PRICE LIST 10-01: MECHANISMS FOR TARIFF REGULATION

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ABSTRACT

In the countries of the European Union and Russia, the owner of the railway infrastructure is the state, and the rolling stock is owned by private companies. With this model of organizing the railway industry, the main source of income for the owner of the public infrastructure is freight transportation. The main advantages of this model are the low level of monopoly power of the rolling stock owners and low probability of discrimination in access to infrastructure, and the disadvantages are low incentives for investing in infrastructure development. Consequently, the main problem for a monopolist is to attract cargo owners to transportation by rail. As it is known, the criterion of attractiveness of a particular mode of transport for a cargo owner is the cost of transportation (low tariff load), which is regulated on the Russian Railways by Price list 10-01 «Tariffs for transportation of goods and infrastructure services performed by Russian railways». Since reorganization of the tariff system in 2003, the car component of the railway freight tariff varies depending on the market conditions of the fleet of freight cars owned by the operator companies, and the infrastructure component is regulated by the infrastructure owner which is the the state. At the same time, the role of state antimonopoly regulation is of great importance, which directly affects the rail freight transportation market, and, as a consequence, the tariff. An alternative is the American model of railway organization (used in the US, Canada, some countries of South America), which has a high level of monopoly power of carriers, rolling stock operators and infrastructure owners, high probability of discrimination in access to infrastructure, high incentives to invest in infrastructure modernization. At the same time, several vertically integrated companies operate on the rail freight transportation market, and competition occurs both between private railway infrastructures and between carriers and rolling stock owners who can compete on each other's infrastructure. State antimonopoly regulation is absent, which increases the importance of bilateral contracts between market participants. A consequence of this is the dependence of the tariff on rail freight transport exclusively on the market conjuncture.

The article shows the sequence of evolution of the current Price list 10-01 «Tariffs for transportation of goods and infrastructure services performed by Russian railways» in market conditions. The foreign experience of state regulation of freight tariffs is considered at the example of two alternative models – American and European. The analysis of influence of demand and supply, formed on the domestic market by owners of cars, has been made. The structure of tariff classes and the principles of their formation are shown. One of the key features of the current system is the so-called «tariff corridor». The most significant problems are identified – cross-subsidization of low-yield cargo traffic and tariff construction by a cost principle in a state-regulated segment.

Keywords: railway transport, Price list 10-01, freight transportation, tariffs, system principles.

Background. *The current Price list 10-01 «Tariffs for transportation of goods and infrastructure services performed by the Russian Railways» entered into force on August 28, 2003. It is designed to create competition in the field of rail freight transportation between owners of rolling stock. Its main difference from previous versions was that the tariff for transportation in cars was divided into two components:*

– tariff for the use of infrastructure and locomotive traction of railways (infrastructure and locomotive components);

– tariff for the use of cars (car component) [1].

These decisions presupposed demonopolization of the rental market for rolling stock and attraction of investments of operators and carriers in creation of their own car fleet. And the infrastructure and car components were not subject to change and were formed by the state. And it was their ratio that became the most important moment: at a low level of the car component it is possible to predict the increased wear of the car fleet and the absence of economic incentives for its improvement. In Price list 10-01, this component was raised to 15,5 % when generating tariff rates (locomotive and infrastructural – 30 and 55 % respectively). It is believed that such values create objective conditions for competition, stimulate attraction of investments from the operator companies. In other words, the level of the tariff for the use of the car fleet should ensure the amount of the free profit balance, which allows to recoup capital investments for the purchase of cars in terms acceptable for the investor [2].

