External economic activity of the leading sectors of the marine economy of the Pacific Russia: current trends of the cross-border cooperation

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Abstract. Pacific Russia is a region with a unique natural resource and economic potential, where effective socio-economic development is possible due to its favourable economic and geographical location and cross-border cooperation in the Asia-Pacific region. An important role in the development of foreign economic cooperation belongs to the sectors of the marine industry. At the same time, it should be noted that the commodity structure of exports from the Pacific region of Russia is dominated by products with low added value, and in the structure of imports, on the contrary, manufacturing products. The current trends in cross-border cooperation are due to the current structure of production in Pacific Russia, the influence of natural resource and transport factors, and the demand of foreign consumers. In Pacific Russia, there are coastal (Pacific) “Northern” and “Southern” socio-economic zones - in the “Northern”, there is the highest share of mining, production and distribution of electricity; in the “Southern” – a high share of fishing and fish farming, manufacturing, services, transport and communications.

1. Introduction
The external economic activity of the Pacific Russia regions is realized in the form of participation of their particular types of economic activity, as the elements of the economy structure, in the international division of labour. The integration processes encompassing the modern economy of the Asian-Pacific Region countries compel to restructure the national economy by reference to specific features of the world (including cross-border) and regional markets and allocate the production facilities for which the local conditions are most favourable in economic terms to individual countries. As one of such regions, the Pacific Russia including the subjects of the Far-Eastern Federal district (FEFD) can be considered.

It should be noted that the “marine” economic and geographical factors of the Pacific region, especially, its unique economic and geographical position exert, to a different extent, influence on the structure of economy and social sphere of all FEFD subjects [1]. The regions of the southern Far East which are located at the intersection of the land and sea borders of simultaneously several APR states (Russia, DPRK, China, South Korea, Japan) are mostly favourable for inclusion into the integration processes [2].

The use of the advantageous geographical position for development of the Far East economy and enhancement of its economic structure efficiency are possible in several ways. Inclusion of certain types of the Pacific Russia activity into the external commercial relations stimulates their development
at the expense of: 1) saving of transportation (imports and exports of products to the west regions of the country) and 2) production costs; 3) industrial specialization of enterprises, and 4) difference between foreign exchange earnings and intraregional production expenses. As a result, the conditions are created in the region for increasing the production forces development.

The groups of the FEFD subjects being parts of the Pacific Russia are identified. They form the special socio-economic zones of the Far East development (“northern” and “southern”) according to a level of the social and economic development and combination of the production factors. Namely, the territorial combination of production factors in the subjects of Pacific Russia determines, to a great extent, the stability of their territorial-sectoral structure as well as effectiveness of the international economic links and relations.

2. Models and Methods
The processes of forming the territorial structures of economy by the example of two hierarchically constructed structures (sectorial and territorial) and effect of production factors on the development of the spatial economy of the country including those in the form of latitudinal socio-economic zones were considered in the papers by A G Granberg [3]. As a result of the economic and geographical analysis of the spatial differentiation of territorial structures of the Pacific Russia economy, P Ya Baklanov, A V Moshkov and M T Romanov [2, 4] have identified the latitudinal and meridional socio-economic zones with specific factors and conditions of forming the territorial-sectoral structures. In particular, two socio-economic zones (“northern” and “southern”) were formed on the territory of the Pacific Russia coastal area [5]. Within these zones, the specific conditions for pursuit of external economic activity were created (Table 1).

### Table 1. External economic activity of the Far-Eastern Federal district subjects within the coastal (Pacific) zone of Russia, in percent; compiled by: [6].

| Subjects of the Far-Eastern Federal district | 2005 | 2017 |
|--------------------------------------------|------|------|
| Far-Eastern Federal district, million USD, in all | 8,938.1 | 5,641.7 |
| **Share of the “northern” zone subjects, in all** | | |
| including: Kamchatka Krai | 19.0 | 4.2 |
| including: Magadan Oblast | 1.7 | 2.4 |
| including: Chukotka Autonomous Region | 0.2 | 1.4 |
| **Share of the “southern” zone subjects, in all** | 55.0 | 89.9 |
| including: Primorsky Krai | 11.7 | 10.8 |
| including: Sakhalin Oblast | 11.9 | 37.2 |
| including: Khabarovsk Krai | 31.4 | 7.5 |

In the “northern” zone of the external economic activity, such subjects of the Far-Eastern Federal district (FEFD) as Magadan Oblast, Chukotka Autonomous Region, Kamchatka Krai are included where the richest natural-resources potential serves as the surplus (favourable) factor of production. At the same time, a deficit of such factors as capital (investments), labour (low density of population, lack of labour force), underdeveloped infrastructure and severe natural and climatic conditions significantly increasing the costs of production is noted. In the external economic activity (export and import) of the Far-Eastern Federal district, a role of the subjects of “northern” zone is insignificant and it decreased essentially since 2005.

The “southern” zone of the Pacific Russia includes the following FEFD subjects: Sakhalin Oblast, Primorsky and Khabarovsk Krais. As the surplus factors of production, the natural-resources potential as well as advantageous economic and geographical position with relation to leading world centres...
of the Asian-Pacific region and favourable natural-climatic conditions of economic management serve. Such combination of favourable factors is good for the investment attractiveness of the southern subzone subjects. Inter alia, the positive value of the advantageous cross-border economic and geographical position of the southern zone subjects in the Pacific Russia should be noted. Just upon these subjects, the major share of the external economic volume of trade in the Far-Eastern Federal district of Russia falls.

