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THE TRANSPORT INDUSTRY IN THE CONTEXT OF A PANDEMIC: FINANCIAL ASPECTS

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Abstract: *The global transport and logistics system turned out to be one of the most affected areas as a result of the COVID-19 pandemic. The negative consequences are based on various factors: the closure of state borders, the introduction of restrictions on the movement of people and goods, the disruption of supply chains, a decrease in demand and purchasing power. The combination of these factors affected all types of transport – from the use of personal and public transport in cities to the implementation of passenger and cargo transportation both within and between countries.*

The scale of the negative consequences depends on the type of transport and the integration of the state into the global transport and logistics system. During the pandemic, 90% of flights were canceled in the EU countries, there was a decrease in passenger traffic by passenger cars by 60-90%, and by public transport by 50%. By the end of 2020, the global volume of cargo transportation decreased by 36%, and the losses of Russian transport companies amounted to 230 billion rubles.

Today, the countries are at a transitional stage: in the transport sector, there is an adaptation to the updated conditions of activity and a gradual recovery after the crisis. Nevertheless, there are still several risks. The expectation of the third wave of the pandemic, the increase in the number of COVID-19 cases in some regions of the world, the partial restoration of previously lifted restrictions, and other factors create further uncertainty regarding global transport and logistics systems. At the same time, the uncertainty concerns not only the timing of a return to pre-crisis indicators but also the future image of the transport sector in the post-coronavirus world.

INTRODUCTION

The rapid spread of coronavirus infection in the world has led to the development of a global health crisis, the overload of national health systems, and serious economic consequences. A noticeable downside of measures to contain infection was, in particular, the cardinal restriction of transport activity.

According to the forecasts of the OECD International Transport Forum, the overall reduction in global transport traffic will be 36% compared to pre-crisis levels. Experts of the Forum note significant regional differences: if in the countries of ASEAN, Central Asia, Russia, and India, transport traffic will be reduced by more than half, then in the case of China the drop will not exceed 25%, while in Europe and the United States it will be at the level of 40%.

THE IMPACT OF THE PANDEMIC ON THE TRANSPORT SECTOR: GLOBAL TRENDS

Transportation of commercial goods by air is traditionally the least common due to the high cost. At the same time, for example, air freight rates across the Pacific Ocean increased by an average of three times by the end of March 2020, and in some periods – up to five times due to the cancellation of most flights, since cargo compartments of ordinary passenger aircraft are used for the transportation of commercial cargo in 45-50% of cases. If, on average, the values of the cost of air freight usually range from 3-4 dollars. Against the background of the hype demand for personal protective equipment, which has become the main type of goods transported by air from Asia to the United States, it reached $ 20 per kilogram. In the context of a reduction in the number of flights and passengers, airlines resorted to re-equipping aircraft to accommodate commercial cargo in the cabin, and not just in the luggage compartment.[3]

At the same time, unlike commercial cargo transportation, air transport accounts for the main share of international passenger traffic, and the introduction of restrictive measures by governments and the closure of borders has had a significant negative economic effect on airlines, incomparable with other modes of transport.

According to the forecasts of the Joint Research Center of the European Commission, considering the volume of the global passenger air transportation market, only the economic losses of the airlines themselves due to the inability to continue operations during the pandemic will lead to a reduction in global GDP by 1.67% by the end of the year, without taking into account indirect consequences for the economy. The reduction of jobs related to the air transportation sector is also estimated on a large scale, which may reach 30 million places (with a total of 65.5 million). [3]

According to the Flightradar24 application, in April 2020, an average of 69.6 thousand flights per day was recorded worldwide, which is 62% less than in April 2019. The number of commercial flights decreased by 73%.

Other transport industries feel a little more confident in the conditions of the crisis. According to experts, in the current conditions, a promising opportunity opens for the transportation of goods from China to Europe by rail: taking into account the significantly increased terms of cargo delivery by sea and the increase in the cost of air freight, many companies may choose to use the railway network, which is significantly less affected by restrictive measures. Many enterprises have started to change motor transport to rail transport – this is a global trend. Railway carriers are mentioned in the list of those to whom the pandemic has given new opportunities.

THE RESULTS OF THE PANDEMIC IN RUSSIA: THE TRANSPORT SECTOR

The transport sector is the most affected in absolute numbers in Russia.