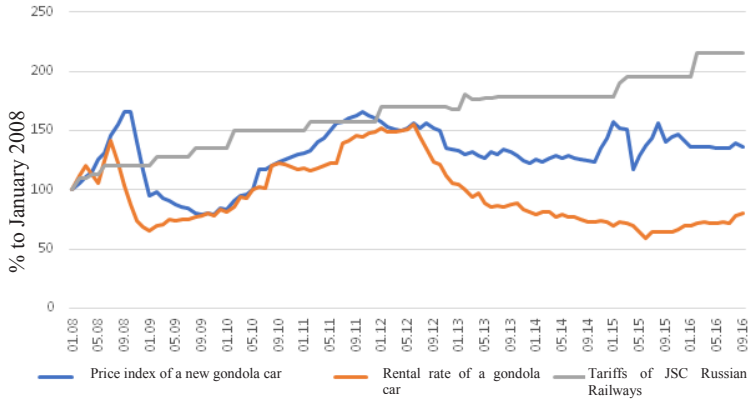
The rapid growth of the car fleet led to a gradual reduction in tariffs (car component) in those segments that were saturated with rolling stock. Already by 2009, the car component in the tariff for many independent operators fell from a fundamental value of 15 % to an average of 7 %.

Objective. *The objective of the authors is to consider mechanism of tariff regulation regarding railway transport in Russia, namely provided for by Price list 10-01.*

Methods. *The authors use general scientific methods, comparative analysis, graph construction, evaluation approach.*

Results. *In the countries of the European Union, the owner of infrastructure is, as a rule, the state and the role of antimonopoly regulation is great. This ensures a low level of monopoly power of carriers and owners of infrastructures, no discrimination in access to infrastructure, as a result of which the car component is in the range of 20 to 30 % of the tariff, which positively affects the competitiveness of transport in its own rolling stock.*

In the US, which is often compared to the Russian Federation due to the comparability of the parameters of rail freight transportation, the car component is closest in importance to the Russian one, however, the structure of the tariff differs [3]. This is the result



Pic. 1. Dynamics of the average daily rate of attracting a gondola car (in percent to January 2008) [11].

of the model of organization of the railway industry, in which carriers, owners of rolling stock and infrastructure are private vertically integrated companies. As a consequence, railway tariffs for freight transportation are not regulated by the state, but are established depending on the market situation, that is, on supply and demand for freight traffic transportation. Carriers and infrastructure owners can both reduce transportation tariffs depending on the level of competition, and increase them in order to minimize operational costs [4–6]. The lack of state regulation is due primarily to the level of political culture and the specificity of economic institutions [7], as well as to the negative experience of pricing in the field of railway transport, resulting in a shortage of rolling stock, infrastructure and low competitiveness in comparison with other modes of transport [8].

The advantage of the American model of organizing the railway industry used in the US, Canada, Mexico and some countries of South America is the ability of vertically integrated railway companies to cover their fixed costs and attract investments by refusing state subsidies.

Reforms to move to a similar model were carried out in the UK from 1996 to 2000. The shares of the company-owner of the infrastructure «Railtrack» were sold on the London Stock Exchange, private carriers and rolling stock owners began to operate on the network. Due to strong competition between market participants, rail freight tariffs fell sharply, resulting in a 22 % increase in loading on the network by the year 2000 compared to 1996. Moreover, it became possible to attract goods for transportation by rail that were previously transported by other means of transport. But due to regular government interference in the activities of the company «Railtrack», it went bankrupt. In March 2002, state ownership of the railway infrastructure was restored [18].

Under the «European» model of organization of the railway industry, the infrastructure component of the tariff is regulated by the state. In Russia, the importance of infrastructure and locomotive components is established by the Federal Antimonopoly Service (FAS), taking into account the government's decisions on the permissible level of indexation of tariffs [9], and the value of the car component is determined by the ratio of supply and demand in the provision of rolling stock, that is, the laws of the market. Tariffs of the Price list 10-01 are annually indexed by the FAS after the elaboration of compromise solutions with JSC Russian Railways.

The dynamics of the car component can be estimated with the help of such an indicator as the daily rental rate of cars, which from the economic point of view is an equivalent of the car component [3]. For today, for most cargo its value ranges from 7 to 20 % of the cost of transportation [10]. The approximate dynamics of the rental rate of rolling stock compared to the tariffs of JSC Russian Railways and the price index of the new gondola car, according to the information and analysis center of the non-commercial partnership Council of Participants of the Market for Services of Railway Rolling Stock Operators, is shown in Pic. 1.

