can be estimated on its share in the world export of separate agricultural products. The data of the WTO are provided in tab. 10. They are available for the year 2013, preceding the imposition of an embargo.

We shall consider the country is competitive at the world market if one of the following conditions is observed:

- its exports make no less than 1% of the world export;
- the country is included into the top ten exporters.

Russian Federation (tab. 10) is competitive in exporting wheat and wheat flour, rough grain, vegetable oil, oilcakes, eggs, tobacco, potato. A range of the exported products

Table 10

Competitiveness of the Russian Federation at the World Market of Agricultural Products (2013) and the Level of Self-Sufficiency

Category	Competitiveness, share at the world market, %	Range	Level of self-sufficiency	
			According to Doctrine	Real*
Wheat and wheat flour	9.3	5	95	99.2
Coarse grains	3.6	8	n.a.	n.a.
Rice	0.4	18	n.a.	n.a.
Oilseeds	0.5	12	n.a.	n.a.
Vegetable oils	2.7	7	80	82.5
Oilcakes	2.6	10	n.a.	n.a.
Sugar	< 0.3	< 35	80	93.9
Butter and butter oil	0.3	22	n.a.	n.a.
Skim milk powder	0.1	20	90	82.5 (2015)**
Cheese	0.9	16		n.a.
Whole milk powder	< 0.0	< 38		n.a.
Bovine meat	0.1	27	85	89
Pigmeat	0.5	11		
Poultry meat	0.2	20	n.a.	n.a.
Sheepmeat	< 0.1	< 19	n.a.	n.a.
Live animals	0.1	42	n.a.	n.a.
Eggs	1.6	12	n.a.	n.a.
Wine	< 0.1	< 26	n.a.	n.a.
Fruits & Vegetables	0.4	35	Potato — 95	Potato — 97.1
Tobacco	1.9	12	n.a.	n.a.

Notes: n.a. = not available.

* http://expert.ru/expert/2017/01/v-borbe–za-prodovolstvennyij-suverenitet/

** http://www.dairynews.ru/news/v-2015-godu-v-rf-uroven-samoobespecheniya-molokom-.html

Source: Members' participation in the normal growth of world trade in agricultural products — article 18.5 of the Agreement on agriculture.WTO G/AG/W/32/Rev.15. 05.02.2016. URL: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(%20@Symbol=%20g/ag/w/32/*%20)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true

assumes that the country had an economic possibility to have an embargo introduction on part of agricultural products.

In tab. 11 we assign to the products, having different price indexes, values of the indicators characterizing the fact of embargo existing and competitiveness as 0 or 1.

At fig. 5 we will present this data in the matrix form.

The highest increase in prices was observed in cell number 1. Russia depends on import of products of this category. These goods cannot be involved in geopolitical strategies. In cell number 2 there are goods with high competitiveness. There is no severe need to import, and they could be easily placed under embargo. It is possible to keep in this cell, in our opinion, sunflower oil since an increase in prices for it has taken place owing to the fact that the price of these export goods, being tied to the world one, grew with the depreciation of the ruble. Among goods in cell 3 there are apples and fish, embargo of which is most problematic because of the strong rise in price. In cell 4 there are the least sensitive goods (potato) which, owing to a high self-sufficiency, were used in geopolitical strategy. One issue remains that Russia does not produce seed potatoes.

Fig. 6 illustrates the recommendations.

The analysis of fig. 5 shows that Russia introduced an embargo on those goods which had (except for apples and fish) no tendency to rise in price. Surprisingly on the majority of these goods competitiveness in the world market is small so the rely should be done on the change of trading partners but not on the import substitution.

Table 11

Grouping of the Studied Products

Commodity category	HS code	Price index	Embargo	Competi-tiveness
Potato	0701	0.9	1	1
Poultry meat cooled and frozen	0207	1.2	1	0
Whole drinking milk pasteurized	0401	1.2	1	0
Onion	0703	1.2	1	0
Eggs	0407	1.2	0	1
Wheat flour	1101	1.2	0	1
Bovine meat	0201, 0202	1.3	1	0
Pork	0203	1.3	1	0
Butter	0405	1.3	1	0
Cheese	0406	1.3	1	0
Fresh white cabbage	0704	1.3	1	0
Apples	0808	1.4	1	0
Sunflower oil	1512	1.4	0	1
Sugar	1701	1.6	0	0
Black tea	0902	1.6	0	0
Rice	1006	1.6	0	0
Fish frozen not cut	0303	1.5	1	0
Fish salty, marinated, smoked	0305	1.4	1	0

