Transport control and monitoring systems as the basis of national economic security

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Abstract. Transport is one of the main tools in solving major political and economic tasks in ensuring the country's defense capability. Management and monitoring of transport serve as an information basis for ensuring the functioning and development of the socio-economic system.

In the modern world, transport management and monitoring of stable and long-term socio-economic transport development are of particular importance. This article discusses such concepts as transport management and monitoring, economic security and ensuring counteraction to its threats, threshold values of indicators of economic security and various approaches to their formation, innovative activity as one of the mechanisms for ensuring the development of the Russian economy.

1. Introduction
Sustainable development of transport is the guarantee of the unity of economic space, free movement of goods and services, competition and freedom of economic activity, ensuring the integrity of Russia and its national security, improving conditions and living standards of the population. Transport, along with other infrastructure sectors, provides the basic conditions for the life of society, being an important tool for achieving social, economic, and foreign policy goals. Transport is not only an industry that moves goods and people, but, first of all, an interbranch system that transforms the conditions of life and business. The special importance of transport in the military security system of Russia is due to its unique geostrategic position and enormous spatial scope. Transport system of the Russian Federation, including the main types of public transport: railway, automobile, air, sea, inland water and pipeline, is a necessary material factor in ensuring the military security of the state.

In the first decade of transport reforms, basic structural and institutional transformations have been undertaken. The foundations of the legal framework of transport that meet the new socio-economic conditions. The functions of public administration and economic activity are divided, an adequate market conditions for state regulation of transport activity has been created. Basically, privatization has been completed.

However, despite the general adaptation of transport to market conditions, the state of the transport system at present cannot be considered optimal, and the level of its development is sufficient. The mobility of the Russian population is almost 2.5 times lower than in developed foreign countries, since the absence of a basic transport network throughout the country impedes the development of a single economic space and increased personal mobility. The equalization of the economic development of the
constituent entities of the Russian Federation is hindered by significant regional unevenness in the development of the transport network. The most significant differences are between the European part of Russia, on the one hand, and the regions of Siberia and the Far East, on the other. In addition, if there are bottlenecks in the communications of developed central regions and large cities, about 28 thousand settlements, in which more than 12 million people live, do not have year-round access to the main land communications. The growth of personal mobility of citizens, the development of small and medium businesses that are impossible under market conditions without a high level of motorization in the country are constrained by the insufficient development of the road network.

The share of transport costs in the cost of production is relatively high and amounts to 15-20% against 7-8% in countries with developed market economies. Along with such objective factors as long transportation distances and difficult environmental conditions, this is due to the insufficient level of development of the product distribution system.

Structural transformations in transport are aimed at further improving the quality of transport services, economic efficiency of transport activities, reducing transport costs, increasing the competitiveness of the transport industry and attractiveness of transport as a sphere of business and investment, improving the efficiency of budget financing of transport. The content of structural transformations is the further improvement of the legal framework for the development of market mechanisms, the reduction of state participation in transport activities, and the reduction of the monopoly sector. Reforms are aimed at separation of functions of state management and economic activities, improving the quality of government functions, improving the efficiency of use and guaranteed reproduction of state property in the transport infrastructure.

In modern conditions, which are constantly changing, the problems associated with transport management and monitoring and long-term socio-economic development are very acute. The formation of an innovative economy is associated with economic security. Its provision is a condition for the successful development of the economy as a whole. For a more complete understanding of this phenomenon, it is necessary to understand the definition of an innovative economy and the conditions under which it successfully operates. Under it, a certain type of economy is determined, the basis of which is informational achievements and knowledge. Here, the main source of growth is the production of knowledge, the development of IT technologies, the accumulation of human capital. In this type of economy, there are several foundations, bases. This is due to the uncertainty of the key concept of this type of economy - innovation.

2. Materials and methods
Transportation is one of the most important spheres of the economy of every country. The main statistical characteristics of transport in Russia are presented in table 1 and 2 (Rosstat). Table 1 presents the dynamics of transportation of goods in Russia. Table 2 presents the dynamics of transportation of passengers in Russia. 2. Passenger turnover of public transport is presented in table 3.

| Table 1. Dynamics of transportation of goods in Russia |
|---------------------------------------------------|
| Freight transported, million tons: |
| by rail | 2015 | 2016 | 2017 | 2019 |
| 1 329 | 1 325 | 1 384 | 1 411 |
| automobile | 5 357 | 5 397 | 5 404 | 5 544 |
| pipeline (oil and oil products) | 578 | 578 | 589 | 603 |
Table 2. Dynamics of transportation of passengers in Russia

| 1. Passengers transported by public transport, million people: | 2015  | 2016  | 2017  | 2019  |
|---------------------------------------------------------------|-------|-------|-------|-------|
| By rail                                                       | 1 025 | 1 040 | 1 121 | 1 160 |
| By bus                                                        | 11 523| 11 296| 11 185| 10 912|
| By train                                                      | 1 478 | 1 397 | 1 327 | 1 259 |
| By trolleybus                                                 | 1 616 | 1 483 | 1 376 | 1 263 |
| By subway                                                    | 3 336 | 3 312 | 3 298 | 3 381 |
| By air                                                       | 94    | 91    | 108   | 118   |

