

Exploring Russia's Potential in its Non-resource Non-energy Exports to China under the New Bilateral Cooperation Framework

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Abstract: *The main goal of this research was identifying non-resource non-energy goods with the highest export potential for export to China from all the variety and complexity of the product range that Russia is able to export. Under the new bilateral cooperation framework Russia is able to unleash its export potential and effectively diversify its exports to China, while China - to receive a profitable supplier for the long term.*

Keywords: *non-resource non-energy goods, Russia, China, export potential, new bilateral cooperation framework.*

I. Introduction

In 2018, a record was established for bilateral trade between Russia and China. Compared with 2017, it grew by 24.5% to 108.2 bln USD. During the meeting on September 17, 2019 in St. Petersburg, the prime ministers of two countries approved a key vector for the development of trade relations — a boost in two-way trade to 200 bln USD by 2024. Russian-Chinese relations of comprehensive partnership and strategic cooperation have reached the highest level ever and now two countries are on the verge of “the new bilateral cooperation framework”.

In the context of increasing and diversifying Russian exports, in accordance with Presidential Decree of May 7, 2018 No. 204, in the section “International Cooperation and Export”, one of the main goals is to increase non-resource non-energy exports (NRE) up to 250 bln USD (at the end of 2018 the size of this export amounted to 150.1 bln USD).

It is noteworthy that China is not only Russia's leading partner in total exports, but also in terms of NRE - in 2018, Russia's NRE to China amounted to 12.17 bln USD, which is more than NRE to Kazakhstan (10.78 bln USD) and to Belarus (10.13 bln USD).

Let us explain what the non-resource non-energy goods are. The national project “International Cooperation and Export”, which purpose is to increase this export category, has developed a classification of merchandise exports. The main criterion for classifying goods as resource materials or non-resource materials is the degree of human's participation in the formation of its fundamental characteristics. Non-resource non-energy goods are divided into 3 groups according to the degree of processing - low processing, intermediate processing (semi-finished), and high processing goods (finished). The Russian Export Center (REC) provides the detailed classification of Russian exports by products clusters on 4-digit level of Harmonized System (HS). The author of this article used product clusters on 4-digit level of HS for analysis.

II. Russia's Exports to China and the New Bilateral Cooperation Framework

As can be seen from the Table 1, the export of mineral products will continue to play a key role in increasing Russian exports to China, as it accounts a 64% share of all exports (in 2018).

But resource exports (RE) are not sustainable in the long run. For example, when the OPEC+ talks broke down in early 2020, crude oil prices on the global market dropped to 20 USD per barrel, which is more than 70 per cent below the 2018 average figure.

RE are not conducive for Russia to diversify its economy and exports. The sustainable economic growth is hardly possible without major advances in sectoral structural transformation, focused on the export of new goods and services. R. Hausmann, B. Klinger (2007) proved that export diversification and complication and economic growth are linked by a causal relationship.

Table 1. The dynamics of export from Russia to China, 2012-2018 (mln USD)

Export	2014	2015	2016	2017	2018
• Total export	37492.3	28600.9	28018.4	38917.1	56016.8
- Resource export (RE)	26465.1	17991.7	17610.9	24770.2	40039.9
- Non-resource export	11027.1	10609.2	10407.4	14147.0	15976.9
- Non-resource non-energy export (NRE)	7329.0	7857.5	8262.5	11349.9	12196.9
- Low processing goods	3557.4	3507.1	3666.1	4754.0	6166.3
- Intermediate processing goods	1586.0	1592.4	1616.4	2071.6	2488.9
- High processing goods	2185.0	2758.1	2980.1	4524.2	3541.3

Source: REC

The NRE to China have consistently shown positive dynamics. Since 2014, NRE has grown by 66% - from 7329 mln USD in 2014 to 12196.9 mln USD in 2018. In 2018 the whole NRE to China mainly falls on 1) **Wood:** “Wood sawn” (HS 4407) – 2.34 bln USD and “Chemical wood pulp” (HS 4703) – 1.02 bln USD; 2) **Machines:** “Turbojets, turbopropellers and other gas turbines” (HS 8411) - 1.29 bln USD; 3) **Chemical products:** “Potassium chloride” (HS 3104) – 324.3 mln USD, “Mineral or chemical fertilisers” (HS 3105) – 259.2 mln USD, and “Synthetic rubber” (HS 4002) - 206.4 mln USD; 4) **Agricultural products:** “Frozen fish” (HS 0303) – 1.22 bln USD, “Crustaceans” (HS 0306) – 230.8 mln USD, “Soya-beans” (HS 1201) – 243.1 mln USD; 5) **Metals:** “Copper, refined, and copper alloys” (7403) – 1.07 bln USD.

