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The review "Russian Economy. Trends and Outlooks" has been published by the Gaidar Institute since 1991. This is the 41th issue. This publication provides a detailed analysis of main trends in Russian economy, global trends in social and economic development. The paper contains 6 big sections that highlight different aspects of Russia's economic development, which allow to monitor all angles of ongoing events over a prolonged period: global economic and political challenges and national responses, economic growth and economic crisis; the monetary and budget spheres; financial markets and institutions; the real sector; social sphere; institutional changes. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts confirming the conclusions.

By contrast to the previous publications the present issue includes also a short analysis of the first three months of 2020 from the perspective of the COVID-19 pandemic impact on the Russian economy development.

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□ Gaidar Institute, 2020

4.7. The transportation complex in Russia in 2019¹

The transportation complex and its development, in particular the development of transportation infrastructure, is one of the most important factors of economic growth. Investments in infrastructure invariably have a huge impact on long-term economic growth. A lack of proper infrastructure development can give rise to bottlenecks, imbalances and a significant increase in the cost of doing business.²

The transportation and logistics complex and related activities play a significant role in the functioning of Russia's national economy. According to data released by Rosstat, the transportation industry's share in GDP in 2017 and 2018 was 7.0% and 6.5%, respectively, and at year-end 2019, it was 6.6%.

According to the estimates released by the RF Ministry of Economic Development, from 2016 onwards the transportation sector has been making a positive input into GDP growth: 0.09 percentage points in 2016, 0.01 percentage points in 2017, and 0.19 percentage points in 2018; in Q1 and Q2 2019, 0.21 and 0.19 percentage points, respectively; and by year-end 2019, the annual input of the transportation industry into GDP growth is forecast be 0.12 percentage points. Through the existing inter-industry links, the transportation complex influences almost every sector of the national economy.

Below, we consider in more detail the main trends of 2019 and the previous years observed in Russia's transportation industry.

4.7.1. The general structure of transportation activities in 2019

Freight transportation

One of the key indicators of the transportation system's activity is freight transportation intensity³ – the index of freight transportation volume per unit of GDP, which measures the 'transportation load' on the economy. A lower freight transportation intensity indicates a relatively more efficient use of transportation. In most countries with market economies, this figure has been declining over the past decades, reflecting the relative cost reduction of transportation services.⁴ For Russia, a similar trend has been noted (*Fig. 32*),

¹ This section was written by *Borzykh K.A.*, junior researcher at the Laboratory for Infrastructural and Spatial Studies, ISMI RANEPA; *Ponomarev Yu.Yu.*, Candidate of Economic Sciences, Head of the Laboratory for Infrastructural and Spatial Studies, ISMI RANEPA, Senior Researcher at the Center for Real Sector of the Gaidar Institute.

² *Idrisov, G.I., Ponomarev, Y.Yu.* Infrastructure mortgage in Russia: opportunities and prospects // *Voprosy Ekonomiki*. 2019. No 2. P. 114–133.

³ The sum of shipment transportations, calculated by multiplying the shipment weight by the distance traveled.

⁴ *Speranza M.G.* Trends in transportation and logistics // *European Journal of Operational Research*. 2018. Vol. 264. No. 3. P. 830–836.

although the freight transportation intensity index of the Russian economy is still quite high and stays above the corresponding indices of other large countries with comparable average distances traveled by freight transportation (the USA, China, Germany, Canada).¹ At the same time, freight transportation intensity decline has been occurring alongside both an increasing freight volume carried by all types of transportation and an increasing freight turnover.

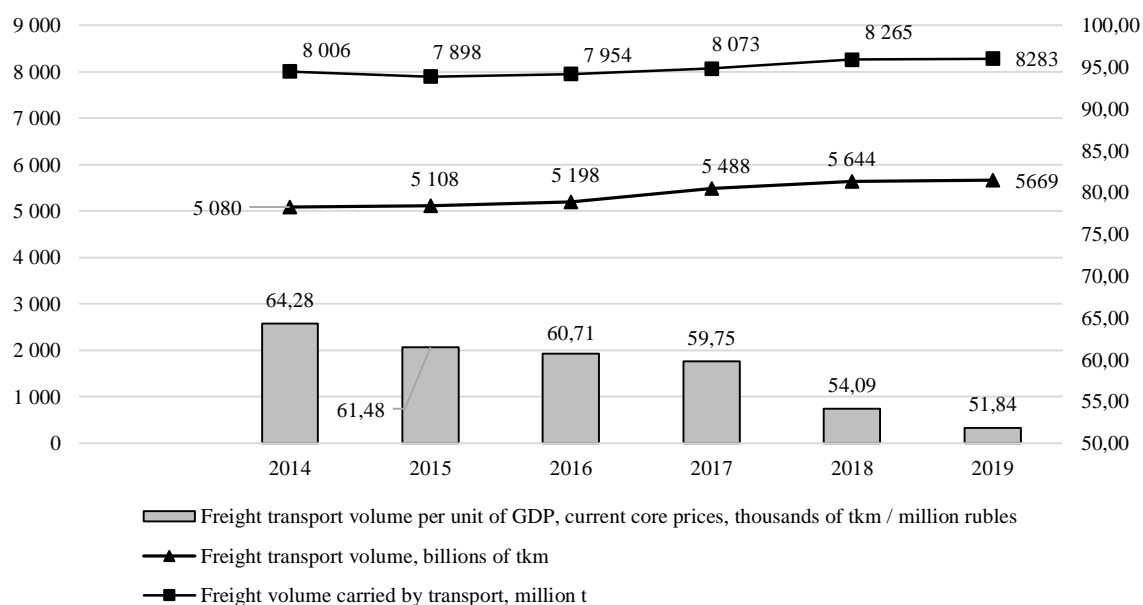


Fig. 32. The movement of freight transportation volume per unit of GDP, in current prices (right-hand side axis), freight transportation volume and freight turnover, 2014–2019

Source: Rosstat; own calculations.

The largest share in freight volume by transportation mode (less pipeline transportation) is taken up by railway transportation. Thus, in 2019, railway freight volume per unit of GDP in current prices amounted to 23.800 tkm / million rubles (vs 25,000 tkm / million rubles in 2018).

Overall in recent years, the freight transportation structure has undergone no significant changes: rail and pipeline transportation still prevail in terms of freight volume, but road transportation tops the list in terms of freight physical volume (Fig. 33 and 36).