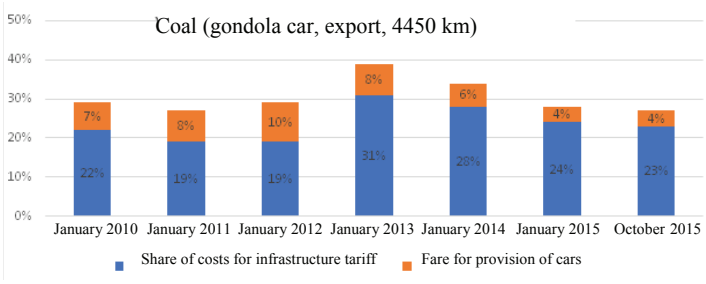
Analyzing the dynamics of the railway tariff change with regard to the car, infrastructure and locomotive component, you might be convinced that the part of the tariff that the monopolist regulates, steadily grows, and how the owner personifies the state. And accordingly, it decreases where it is not regulated by a state-owned company and refers to private operators. The reason for this is construction of a tariff according to the cost principle (the more are the infrastructure owner costs, the more are infrastructure and locomotive components).

The very same tariff formation depends on separation of the nomenclature of goods transported by rail. In Russia, the nomenclature of goods is divided into three classes, which, in turn, are divided into so-called tariff levels (within the first and second tariff classes there are 10 of them, in the third – 6), that characterizes the high degree of differentiation of the infrastructure component of tariffs depending on the type of cargo [12]. In this case, the fundamental principle is the use of the price of goods as a measure of its solvency. That is, the higher is the value of the cargo, the lower is the share of transport costs at the final price of the goods at the point of consumption and, accordingly, above the possibility of cargo owners when paying the tariff [10]. Thus, it is possible to reduce the transport component in the price of the goods either by reducing transport costs or by increasing the total cost of the lot by transporting a more expensive product, which is a defect in the current tariff policy.

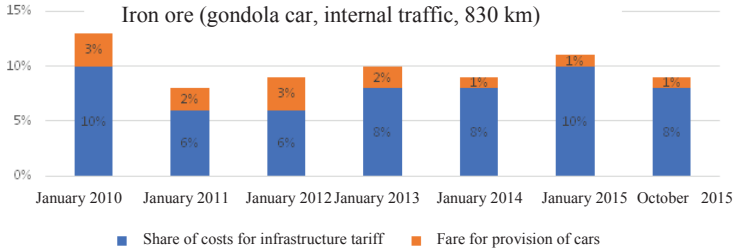
If the level of the transport component in the final product price exceeds the value of 45 %, then it is necessary to apply flexible tariff regulation mechanisms and to establish special tariff conditions ensuring the competitiveness of the products.

The nomenclature of goods is divided into classes as follows. The first class includes relatively cheap, mainly raw materials, in the price of which the transport component exceeds 15 %. These are coal and energy gas, ore and coke, timber, sand and some other construction and bulk goods.

Second class comprises agricultural products, meat, fish and other food products, oil, gasoline,



Pic. 2. The level of the transport component in the price of coal, the percentage in January of each year and in October 2015.



Pic. 3. The level of the transport component in the price of iron ore, the percentage in January of each year and in October 2015.

diesel fuel, fertilizers and other goods, the transport component in the final price of which varies from 10 to 15 %.

The third class includes cargo with a transport component in the price of no more than 10 %. This is the finished product of the chemical, light and engineering industries, rolled products and products of ferrous and non-ferrous metals. The total costs in the cost of goods transported by rail make an average of 3,5 % here [13].

The level of the transport component in the price of various goods transported by rail, according to the information and analysis center of the Non-Commercial Partnership «The Council of Participants of the Market for Railway Rolling Stock Operators» [14], is shown in Pic. 2–4.