It accounts for 1.27 trillion rubles or 2⁄3 of all losses of infrastructure companies. The share of the sphere's losses among the entire infrastructure is 66%. This, in our opinion, is due to the stabilization of the situation and the milder influence of new restrictions. (Figure 1)

In the transport sector, the main "generator" of losses is still the companies working with the air transportation infrastructure. Due to the countries closed to direct flights and low passenger flows on domestic airlines, the industry received about 713 billion rubles or about 42.5% of annual revenue. Of these funds, 113 billion rubles fell on airports, the remaining

600 billion rubles - on airlines. On average, the industry continued to lose 40-45 billion rubles a month from the loss of revenue. (Figure 2)

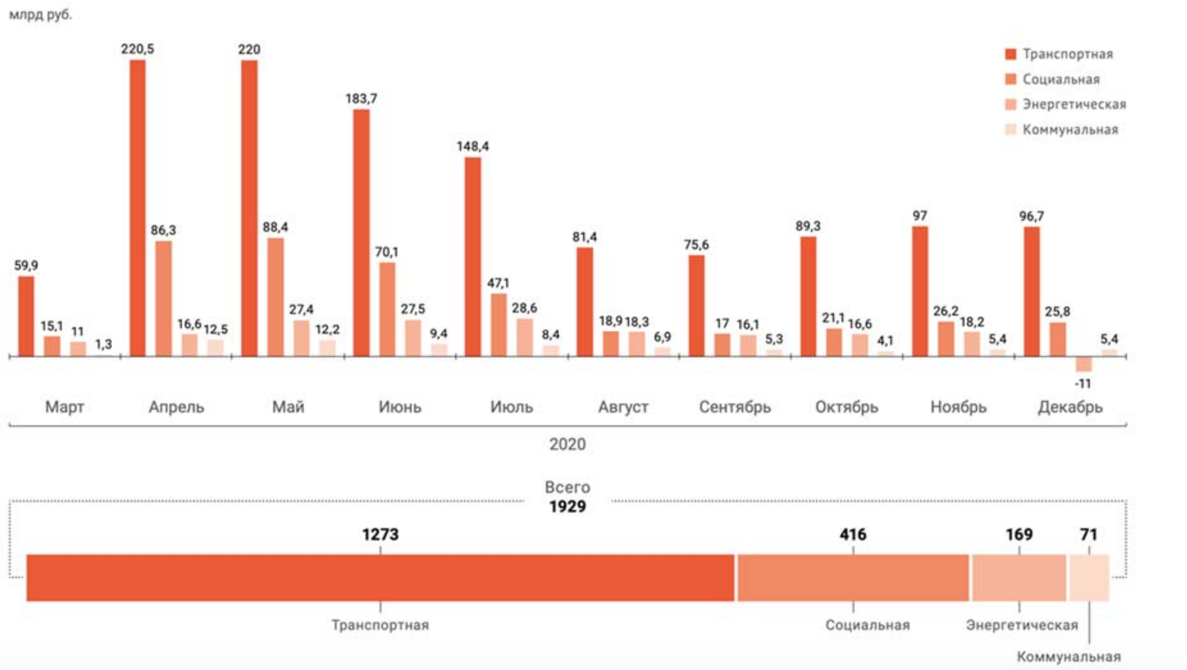

Fig. 1 Distribution of infrastructure losses in Russia in revenue in 2020 [1]

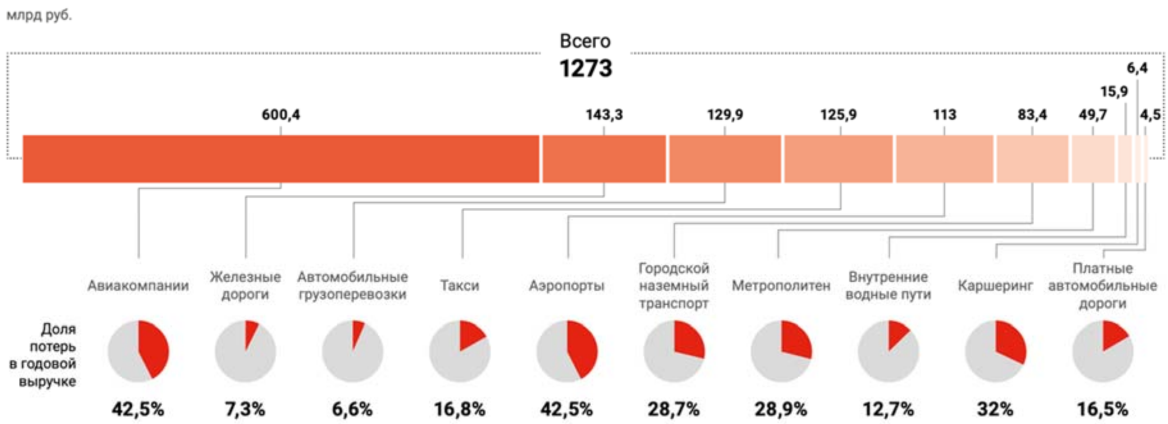

Fig. 2 Distribution of losses in the revenue of transport infrastructure in Russia in 2020 [1]

The range of countries with which regular flights were resumed after the first wave of diseases was narrow. At the end of December, it was possible to get to only 12 states without transfers, and the communication with the UK, which was opened in August, was suspended in December due to the discovery of a new coronavirus mutation, and this restriction was extended until at least the beginning of February. In general, Russians are allowed to enter more than 30 countries of the world, but not all of them have now been restored to regular flights.

