Niches in the market potential of poultry meat

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Abstract. Poultry meat production has shown growth over the past 10 years. Russia is ranked 4th in the world for this indicator. The study was conducted using general scientific and statistical-economic research methods. The results of the study of the market potential of poultry meat indicate the existence of opportunities to expand this target segment. Broiler meat has been established to have a significant share in the structure of poultry meat balance and that meat from alternative poultry species is a niche. There are unfilled niches in the assortment portfolio as well. The market potential of poultry meat was also analysed by region, based on the criterion of the level of self-sufficiency in this type of product. A decrease in imports and an increase in exports can be observed in relation to export-import operations. At the same time, it is necessary to continue increasing the export potential both through permanent importers of poultry meat and processed poultry products and through its geographical expansion. Thus, the results of poultry meat market potential analysis have identified relevant niches, namely increasing the volume of meat production from alternative species of agricultural poultry, increasing the self-sufficiency of poultry meat in some regions of the country, ensuring per capita poultry meat consumption based on global trends, diversification of the product portfolio based on deep poultry meat processing, increase in functional and organic poultry meat products, increasing the volume of poultry meat export. Based on these results, a scheme for expanding the market potential of poultry meat is proposed and its forecast for 2030 is given. Key words: Poultry, poultry meat, market potential, imports, exports, self-sufficiency, food security, market potential forecast, scheme for expanding target market segments.

1 Introduction

The growth of the Russian poultry industry is largely attributed to the search for ways to develop the market potential of poultry meat. It is becoming increasingly difficult to provide the world’s population with food and, above all, animal products, which include poultry meat. The share of this type of product in total animal protein production in Russia in 2022 was greater than 27%.

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However, the positive dynamics of poultry meat production is achieved mainly through broiler meat. The share of production from alternative poultry species is insignificant in the overall structure of the respective meat balance. At the same time, these products are competitive for the segment of consumers who prefer a healthy diet, as they are more attractive in terms of taste, chemical composition, and nutritional value.

The increase in domestic production of animal protein, namely poultry meat, leads to an increase in its per capita consumption. Poultry meat accounts for more than 43% or 34.1 kg per year in the structure of meat consumption. The amount of animal protein consumed varies from country to country. This is due not only to religion, but also to national characteristics. Poultry meat is a universal animal protein.

Russia ranks 4th by this indicator, but compared with global trends Russia has a market niche, especially in meat consumption from alternative types of poultry.

Increased production and consumption of poultry meat has increased the level of self-sufficiency in this product. Between 2019 and 2022, this indicator exceeded 100%. If we look at the self-sufficiency rate by region, its level varies significantly. Consequently, there are also market niches in this target segment.

The oversaturation of the poultry market shows the potential for redistribution in both domestic and foreign markets.

Thus, according to the set of arguments in justification of relevance of the considered issue will build the logic and sequence of scientific research.

The purpose of the study is to examine the current state of the poultry market, taking into account trends in the domestic and foreign markets and to systematise the main areas to fill niches in the market potential of this target segment.

2 Methods

A set of general scientific and statistical-economic research methods were used to identify niches in the market potential of poultry meat.

3 Results

The poultry meat market potential study was conducted to analyse the main development trends in the global and Russian poultry meat markets and to assess possible niches in this product segment. Domestic poultry meat producers are increasing their volumes every year.

According to a number of industry experts and academics, the poultry meat market is oversaturated and exports will be the main source of growth. In our opinion, classifying the poultry meat market as oversaturated is not entirely fair, as it should be considered from the perspective of its market potential, which undoubtedly has niches in both domestic and foreign markets [4].

This market is one of the largest segments of the food market in terms of capacity. Realising the market potential of poultry meat is about balancing supply and demand, taking into account the domestic and foreign markets.

Among the trends related to poultry meat supply, there is an increase in the poultry population (Figure 1).
In general, there is a positive trend in the number of poultry, more than 60% of which are meat poultry. In some years of the study period, a decrease in the number of poultry is traced, which is due, on the one hand, to economic sanctions imposed by the EU and the USA against Russia and, on the other hand, to a pandemic of highly pathogenic avian influenza.

The trends vary by categories of farms. Thus, there is an increase in the number of agricultural organizations and a slight increase in the number of peasant farms (agricultural associations) against the background of a decline in the number of population farms (Figure 2).

During the period under study, the increase in poultry stock predetermined the growth of its supply in the form of poultry meat production (Figure 3).

