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Prospects of the Chinese market for Russian agri-food exports

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Abstract

One of the major targets of modern agri-food policy in Russia is a significant increase of agri-food exports — almost twice as much by 2024. In this projection, China is viewed as the most promising market. However, Russia's entrance to the Chinese market faces a number of constraints. In addition to the standard difficulties associated with Russia's agricultural and food exports (export infrastructure constraints, expensive logistics, and import bans on certain Russian products), there are fundamental constraints on supply to China in the long-term. This paper formulates a long-term view of the prospects of, and risks associated with, introducing Russian agricultural products into the Chinese market. Methodically, the paper is based on an evaluation of competitive performance by the conventional method of measuring a country's comparative trade advantages with the Balassa index. Also the authors use trade statistics of Comtrade, Russian and Chinese national statistic agencies, estimates of international analytical centers such as World Bank, USDA, OECD, McKinsey.

Keywords: agriculture, agri-food policy, agri-food exports, agricultural markets, agriculture in international trade.
JEL classification: Q1, Q13, Q17.

1. Background

Throughout the Soviet period, Russia's agricultural sector underperformed, was subsidized, and had low levels of productivity. The USSR depended heavily on grain imports for its food supply. As part of the USSR, the Russian Federation also depended on imported agricultural and food products from the other Soviet republics and member countries of the Council for Mutual Economic Assistance. As reforms began in the 1990s, the sector experienced a lengthy transformational shock caused by the sharp decline in the previously heavily

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subsidized demand for food products and by the flood of imports following the liberalization of foreign trade. Recovery growth began after the 1998 crisis. By the mid-2000s, the country had formulated an import substitution and food independence strategy, which has been successfully implemented. Moreover, Russia's domestic output of certain products is significantly higher, making it a prominent global exporter, e.g. for wheat and barley. Naturally, an emphasis on exports became the next national agricultural strategy. In 2019, the Russian President set a goal of achieving $45 billion in agricultural and food exports by 2024.[1] In this context, the main long-term task now is to increase exports and win sustainable competitive positions for agricultural products in the global space.[2] At the same time, the overall backwardness of Russian agriculture and the food industry in terms of innovative growth is becoming evident. Meanwhile, global 21st century markets are generally focused on innovative products, while bulk products are gradually losing their share (FAO, 2004; Senauer and Venturini, 2005). Without its own groundbreaking technological approaches, the country will struggle to compete with global players and global product chains (OECD, 2013). In its export policy, Russia could either integrate into global chains — requiring a dramatic improvement in the quality of its raw materials — or enter the fast-growing emerging markets.

In Russia's agricultural export development plans,[3] China is viewed as the most promising market. China is a potentially exciting recipient of Russia's agricultural and food supplies primarily due to its high market capacity. The country leads the world in terms of imports for certain agricultural products: around 60% for soybeans, 45% for powdered milk, and 20% for pork.[4] Another factor in China's attractiveness to Russia is that China, with its high share of rural population, is more interested in importing raw materials than products in advanced processing stages. Russia's opportunities to increase its exports to the Chinese market are also driven by its convenient geographical location relative to China.

However, Russia's entrance to the Chinese market faces a number of constraints. In addition to the standard difficulties associated with Russia's agricultural and food exports (export infrastructure constraints, expensive logistics, and import bans on certain Russian products), there are fundamental constraints on supplying to China in the long-term. Russia is entering the global food markets at a time of changing priorities in China's agricultural policy, social and economic difficulties in China domestic economy, and increasing geopolitical risks that cumulatively will affect China's role in the current trade. In this situation the conditions for Russia's entry into the Chinese market become more uncertain.

This paper formulates a long-term view on the prospects of, and risks associated with, introducing Russian agricultural products into the Chinese market which are still poorly regulated by government policy on export development. However, stably integrating agricultural and food exports into the global com-

[1] Presidential Executive Order No. 204 dated May 7, 2018 "On national goals and strategic objectives of the Russian Federation through to 2024."

[2] The national project "International cooperation and export."

[3] In accordance with projections of RF MoA on targets for agri-food exports.

[4] As per 2017.

munity requires a long-term development strategy structured around a clear understanding of potential areas of operations, global market demand for Russian products, and existing export barriers.

2. China's role in Russia's agricultural and food exports

The Chinese market has been the largest recipient of Russia's food exports in recent years, accounting for 10%, or $2.5 billion in 2018, according to Federal Customs Service (FCS) data. At the same time, Russian products have not yet become common in the Chinese market, accounting for only 2%[5] of total imported agricultural and food products.

The plan is to increase exports to that country more than threefold (to $7.7 billion) by 2024.[6] As a result, the share of China in the countries' structure of Russian agri-food exports will increase to 17%, and the volume of exports will be comparable to the volume of deliveries to the CIS countries. Taking into account that Russia's overall food exports are expected to increase by 1.8 times during the same period,[7] the plan to expand exports to China looks more than ambitious (Fig. 1).

Fish and seafood currently represent a significant share (around 60%) of Russian exports to China. The plans for 2024 call for increasing the shares of oil and fat products (to 35%), animal products (to 5%), cereals (to 8%), and beverages (to 2%) out of total supplies, while reducing the shares of fish and seafood (to 36%) and confectionery products (to 4%). In accordance with this, the exports to China will account for about a third of all Russian exports of vegetable oil and fat products. In addition, China is expected to significantly strengthen its role as a market for non-traditional Russian exports (pork, poultry, and dairy products) (Fig. 2).

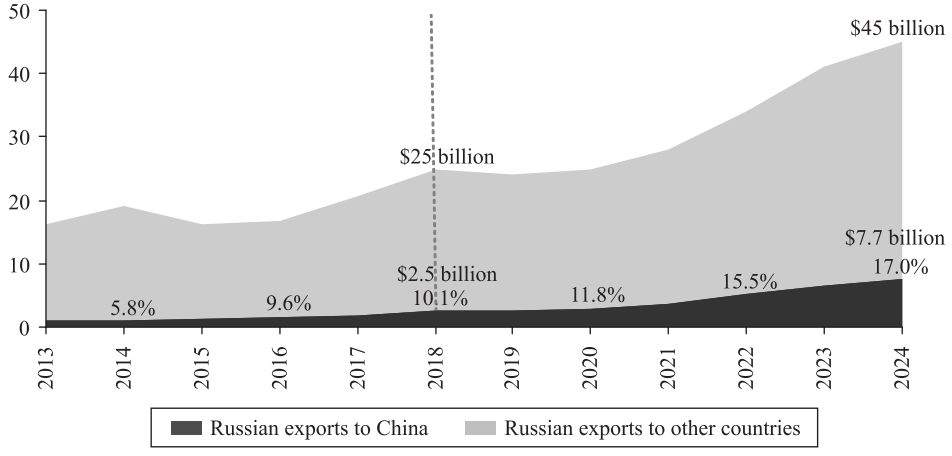

Fig. 1. Russian agri-food exports: share of China, 2013–2024 (billion U.S. dollars).

Source: 2013–2018: authors' calculations based on FCS data; 2019–2024: authors' calculations based on Russian Ministry of Agriculture data presented as per the national project "International cooperation and export."

