# Prospects for the Development of Sea Transport of the Russian Federation in World Trade

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#### Abstract:

The article is aimed at the modernization of organizational and economic support of the sectoral system of marine transport management in the Russian Federation. It considers future requirements for its capacity and contribution to the solution of economic problems on both national and global scale.

Authors concluded that there are ample opportunities and reserves for the functioning of sea transport. Among them are the development of markets, the deployment of productive forces, the increase in the efficiency of social production and the economic security of the Russian Federation.

Future trends are available for the condition of drastic modernization of management principles and management systems both in sectoral and regional context.

Keywords: Transport system of Russia, sea transport, transport framework, economic security.

JEL Classification Codes: F01, F02, F20.

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## 1. Introduction

Russian Federation faces ambitious goals and objectives, and the effectiveness of achieving the strategic priorities of the national socio-economic development in the 21st century. It should be emphasized that the development of the country's economy as a set of localized and spatially limited economic systems is impossible without effective transport links, which have systemic economic significance and make a fundamental contribution to the competitiveness and the effectiveness of the national economic model, especially taking into account its territorial resources.

At the same time, the key components of the national transport of Russia have their own unique set of competitive advantages and bottlenecks, which should be taken into account in the composition of the projective transport strategy and sectoral strategies linked to it. Another national economic task in modern conditions is the planning and implementation of inter-industry transport cooperation in the form of multimodal transportation within the limits of national and international freight traffic (Bibarsov et al., 2017; Thalassinos *et al.*, 2013; 2009; Theodoropoulos and Tassopoulos, 2014.

It should be emphasized that the sea transport of the Russian Federation is a strategic component of the national transport system and currently has significant growth potential for national economic efficiency, which can and should be realized with regard to its positive impact on the development of markets, the distribution of productive forces, the increase in the efficiency of social production and economic security of the Russian Federation in the coming years.

# 2. Dynamics, factors and development trends of transport

An analysis of the dynamics, factors and development trends of the national transport complex indicated that:

- in crisis economic conditions, the transport complex has revealed high opportunities for efficient transport services and adaptability to the national economy, including the terms of foreign trade flows;
- the dynamics and structure of the main indicators of freight transportation (deadweight, freight turnover) indicated dynamic and structural references for the functioning of certain types of transport within the complex, reflected the specifics of the transport space and the established freight flows of local, regional, national and international importance;
- the dynamics and structure of the main indicators of passenger traffic (number of passengers transported, passenger turnover) indicated an increase in the popularity of air transport compared to less technological and more time consuming competitors.

We emphasize the need to deepen the research focus in the following directions, which directly determine the efficiency of the transport complex of the Russian Federation:

- the role of the state as a regulator, and a subject organizer and manager of national and global transport flows within the complex;
- sectoral features of the development of specific types of transport (including transport infrastructure facilities, vehicles, staffing);
- problems of interaction and harmonization of transport efforts of the transit and multimodal formats;
- assessment of the functioning of certain types of transport on the development of domestic and global markets, the dynamics of allocation and use of productive forces, the level of efficiency of basic productive sectors, as well as the state of economic and military security of the country and its constituent territories.

It is also necessary to stress the lack of attention of Russian studies to the problems of strategic development of sea transport as an essential component of national transport complex of the Russian Federation in current conditions (Lyasnikov *et al.*, 2017; Nikolova *et al.*, 2017; Shakirtkhanov *et al.*, 2017; Shakhovtsov *et al.*, 2017). There is no independent strategy of perspective development in the industry, certain aspects of development are formalized as part of the overall transport strategy until 2030:

- an increase in the volume of cargo transshipment through the sea ports of Russia, exceeding the level of 1989 and their role in Russian international trade (over 60% of foreign trade turnover);
- problems of manufacturability and lack of capitalization of the port industry, associated with the lack of systematic development of transport infrastructure;
- systemic problems of development of the transport complex (and its marine component) like imbalances in the development of certain types of transportation, the lag of the level of infrastructure development from the growth rate of the vehicle fleet, as well as the territorial problems of balanced development and the conjugacy of infrastructure nodes;
- in terms of military security, a lack of safe sea areas for transshipment;
- the expected results of the implementation of the Transport Strategy included the share of foreign trade in ships under the Russian trade flag (up to 40% in 2030) and the share of ships under the Russian flag in the total deadweight of ships controlled by the Russian Federation (up to 70% in 2030).

We emphasize that this approach could hardly be called strategic, and its expected results are very remotely related both to the effectiveness and national economic efficiency of the functioning of sea transport as one of the key elements of the national transport complex, ensuring the solution of the economic problems of the sustainable functioning and development of Russia.