On farms of all categories, poultry meat production in 2021 amounted to 5077.5 thousand tonnes. Compared to 2014, its volume increased by almost 21%. At the same time, the increase in poultry meat production in agricultural organisations corresponds to 23%, and in private farms and household farms these changes correspond to +30% and -2.3%.
In 2022, the volume of poultry meat production was 5.2 million tonnes in slaughter weight [3]. Thus, there is a continuing upward trend in poultry meat production. However, broiler meat has a significant share in the structure of the meat balance for the period from 2014 to 2021 (Table 1).

The data presented in Table 1 shows that there are niches in the market potential for meat from turkey, waterfowl, guinea fowl and quail.

A significant share of the total poultry meat production is formed by the leading companies (Figure 4) [6].

The supply of these producers in the total production of the respective products is about 70%.

It is worth noting the positive growth rate of turkey meat in 2021. This amounted to 21.3%, or 70.3 thousand tonnes in volume terms.
Total turkey production by the end of 2022 could reach 420,000 tonnes, and the export potential of this poultry species is 50,000 tonnes per year worth more than US 100 million. Over the past 5 years, turkey production in Russia has increased by an average of 20% per year in meat production.

Agricultural duck meat production in 2021 was 36.8 thousand tonnes live weight (171% compared with 2020). The industrial duck production sector has made a huge leap in the last 10 years. In 2009, 99% of the duck meat produced in the country was raised by HHF. Already in 2016, the share of duck meat produced by farms increased to 33%. The nationwide production of duck meat from farms is planned to double by 2024 and could reach 65,000 tonnes. Including PFE and HHF, this figure will increase significantly. The PFE and HHF sectors remain in demand by consumers of this type of product. This is due to the fact that small farms are easier to keep track of changes in buyer demands as they communicate with them almost directly.

As poultry meat has reached the level of the Food Security Doctrine target for the country as a whole, the analyzed information field has been expanded in terms of the adequacy of this result in the regional aspect of Russia (Figure 5).

As can be seen from the data presented in Figure 5, 33 constituent entities of the Russian Federation have a self-sufficiency level of up to 50%. Per capita consumption was 8.6 kg.

There are also regions where self-sufficiency ranges from 50% to 100%. There are 21 such regions in Russia. Their per capita consumption is 23.8 kg.

25 subjects of the Russian Federation are leaders in poultry production with a level of self-sufficiency of over 100%. The population of these subjects consumes 93.1 kg of poultry meat per capita.

The effectiveness of the organisation scheme in poultry meat production is characterised by the indicator of the territorial density of meat production (tons) per 1 km² area of the territory.

The range of this criterion is wide. So, if the central Federal District produces more than 4 tons of poultry for slaughter in live weight per 1 km², then the far eastern Federal District only 0.007 tons per 1 km².
These differences are related primarily to the size of the territory, the size of the population, the development of transport and logistics systems in the Far East, and the level of automation of technological production.

Thus, there are significant reserves in increasing the market potential of poultry meat by increasing the level of self-sufficiency in some regions.

Despite significant differences in the population of the regions in terms of this indicator, the actual value in the Russian Federation was 34.1 kg per person per year, which is higher than the recommended value of 3.1 kg.

The leading countries in per capita consumption of poultry meat have the following values: UAE - 100 kg/person/year, Israel - 59 kg/person/year, USA - 48.9 kg/person/year, Australia - 44 kg/person/year. Russia, relative to the leading countries, has reserves to fill the corresponding niches [2].

![Fig. 5. Availability of RF constituent entities' own poultry meat in 2022.](image)

An analysis of the supply of producers by product range for poultry meat and poultry products was also examined, as illustrated in Figure 6.

![Fig. 6. Assortment of poultry meat in 2021.](image)

Its structure depends on the affordability of each product range, the affordability of the population, taste preferences and other factors.

A promising niche in the market potential of this target segment is poultry processing.

Based on the Herfindahl-Hirschman market index, the level of monopolisation of the product market under study is determined (Table 2).
In the commodity markets for poultry by-products: carcasses, broiler chickens and their cuts, the concentration level of the six largest sellers in Russia was about 50%. In the ready-to-cook and sausage poultry segment, these sellers have a monopoly share of 45%. In the processed chicken and broiler meat market, there is a low level of concentration.

For high margin products (semi-finished products, sausages) the Herfindahl-Hirschman index values are decreasing, which indicates high competition for this assortment position.