In the new era of bilateral cooperation framework the governments of two countries cooperate not only in traditional fuel, energy and extractive industries, but also stimulate the NRE, by removing barriers to trade, informing participants in foreign economic activity and increasing the number of joint investment projects. For example, the key driver of growth in food exports to China was the opening of markets with the signing of intergovernmental agreements. Starting from June 27, 2018, buckwheat, oats, sunflower and oil flax is allowed for export to China; from Jul 29, 2019 - soybeans, barley from all over Russia is allowed. On Aug 30, 2019, the FTA zone, focused on Russia, was opened in Heilongjiang province of China. The “Binhai No. 1” and “Binhai No. 2” transport corridors are being promoted. Russian-Chinese joint ventures in agriculture, chemical, forestry industries also give powerful impetus to NRE increasing.

Russian experts have analyzed Russian export to China, including formula calculations using the methodology of the International Trade Center UNCTAD/WTO (Export potential assessments). In pursuit of balanced mutual trade, exports from Russia to China will have to reach about 100 bln USD. The ITC calculated export potential by 2024–2025 is 91.3 bln USD, an increase of compared with 2018 - 35.3 bln USD. The methodology does not take into account the impact of new projects; however, an adjustment was initially made for the implementation of natural gas projects.

The potential for increasing Russian exports to China, calculated according to the ITC methodology, in the medium term is concentrated mainly in the export segments traditional for Russia: fuel and mineral products (oil, natural gas, oil products and coal), food products (fish, seafood, cereals, oilseeds seeds, vegetable oils), metallurgical products (primarily ore, non-ferrous and precious metals), chemical industry products (fertilizers, basic chemistry products, plastics and rubber, etc.). In the total value of the probable export growth by 2024–2025 according to the ITC methodology, more than 60% falls on fuel and mineral goods, about 14% - on ores, metals and products from them, about 9% - on chemical products, 8% - on various food products, 5% - on paper and paper products.

All the above is the general characteristic of goods with a highest export potential. The author of this article made an attempt to identify specific product clusters on the 4-digit level of HS with the highest export potential, using methods of quantitative statistics and existing export assessment methodologies.

III. Assessing Russia’s Potential In Its NRE To China

An important component of export diversification policy is the identifying of goods export to which has a high development potential in certain markets (in this case – China).

The analysis is carried out using quantitative statistics in 3 different directions: exporting country (Russia), importing country (China), trade interaction between Russia and China. Each dimension consists of several indicators (Figure 1.).

Figure 1. The indicators used for export assessment

<p>1. EXPORTING COUNTRY (RUSSIA)</p> <ul style="list-style-type: none"> ▪ Total export value/year ▪ Total export value/period ▪ Total export growth (in value terms)/year ▪ Total export growth (in value terms)/period ▪ World market share/year ▪ World market share/period ▪ RCA/year 	<p>3. TRADE INTERACTION</p> <ul style="list-style-type: none"> ▪ Average tariff advantage of Russia compared to the top competitor in the market/year ▪ Relative RCA/year ▪ Ratio of the share of exports to a specific country over the share in total exports/year ▪ Ratio of the share of exports to a specific country (China) over the share in total exports/period ▪ Ratio of the share of imports from a particular exporter (Russia) over the share in total imports/year ▪ Ratio of the share of imports from a particular exporter (Russia) over the share in total imports/period ▪ Relative unit value/year ▪ Relative unit value/period
<p>2. IMPORTING COUNTRY (CHINA)</p> <ul style="list-style-type: none"> ▪ Total value of imports/year ▪ Total value of imports/period ▪ Total import growth (in value terms) /year ▪ Total import growth (in value terms) /period ▪ Relative trade balance/year ▪ Relative trade balance/period 	

As they are measured differently, the scores are used to normalize them. The scores are in scale between 0 (lowest ranking) to 100 (highest ranking). For each dimension, the average score is estimated. Then, the composite indicator is estimated as an average of the scores across three dimensions.

Key data sources are the UN Comtrade, ITC Market Access Map and World Integrated Trade Solution (WITS). The base year of the analysis is 2018 due to data availability; the five-year averages are estimated for 2014 - 2018. For the calculations, “Microsoft Excel” was used.

The output of the analysis (scores for the individual indicators) is presented in the Table 2. All of the goods with the highest export potential to China are NRE goods. The top-10 Russian goods with the highest export potential to China include: oilcake, semi-finished products of iron or non-alloy steel, dried leguminous vegetables, acyclic hydrocarbons, cobalt and articles thereof, fuel wood, carbonates, hot-rolled flat-rolled products of iron or non-alloy steel, of a width > = 600 mm, uncoated paper and paperboard, barley.