#### 3. Key areas of modernization

The authors' conceptual approach in understanding and predicting the role and future economic significance of maritime transport as a key component of the national transport complex includes the following main aspects:

1. The strategic position of the maritime transport of the Russian Federation can be defined in the context of an effective component of the national transport complex capable of generating competitive advantages of a price and non-price nature in the value chains of a national and global scale.

2. Sea transport in Russia has a very prominent potential in terms of the development of the market system, and its positive impact is not limited to target markets for maritime freight and related product markets, but affects the markets of supporting industries (shipbuilding, ship repair), ancillary and special services, industry information and consulting services.

3. The current potential of maritime transport of the Russian Federation as a fundamental factor in the efficiency of locating productive forces in promising national economy is today associated with the prospects for developing the Arctic zone of the Russian Federation and implies linking the regional transport system with the transport infrastructure of the Northern Sea Route with the ability to effectively integrate into global transport flows.

4. Sea transport has specific broad capabilities in terms of the implementation of the basic principles of ensuring the effectiveness of social reproduction (both in the sectoral and regional sections), allows to actually achieve growth in the national economic efficiency of productive forces distribution, integrated development of territories, increasing the rationality of the division of labor and overcoming regional socio-economic polarization.

5. Authors identify the economic security of sea transport in the context of the transport complex of the Russian Federation as the state of basic components of transport service (infrastructure, rolling stock, personnel, management systems), which makes it possible to ensure the economic security of Russia's transport complex as an element of the national economy, taking into account the specifics of maritime transport.

6. Among the most progressive innovations capable of largely revising the traditional limitations in terms of functioning and effectiveness of operational processes of maritime transport in the Russian Federation are the following:

- the prospect of designing, building and commissioning an innovative atomic icebreaker, the leader of the northern icebreaking group, capable of providing year-round navigation on the Northern Sea Route with escorting ships up to 50

826

meters wide and deadweight over 100 thousand tons;

- the use of the mobility of sea transport in the creation of dumb vessels capable of carrying the industrial products like oil and gas.

Its applied introduction is aimed at the implementation of broad opportunities and reserves of the factors of sea transport functioning for the development of markets, the deployment of productive forces, increasing the efficiency of social production and the economic security of the Russian Federation in the coming years. At the same time, we are stressing the need for a radical modernization of principles and management systems, both in the industry and in the regional perspectives, the transition to the strategic scope of sea transport management, its effective interfacing with other types of transport as part of the national transport complex and targeted programs of advanced industry development.

Only if these conditions are realized, the economically efficient use and reproduction of the sectoral transport potential, the involvement of water transport in solving national and global economic problems and the transformation of the Russian Federation into a full-fledged ocean power with the appropriate military and civilian capabilities in the fleet are possible.

#### 4. Current estimates of the functioning of sea transport

The complex of research efforts implemented in relation to contemporary problems of the functioning of sea transport and its impact on the efficiency of the national transport system of the Russian Federation and the economic security of the country allowed us to obtain the following results:

In 2000-2015 in the field of sea transportation of the Russian Federation, there was a significant disparity between the transshipment capacity of seaports and the capacity of ship fleet transportation, which resulted in an extremely significant decrease in the share of transported cargo (from 42.22 to 2.81%) carried out by Russian ships. It turns out that the Russian maritime merchant fleet has drastically reduced its presence in the segment of the transport service for foreign trade, which has been increased many times over the past 15 years (we highlight the large national economic capacity of efficiency growth in a particular type of economic activity).

Maritime transport is one of the most profitable and financially productive economic activities in the transport sector of the Russian Federation, however, the key trends in its operation (average annual employment, graduation, investment, production and import of vehicles) indicate a steady downward trend in the industry's reproduction and operational processes, and the unstable volatility of the net financial result is related mainly with the dynamics of the exchange rate and the specifics of payments for freight, carried out mainly in foreign currency (Giannakopoulou *et al.*, 2016; Popescu, 2017).

At the same time, sea transport is a strategic asset of the national transport system; only with its advanced development and efficient use is it possible to systematically search for and realize the advantages of a transit type while deepening the integration of the Russian economy into the global economy. In addition, this type of economic activity is a diversified profit entry center, which, with due attention and support, has significant capacity for the development of domestic markets, improving the efficiency of social production, and strengthening of national economic security.