3. Results and Discussion
As one of the important features of developing the regional economy of the Russian Far East, one can note the presence here of the macroeconomic effect which is expressed in high growth rates of extractive types of activity and export of their products and in their greater investment attractiveness as compared with the processing types of activity. Ultimately, this hinders a formation in the region of the balanced economic structure. This is expressed not only in a low share of the processing types of activity in the sectoral structure of added value in the FEFD subjects but also in poor development of infrastructural facilities (productions).

| Major commodity groups                                      | “Northern” zone | “Southern” zone |
|-------------------------------------------------------------|-----------------|-----------------|
|                                                            | Magadan Oblast  | Kamchatka Krai   | Chukotka Autonomous Region | Primorsky Krai | Khabarovsk Krai | Sakhalin Oblast |
| Food products and agricultural raw materials                | 89.5            | 659.3           | 3.9                         | 1,076.2        | 257.4          | 659.9           |
|                                                            | 6.8             | 6.8             | -                           | 829.0          | 30.4           | 14.2            |
| Products of fuel and energy complex                         | -               | 5.7             | 12.1                        | 617.5          | 329.2          | 9,492.1          |
|                                                            | 0.2             | 0.3             | 1.1                         | 52.4           | 15.3           | 22.3            |
| Products of chemical industry, natural rubber               | -               | 0.0             | 0.0                         | 38.9           | 4.0            | 1.0             |
|                                                            | 0.6             | 5.7             | 18.4                        | 422.5          | 40.9           | 60.0            |
| Wood and cellulose-paper goods                              | -               | 0.0             | -                           | 392.6          | 615.7          | 0.1             |
|                                                            | 0.6             | 10.1            | 0.1                         | 70.4           | 3.6            | 3.8             |
| Metals and metal handicrafts                                | 1.4             | 5.0             | -                           | 183.8          | 67.6           | 33.7            |
|                                                            | 2.8             | 5.3             | 15.2                        | 256.6          | 45.9           | 186.2           |
| Machines, equipment, and transport facilities               | 0.0             | 1.7             | 1.0                         | 679.9          | 774.1          | 386.9           |
|                                                            | 43.0            | 71.4            | 23.2                        | 1,604.5        | 293.8          | 1,070.4          |

In the export commodity structure of the FEFD subjects being parts of the Pacific Russia coastal zone, the products of extractive industries, fuel and energy complex, fisheries and aquaculture sectors, forest husbandry and agriculture predominate also while in import, vice versa, the products of the processing types of activity with high share of added value prevail (Table 2). The largest commodity groups in the export from the FEFD subjects located at the coastal zone of the Pacific Russia include food products (including fish and sea foods) and agricultural raw materials; products of the fuel and energy complex; wood and cellulose and paper goods; metals and metal handicrafts. Herewith, in the subjects of the “southern” zone of the Pacific Russia, the basic volume of export falls upon the food products (Primorsky and Kamchatka Krais, Sakhalin Oblast), wood (Khabarovsk and Primorsky Krais),
products of fuel and energy complex (Sakhalin Oblast), metals and metal handicrafts (Primorsky and Khabarovsk Krai, Sakhalin Oblast).

In these subjects, the surplus factors of production (natural resources: fish and sea foods, wood, oil and natural gas) are presented to the maximum extent. In addition, the basic transport and logistics hubs (sea ports of Nakhodka, Vladivostok, Sovetskaya Gavan and Vanino, etc.) integrated into the international division of labour are situated in Primorsky and Khabarovsk Krai. In the “northern” zone of Pacific Russia, one can note the Kamchatka Krai among the greatest exporters of the foodstuffs which is also explained by availability here of the surplus factor of production (fish and sea foods).

In the Russian Far East, the following trends of the international cross-border cooperation were formed. The largest consumers of the export products (mainly raw materials and supplies) from the southern regions of the Pacific Russia coastal area in 2018 included the near-border countries: Republic of Korea (value of received goods is 9 billion USD), China (6.44 billion USD) and Japan (6.21 billion USD) [8].

The absolute leader by volume of exported commodities is China. On the other hand, basic quantities of the imported commodities fall upon the products with high added value: machines, equipment and transport facilities; products of chemical industry; metals and metal handicrafts. The largest volumes of import of machines, equipment and transport facilities come from China, Republic of Korea, Japan, USA and Germany. By means of the cargo sea ports, port stations and border transport points, the initial segments are connected with terminating elements of the power-production cycle (PPC).

In like manner, the fishing-industry PPC, the initial elements of which are located within the water area and territory of the Russian Far East while the closing stages (processing of raw materials and semi-finished products exported from the region) are in the APR countries, turns to be “disconnected”.

4. Conclusion
An intensification of the integration processes in the world economy based on the international cooperative division of labour is expressed for APR in establishing the close production, trade and implementation relations between the coastal and cross-border regions of the APR countries. A distinctive feature of the economies of the cross-border and coastal regions of the Pacific Russia is the export tendency of their development. At the same time, a developing the economy of adjoining trans-border regions (China, Japan, South Korea) is oriented to a large extent toward the imported raw materials and export of finished products out of country. Herewith, all the subjects of the Pacific Russia are characterized to a greater or lesser degree not only by rich and unique combinations of natural resources but also chronic retard of capabilities to maintain the production and infrastructure from production and civil requirements.

Being guided by the principle of complementarity in organization of production in the adjoining regions, an orientation of economy to extraction of natural resources, production of raw materials and semi-finished products which have demand in the transborder and coastal areas of the APR countries one can consider as one of the lines of developing the coastal areas of the Far-Eastern Federal district.

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