[5] According to Comtrade data.

[6] In accordance with projections of RF MoA on targets for agri-food exports.

[7] Presidential Executive Order No. 204 dated May 7, 2018 "On national goals and strategic objectives of the Russian Federation through to 2024."

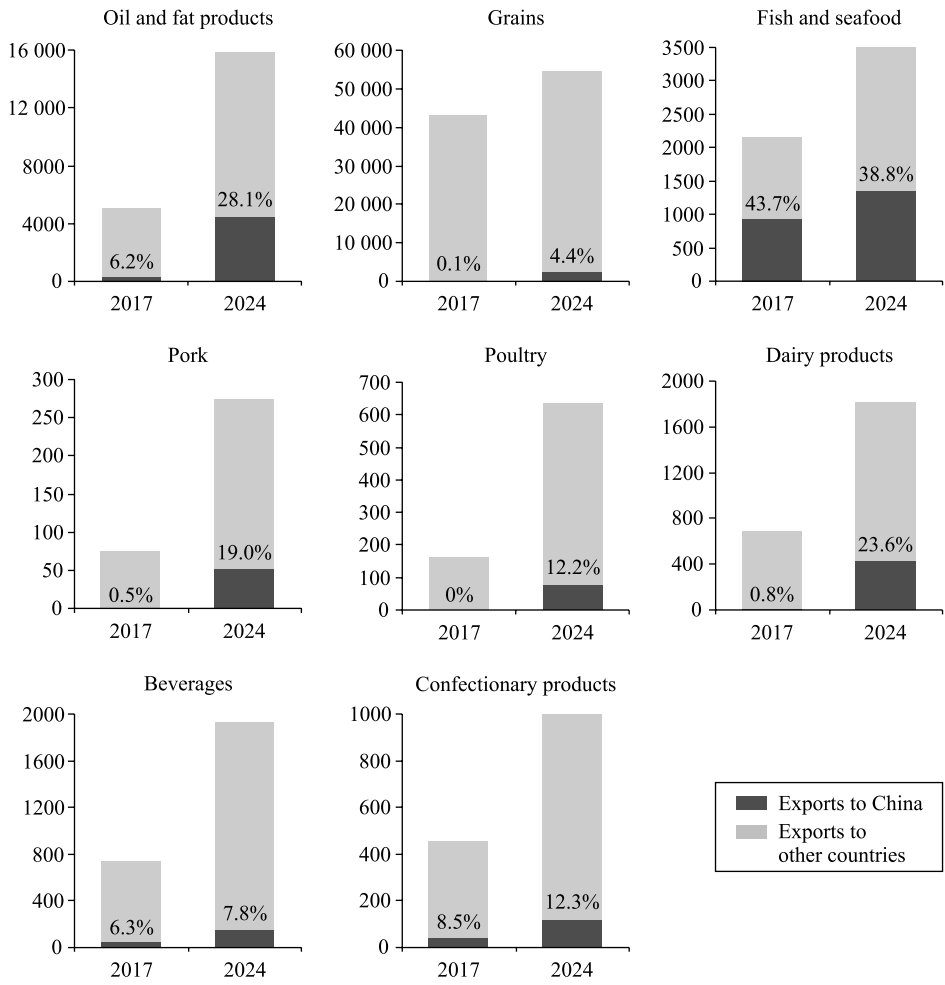

Fig. 2. Projected exports of Russian agri-food products (1000s of tons).

Source: Authors' calculations based on Russian Ministry of Agriculture data presented as per the national project "International cooperation and export."

3. Russia's comparative advantages for agricultural and food products in the Chinese market

The most common approach used by international trade theory to evaluate competitive performance is the method of measuring a country's comparative trade advantages[8] in a particular product using the Balassa index (RCAI — revealed comparative advantage index) (Balassa, 1965). By using this index, we measured Russia's comparative advantages in agricultural and food products, not only as

[8] According to the comparative advantage principle, countries specialize in the production of goods that they can make at a lower relative cost than other countries. The concept of revealed comparative advantage is based on the assumption that if a country has a comparative advantage in a given product, it will be reflected in its export specialization in that product. That is, comparative advantage is "manifested" in a country's composition of trade. However, the limitations of this concept should be taken into account, since existing barriers to free international trade prevent a country's comparative advantages from fully impacting its foreign trade composition.

part of global trade, but in individual target markets which are crucial for Russian agricultural product exports. In this case, the index formula is as follows:

$$BI_{i,j,t} = \frac{e_{i,j,t}/e_{j,t}}{E_{i,j,t}/E_{j,t}},$$

where: BI_i is the Balassa index for product i; $e_{i,j,t}$ is Russia's i exports to country j in year t; $e_{j,t}$ is Russia's total agricultural and food exports to country j in year t; $E_{i,j,t}$ is the global exports of product i to country j in year t; $E_{j,t}$ is the total global exports of agricultural and food products to country j in year t.

If the Balassa index exceeds one, the country has a comparative advantage in trading the specified product in the market of a particular country. If the index is between zero and one, the country has no comparative advantage in that product in the global market. We calculated the RCA index for all agricultural and food products exported by Russia, according to their 4-digit HS codes,[9] from group 1 to group 24.

In 2018, Russia exported only around 170 specific items in the agricultural and food product category, and only 35 of them had comparative advantages, i.e. their RCA index exceeded 1 (Fig. 3). Thus, the number of exported goods for which Russia has a comparative advantage in foreign markets is quite limited. These were mainly traditionally exported commodities (fish and seafood, grains), this complicates the task of integrating Russia into global food chains at the segments of higher value added. The situation varies substantially between countries.

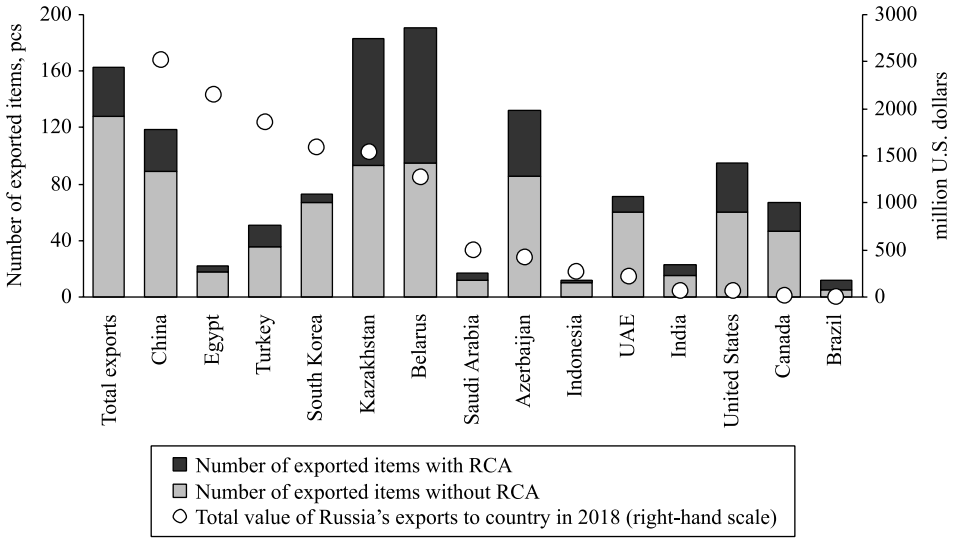

Fig. 3. Products with and without revealed comparative advantages (RCA) among Russia's agricultural and food exports to the world and to certain countries, 2018.