A steady increase in freight turnover was observed practically every year over the period from 2009 to 2019. The leading role of pipeline and rail transportation (Fig. 33) can be explained by the fact that the spatial profile of long-distance transportation services (for example, the significant share of transportation of raw materials from remote deposits to their processing and consumption points) has changed only slightly compared with the other transportation modes. Road transportation, which is characterized by a more diversified structure (automotive vehicles of small, medium, or heavy capacity, etc.),² is mainly used for

¹ Integrated transportation system. M.: CSR, 2018.

² Analytical Center for the Government of the Russian Federation. Dynamics of freight transportation in Russia. Bulletin on Socioeconomic Crisis in Russia, 2015 (December). (In Russian). URL: <http://ac.gov.ru/files/publication/a/7400.pdf>.

carrying cargo over relatively shorter distances, including ‘door-to-door’ delivery, i.e. for short-distance transportation, where it has competitive advantages over other modes of transportation.¹ Over the past year, road freight transportation turnover gained 5.8%, increasing from 259 billion tkm in 2018 to 274 billion tkm in 2019.

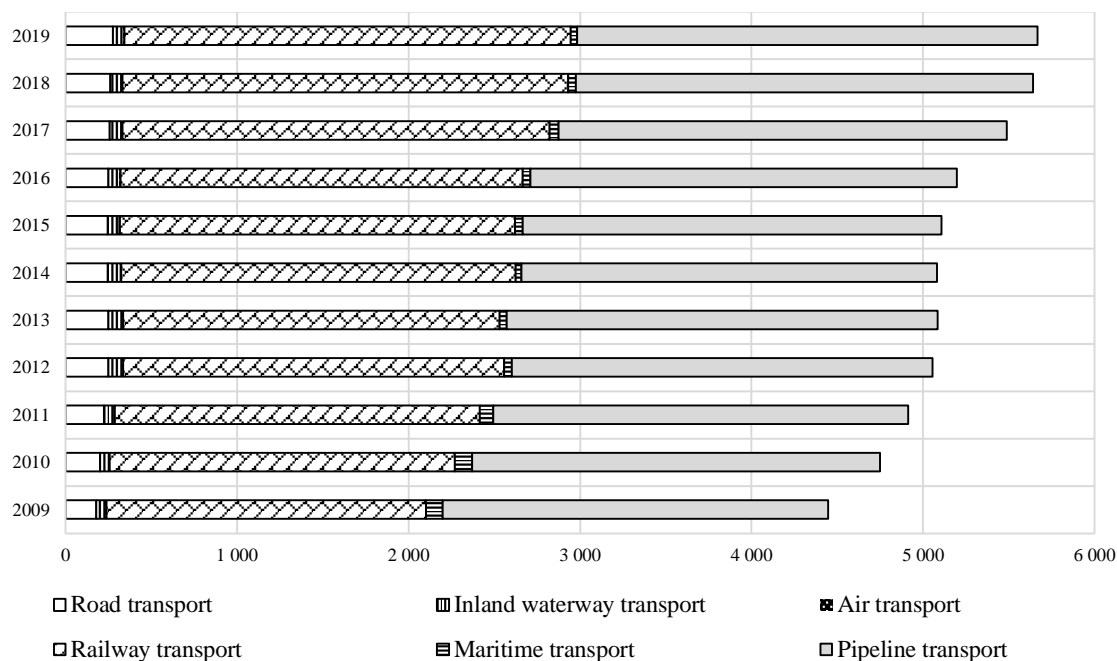


Fig. 33. Freight turnover structure by transportation mode (billion tkm), 2009–2019

Source: Rosstat; own calculations.

The market for commercial road transportation has been demonstrating a growing demand for transportation services on the part of the retail sector. Thus, in particular, a number of large retail companies (for example, X5 Retail Group) have launched an expansion across Russia’s regions, opening their outlets in some hard-to-reach and remote places, thus requiring efficient logistics and supply chains stretched over a vast territory.² In addition, distribution networks have displayed a tendency to increase the number of their distribution centers³ in order to centralize supplies and reduce the length of the transportation leg, and in doing so boost their turnover rate (the number of deliveries per day), thus also creating additional demand for transportation services.

Air freight is on the decline. Thus, while the freight turnover of Russian airlines in 2018 amounted to 7.8 billion tkm, in 2019 it shrank to 7.4 billion tkm (by 5.4%). The commercial freight load is also falling (by 1.4 percentage points). Overall in the civil aviation industry, the freight and mail transportation volume fell by 2.4%.⁴ There has been a decline in international air freight traffic, in particular between Russia and foreign countries outside the

¹ Integrated transportation system. M.: CSR, 2018.

² Piatyorchka goes to the taiga // Retail.ru. URL: <https://www.retail.ru/cases/pyaterochka-idet-v-taygu/>.

³ Sereda, D. Logistics in retail trade: how the federal networks are consolidating Russia anew. URL: <https://www.lobanov-logist.ru/library/358/63667/>.

⁴ Freight and mail transportation. RF Ministry of Transportation; Federal Agency for Air Transportation. URL: <https://www.favt.ru/deyatelnost-vozdushnye-perevozki-perevozki-gruzov-i-pochty/>.

CIS.¹ The other factors that impose constraints on the industry’s activity are the rising fuel prices and its sensitivity to forex rate fluctuations.

Maritime transportation accounts for about 1% of total freight turnover. In 2019, sea freight shipping also displayed negative dynamics, dipping by 19.5% relative to 2018 (up to 23 million t). However, maritime transportation competes with the other modes of transportation in the export sector: thus, in 2018, 12.2% of the total volume of exports was carried by sea (vs 12% in 2017). This is 5 percentage points more than that carried by rail.² In 2019, that ratio, with some minor changes, remained basically the same.

The largest share in the structure of maritime freight turnover by type of route and destination is taken up by cabotage,³ followed by exports (Fig. 34). The share of cabotage over the last two years (2017–2019) nearly doubled. The share of cargo turnover between foreign ports (BFP) decreased from 31% in 2017 to 12% in 2019. The share of imports has been steadily low, amounting to 1% of total maritime freight turnover in 2019.