The partial opening of borders with other countries at the end of July did not significantly change the situation with the loading of international airlines. Passenger traffic at Russian airports in this segment, even in the best months since the beginning of the pandemic — in September and October — was 80% lower compared to the same periods of the previous year. And in November, the drop on international lines was 85% compared to November 2019.

The restriction on flights abroad during the holiday season has significantly increased passenger traffic on domestic airlines: so, in August and September 2020, it was higher by 5.4% and 6.5% than in the same months of 2019, respectively. In October and November, the indicators sank again — by 7% and 23% - but even this decrease is not comparable to the collapse of April and May (by 87% and 85%). The recovery of the aviation industry will be closely linked with the resumption of active international flights, but the latter will depend on the pace of vaccination not only in Russia but also abroad. At best, a gradual return to the previous values may begin in the fourth quarter of 2021.[2]

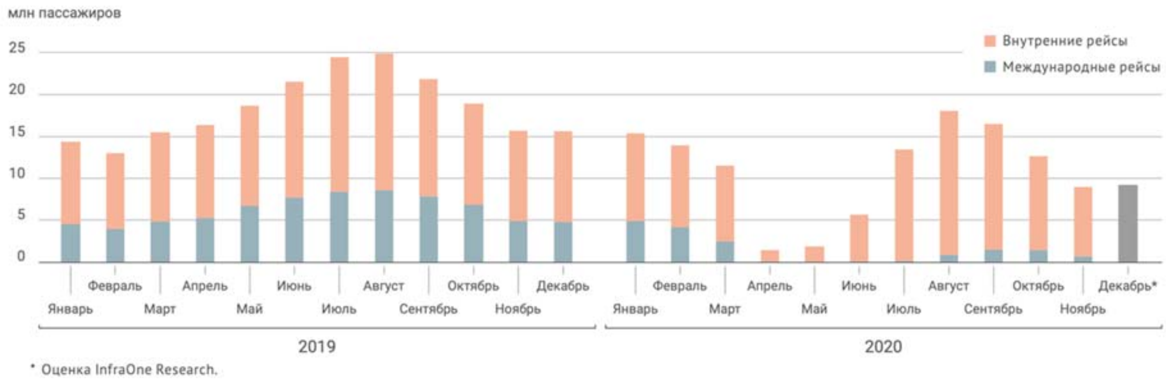

Fig. 3 Passenger traffic at Russian airports in 2019–2020 [1]

The lost revenue of various types of urban transport amounted to more than 265 billion rubles in 2020. The income of public transport (buses, trams, trolleybuses, metro) and the demand for taxi and car-sharing services were influenced by the activity of various social groups.

For example, in November□December in Moscow and large regions of Russia, this activity was restricted to pensioners, high school students, students who study remotely, and employees who work remotely. As a result, in these months, the load of public transport was about 20-25% lower than a year ago. In general, these sub spheres have lost about 30% of their annual revenue since the beginning of the pandemic. The exception was the taxi segment, which, after the spring restrictions of 2020, almost half managed to compensate for the lost revenue.

Losses from the pandemic in railway transport by the end of 2020 amounted to 143 billion rubles. They were "smoothed out" by the improvement in the situation with cargo transportation (by the end of the year they began to grow and approach last year's figures), but passenger traffic in at least October and November was lower compared to the same months of 2019 by 22% and 28%, respectively. That is, it fell significantly more than, for example, on domestic airlines.

Indicators in the field of road cargo transportation have significantly decreased.

Their fall in autumn and winter (according to Rosstat, by 10.5-11%) was comparable to what was observed due to the pandemic in the spring□early summer (12-14.5%). The volume of losses of the relevant companies by the end of 2020 amounted to about 130 billion rubles, or almost 6.6% of the annual revenue, which, however, is one of the lowest values for all transport sub spheres. [2]

Transportation on inland waterways decreased to a lesser extent, than previously predicted in the industry (there, in particular, they promised an almost 75% drop in passenger traffic). According to the Analytical Division of the InfraONE Group of companies, in 2020, about 32-33% fewer passengers were transported than a year earlier, and about 8.5% less cargo. This led to a loss of revenue in the industry in the amount of almost 16 billion rubles.