### Table 2. Commodity market for poultry meat.

<table>
<thead>
<tr>
<th>Market entity</th>
<th>Broiler carcasses</th>
<th>Partitioning</th>
<th>Subproducts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherkizovo Group</td>
<td>14.98</td>
<td>15.3</td>
<td>7.52</td>
</tr>
<tr>
<td>GAP Resurs</td>
<td>12.33</td>
<td>12.59</td>
<td>6.44</td>
</tr>
<tr>
<td>AO Prioskolye</td>
<td>7.51</td>
<td>8.52</td>
<td>7.98</td>
</tr>
<tr>
<td>JSC N.I. Tkachev Agrocomplex company</td>
<td>5.97</td>
<td>6.59</td>
<td>5.98</td>
</tr>
<tr>
<td>OOO Belganskorm</td>
<td>3.08</td>
<td>4.29</td>
<td>3.72</td>
</tr>
<tr>
<td>AO Severnaya Poultry Farm</td>
<td>5.2</td>
<td>5.09</td>
<td>3.94</td>
</tr>
<tr>
<td>Other entities</td>
<td>50.93</td>
<td>47.62</td>
<td>64.42</td>
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<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
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</table>

### Table 2. continued

<table>
<thead>
<tr>
<th>Market entity</th>
<th>Broiler carcasses</th>
<th>Partitioning</th>
<th>Subproducts</th>
<th>Ready-made products, sausage products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherkizovo Group</td>
<td>224.6</td>
<td>234.0</td>
<td>56.6</td>
<td>60.82</td>
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<tr>
<td>GAP Resource</td>
<td>151.9</td>
<td>158.5</td>
<td>41.45</td>
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<tr>
<td>AO Prioskolye</td>
<td>56.45</td>
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<td>43.48</td>
<td>35.73</td>
<td>40.99</td>
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<tr>
<td>OOO Belganskorm</td>
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<td>18.36</td>
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<tr>
<td>AO Severnaya Poultry Farm</td>
<td>26.99</td>
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<td>23.16</td>
</tr>
<tr>
<td>Other entities</td>
<td>2594.</td>
<td>2267.</td>
<td>4150.</td>
<td>3509.</td>
</tr>
<tr>
<td>Total</td>
<td>3099.</td>
<td>2820.</td>
<td>4376.</td>
<td>3794.</td>
</tr>
</tbody>
</table>

In parallel, the production of functional and organic poultry meat from all types of poultry requires development.

The driver of niche filling in the market potential of poultry meat and poultry products is an increase in export potential (Figure 7).
Fig. 7. Dynamics of import and export volumes in the poultry meat market.

Russia exported 320,000 tonnes of poultry meat in 2022, accounting for more than 63% of total meat shipments. Shipments of this category of meat products increased by 25% compared to 2021. China remains the main poultry meat importer (Figure 8).

Fig. 8. Share in total exports from the Russian Federation in 2021.

Russia also supplies poultry meat to the EAEU countries, among which Kazakhstan is the main importer, with a share of 11.9% in total exports. [5]

In this context, there is a need to increase the volume of poultry meat exports, both at the expense of permanent importers of this product and its geographical expansion [1].

Promising destinations include EAEC countries, Vietnam, Mongolia, UAE, Congo and Benin.

Global poultry meat exports since 2018 exceed 16 million tonnes per year. The leading exporters are Brazil (4.25 million tonnes), the US (3.83 million tonnes), Poland (1.46 million tonnes) and the Netherlands (1.32 million tonnes). At the same time, the Russian Federation
ranked 11th in poultry meat exports in 2021 with a share of 1.9% in the global export volume, indicating the presence of niches in the market potential of this target segment (Figure 9) [8].

Exports vary significantly from country to country in terms of product mix. In China, the most demand is for the elbow part of the wing and the leg, while Saudi Arabia exports mainly breast, ham, thigh and broiler fillet.

The development of poultry meat export potential is supported by the government through the adoption of a programme [7].

Based on the aggregate results of the analytical study, directions for expanding the market potential of poultry meat are identified and its forecast for 2030 is given (Figure 10) [9].

The proposed scheme for expanding the market potential of poultry meat will ensure the food security of Russia and the poultry sub-industry as a whole.

However, an obstacle to the implementation of proposals to expand the market potential of poultry meat and achieve its projected values in terms of assortment items is import dependence on breeding, technical and technological and other resources. This problem can be solved through the use of state support mechanisms for poultry meat producers.
4 Conclusions

The systematisation of the results of the poultry meat market analysis study has enabled the identification of niches in this target segment. These include:
- meat from alternative agricultural poultry species;
- low self-sufficiency in poultry meat in certain regions of the country;
- ensuring growth in per capita poultry meat consumption based on global trends;

Fig. 10. Forecast of expansion of target poultry meat markets for the year 2030.
- diversification of the product portfolio based on deep processing of poultry meat;
- increasing the volume of functional and organic poultry products;
- increasing exports of poultry meat and poultry products.

Thus, the identified niches in the market potential of poultry meat will contribute to its expansion.

References

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