FREE NETWORK POLICY BRIEF SERIES

Polina Kuznetsova, RANEPA
Natalya Volchkova, CEFIR
October 2019

The Russian Food Embargo: Five Years Later

In this brief, we report the results of a quantitative assessment of the consequences of counter-sanctions introduced by the Russian government in 2014. We consider several affected commodity groups: meat, fish, dairy products, fruit and vegetables. Applying a partial equilibrium analysis to the data from several sources, including Rosstat, Euromonitor, UN Comtrade, industry reviews etc. as of 2018, we obtain that consumers' total loss amounts to 445 bn Rub, or 3000 Rub per year for each Russian citizen, which is equivalent to a 4.8% increase in food expenditure for those who are close to the poverty line. Out of this amount, 84% is distributed towards producer gains, 3% to importers, while the deadweight loss amounts to 13%. Based on industry dynamics, we identify industries where import substitution policies led to positive developments, industries where these policies failed and group of industries where partial success of import substitution was very costly for consumers.

The full text of the underlying paper is forthcoming in the Journal of the New Economic Association in October 2019.

In August 2014, in response to sectoral sanctions against Russia, the national government issued resolution No. 778, which prohibited import of processed and raw agricultural products from the United States, the EU, Ukraine and a number of other countries (Norway, Canada, Australia, etc.). The goal was to limit market access for countries, which supported sectoral sanctions. The other rhetoric of the counter-sanctions was to support domestic producers via trade restrictions, or by other words – import substitution.

This brief provides an update of welfare analysis of counter-sanctions based on partial equilibrium model of domestic market. The initial estimations based on 2016 data can be found in another FREE Policy Brief here. This time we compare the consumption, outputs and prices of the counter sanctioned goods as of 2018 relative to 2013. The estimated consumer surplus changes, producer gains and prices are reported in Table 1.

Table 1. Welfare effects of counter-sanctions in 2018 relative to 2013.

Group	Price (RUR per kg, 2013)		Production (thous. tons)		Consumption (thous. tons)		Elasticity		Consumer losses, RUR mn*	Producer gains, RUR mn**	Deadweight loss, RUR mn	Importer gains, RUR mn**
	2013	2018	2013	2018	2013	2018	demand	supply				
Beef	357	365	240	291	897	631	–0,78	0,1	4793	2187	41	2565
Poultry	108	105	3610	4795	4084	4833	–0,78	0,45	–15877	–16057	305	–126
Pork	289	270	1299	2684	1919	2712	–0,78	0,2	–51131	–52342	1745	–534
Processed meat	240	267	2502	2276	2545	2279	–0,6	0,1	63975	61515	2386	73
Fish	121	160	4806	4427	4141	3206	–0,3	0,1	128629	167998	7620	–46988
Milk	47	57	5386	5568	5595	5774	–0,93	0,05	62321	54541	5754	2025
Butter	271	415	225	258	340	335	–0,93	0,18	60175	35840	13165	11169
Cheese	283	377	435	473	764	655	–0,93	0,28	71776	43119	11359	17298
Fromage frais	190	243	371	499	457	560	–0,93	0,1	33200	25922	4071	3207
Sour milk products	45	56	3074	3380	3077	3426	–0,93	0,1	41338	36317	4524	497
Condensed milk	49	63	860	810	1337	1180	–0,93	0,1	19371	11546	2482	5344
Apples	70	88	313	374	1665	1206	–0,85	0,1	23553	6537	2321	14695
Oranges	59	62	0	0	1340	1295	–0,9	0,1	3390	0	65	3325
Grapes	131	149	101	118	459	413	–0,85	0,1	8130	2185	473	5472
Tomatoes	65	61	863	1303	1718	1865	–0,97	0,1	–7820	–5663	279	–2436
Total									523678	451183	56590	65468

Data sources: Rosstat, Euromonitor, UN COMTRADE

* Negative losses correspond to gains

** Negative gains correspond to losses

Green color was used to mark the commodity groups with a noticeable consumption growth in 2013-2018 and red color those with consumption decrease.

Effect on production

From the point of view of price dynamics, on the one hand, and consumption and output, on the other, the studied products can be divided into three groups.

The first group which we call "Success of import substitution" includes goods for which real prices (in 2013 level) increased by 2016 but afterwards, the growing domestic production ensured that by 2018 prices fell below the level of 2013 with a corresponding increase in consumption. This group includes tomatoes, pork, poultry and, with some reservation, beef. For beef, growing domestic production pushed prices down after 2016, but the level of consumption and prices have not yet reached the pre-sanction level.

For the second group, import substitution has not resulted in a price decrease, we call this group "Failure of import substitution". For products in this group, the initial increase in prices by 2016 was not reverted afterwards. Their consumption decreased significantly compared to 2013, and domestic production either continued to fall after 2016, or its growth turned out to be fragile. This group includes apples, cheese, fish, as well as condensed milk and processed meat.

We call the third group "Very expensive import substitution". It includes fromage, sour milk, milk and (to a lesser extent) butter. This group is characterized by increase in consumption and output in the period 2016–2018, but real prices over this period still remain very high.

Effect on consumers

By comparing the losses and gains of consumers in different categories of goods due to changes in real prices and real consumption, our analysis provides the following monetary equivalents. For all considered counter-sanctioned product groups, with the exception of poultry, pork and tomatoes, consumer losses are around 520 billion rubles per year (in 2013 prices). In three product groups (poultry, pork, tomatoes), in which there was a decrease in prices and a significant increase in consumption, the consumer gains are equivalent to 75 billion rubles per year. Thus, the total negative effect from counter-sanctions for the consumers amounted to 445 billion rubles a year, or about 3000 rubles for a person per year.