According to the classification of merchandise exports by “International Cooperation and Export”, these are mainly goods of lower processing, there are also several goods of medium processing, but there are no goods of high processing among them.

Table 2. Russia’s goods with the highest export potential to China – the scores for individual indicators.

HS Code	I_ex_val	I_av_ex_val	I_ex_growth	I_total_ex_growth	I_ex_share	I_av_ex_share	I_rca	I_rel_balance	I_av_rel_balance	Supply_Average_I	I_imp_val	I_av_im_val	I_imp_growth	I_total_IMP_growth	Demand_Average_I	I_tariff	I_rel_rca	I_relative_exp	I_ave_relative_exp	I_relative_imp	I_ave_relative_imp	I_relative_uv	I_ave_relative_uv	Interaction_Average_I	Comprehensive_I	Rank	
2306	91	92	73	0	93	99	0	94	99	71	76	67	93	94	83	94	0	10	10	10	0	99	45	42	72	75	1
7207	10	10	75	55	10	10	0	98	10	81	60	48	97	92	74	10	0	99	10	10	10	0	31	31	70	75	2
0713	92	93	0	69	91	98	0	93	98	71	79	75	88	82	81	85	0	95	96	10	98	48	46	71	74	3	
2901	97	97	85	0	93	99	0	96	99	74	96	96	58	41	73	95	0	10	0	97	83	83	67	74	75	74	4
8105	89	84	96	83	90	98	0	95	99	82	93	88	92	97	93	85	0	88	82	62	45	0	0	45	73	5	
4401	92	91	73	59	90	98	0	98	99	78	90	89	65	72	79	97	0	69	66	70	62	63	65	61	73	6	
2836	90	90	53	68	91	98	0	86	97	75	73	67	53	96	72	78	0	90	75	75	57	86	87	68	72	7	
7208	99	99	54	54	95	99	0	89	98	76	90	90	60	44	71	94	0	10	10	10	0	63	40	40	67	71	8
4802	94	94	49	50	88	97	0	88	97	73	80	75	86	88	82	84	0	84	89	70	47	39	46	57	71	9	
1003	97	97	80	60	98	10	0	99	10	81	88	89	0	49	56	10	0	10	10	10	10	0	45	53	75	71	10

Source: author's calculations

Following the results of the Russian-Chinese highest-level negotiations and a meeting of the heads of two governments in 2019, the task was set to increase mutual trade to 200 bln USD by 2024. In pursuit of balanced mutual trade within the framework of this strategy, exports from Russia to China will have to reach about 100 bln USD. We constructed the regression model that tests the hypothesis that *export from Russia to China depends on industrial production of Russia*.

This model can be represented by equation:

$$y_t = a_0 + a_1x_{1t} + \varepsilon_t$$

where y_t - the export from Russia to China at t year, bln USD; x_{1t} - industrial production index at t year, bln USD. For each variable, a time series of 15 annual observations was compiled, corresponding to the period 2004–2018.

To estimate the quality of the model, “Stata” software was used. According to Stata output, the independent variables statistically significantly predict the dependent variable and we have the equation: $y_t = -10.78 + 4.6x_{1t} + e$

A positive coefficient of 4.6 means that with an increase in IPI by one point, under otherwise equal conditions, exports from Russia to China grow by an average of 4.6 bln. This means that **if the IPI grows by 10 points under otherwise equal conditions, exports from Russia to China will grow by 46 bln USD and reach 102 bln USD.**

The IPI has grown by 10 points over the past 6 years (2012 to 2018). With the same growth rates and under otherwise equal conditions, by 2024 the IPI will grow by 10 points and exports from Russia to China will achieve 100 bln USD.

IV. Conclusion

Despite the general trend of further fuel expansion in Russian exports to China, recently new trends in bilateral trade have been emerging. Russia has improved the penetration of NRE goods into its neighbor's market. Exports of these goods are still less than the value of fuel exports, but their growth has been dramatic. At the same time, despite all the efforts of the government to promote exports of high processing goods, the top-10 Russia's goods with the highest export potential to China are all goods of lower and medium processing.

According to the Russian experts, the cumulative increase in Russian general exports to China is expected by 2024-2025 at the level of about 40 bln USD (compared to 2018), and its total value in the mid-2020s - in the amount of 97 bln USD. In addition, the regression model showed that the industrial production level in Russia has a positive effect on exports from Russia to China.

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