Note: The RCA index is calculated for products based on their 4-digit HS codes from group 1 to group 24. The countries are ranked based on their volume of Russian exports in 2018.
Source: Authors' calculations based on Comtrade data.

[9] The Harmonized System (HS) of tariff nomenclature is an internationally standardized system of names and numbers to classify traded products.

Among foreign countries serving as the main target markets for Russian agricultural products, China stands out due to a significant number of goods where the Russian Federation has succeeded in realizing its comparative advantages: 30 export items in the agricultural and food category in 2018 (see Fig. 3). These are mainly raw (fish and crustaceans, grain and oilseeds) and medium-sized crop products (wheat flour, vegetable oils), as well as a limited range of processed food products (chocolate, ice cream, beer). Only in the CIS countries Russia's comparative advantages remain more clearly manifested. However, opportunities to further increase exports in these areas are limited due to the high market saturation for certain product types. At the same time, Russia exports a relatively large volume of agricultural and food products to China where it has no comparative advantages in the market yet (89 items).

Despite the limited number of goods with RCA, they yield the largest share of agricultural trade, accounting for over 86% of Russia's exports to the global market, and 95% of supplies to China (Fig. 4).

Scientific literature on international economics cites a whole range of studies on the breakdown of exports in various countries into intensive and extensive components (Brenton and Newfarmer, 2007; Amurgo-Pacheco and Pierola, 2008; Easterly and Reshef, 2010; Besedes and Prusa, 2011; Gnidchenko, 2014). The authors view intensive development as increasing exports based on existing leading products with comparative advantages in foreign markets. Growing exports based on new goods, in which the country does not yet have a comparative advantage, is considered extensive development. All studies agree that export growth relies more on intensive margins.

Thus, the limited range of Russian agricultural products with comparative advantages in foreign markets hinders opportunities to expand into other countries. This problem affects all agricultural and food exports, but it may become especially acute with regard to China in view of the planned substantial increase in agricultural product exports to that country. Increasing the volume of new

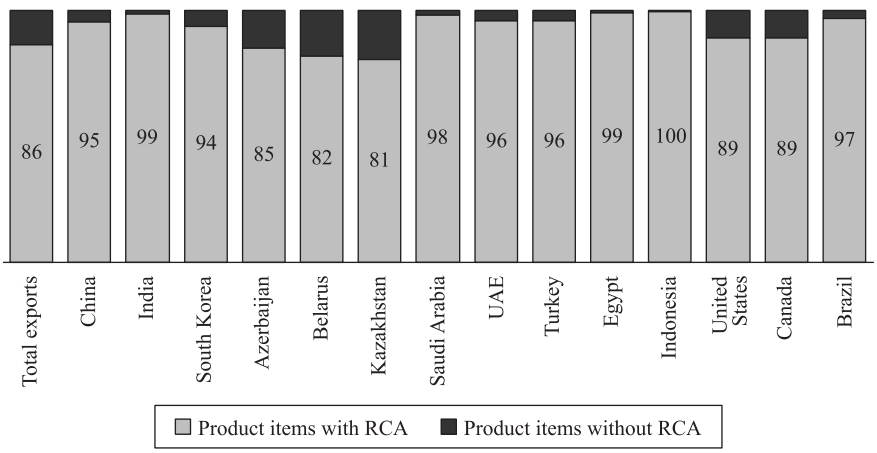

Fig. 4. Composition of overall Russian agri-food exports: contribution of goods with and without RCA, 2018 (%).

Note: The RCA index is calculated for products based on their 4-digit HS codes from group 1 to group 24. The countries are ranked based on their volume of Russian exports in 2018.

Source: Authors' calculations based on Comtrade data.

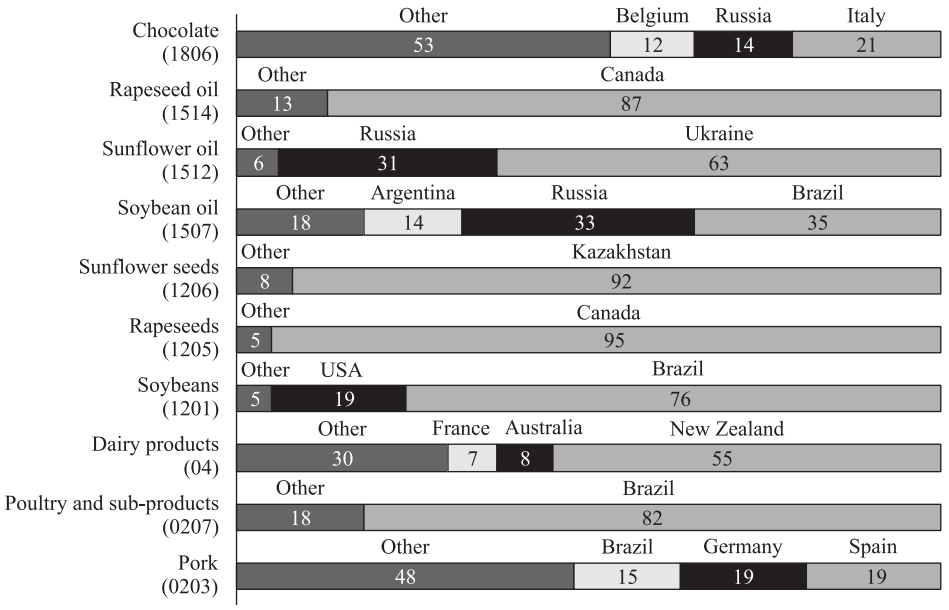

Fig. 5. Proportion of China's imports for supplier countries by product type, 2018 (%).

Note: The respective HS codes are given in parentheses.
Source: Authors' calculations based on Comtrade data.

export items (pork, poultry, dairy) will require time and investment to improve their competitive strength and to win a share of the Chinese market.

Another constraint on exports to China is the low diversification of import product suppliers, which is partly due to China's centralized foreign trade system. The presence of one or two major supplier countries occupying a significant market share makes penetrating Chinese markets more difficult, as it entails high costs for both entering a market and expanding its existing share. Oil and fat products are the primary segment for expanding exports to China. Russia already supplies a third of China's sunflower and soybean oil imports, but growth prospects may be hindered by the presence of major competitors in these markets (Ukraine in sunflower oil and Brazil in soybean oil) (Fig. 5). For a number of other goods (rapeseed oil, sunflower seeds, rapeseeds, soybeans, poultry, and dairy products), where Russia is not well-represented, the dominant position of major players is also evident.

4. China's participation in value chains

China has become a major global player in trade, both as a supplier of its own goods and as a target market for other countries. Its share of global goods trade increased from 1.9% in 2000 to 11.4% in 2017. Between 2015 and 2017, China was the second-largest source of foreign direct investment (FDI), and also the second-largest FDI recipient (McKinsey, 2019b).