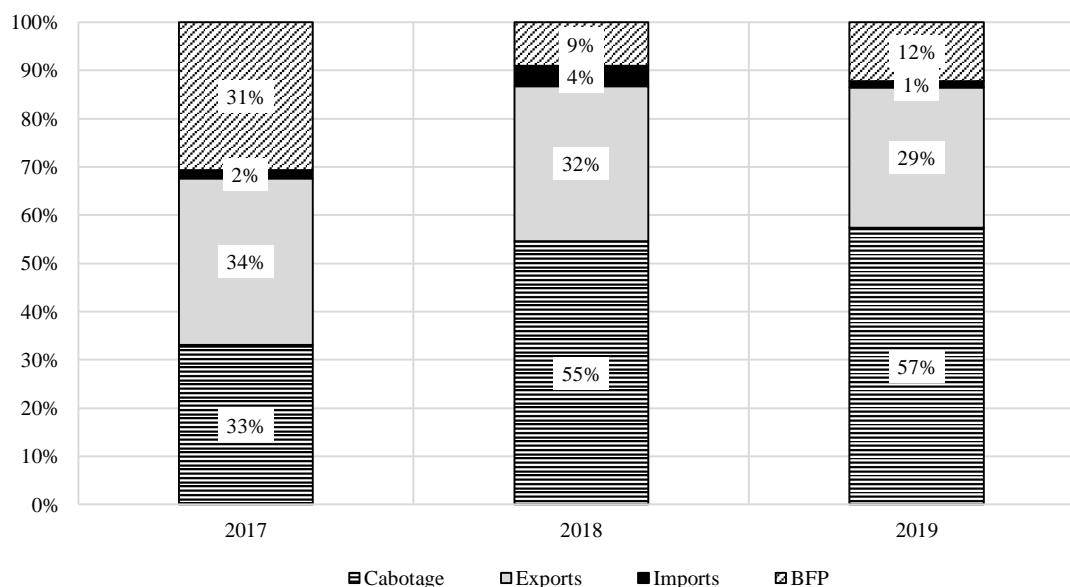


Fig. 34. Maritime freight turnover structure, by type of route, 2017–2019, %

Source: EMISS; own calculations.

In 2019, Russia’s inland waterway transportation turnover decreased only slightly: by 0.28% on 2018, and by 1.9% on 2017. Inland freight turnover, which takes up the biggest share (48%) in the freight volume carried by water transportation, lost 2.7% on the previous year.

¹ Main production indicators of civil aviation. RF Ministry of Transportation; Federal Agency for Air Transportation. URL: <https://www.favt.ru/dejatelnost-vozdushnye-perevozki-osnovnye-proizvodstvennye-pokazateli-ga/>.

² Freight transportation in Russia: An overview of current statistics. Bulletins on Current Trends in the Russian Economy, 2019. (September). Analytical Center for the Government of the Russian Federation. URL: <http://ac.gov.ru/files/publication/a/24196.pdf>.

³ Domestic cargo transportation by maritime vessels between Russia’s ports.

Unlike all the other modes of transportation, pipe carriers are highly specialized, and are designed primarily for the transportation of hydrocarbon raw materials. In 2019, the total pipeline transportation turnover reached 2,686.1 billion tkm, which is 0.7% above the 2018 index, and 2.7% above the 2017 index. At the same time, the year-end results of 2019 demonstrate a plunge, on 2018, of pipeline freight turnover by 8% for oil and petroleum products, and by 1.4% for natural gas.

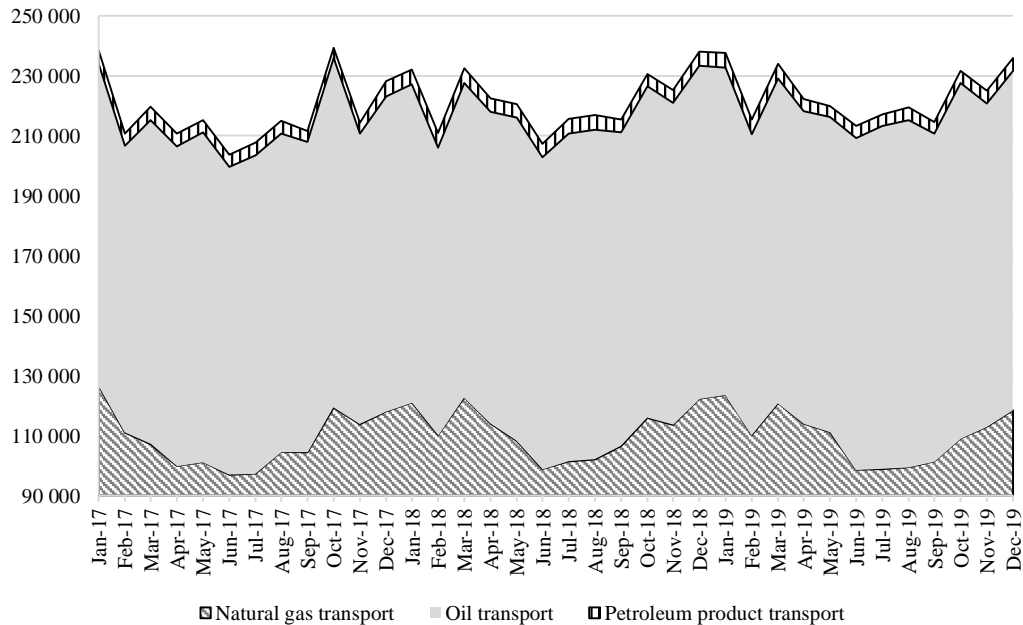


Fig. 35. Pipeline freight turnover structure (billions of tkm), 2017–2019

Source: EMISS; own calculations.

If the operation of the transportation complex is to be considered in terms of freight volume, in general one can point to the same trends as can be observed in the movement pattern of freight turnover, because over the past year the transportation network’s spatial structure underwent only some minor changes. In 2019, the total freight volume¹ increased by 0.2% on the previous year, to 8,283 million t (Fig. 36). The cumulative freight volume increase over the period 2009–2019 amounts to 11%.² The largest share in the freight transportation structure is taken up by road transportation: 69% of the total freight volume in 2019, which is 2 percentage points higher than in 2018. Railway transportation accounts for 15.5%, pipeline transportation for 14%, and the other modes of transportation for less than 1.5%. In 2019, the volume of transportation operations displayed the following trend: relative to the previous year, there was an increase in the volume of freight carried by road (+3%), while the corresponding indices for the other modes of transportation declined. In 2019, the freight volume carried by

¹ Without taking account of distances.