Given the cost of the minimum food basket, defined in Russia as 50% of the subsistence level, the impact of counter-sanctions on the budgets of Russian consumers can be estimated as follows. 3000 rubles account for approximately 4.8% of the annual cost of the minimum food basket. The minimum food basket is a set of food products necessary to maintain human health and ensure its vital functions that is established by law. In other words, one can say that 3000 rubles a year are equivalent to a 4.8% increase in food expenditure for those who are close to the poverty line.

Consumer surplus losses were significantly redistributed in favor of domestic production, totaling 374 billion, or 2500 rubles per year per person. Another 56 billion rubles (or 390 rubles per person) correspond to the deadweight loss, i.e., reflect the inefficiency increase of the Russian economy, and 16 billion rubles (110 rubles per person) is the equivalent of redistribution in favor of foreign producers, who get access to Russian market with higher priced products than before counter-sanctions.

Effect on foreign partners

As a result of the selective embargo, the geography of Russian imports of the affected goods has changed. Traditional suppliers of these goods, primarily from Europe, were replaced by suppliers from other countries due to trade diversion. Given the changes in the composition of importers after the imposition of sanctions, we single out countries that have lost and countries that have gained access to the Russian market. We use the change in trade volumes from the respective countries as indicators of growth and decrease in share of these importers in the Russian market. Below we consider in detail the three

groups of goods with the largest gains for importers in 2018 compared with 2013: cheese, apples, butter.

Cheese imports decreased significantly after the imposition of counter-sanctions, in 2018 accounting for only 42% of their dollar value in 2013. The total gain of importers due to the growth of domestic prices in 2013-2018 amounted to 17.3 billion rubles (Table 1) and was distributed among following importing countries: Belarus (78%), Argentina (6%), Switzerland (4%), Uruguay (3%), Chile (3%), other countries (6%). Countries that lost their shares of the Russian cheese market included Ukraine, Holland, Germany, Finland, Poland, Lithuania, France, Denmark, Italy and Estonia. As mentioned earlier, domestic production and Belarusian imports were not able to fully compensate for imports from countries on the counter-sanctions list, and in 2016-2018 cheese consumption in Russia decreased significantly.

Apple imports after the initial drop in 2016 partially recovered in 2018, amounting to 66% of their dollar volume in 2013. The total gain of importers in 2018 compared to 2013 amounted to 15.0 billion rubles (Table 1); it was distributed between Serbia (22%), Moldova (19%), China (13%), Turkey (10%), Iran (10%), Azerbaijan (7%), South Africa (4%), Chile (3%), Brazil (3%) and other countries (9%). Poland suffered the most from the ban on apple imports; it accounted for about 80% of all losses. Other losers from counter-sanctions include Italy, Belgium and France. The reorientation of trade flows did not completely replace Polish imports, so apple consumption in 2016-2018 was significantly lower than in 2013.

Imports of butter in 2018 was also below the level of 2013 (67% of dollar value). The gain of importers in 2018 compared to 2013 amounted to 11.2 billion rubles and was distributed among the following trading partners: Belarus (90%), Kazakhstan (4%), Kyrgyzstan (3%) and other countries (3%). Among the countries bearing most of the negative burden of the diversion of trade, one should mention Finland and Australia.

Conclusions

Five year after counter-sanctions were put in place Russian consumers continue paying for them out of their pockets. While few industries have demonstrated a positive effect of import substitution policies, most are not effective enough to revert the price dynamics.

References

Kuznetsova, Polina; and Natalya Volchkova, 2019. "How Much Do Counter-Sanctions Cost: Welfare Analysis", *Journal of New Economic Association*, N3(43), pp 173-183. (in Russian)

Polina Kuznetsova

Russian Presidential Academy of National Economy and Public Administration (RANEPA)
www.ranepa.ru

Polina Kuznetsova holds a position as Senior Researcher in the Institute of Social Analysis and Forecasting at the Russian Presidential Academy of National Economy and Public Administration (RANEPA). She specializes in social policy and assessment of the effects of economic and social reforms.

Polina Kuznetsova received her MSc in Math at Moscow State University and MA in Economics at the New Economic School (NES, Moscow).

Natalya Volchkova

Centre for Economic and Financial Research New Economic School (NES)
Nvolchkova@nes.ru
www.nes.ru

Natalya Volchkova is the Director of the Centre for Economic and Financial Research (CEFIR at NES) and a Senior Lecturer at the New Economic School in Moscow, Russian Federation. She holds a PhD from the Central Economic and Mathematic Institute of Russian Academy of Science.

She serves as a member of the Committee for Development Policy, United Nations, member of the Expert Council of Open Government of Russia, member of the Expert Council of Accounting Chamber of RF and some others. In 2008, she was awarded a Fulbright scholarship. In 2016 she was nominated for the Yegor Gaidar Award in Economics. Her research interests are in the areas of international trade theory and policy, natural resource economics and corporate governance.

freepolicybriefs.com

The Forum for Research on Eastern Europe and Emerging Economies is a network of academic experts on economic issues in Eastern Europe and the former Soviet Union at BEROC (Minsk), BICEPS (Riga), CEFIR (Moscow), CenEA (Szczecin), KEI (Kiev) and SITE (Stockholm). The weekly FREE Network Policy Brief Series provides research-based analyses of economic policy issues relevant to Eastern Europe and emerging markets. Opinions expressed in policy briefs and other publications are those of the authors; they do not necessarily reflect those of the FREE Network and its research institutes.

FREE NETWORK