However, the degree of China's integration into value chains varies from industry to industry. China has become an essential part of value chains in electronics, mechanical engineering, and electrical equipment. The country holds a considerable share of the global production and export of light industrial

products. The global extracting sector is strongly impacted by China, which has become a major target market for raw materials and intermediate goods.

In the global food market, China is a leading exporter, primarily of food products (Figs. 6 and 7). At the same time, the country relies on agricultural product supplies, having accounted for an average of 19% of global agricultural

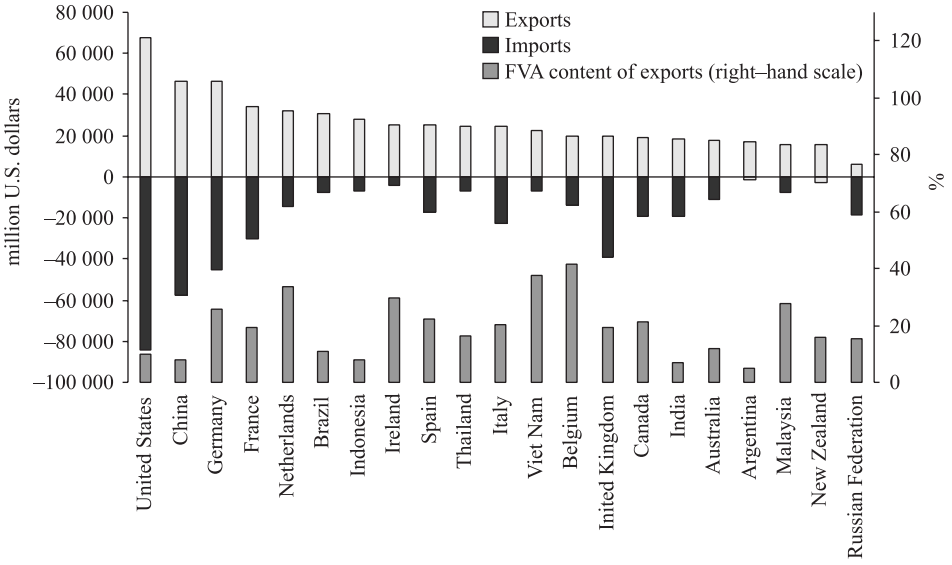

Fig. 6. Integration of countries into global food trade:
exports, imports, and share of foreign value added (FVA) to exports, 2015.

Note: Countries are ranked based on food export volumes.
Source: Authors' calculations based on OECD data.

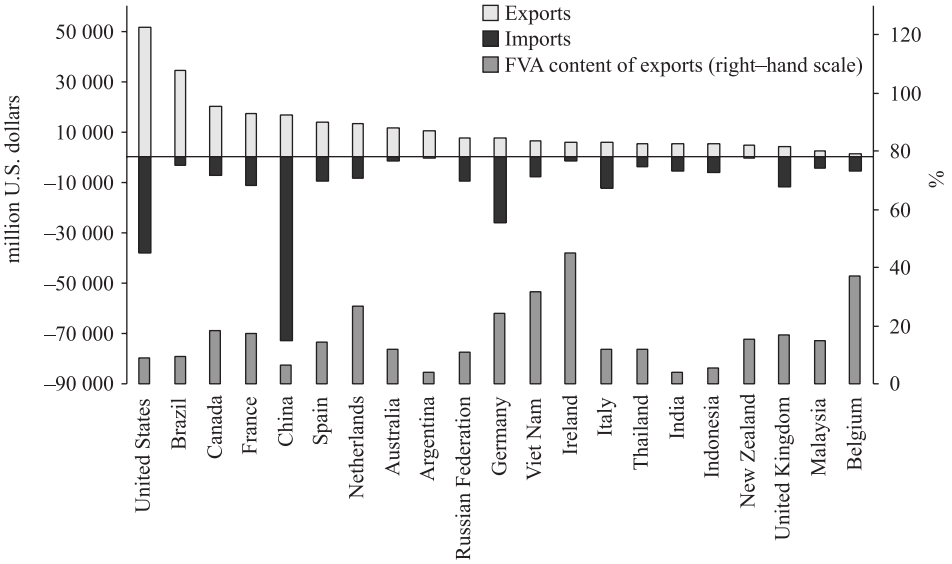

Fig. 7. Integration of countries into global agricultural trade:
exports, imports, and share of foreign value added (FVA) to exports, 2015.

Note: Countries are ranked based on agricultural export volume.
Source: Authors' calculations based on OECD data.

raw material imports between 2013 and 2017 (McKinsey, 2019b). However, the foreign value added to food exports is low compared with other countries (8% in 2015; see Fig. 6), as it mostly goes into producing goods for domestic consumption. In comparison, Germany, which is also a major global food exporter, actively uses imported raw and intermediate goods to manufacture its exports. This indicates that agricultural exports to the Chinese market are limited by the domestic demand within the country.

One of the main trends in global trade during the past decade has been the strengthening of the role played by global product chains. At the same time, China and certain developing countries have sought to create their own value chains in recent years, which has already resulted in reduced intensity of global trade (McKinsey, 2019a). These changes are shifting China's priorities and the dynamics of its international relations. China's refocusing on developing domestic value chains in the food sector may lead to lower volumes of Chinese imports in favor of domestic agricultural products, which would limit Russia's prospects in this market. This trend will be enhanced by achieving the country's main food security principle based on self-sufficient domestic grain production. China's 2019 official report on food security states that the country satisfies 95% of its domestic grain demand, while 75.4% of its imports consist of soy, with wheat and rice accounting for less than 6% (SCIO, 2019). Soybean consumption in the country is more than 80% met by imports (Fig. 8).

Having achieved self-sufficiency in grain, China will be reorienting itself to developing its own production in livestock and poultry and establishing internal supply chains to meet the needs of the population for meat and dairy products. Consumption and demand for grain per capita will tend to decrease with socio-economic development. This will allow part of the volume to be reallocated to animal farming needs as feed. According to USDA projections, in the next decade, with a low rate of increase in wheat production, its use for feed purposes will grow by 75% (Fig. 9). At the same time, with China's focus on developing its own livestock husbandry, the country surely will expand soybean production to ensure stable supplies and reduce dependence on feed imports (see Fig. 9). To this end, the Chinese government is increasing subsidies to soybean producers in the North-Eastern regions (in 2019, the volume of subsidies amounted to 17 billion

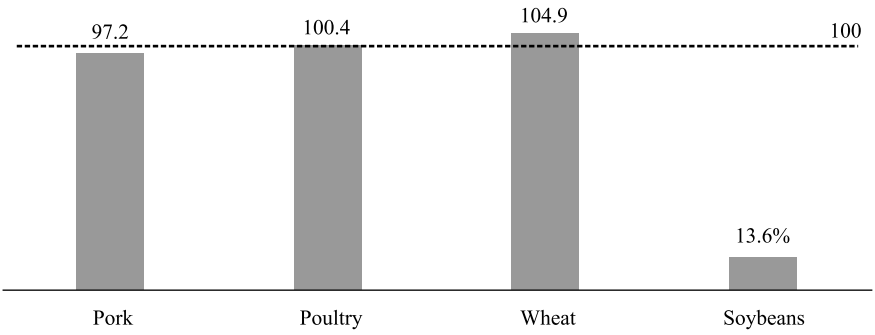

Fig. 8. China's self-sufficiency by products, 2018 (%).