² Freight transportation in Russia: An overview of current statistics. Bulletins on Current Trends in the Russian Economy, 2019. (September). Analytical Center for the Government of the Russian Federation. URL: <http://ac.gov.ru/files/publication/a/24196.pdf>.

inland waterway transportation lost 15%, and that carried by maritime transportation lost 19.6%. The railway and air freight volumes likewise declined, by 9.3% and 7.7%, respectively.

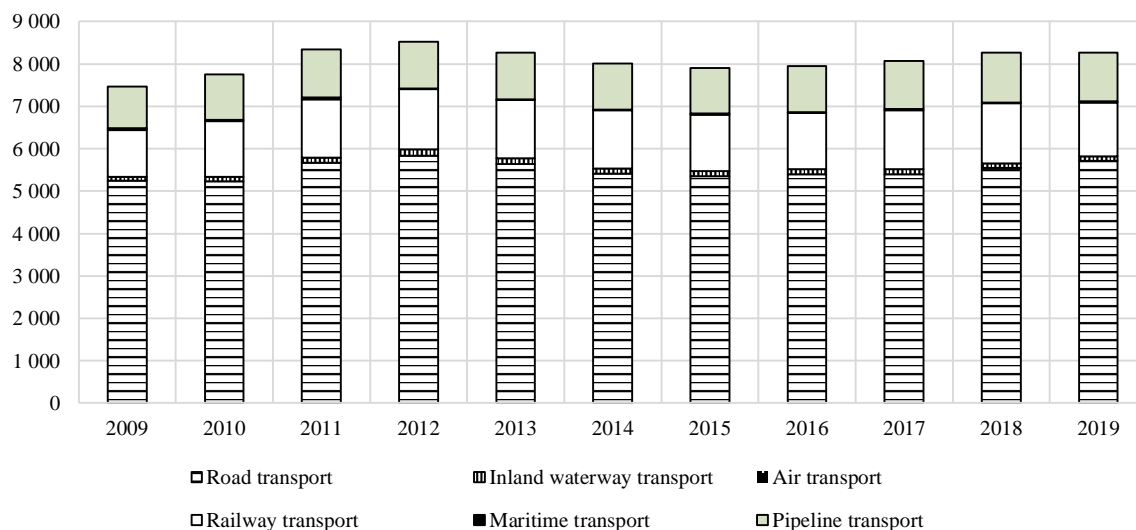


Fig. 36. The modal split of freight transportation (in million t), 2009–2019

Source: Rosstat; own calculations.

As demonstrated by current data,¹ in 2019, the turnover of organizations operating in the transportation and logistics complex and related activities amounted to RUB 13,188.6 billion. More than half of that index is accounted for by land and pipeline transportation (RUB 7,120.2 billion), including the value volume of freight carried by rail (estimated at RUB 2,144.5 billion).

The overall movement and changes in the modal split of freight transportation were also influenced by freight tariffs (*Fig. 37*). A general increase in the level of freight tariffs has been observed since 2011, and it continued throughout 2019. The highest volatility was demonstrated by the pipeline transportation tariffs. Meanwhile, the growth rate of tariffs imposed on road freight transportation and railway freight transportation has been on the decrease since 2015, but its upward movement was more rapid in the latter case than in the former. The overall level of freight transportation tariffs amounted to 101.5% (in December 2019 relative to December 2018), i.e. it was below both that of the consumer price index (103.0%) and the consumer price index for services (103.8%).

Overall in 2019, the transportation complex showed a positive trend in terms of its operation volume. According to the year-end results of 2019, the increase in freight turnover amounted to 0.5%, that of passenger turnover² – to 5.8%. The industry’s development was facilitated by the growing demand for transportation services, in particular for freight transportation. In 2019, the transportation system operation volume by mode of transportation did not undergo any significant changes relative to the previous years.

¹ The turnover of organizations, by type of activity (full range of organizations). URL: <https://gks.ru/folder/14036>.

² By main type of public transportation, less underground transportation systems, taxis, tramways and trolleybuses (no recent data available).

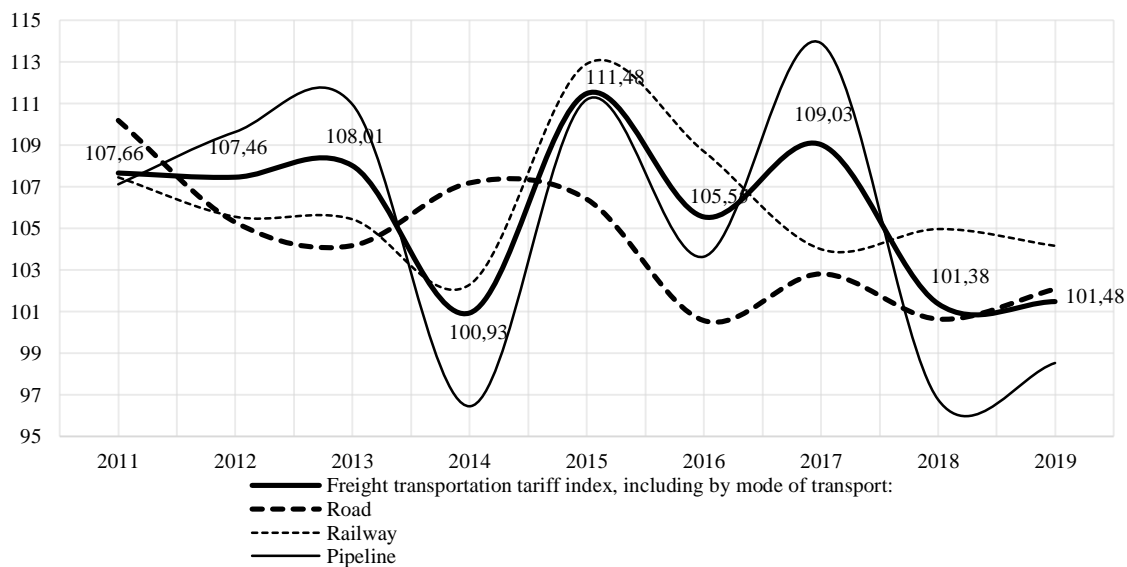
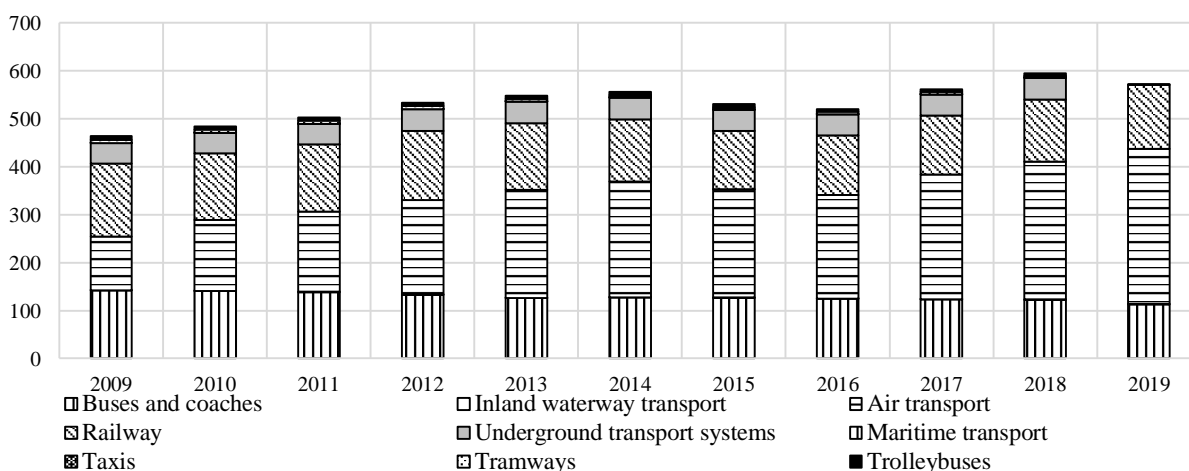