Table 3. Dynamics of transportation of goods in Russia

| 2. Passenger turnover of public transport, billion passenger-kilometers: | 2015  | 2016  | 2017  | 2019  |
|------------------------------------------------------------------------|-------|-------|-------|-------|
| railway                                                                | 121   | 125   | 123   | 130   |
| bus                                                                    | 126   | 124   | 123   | 123   |

The ability for independent existence of innovations is formed due to the concentration of finances. They are the result of innovative activities, which are caused by organizational, financial, technological, production and marketing processes, as a result of which ideas turn into technologically innovative goods and services.

It is the innovations resulting from innovation activity that should become the most important driving element of the current economic structure or the main base of national security of the state. It can be concluded that when the state calls for the formation of an innovative economy (in the form of politicians and officials) they try not only to increase the application of the latest achievements in science, but also to increase the number of investments in these achievements. It also involves preventing capital outflows from the country.

In accordance with this, it is possible to determine the main goal of economic security and the mechanism for ensuring it - is to strengthen the national system and its opposition to any emerging threats. Any mechanism for ensuring economic security is expressed in the desire of the authorities of the state and the region to achieve a state of stability and stability of various economic aspects: the economy as a whole, economic growth and the establishment of indicators and threshold indicators on the basis of the formed system, as well as to receive special benefits and advantages in various fields - economic, political and legal, social, demographic.

Economic security is understood as the state of the national economy that contributes to obtaining the optimal level of protection against any factors and threats by increasing the competitiveness of manufactured products through the productive and integrated use of various types of resources, as well as a system of government measures and measures. Since economic security has a huge number of manifestations, it should be noted that the functioning of the national security mechanism in relation to Russia is influenced by a large number of factors, the main of which are economic growth.
At present, the formation and use of an innovative economy for the Russian Federation is an opportunity to export high technology products. This, in consequence, will improve both the quality of goods and services produced while reducing the costs of their creation, and the release of fundamentally new types of goods, which will create new markets. This development of the innovative economy in the country is interconnected with the country's competitiveness in the world market, i.e. and with its safety.

The functioning of any socio-economic system is possible only if there are certain mechanisms that ensure the maintenance of its stable level and gradual development. Among the totality of factors ensuring the interaction of subsystems and elements of such systems, the leading role belongs to monitoring, which plays a crucial role in solving the problems of interaction between internal and external structures, norms, institutions, patterns of behavior and the like.

Monitoring serves as an information basis for ensuring the functioning and development of the socio-economic system. The mechanism of such a system detects and solves social and economic problems and consists of two interacting parts - the executive mechanism and the mechanism of functioning and development of the socio-economic system. In this case, the leading role belongs to the second mechanism, since it ensures the viability and sustainable development of the system.

Monitoring as a method of assessing the financial and economic activities of an enterprise determines the direction of its development today and is based not only on methods of expert assessments, but should also include a set of methods, techniques, tools that allow you to see the dynamics of economic processes, evaluate its factors, determine the level of their influence on the specifics of the development of the enterprise as a whole in the conditions of modern Russian economic relations. Currently, there are various classifications of methods and techniques of economic analysis. All classifications are based on different characteristics. One of the most informative is the description of procedures. Following this logic, all analytical methods can be divided into informal (logical) and formalized (mathematical).

The most suitable approach for monitoring and diagnosing economic security is to use a method called indicative analysis. The threshold values of indicators are those significant indicators that share the diverse classes of states related to economic security. For example, a normal condition and a condition characterized by an increased number of safety hazards.

So, in his work V.K. Senchagov pays attention to the fact that threshold values are the most important tool for forecasting, system analysis and indicative planning in the socio-economic sphere. Thanks to this tool, any object, in our case, the economy, will be considered as the correspondence of development trends, both in internal and external cooperation with the economies of other countries, to the domestic interests of the country.

Safety theory is important in practice if it contains the theory of limit values of an object. For this period of time there is no single approach to the formation of threshold values of indicators of economic security.

Various scientists and research teams focus on different views - from introducing a single threshold value for the indicator (in this case there will be only two classes of states according to the indicator: normal and a state that is characterized by a high level of safety hazards) to many threshold systems in which three or more threshold levels are entered for each indicator (the number of various security states by the indicator is equal to the number of thresholds).

The most common of the approaches is the first: entering for each indicator only one threshold value (critical level), which separates the two probable classes of state. Let us analyze the formation of threshold values within the framework of such an approach for the most important indicators of economic security, which is usually applied to the conditions of the Russian Federation.