Note: Self-sufficiency for individual products is defined as the percentage of domestic production of the corresponding products to their consumption on the territory of the country.
Source: Authors' calculations based on USDA data.

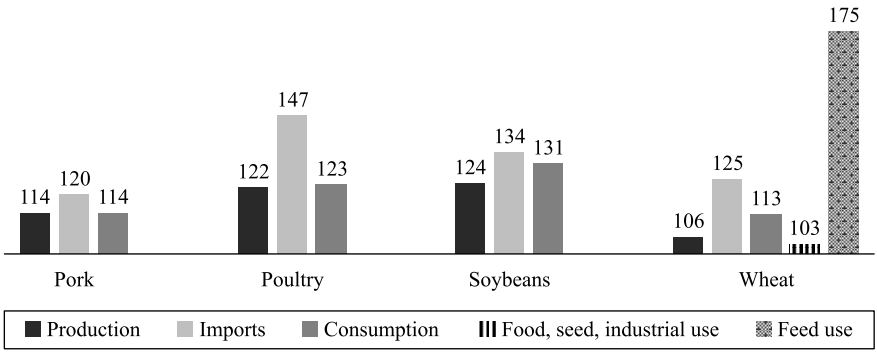

Fig. 9. Projections of changes in production, imports and consumption in China, 2028 to 2018 (%).
Source: Authors' calculations based on USDA ERS International Baseline Projections.

yuan). Against the backdrop of a trade war with the United States (in 2018, US soya supply to China accounted for about 20% of all imported soybeans), China is also diversifying sources of soybean imports through supplies from Brazil and Russia. However, the ability of Russia to increase exports of soybeans is limited, as under the ban of import on the Russian market of soybean meal from genetically modified soybeans, the domestic market depends on imports of raw and continues to buy soybeans abroad for livestock. In addition, Russian non-GMO soy is difficult to compete with products from Brazil.

Despite China being a major importer of meat (primarily pork) on the world market, the country has already achieved high self-sufficiency rates for this product (97.2% for pork and 100.4% for poultry meat as of 2018; see Fig. 8), and the main volumes of meat consumed are produced domestically. Thus, the potential for increasing meat imports to the country will be determined by the correlation between the dynamics of Chinese consumer demand for meat products and the increase in domestic production in the livestock sector.

Optimism about the potential of the Chinese food market for Russian exporters is associated with a sharp decline in pork production in China due to the recent ASF (African swine fever) crisis. With the reduction of its own livestock in China, production losses of pork in 2019 might have reached 25–35%. This led to a sharp increase in consumer prices for meat, which at the end of 2019 increased by almost 70% in annual terms (Fig. 10). Domestic pork supplies in China may reach a 27-year low in the first half of 2020 (McCracken et al., 2019).

Pork is the main source of animal protein in China. Due to ASF, the shortage of animal protein in the Chinese market exceeded 10 million tons in 2019, according to international experts. Partial coverage of this deficit will be provided by increasing the supply of imported pork in the next 2–3 years, including from countries previously limited in their export opportunities due to ASF. Since 2007, Russia has also faced ASF. Up to now, the Chinese side has not recognized the principle of regionalizing ASF in Russia, which is why the supply of Russian pork to China is prohibited as of the beginning of 2020. At the same time, Kazakhstan received the status of a country free of ASF in 2019. Due to significantly increased prices in China, large exporters (EU, Canada, Brazil) are ready to redirect their pork exports to China from other countries. In this regard, Russian comparative advantages in the Chinese market are not obvious.

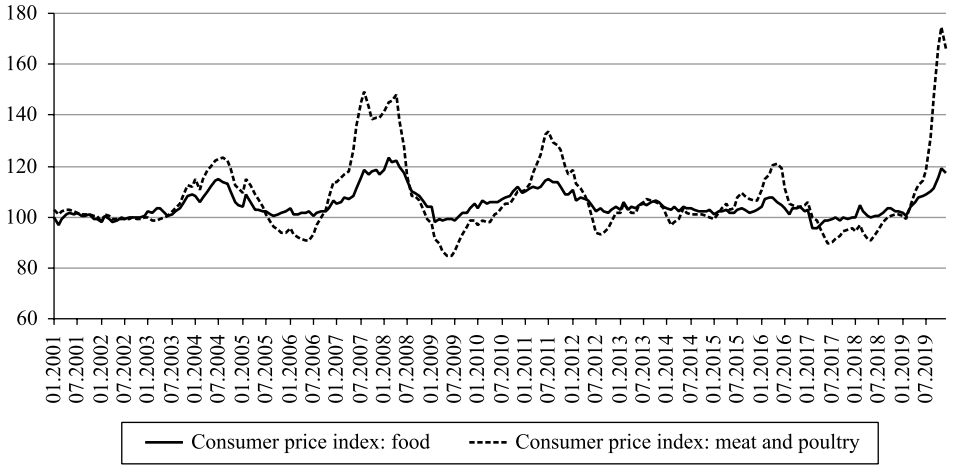

Fig. 10. Food consumer price index in China, 2001–2019 (y/y, %).

Source: National Bureau of Statistics of China.

In addition, against the background of ASF in China, structural changes in the consumption of animal protein are expected, which will have far-reaching consequences in terms of influencing changes in the country's diet, the structure of growing crops, and the import of feed and pork. Chinese pork consumption has already started to decline due to rising prices for this type of meat and concerns about food safety. World experts predict the redistribution of the country's consumption to other types of animal protein: poultry, eggs, seafood, beef and lamb (McCracken et al., 2019).

The increase in consumption and prices for other types of protein in China will serve as a signal to increase their production, and also opens up opportunities for additional imports (primarily poultry meat), including from Russia. In connection with the expansion of the range of Russian exports to China in 2019, the first deliveries of poultry meat were made. In the context of weak diversification of Chinese poultry imports, Russia has to compete with the world's largest exporter — Brazil, which accounts for about 80% of deliveries.

The ASF crisis and the redistribution of animal protein consumption suggest that the role of pork in China may have reached its peak. Structural changes in meat consumption in China began to manifest themselves in the early 2000s, when pork gradually lost its position with increasing incomes and shifting consumer preferences in favor of other types of meat. In the period from 1990 to 2018, the share of pork in the structure of meat production in the Chinese market fell from 80 to 63% (Fig. 11). This trend will continue to strengthen in the future.