Fig. 37. The movement of freight tariffs, December relative to December of the previous year, %

Source: EMISS; own calculations.

Passenger transportation

Over the previous years (except the period 2015–2016), there was a fairly steady increase in passenger turnover. The biggest share in total passenger turnover is taken up by land transportation (Fig. 38). More particularly, this is railway transportation (about 20%) and the various types of urban public transportation: buses and coaches, the underground, tramways, and trolleybuses (in equal measure), i.e. those modes of transportation that prevail in the intra-regional/inter-city transportation systems. A significant input into the total passenger turnover has been made by air transportation (323 billion passenger-km in 2019); over the period 2009–2019, its share increased 2.8 times.



Note. No 2019 data is available for trolleybus, tramway, and underground transportation.

Fig. 38. The modal split of passenger traffic (billion pkm), 2009–2019

Source: EMISS; own calculations.

Over the period 2009–2019, the modal split of passenger air traffic underwent a number of changes (Fig. 39). More particularly, in 2009–2013 the passenger turnover index for international routes was growing at a faster pace than that for domestic flights, thus increasing its share in the total passenger turnover; later on, in 2014–2015, its growth rate declined. From 2015, the gap between domestic and international flights in the total passenger turnover was contracting; when cleared of seasonal fluctuations, the domestic and international passenger turnover indices become approximately equal. In 2019, the average share of passenger turnover on domestic routes in the total passenger turnover amounted to 42%. However, in the category of non-scheduled flights,¹ international routes were clearly predominant, with a large margin, in terms of passenger turnover: over the entire period 2009–2019, the share of domestic passenger turnover index in that segment did not exceed 15.5%.

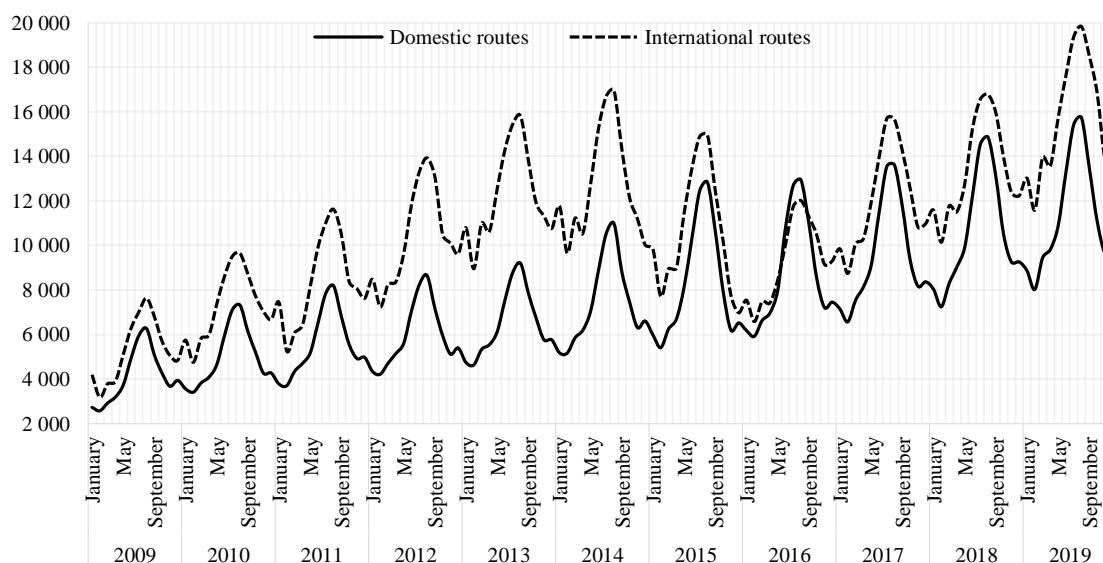


Fig. 39. The movement of air transportation passenger turnover (million pkm), 2009–2019

Source: EMISS; own calculations.

In the structure of maritime transportation passenger turnover, the biggest share (94.6% in January – December 2019) is taken up by cabotage, including commuter routes; the remainder is represented by international routes. Overall, passenger turnover displays a downward trend, having plunged by 41% (from 47.6 million passenger-miles in 2016 to 28 million in 2019).

By type of inland waterway transportation route, the highest index is demonstrated by transit passenger turnover on the routes across several subjects of the Russian Federation and the tourist routes taking more than 24 hours (Fig. 40). Next comes the index of local passenger turnover (within the borders of one subject of the Russian Federation). The number of passengers carried displayed a downward trend in 2019 (10 million) relative to 2018 (12 million).

¹ Transportation on an irregular basis: charter flights, custom flights, special flights, tourist routes that are not reflected in regular flights. See *The global competitiveness report 2018* // World Economic Forum. URL: <http://reports.weforum.org/global-competitiveness-report-2018/competitiveness-rankings/#series=GCI4.A.02>.