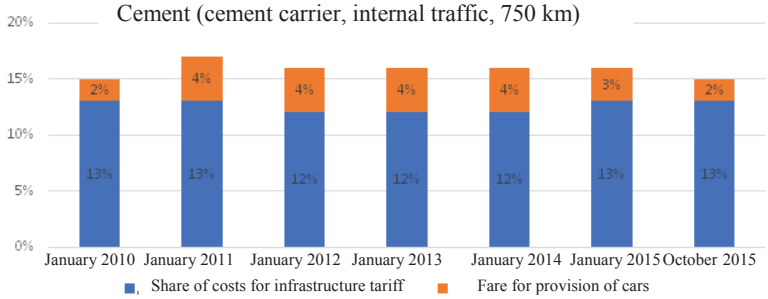
An actual problem in the state regulation of the railway industry is transportation of low-income cargo. In Russia, a significant tariff impact on the cost of transporting low-income goods of the first class is provided by the tariff corridor – increasing and lowering coefficients to the basic tariffs for transportation of certain types of cargo in certain areas within established limits that Russian Railways has been applying since early 2013. In 2016, the maximum allowance was 13,4 %, and the discount was 25 %.

The impact of the tariff corridor is vividly illustrated by transportation of one of the least profitable cargoes – coal. In 2015, the share of coal in the general loading of JSC Russian Railways was 26,6 %. At the same time, up to 47 % of the volume was exported. The share of coal in the loading is approximately 1,6 times higher than its share in the revenues (revenue) of JSC Russian Railways from freight transportation. This means that the holding company receives less revenue from transporting one ton of coal than from transporting one ton of cargo on average [15]. The practice of setting lower tariffs for coal and higher for other cargo (goods) exists in different countries.

Another factor that adversely affects the competitiveness of coal transportation is the distance that this cargo overcomes by rail. They are one of the longest in the world. When exporting, for example, from Kuzbass, the route to the seaports of the Far East exceeds 4 thousand kilometers, and for the carrier they become unprofitable. But at such distances, not less than a quarter of all coal that is loaded on the network of JSC Russian Railways is transported. At the same time, the share of the transport component in the price of coal in Russia is also the highest in the world [15].

However, coal is a cargo, the demand for transportation of which remains regular and predictable, therefore, JSC Russian Railways is interested in preserving and possibly increasing the volumes of its transportation [16] and, as a consequence, is forced to use the decreasing coefficients in the tariff corridor to support the coal industry.

To date, coal transportation does not cover direct costs for the transport process. As a result, the increase in its loading means the growth of hidden, implicit subsidization of the coal industry at the expense of other industries that use the services of



Pic. 4. The level of the transport component in the price of cement, the percentage in January of each year and in October 2015.

JSC Russian Railways. This redistribution leads to the fact that rail transport loses to the automobile in the fight for high-yielding goods. The risks of deterioration of the loading structure are growing, which, while maintaining the volume of transport work, will reduce the income and profits of the holding company, the opportunity to support investments in development of the railway infrastructure [17].

Another significant problem is construction of tariffs in the unregulated segment by the cost principle, which does not take into account the demand for transportation.

A new tariff price list, which should appear already in 2019, shall solve such problems. Its task is to optimize the scale of tariff classes, to eliminate unreasonable decrease in tariff rates with the growth of the range of transportation for a number of transported goods, unification of tariffing of empty run, stimulation of effective innovative technologies. Among the priority goals is competition with car carriers for high-yield third-class cargoes through a more flexible approach to tariff formation, including by simplifying the rules for applying the tariff corridor.

Conclusion. *To implement ambitious goals, a tariff regulation mechanism is needed that would allow a smooth transition from the existing model to the target methodology. Part of this mechanism can be the rules for establishing special – exceptional, long-term and investment – tariffs, which will help create conditions for further development of a competitive market for rail freight transportation.*

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