The ASF problem will contribute to a rapid change in the structure of agriculture in China: large-scale production will replace small-scale individual farming. Due to sinking of many small pork farmers and corresponding governmental restrictions for small pork holders, China's pork industry will make a rapid transition to larger scale and industrialization. From the point of view of food security and secure supplies, downstream sector (pork packing plants, catering, and retailers) are beginning to cooperate with modern producers and slaughterhouses, which also contributes to the change in the supply chain and displacement of smallholders. The Rural Land Transfer Reform that began in China at the end of

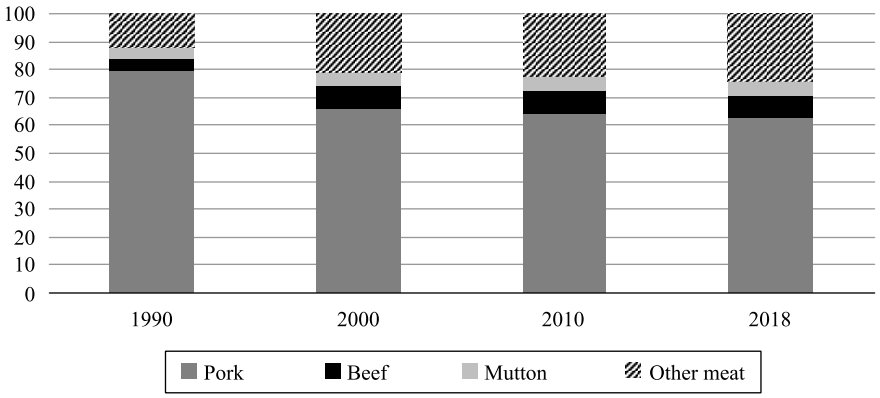

Fig. 11. Structure of meat production in China (%).

Source: Authors' calculations based on National Bureau of Statistics of China.

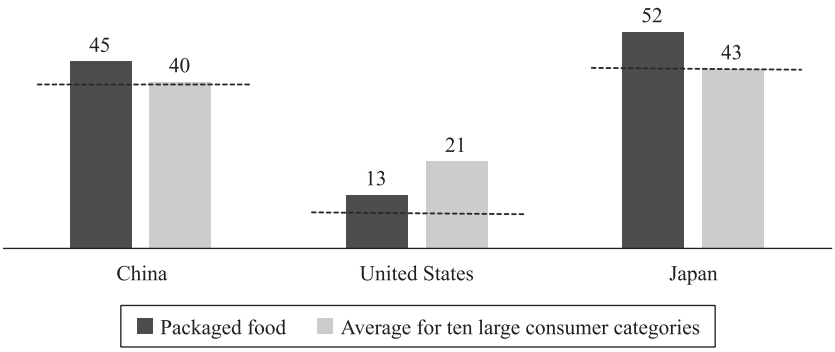

Fig. 12. Foreign multinational corporation market share of top 30 brands by category and market, 2017 (%).

Source: McKinsey (2019b).

2016, is also targeted at enlargement of holdings in agriculture (Li et al., 2018). These processes will contribute to the development of the agricultural sector in China and increase its competitiveness, gradually reducing the country's dependence on imported agricultural raw. This, in turn, limits the prospects of the Chinese market for Russia as a supplier of raw and products of lower value added. Under these conditions, one potential way to introduce Russian agricultural products to the Chinese market may be by integrating into existing global chains. Companies with foreign investments became the key driver in developing the Chinese food industry. The penetration rate of multinational corporations into China's consumer markets is almost twice that of U.S. markets. Penetration in packaged food products is even higher — at 45% (Fig. 12).

However, it should be noted that multinationals in China are beginning to face tough competition for domestic producers, reducing their future growth prospects. Coming into the Chinese market, multinational companies brought methods and tools for upgrading production and, through competitive pressure, incentivized rapid upgrades to products produced by domestic brands to better meet consumer preferences. In certain consumer goods categories, multinationals are already losing their share (McKinsey, 2019b). The more active role of Chinese brands

and the higher loyalty of households to their products have also been observed in the food products market (McKinsey, 2019d), although not all domestic food producers conform to security standards or can satisfy consumer demand in terms of quality and product range.

Another way to eliminate China's reliance on imports is through outward investments. A commonly known fact is the growing demand for dairy products in China. The country is actively investing in the dairy industry abroad for supplies of powdered milk, whey, cheese, and other dairy products (Gooch et al., 2017), which also limits Russia's prospects in these markets.

5. Specific consumer preferences in China

China is a leader in terms of the size of its retail food market. In 2018, it was valuated at $1,156 billion, which is 5 times as large as Russia's (KPMG, 2019). Consumer demand was the main driving force of economic growth in the country during the past decade. Current consumer spending in cities accounts for over 60% of China's GDP growth. At the same time, China's share of global consumer spending was 31% of the total growth in household consumption from 2010 to 2017 (McKinsey, 2019d).

The Chinese market has great capacity, but is also the most demanding market in the world (Maslov, 2018). Special consumer preferences force foreign suppliers to specifically tailor their products and production processes to the requirements of the Chinese market. Moreover, despite the country's favorable consumer demand dynamics, competition continues to heighten between suppliers. Under these conditions, servicing Chinese markets will probably require new competencies, and Russian companies will have to consider investing in value creation and in product promotion in order to gain a better competitive position against foreign companies. Additional adaptation and promotion expenses increase the pay-back period for business in China. The operational and regulatory complexities in China's markets related to imperfect laws and an unstable business culture, pose an additional barrier for international players.

A specific trait of the Chinese market is its high consumer segmentation, caused by inequalities between income and age groups and by the diversity of food preferences between provinces. Successful operations in China's markets will require a clear understanding of one's target consumer and the factors that drive their purchase decisions. A selective approach to each consumer segment is shaping various market entry strategies, including promotion and sales channels (brick and mortar stores, e-commerce, social networks) and is forcing producers operating in the Chinese market to formulate differentiated pricing policies across the entire product line.

China is an e-commerce leader, which poses certain requirements on product promotion channels in the Chinese market. In 2019, online retail sales reached $1.5 trillion, which is equivalent to one-fourth of total retail sales, and is larger than the next ten largest e-commerce markets combined (Table 1). The advanced state of e-commerce development in the Chinese consumer market has led to high customer service standards based on an individualized approach to the consumer, tailored to their preferences. Food producers operating in Russia, where e-commerce is not as well-developed as in China, have insufficient experience

Table 1
Online retail market by countries.

Country	Online retail transaction value in 2019, billion U.S. dollars	2017–2019 CAGR, %	% of total retail value in U.S. dollars
China	1500	24	25
USA	600	15	11
United Kingdom	135	14	22
Japan	115	5	9
S. Korea	90	22	22
Germany	80	9	9
France	65	15	10
Canada	55	26	11
India	40	36	3
Brazil	30	13	4
Russia	30	24	5
Indonesia	15	36	4
Argentina	7	21	3

Note: Online B2C and C2C market; forecast for year-end 2019; CAGR — compound annual growth rate.
Source: McKinsey (2019c).

in promoting products via online platforms. Promoting sales through social networks is a relatively new tool for Russian companies which have gained greater influence over the choice of food products in China's markets (KPMG, 2019).

Growing household incomes against the backdrop of an unfavorable environmental and aggravated epizootic situation within the country is shaping special consumer product quality requirements and an increasing demand for organic and fresh products. The close attention paid by Chinese consumers to the quality of food products goes beyond the mere safety of food products. 60% of consumers in large cities are choosing healthier foods, taking into account the composition of the product during purchase (McKinsey, 2019d). Among other product quality factors, Chinese consumers value a product's freshness, an absence of GMO, taste, organic certificates, and the packaging condition. However, the notion of a healthy lifestyle in cities varies across different standards of living. Accordingly, Russian companies entering Chinese markets should clearly understand the target consumer segment for their products and the key purchase factors which determine their choice. It should also be noted that negative attitudes towards products containing GMOs present certain advantages for Russian products, as GMOs are forbidden in Russia.