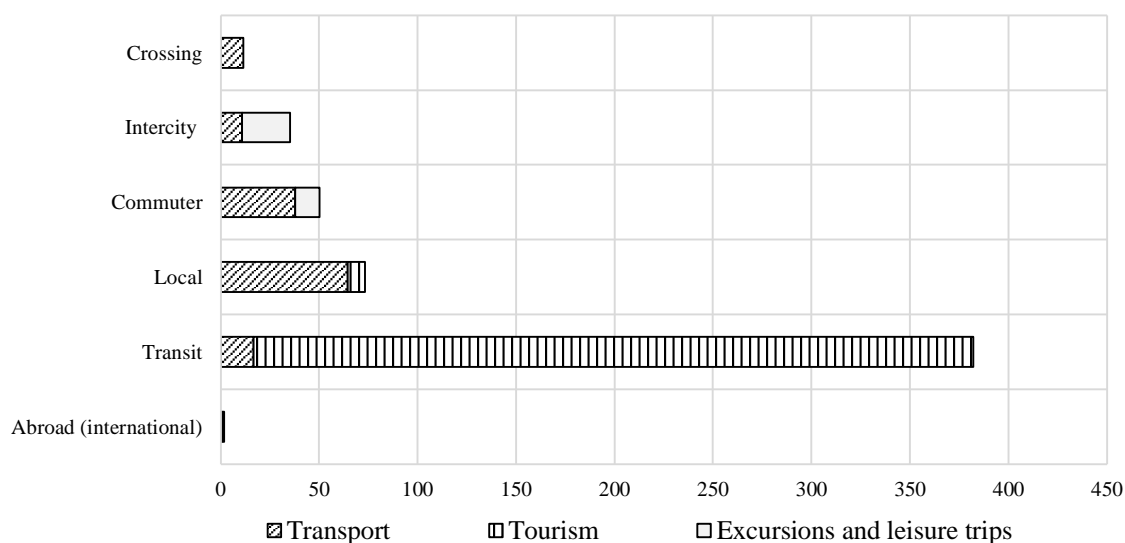


Fig. 40. The inland waterway passenger turnover structure, by type of route (million pkm), January – December 2019

Source: Unified Interdepartmental Information Statistics System (EMISS); own calculations.

In general, there was a decrease in the share of freight and passengers carried by inland waterway vessels in the total volume of transportation services provided by all modes of transportation.

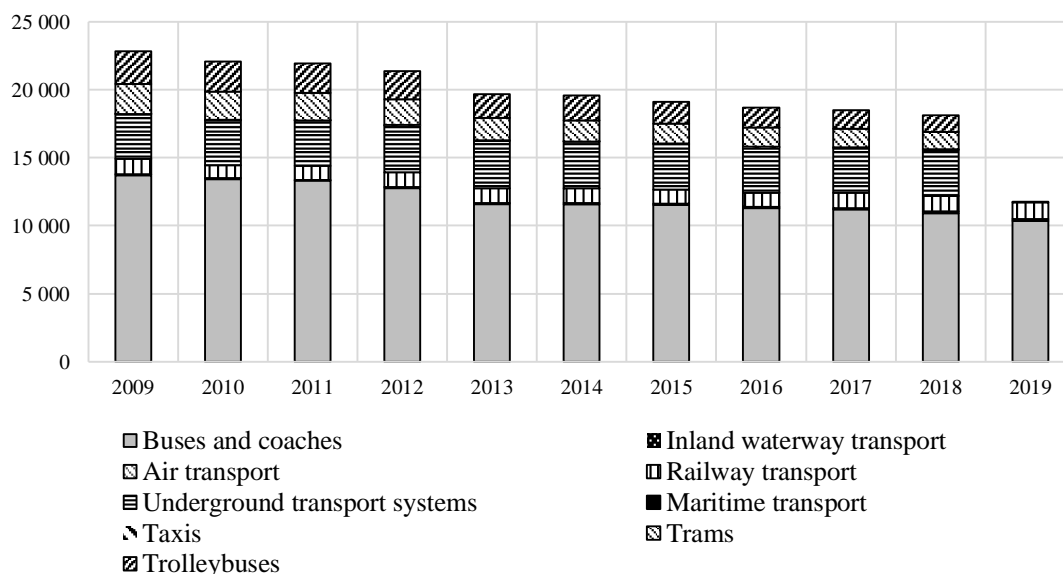
At the same time, there has been a downward trend in the nominal volume of passenger transportation services (*Fig. 41*), as well as a shrinkage in the corresponding indices for trolleybus, tramway, and bus and coach services, which could be caused by the rising tariffs for passenger transportation services that were moving ahead of the growth rate of personal disposable income, as well as by the gradually increasing motorization rate¹ in this country. According to data released by the RF Ministry of Transportation, the growth of passenger transportation tariffs in September 2019 relative to December 2018 amounted to 107.1%. According to the period-end results of the first 9 months of 2019, the steepest price increase was noted for air transportation services (17%). The prices for the services of railway, urban electricity-powered and automobile transportation gained 3.0%, 3.9%, and 4.4%, respectively.²

In the passenger turnover structure, bus and coach services prevail, having carried in 2019 a total of 10.3 billion passengers.³ Next come underground transportation systems (more than 3 billion passengers in 2018), while tramway and trolleybus services taken together account for about 2.5 billion passengers (2018). At the same time, the annual passenger turnover of railways in 2019 remained virtually unchanged relative to 2009, and even displayed a slight upward trend in 2015–2019.

¹ The motorization rate is the number of passenger vehicles per 1,000 people (Rosstat).

² Statistics Bulletin ‘Transportation of Russia’. January – September 2019. RF Ministry of Transportation. URL: <https://www.mintrans.ru/ministry/results/180/documents>.

³ Without taking account of distances.



Note. No 2019 data was available for trolleybus, tramway, and underground transportation at the moment of writing this section.

Fig. 41. The passenger transportation structure, by mode of transportation (million passengers), 2009–2019

Source: EMISS; own calculations.