In most cases, the assessment of thresholds is based on expert assessments, which are made by foreign and domestic scientists in the research process based on some global trends and indicators. A.V. Kalina and I.P. Savelieva in her article says that “there are several cases when, in conjunction with expert estimates, special mathematical methods can be used that allow us to obtain threshold values under conditions of increased uncertainty of the initial information, as well as due to inconsistencies in the estimates of experts on any phenomenon or process.
Different approaches can be used to determine threshold values. In particular, the most common is the method of analogy-comparison of indicators of Russia with the indicators of foreign countries. In addition, expert analysis methods, standards and generally accepted standards and requirements that are approved are very widely used. In some cases, when the determination of threshold values can be difficult, a special mathematical apparatus is used, which is based on the use of methods of the theory of pattern recognition.

Thus, it is necessary to pay attention to the fact that in the modern Russian Federation the threshold value of an indicative indicator of the ratio of per capita income to the subsistence minimum must certainly be taken at the level of five to six times. Moreover, as the approach to determining the subsistence level in the Russian Federation approaches the approaches of more developed countries, this value will gradually decrease to three to three and a half times. In addition, it must be borne in mind that according to the indicative indicator that we are considering, there are problems with its reflection in the statistics and their correspondence to real values.

Also, it is important to mention that redistributive flows that have a significant impact are not taken into account. Currently, unregistered, informal employment for the provision of services by one part of the population (usually low-income people) to the other part (high-income people) is most prevalent.

3. Results and discussions

For many indicators, both industrial, financial, and socio-demographic requirements of economic security are not fulfilled and the level of dangers is very high. A significant task related to the implementation of the transport management and economic security of the Russian Federation is the analysis at the regional level. Firstly, this is due to the high level of unevenness and differences in socio-economic development between different regions of Russia.

Consequently, the threshold values for different indicators of the transport management and economic security will be different for different regions, and will also differ from the values for the Federation as a whole. If this is not taken into account, then the recommendations and conclusions on the state of economic security and its regulation that have been received may be erroneous and inconclusive.

The basis for determining the threshold values of indicators of the transport management and economic security for the regions are methods and approaches that are similar to state ones. The basis of the territorial division into regions of threshold levels of indicative indicators of economic security by region of the Russian Federation lies in the division of the country's socio-economic space according to a number of fundamental classification features.

The following signs are distinguished, which are most characteristic for various indicative indicators:

The first sign is climatic conditions, since the harsher the climate, the more stringent the conditions that apply to indicative indicators of economic security, for example, from the point of view of investing in the economy of the territories and updating fixed assets.

The second characteristic includes the degree of development of territories.

Thirdly, special attention is paid to the structure of the industrial sector in the territory.

Fourth, there is such a sign as the presence in full of its own resources and minerals in the territory. So, according to this criterion, territories are divided by type of minerals, for example, metal ores, mineral resources and other types of minerals and the degree to which these territories are provided with different types.

The fifth and sixth signs are the strength of transport communications of the territory with other territories and the development of scientific schools, and their potential in the territory.

Seventh, an important sign is the development of such a system of education as higher education.

Eighth, the degree of development and orientation of the structure of the industrial sector in the territory.

Ninth, the potential of the territory facing export.

Tenth, the geographical location of the territory, which is a characteristic feature, since when dividing territories into equivalent groups, their proximity to borders, the development of transport, as well as the infrastructure for export-import operations are considered.
The eleventh characteristic is characterized by the degree of population of the territory. On this basis, for zoning of the subjects of the Russian Federation, an indicator is used that determines the population density.

The twelfth sign is the potential in the manufacturing sector and the availability of finance for the territory, which is estimated by the GRP per capita indicator in the territory.

The thirteenth final sign is the composition of the population by age.

4. Conclusion

The transport policy of Russia is built in accordance with the basic principles of sustainable development. Satisfying transport needs does not conflict with the priorities of environmental protection and health, does not violate the interests of future generations. Traditional system of transport safety requirements process is complemented by a set of anti-terrorism security measures in transport. The complex of anti-terrorism measures in transport is built on the basis of the long-term and global nature of the threat of terrorism and takes into account the need for constant international coordination of actions in this area. The current state system of measures for organizing and counterterrorism measures at transport facilities, as well as the creation of methods and means of protecting the population and the environment in cases of emergency transport incidents, as well as at transport infrastructure facilities, should be improved adequately to the existing threats of terrorist attacks on transport and international obligations undertaken by Russia in this area. In order to ensure life safety, transport is called upon to carry out measures to protect the population and territories in terms of civil defense, in emergency situations of a natural and man-made nature, as well as in eliminating their consequences. At the same time, the creation of emergency situations due to operation of transport infrastructure.

In solving these problems should be ensured a set of interrelated, coordinated and centrally managed activities for the preparation, operation, and, if necessary, the restoration of all types of transport communications, as well as the preparation (creation, procurement and maintenance) of all types of land, water and air vehicles comprehensively used in emergency situations, used in emergency response.

The transformation of economic provisions in the modern Russian Federation contributes to the impact on the national security of the state. Economic security is the guarantor of state independence, which determines the possibility of policy independence in the economic field and creates conditions for the sustainability of the world economy.

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