Due to specific consumer product safety requirements, demand is rising for branded products that have won consumer trust. High loyalty towards certain brands substantially increases market promotion costs for new players. Moreover, widespread counterfeiting in China, resulting from poor legislation on intellectual property and trademark protection, presents risks for popular foreign brands entering the Chinese market.

A new trend is the growing attractiveness of high-quality Chinese brands (McKinsey, 2019d), which opens up opportunities for local producers to promote their goods while hindering market entry for new foreign companies. In recent years, under the influence of major western brands present in China, which brought the best global practices for creating high-quality products, Chinese producers have improved the quality and authenticity of their products while maintaining their cultural traditions. As a result, conditions in the consumer

market have begun to change dramatically. In certain product categories (including dairy and fresh products), consumers have begun to prefer local brands over foreign ones. At the same time, Chinese households are still highly loyal to major multinational brands, which have been in the market for a long time and have earned consumer trust. Thus, integrating Russian producers into existing global chains may be a successful strategy.

6. The impact of macroeconomic and geopolitical factors

Russia's entrance into global food markets coincides with a period of growing impact by macroeconomic and geopolitical factors, which is changing existing product flows while trade terms are becoming increasingly more uncertain. These risks are long-term in nature, and they must be taken into account in the export strategy. In view of the plans to considerably increase the supply of Russian products to China, the main uncertainty for Russia is connected with the slowing-down of the Chinese economy and the trade conflict between China and the United States.

Due to the ongoing Chinese–American trade war, there are certain niches open in the Chinese domestic market which could be occupied by Russian producers. However, after the trade conflict is settled between the world's two largest economies, Russian suppliers may easily be squeezed out, even due to political rather than economic causes. An example is the treaty on the first phase of a trade deal signed by the U.S. and China in early 2020, according to which China undertakes to double its purchases of agricultural products in 2021 compared with 2017.

The tension in trade between China and the United States has already impaired the yuan (Fig. 13). The falling yuan rate will push down the country's demand for imported goods and support exports, which have a high imported value added. Under these conditions, China will attempt to develop its own agricultural raw material production and create domestic supply chains (SCIO, 2019).

The disappearance of the structural basis for China's economic growth is connected with the demographic situation, which will hold back consumption growth within the country (Roberts and Mehlman, 2018) and the development of new

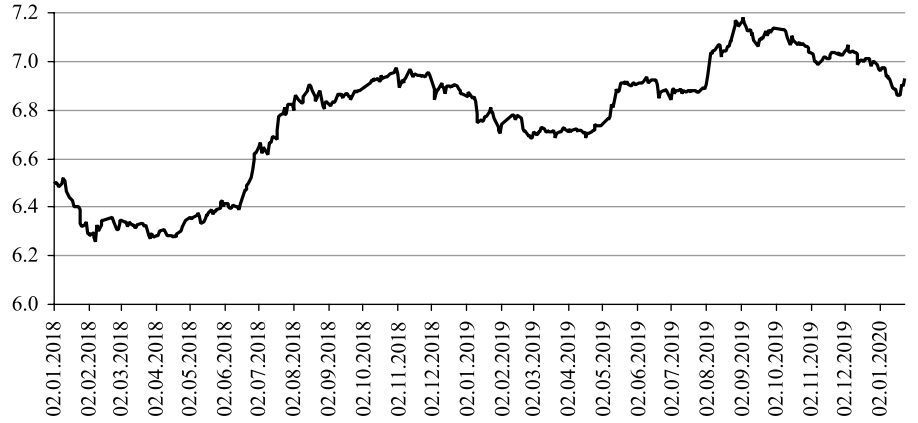

Fig. 13. Renminbi exchange rates (per U.S. dollar).

Source: CEIC.

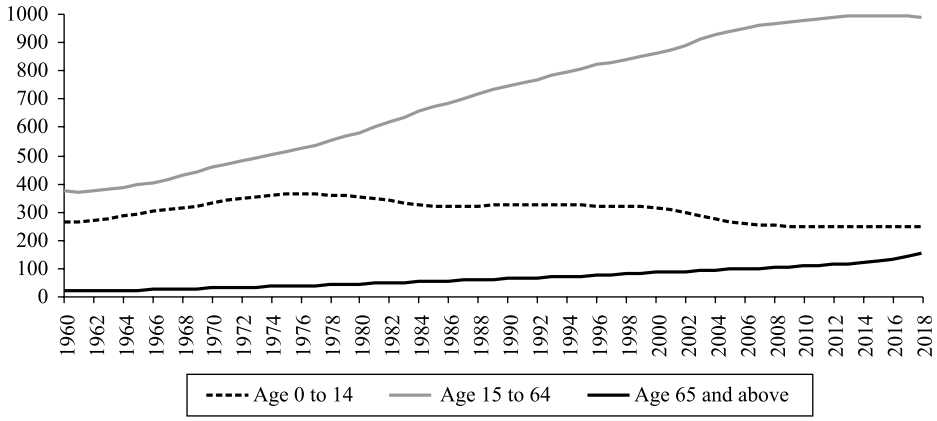

Fig. 14. China's population by age (million).

Source: World Bank.

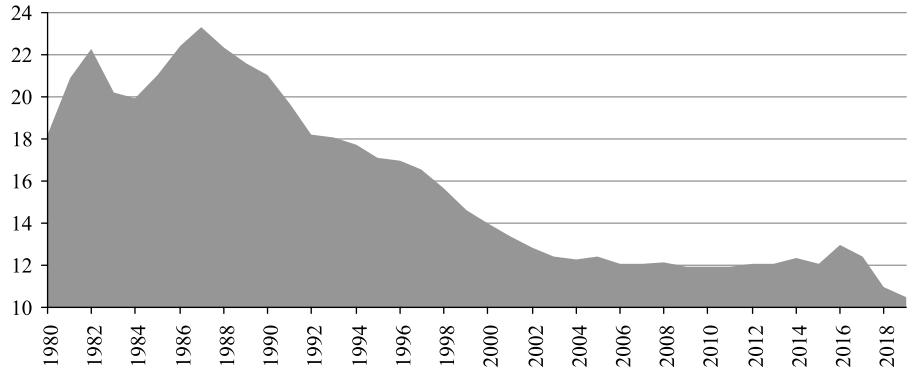

Fig. 15. Birth rate in China (per 1000).

Source: National Bureau of Statistics of China.

consumer trends (increased demand for meat, promoting a healthy lifestyle). In recent years, there has been a decline in the size of China's working-age population, which has continued to grow over the past 50 years (Fig. 14). International experts predict that this trend will continue during the upcoming 10 years (Capital Economics, 2019). The Chinese population is aging faster due to a lower-than-expected birthrate. Contrary to the Chinese government's expectations, no baby boom occurred after rescinding the one-child policy (Fig. 15). In 2018, more than 2 million fewer people were born in the country than in the previous year. This is the lowest figure since 1961 (Capital Economics, 2019). Analysts predict that the total population will begin declining by 2030 (WSJ, 2019).