The number of flight departures doubled, from 593,000 in 2009 to 1.1 million in 2019. For domestic routes, the growth rate was 89.7%, for international routes, 85.7%. The number of passengers carried on domestic routes increased 3-fold, that on international routes, 2.6 times. The air transportation market supply in 2019 became redundant:¹ as demonstrated by the period-end results of the first 5 months of 2019, the seat occupancy index of Russia’s five biggest airlines fell by 0.1–2.4%.² However, overall by year-end 2019, this index demonstrated a slight positive dynamics, increasing from 83.8% in 2018 to 83.9% in 2019. In particular, an increase in the seat occupancy index on the international routes between Russia and foreign countries outside of the CIS amounted to +0.3 percentage points, while an opposite trend was noted for the international routes between Russia and the CIS members (-0.3 percentage points) and domestic routes (-0.2 percentage points).³

The transportation sector and related activities are characterized by the high depreciation rates of their fixed assets (55.7%), which is above the nationwide average depreciation rate of fixed assets by 9.1 percentage points. More particularly, as of 2018, the road passenger transportation and inland waterway transportation sectors, as well as those of road freight transportation and pipeline transportation, are those that are most in need of renovating their fixed assets.

¹ Saveliev says there is excess supply in the air transportation market of the RF // RIA News. URL: <https://ria.ru/20190625/1555914146.html>.

² Passenger seat occupancy is going down // Kommersant. URL: <https://www.kommersant.ru/doc/4018376>.

³ Passenger transportation. RF Ministry of Transportation; Federal Agency for Air Transportation. URL: <https://www.favt.ru/dejatelnost-vozdushnye-perevozki-perevozki-passazhirov/>.

According to the Global Competitiveness Rankings 2019, in terms of transportation infrastructure development, Russia is ranked 49th out of 141 countries.¹ Russia lags farthest behind the topmost countries by its road network development and quality of roads indexes, ranking 65th and 99th respectively (*Table 33*).

The road quality index, on which the ranking is based, is composed of the index of average speed on the roads connecting the 10 largest cities where at least 15% of the country's population resides, and 'road connectivity'.

Table 33

Russia in the Global Competitiveness Rankings

Index components	Russia's ranking in 2018/2019	Index components	Russia's ranking in 2018/2019
Infrastructure (overall)	51/50	Transportation infrastructure	52/49
Efficiency of train services	15/17	Efficiency of air transportation services	52/52
Efficiency of seaport services	45/47	Road connectivity	38/41
Road connectivity:		Airport connectivity	18/18
Waterway infrastructure	53/51	Air transportation	23/24
Quality of roads infrastructure	104/99	Roads	65/65
Railways	47/49	Railroad density	69/69
Water transportation	48/42		

Source: Global Competitiveness Report 2018; 2019.

According to the rankings based on the Logistics Performance Index (LPI), Russia in 2018 was in 75th place, and by infrastructure development (which is one of the components of the LPI index), it ranked 61st.²

By looking at Russia's world rankings according to these indicators, we can conclude that, as far as infrastructure is concerned, even with due regard for the geographical characteristics of its territory, this country is lagging far behind both the developed and developing countries that have a similar economic development level (*Fig. 42*).

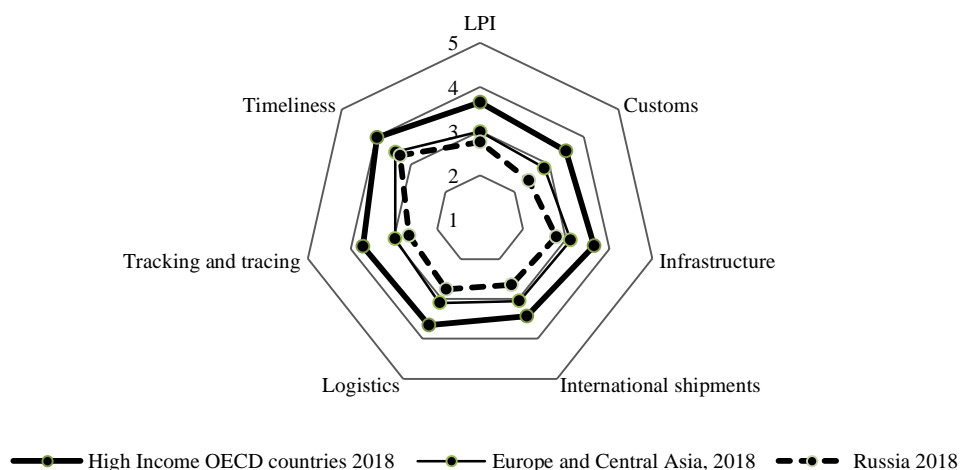


Fig. 42. Russia's logistics performance rankings, 2018

Source: World Bank. URL: <https://lpi.worldbank.org/international/aggregated-ranking>.

¹ Global Competitiveness Report 2019. World Economic Forum. URL: <http://reports.weforum.org/global-competitiveness-report-2019/competitiveness-rankings/#series=GCI4.A.02>.

² Aggregated LPI 2012-2018 // World Bank. URL: <https://lpi.worldbank.org/international/aggregated-ranking>.

As before, the principal infrastructural constraints in this country at present are those that have to do with poor connectivity of its domestic routes (insufficient density of the road network, significant regional imbalances, the star configuration of the road network, overloading on many roads), low connectivity with foreign markets (out of all the regions, these issues are felt most strongly in the South of Russia and in the Russian Far East,¹ where there are many bottlenecks on the roads running along the Pacific coast and the railway approaches to the ports situated in the Azov-Black Sea basin), low security, poor integration of advanced technologies in the development of the transportation industry, and organizational difficulties in developing the existing infrastructure.

All these constraints have been decidedly shaping the movement patterns of passenger and cargo turnover over recent years. The progress of Russia's transportation complex in 2009–2019 did not demonstrate any cardinal shifts that could translate into a significant improvement in the situation in that industry.

An analysis of the specific development trends displayed by each mode of transportation can help clarify the dynamics of the entire industry, as well as the transportation and logistics complex as a whole. Having analyzed the more general movement patterns of transportation service indicators, we are proceeding to consider in more detail each mode of transportation from the point of view of the key factors of supply of and demand for transportation services – the state of transportation infrastructure, rolling stock, and vehicle fleets.