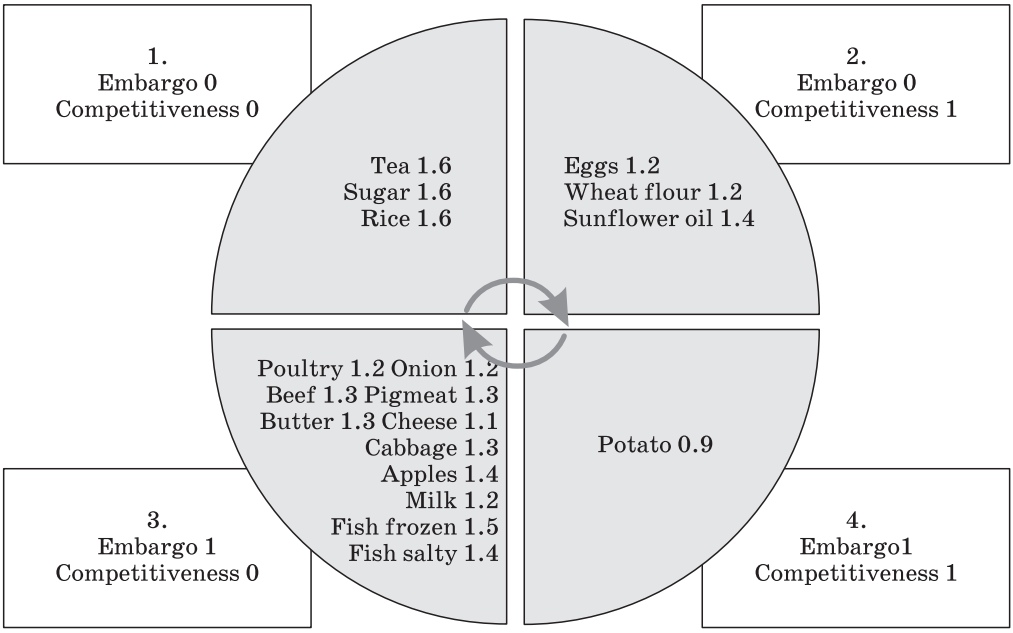

Figure 5. Distribution of the studied food with price indices

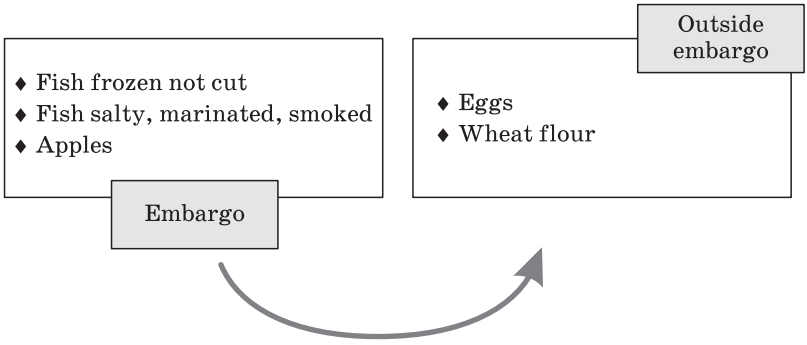

Figure 6. Recommended rearrangement of commodity groups

Conclusion

The article examines changes in a condition of Russian Federation food security after an embargo introduction in general, and on separate commodity categories. Physical availability of food grew in connection with the growth of agricultural production by 17% in rubles, but this achievement was partly compensated by an import decline as a result of the embargo and depreciation of the ruble at the end of 2014. Consumer prices grew having reduced the economic availability of meat and milk. Data analysis showed that Russia's food insecurity is caused by an increase in prices and there is no serious dependence on import appreciated as a value of food imports over total merchandise exports. A further task consisted in defining categories of agricultural products which can be involved in geopolitical games without undermining the food security of the country.

Initially we determine three categories of foods: goods to which the embargo extends; goods of big social value which are not produced in the Russian Federation enough; others.

We have discovered that an increase in food prices in the Russian Federation for 2013–2015 extended not only to products which went under an embargo, but not to a lesser extent on other commodity groups.

The distribution of goods on categories depending on competitiveness and a possibility of market access brings us to the conclusion that embargo was imposed on goods the rise in price of which was less probable.

At the same time similar foods of Russian production were not competitive at the world market. Therefore, consumers had to switch to less competitive products, for example, locally produced cheese. As it seems, the government shouldn't insist on an import substitution in sectors with low competitiveness because it lowers the quality of food which has an adverse effect on food security. Because of a strong rise in price of fish and apples these products, in our opinion, should be allowed on the market. At the same time eggs and wheat flour could undergo embargo.

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