These demographic processes will slow down urbanization, which has been the main driver of rising consumer demand in China during the past few years. Consumption increased mostly in cities, while the rural population remained relatively poor. By 2019, urban citizens made up 60% of the country's total population.[10] Urbanization is a factor in the rising demand for finished products

[10] According to National Bureau of Statistics of China.

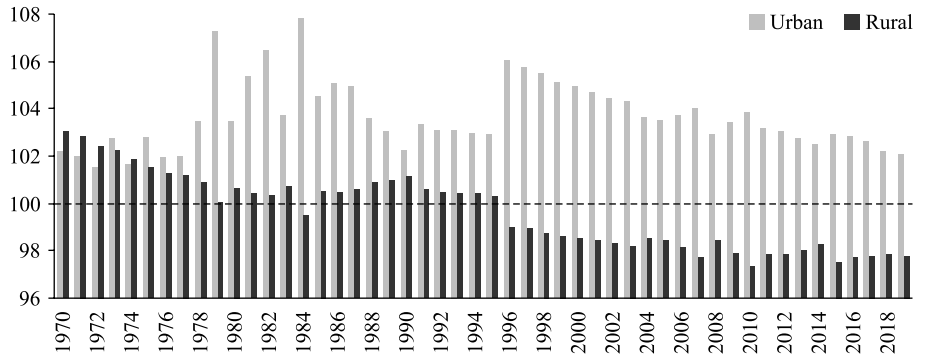

Fig. 16. Growth rate of urban and rural population in China (%).

Source: Authors' calculations based on National Bureau of Statistics of China.

and high-value-added foods. However, in 2019, the urban population growth rate in China was the lowest since 1996 (102.0%), and the rural population has almost ceased to decline (Fig. 16).

The demographic aging of the population will lead to serious structural changes during the next decade. The number of senior citizens distinguished by consumption based on the optimal price-to-quality ratio will increase, along with their economic impact on consumer behavior. The consumer behavior model has already begun to change in China. According to a study by McKinsey,[11] a segment of consumers is emerging in large cities who, in response to China's falling economic growth rates and increasing costs of living in cities, are beginning to adjust their purchase spending (McKinsey, 2019d). The proportion of Chinese consumers striving to be selective and lean in their spending, even if they consider themselves "rich," increased to 60% in 2018, from 52% a year ago. At the same time, a population group has emerged among them which represents a new consumer behavior model. In 2017 and 2018, they reduced their expenditures for almost all categories of food and non-food products, especially those which are the most price-sensitive (energy and soda drinks, bottled water, wine, yoghurts, juices, and chocolate). Representing 10% of all respondents, this population group considers low prices and cost reduction to be more important than quality and brand appeal. The population group driving consumer demand in China is rather small (around one-fourth of respondents), but it accounted for 60% of total consumption spending growth in 2017 and 2018.

Prospects for further consumption growth in China may be affected by a saturation factor. The composition of spending by urban Chinese citizens has significantly changed since 2000, with the share of food spending decreasing from 50% to 25% in 2017 (McKinsey, 2019b). This corresponds to consumer spending patterns in other developed Asian countries: Japan, South Korea, and the United States. At the same time, food production per capita in China exceeds the global average at around 470 kg per person per year, which is 14% higher than in 1996 (SCIO, 2019). Given the already high level of per capita consumption, it is not obvious that the capacity of the Chinese food market will continue to grow. Most likely,

[11] A consumer behavior study was carried out in China in May and June 2019 in the form of a survey covering 5,400 respondents in 44 cities.

consumption growth will occur due to certain categories of goods, primarily those with higher value added, leading to structural changes in national diets.

The spread of the coronavirus COVID-19 has made China's economic growth prospects even more uncertain. According to international experts (Capital Economics, 2020), a negative scenario is likely according to which a sharp decline in economic growth because of the virus in the first quarter of 2020 will not be offset by growth in the rest of the year. Restrictive measures such as quarantining and shutting down companies in certain Chinese provinces can cut solvent demand. And it is not clear how lasting these consequences will be.

7. Conclusions

Russia has a fairly limited list of exported agri-food products that have comparative advantages in the Chinese market. These are mainly raw (fish and crustaceans, grain and oilseeds) and intermediate products of some crop processing (wheat flour, vegetable oils), as well as a limited range of finished food products (chocolate, ice cream, beer). The planned increase in the volume of export of new commodities (pork, poultry, dairy products) will be extensive, since it will require time and investment to increase their competitiveness and gain market share in China.

China is the largest importer of agricultural raw, which, given the specialization of Russian exports, is a factor in the attractiveness of this market for Russia. At the same time, there are risks and uncertainties on the long-term horizon that limit the prospects of the Chinese market for Russian exporters, which must be taken into account when strategically planning exports to this country.

First, despite the fact that China imports large volumes of agricultural goods, the country has already reached or approached the level of self-sufficiency in the main types of products (wheat, pork, poultry). In these conditions, the potential for increasing exports to China will be determined by the ratio of the dynamics of Chinese consumer demand and the increase in the volume of domestic agricultural production. Certain adjustments to the structure of animal protein consumption will be made by the ASF crisis in the country — Chinese pork consumption will be reduced in favor of increasing demand for other types of animal protein.

Second, China is poorly integrated into global food chains in terms of foreign value-added exports, since imported raw or intermediate products are mainly used to produce food products for domestic consumption. This suggests that the export of agricultural products to the Chinese market is limited by the scale of the country's domestic demand. In turn, the country's consumption growth and demand for imported goods will be constrained by demographic factors (a decrease in the birth rate and the number of working-age population) and the weakening of the Chinese national currency.

Third, having achieved stable self-sufficiency in grain, China has taken a new course to develop its own livestock production and build internal supply chains in the food sector to meet the growing domestic demand. In the long term, this will affect the decline in Chinese imports of agricultural products in favor of national production, which also limits the prospects of this market for Russia.

In these conditions, one of the ways to introduce Russian agricultural products to the Chinese market may be to join existing global chains. Multinational com-

panies have already achieved a high level of penetration into Chinese markets. The geographical proximity of Russian raw materials and high product quality may become a competitive advantage for integrating into those chains.

Entering the Chinese market with finished products intended for final consumption will require clear positioning in terms of individual consumer groups (ethnic, social, regional), promotion and sales channels. In this context, the already formulated concept of a "green brand" focused on affluent consumers concerned with the world's sustainable development will be useful. It is also necessary to research and develop an export strategy for China with respect to organic products, which are in demand by the fast-growing middle class in that country, and for e-commerce products which make up a huge share of the Chinese market, including the food segment.

The geopolitical risks that have recently increased create high uncertainty in building trade relations with China. Against the background of the Sino–American trade war that is currently taking place, China has opened separate niches in the domestic market, which can also be occupied by Russian manufacturers. However, after the settlement of the trade conflict between the two largest economies in the world, Russian suppliers can be easily ousted, not even for economic reasons, but for political ones.

Thus, the strategy for developing Russian exports of agricultural products to China should have a long-term view of the prospects of this market for Russia, taking into account all possible risks and uncertainties.

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