We believe that the situation in these transport sub spheres will slowly improve in the coming months. After the removal of the coronavirus threat, the recovery of revenue in urban public transport will occur, in our opinion, in less than a couple of months, and for other types of transport, it may take from one to three quarters.

CONCLUSION

The transport industry, being a significant sphere of the global economy, has not escaped the large-scale negative effects associated with the spread of the COVID-19 coronavirus infection in the world. International passenger traffic, the main share of which is accounted for by air transport, has experienced an unprecedented decline due to the closure of State borders and the introduction of other restrictive measures by Governments that have made it impossible for carriers to operate regularly. This led not only to financial losses for the carriers themselves but also to a serious reduction of jobs in the sector with further socio-economic consequences.

The impact of the pandemic on the cargo transportation sector turned out to be largely indirect and was mainly expressed in a reduction in demand for the services of transport companies due to the slowdown in global economic activity. As the economy recovers, there is also a stabilization in the international transport market.

At the same time, transport companies were tasked with ensuring the delivery of medical goods, personal protective equipment, and other vital goods in the conditions of shortage that developed in the first months of the pandemic. The current situation contributes to the growth of demand for alternative options for cargo transportation, such as rail transport, which were previously not actively used for economic reasons, but may receive new development opportunities.[4]

The development of measures to recover from COVID-19 and eliminate the consequences of the crisis can affect the evolution in the transport sector and make the need for improved transport management and the development of innovative ideas even more urgent. The need to stimulate innovation in the field of mobile applications and services will increase. At the same time, there is a risk of a decline in both private and public investment in transport innovations due to a shift in priorities towards healthcare or limited resources.

The transport industry, along with the hotel and tourism industry, was most affected by the crisis, but as the global movement of goods and people resumes, the situation in these industries will stabilize in the long term.

The pandemic can contribute to a rethinking of the organization of working life, transport, and infrastructure. It provides an opportunity to review not only the methods of work and introduce a remote format, but also to adapt the entire urban infrastructure to the "new normality". The work of public transport will change due to the introduction of mobile applications for route planning, contactless payment, the use of artificial intelligence in the management of transport enterprises.

All these processes require broad support from the state, both in terms of organizational and financial support. Governments develop development programs, allocate subsidies, grants, and give state guarantees for loans to transport companies.

The COVID-19 pandemic can become a starting point for global changes in the field of transport, as it fundamentally changes the established habits and order in this industry. Thus, the period of challenges and threats can be considered as a unique opportunity for the reform and innovative development of the transport sector.

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ТРАНСПОРТНАТА ИНДУСТРИЯ В КОНТЕКСТА НА ПАНДЕМИЯ: ФИНАНСОВИ АСПЕКТИ

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Ключови думи: *транспортна индустрия, пандемия, финансова подкрепа, криза, транспортни и логистични системи*

Резюме: *Глобалната транспортна и логистична система се оказа една от най-засегнатите области в резултат на пандемията COVID-19. Отрицателните последици се основават на различни фактори: затваряне на държавните граници, въвеждане на ограничения за движението на хора и стоки, нарушаване на веригите за доставка, намаляване на търсенето и на покупателната способност. Комбинацията от тези фактори повлия на всички видове транспорт - от използването на личен и обществен транспорт в градовете до осъществяването на пътнически и товарни превози както в рамките на страните, така и между тях.*

Мащабът на отрицателните последици зависи от вида транспорт и интеграцията на държавата в глобалната транспортна и логистична система. По време на пандемията 90% от полетите бяха отменени в страните от ЕС, имаше спад на пътническия транспорт с леки автомобили с 60-90%, а с обществения транспорт с 50%. До края на 2020 г. глобалният обем на товарните превози намаля с 36%, а загубите на руските транспортни компании възлизат на 230 милиарда рубли.

Днес страните са в преходен етап: в транспортния сектор има адаптация към актуализираните условия на дейност и постепенно възстановяване след кризата. Въпреки това все още има рискове. Очакването на третата вълна на пандемията, увеличаването на броя на случаите на COVID-19 в някои региони на света, частичното възстановяване на премахнатите преди това ограничения и други фактори създават допълнителна несигурност по отношение на глобалните транспортни и логистични системи. В същото време несигурността засяга не само времето за завръщане към предкризисните показатели, но и бъдещата концепция за транспортния сектор в света след коронавирус.