The study of the prospects for the functioning and development of sea transport in the Russian Federation in the context of enhancing its strategic importance as part of the national transport complex yielded the following results:

- the current level of availability and functioning of the port infrastructure was assessed by representatives of maritime transport organizations quite highly, although asymmetry was noted in the future development of infrastructure in favor of affiliated companies;
- the structure and dynamics of the Russian maritime cargo fleet reflected the clear strategic position of the company-leader (the SKF group of companies) and all other followers who were distinguished by their qualitatively smaller size of ship groups, operating and reproductive performance;
- the staff capacity of the Russian maritime transport was represented by both domestic and foreign specialists, there is currently no shortage in the relevant labor market, the professional level of the fleet staff, including university graduates, is generally adequate to the problems of current operations and strategic development;
- corporate management of maritime transport organizations was carried out under conditions of severe restriction of competition associated with the actual absence of competitive demand and the implementation of the sea transport key function of finalizing national value chains based on the basic principles of reliability and cost-effectiveness;
- strategic sectoral management was characterized by certain reserves, related both to promising areas for the growth of opportunities and the importance of maritime transport in solving major national economic tasks, as well as overcoming asymmetry in the development and implementation of strategic development decisions (in regards to state support of building new fleet, for example).

# 5. Proposals for the development of sea transport

The study allowed us to formulate the following proposals. Among the most progressive innovations that can significantly revise the traditional limitations in terms of the functioning and effectiveness of the operational processes of the organizations of maritime transport in the Russian Federation are the following:

828

1) the prospect of designing, building and commissioning an innovative atomic icebreaker - the leader of the northern icebreaking group, capable of providing year-round navigation on the Northern Sea Route with escorting of ships to 50 meters wide and deadweight over 100 thousand tons;

2) the use of mobility of sea transport in the creation of dumb vessels capable of carrying the industrial production of various industries, including oil and gas processing products.

For the Russian Federation, the implementation of the icebreaker project means an applied possibility of interfacing and effective functioning of the transport system of the Arctic economic zone with access to global transport competitiveness standards. This requires the implementation of an international investment project with the participation of the following entities:

- 1) The Federal Agency for Sea and River Transport the initiator of the project;
- 2) A design organization created for the implementation of the construction phase and the commissioning of the Leader icebreaker series;
- 3) Russian Direct Investment Fund co-investor of the project;
- 4) a pool of international investors (owners of maritime transport lines, private equity investment funds, other participants);
- 5) Federal State Unitary Enterprise Atomflot the fleet operator.

Key scarce resources critical for the implementation of this project are:

- 1) project implementation time;
- 2) the political position of the Russian Federation regarding attempts to solve independently the problems of sea transport on a global scale in the absence of the necessary resource base.

All other resources are quite amenable to attraction and combination with subsequent monetization based on the implementation of a specific business idea with a transparent rationale and operational cycle. We are confident that the implementation of the project under consideration according to the proposed scheme will help solving the national economic task of developing the transport potential of the Northern Sea Route route and will be a step towards the transformation of the Russian Federation into a global maritime power.

The Russian Federation is currently a pioneer in the design and construction of mobile floating nuclear power plants based on dumb vessels - unique designs that combine enormous energy capacity with unlimited mobility, provided accessibility of sea and ocean areas. In the Black Sea Economic Zone of the Russian Federation there is a fairly large-scale national economic need for reserve power generation and water conditioning capacities associated with the economic characteristics of the coastal regions of the Southern Federal District, namely, the Krasnodar Territory and the Republic of Crimea (with the city of federal importance Sevastopol).

In our opinion, the creation and use of a mobile FNPP (floating nuclear power plant) based on a dumb vessel may be the subject of an interregional investment project, the co-founders and beneficiaries of which are the Republic of Crimea and the Krasnodar Territory. The possibility of transporting a mobile power unit through the Bosphorus and Dardanelles straits was worked out and confirmed (with the ship going through the straits without nuclear fuel on board, and charging can be done directly in the Black Sea).

## 6. Conclusion

Summarizing the above, we note the significant reserves today in terms of using the competitive advantages of maritime transport as the basis for creating promising mobile production hubs and infrastructure based on real innovative technologies.

Applied implementation of the authors' recommendations will provide an even greater contribution of the functioning of sea transport to the development of regional markets in the Southern Federal District, improving the efficiency of regional economic systems in coastal regions, and increasing the energy and economic security of local nodes of the economic infrastructure.

Sea transport in Russia has been and remains a strategic factor in the long-term socio-economic development of our country, but it requires full attention and a qualitatively different scale of management and financing to achieve results that are competitive in the global economic space.

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830

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