4.7.2. The state of the transportation infrastructure, rolling stock, and vehicle fleet specific to each mode of transportation

Road transportation

Due to its relatively low fixed costs and high variable (operating) costs per km, road transportation is the most efficient method of traveling over small and medium distances.² Road transportation prevails in the overall structure of freight and passenger transportation services because of its higher accessibility for customers and the huge fleet of vehicles currently possessed by the transportation complex. At the beginning of 2019, Russia's automotive fleet consisted of 84% of passenger cars (43.5 million units), 8% of light commercial vehicles, and 8% of freight vehicles.³ Over H1 2019, it further increased by more than 1%, and thus amounted to 52.4 million units.⁴

The passenger transportation industry has been demonstrating positive dynamics, in particular an improving availability of transportation services for the individual customers: the urban transportation fleet has increased, including by adding more energy-efficient buses powered by natural gas instead of motor fuel. However, the road transportation fleet as a whole is characterized by the highest current amortization rate compared with the other modes of transportation: as of year-end 2017, about half of the fleet of passenger cars and buses had been in operation for more than 10 years. If we look at the age structure of the fleet, 61% of trucks

¹ Integrated transportation system. M.: CSR, 2018. URL: <https://www.csr.ru/wp-content/uploads/2018/05/Report-Traffic-Infrastructure-2.0.pdf>.

² Ibid.

³ Experts counted the number of automobiles in Russia // The Russian Newspaper. URL: <https://rg.ru/2019/02/14/eksperty-podschitali-kolichestvo-avtomobilej-v-rossii.html>.

⁴ The Russian automobile fleet exceeded 52 million units. URL: <https://www.autostat.ru/news/40983/>.

had been in use for more than 10 years.¹ In 2019, the average age of an automotive vehicle was 13.4 years, and the age of 35% of the fleet was over 15 years.²

As for the public motor road infrastructure, the previously established development priorities remained relevant in 2019 as well: that of expanding the road network and improving its quality in order to make it consistent with the existing norms, and to implement state-of-the-art technologies and standards. Quite often, the star configuration of the existing road network (instead of matrix grid) is pointed out as one of the manifestations of insufficient road connectivity across this country's territory; if we add here the geographical features of Russia, the lengthy journeys along its roads translate into high mileage on the odometer. The currently existing highway network in Russia (in particular, the federal highways) is structured in such a way that the traffic flows are centered mostly around the Moscow agglomeration, and to a lesser extent around the St. Petersburg agglomeration, thus causing an overload of the Moscow transportation hub, while the horizontal connections between regions are for the most part underdeveloped.

As of year-end 2018, the total length of public roads of federal, regional or inter-municipal and local importance was more than 1.5 million km, of which 965,000 km were roads of local importance, 510,000 km were roads of regional and inter-municipal importance, and 54,000 km were roads of federal importance. As far as their structure is concerned, after 2012 there has been a steady increase in the length of roads of local importance, and in 2017–2018, the total length of federal highways grew by 2,000 km. It should also be noted that the total length of paved roads was also increasing over the period 2012–2018 (Fig. 43).

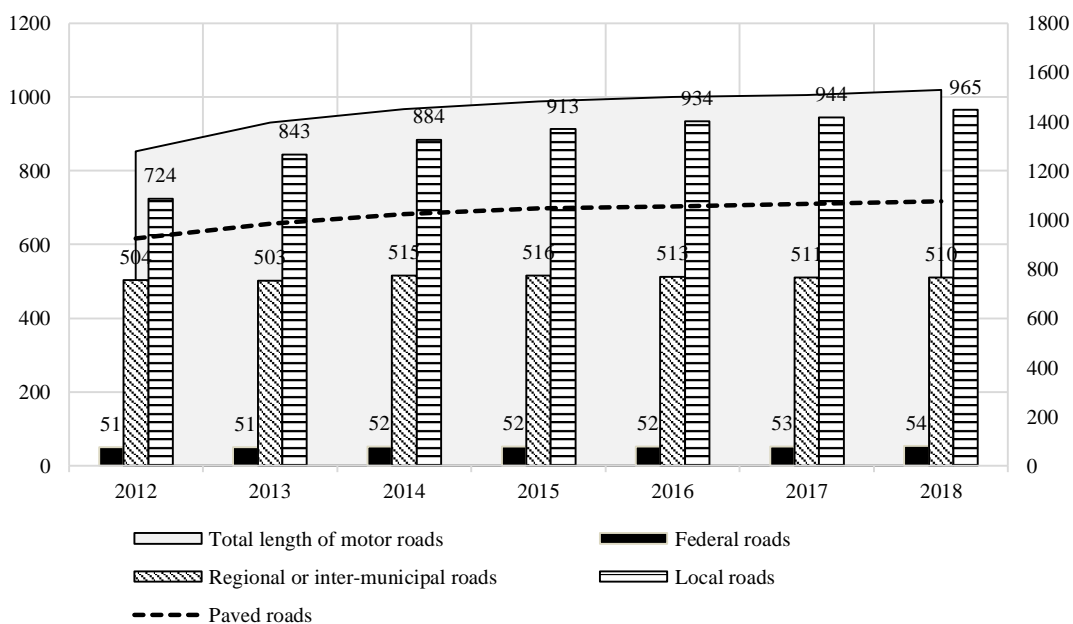


Fig. 43. The length of public motor roads (thousand km), 2012–2018

Source: Rosstat; own calculations.

¹ Transportation in Russia. M.: Rosstat, 2018.

² Since the beginning of this year, Russia's automobile fleet increased to 52.4 million cars // RIA News. URL: <https://ria.ru/20190919/1558863271.html>.

As of 2019, the share of motorways and expressways in Russia accounted for less than 0.5%¹ of the paved road network's total length. Besides, there exist regional imbalances in the level of its development. Because of the absence of paved roads in some areas, more than 10% of this country's population in spring and autumn are cut off from transportation communications. The roads serving more than 30% of localities, whose combined population amounts to almost 500,000 people, are not connected with paved roads.

As of year-beginning 2019, the share of motor roads of regional importance that meet regulatory requirements amounted to 42.4% (a decline of 2 percentage points since 2007), while the corresponding indicator for the urban agglomeration road network also amounted to 42%. According to Rosavtodor's plans, by year-end 2019, the share of roads of regional importance complying with the established norms was to increase to 44.1%, that of the urban agglomeration road network – to 46%, and the length of roads – to 218,000 km.²

According to the data released by the Association of Road Design and Survey Organizations, in 2015, only 53.5% of the total length of federal roads that carry more than 40% of freight traffic, including international and inter-regional, was suitable for vehicles with an axial load of 10 metric tons or more, and only 8.8%, for vehicles with an axial load of 11.5 metric tons.³ In 2018, the roads of regional, inter-municipal, and federal importance suitable for the passage of heavy trucks belonging to these categories accounted for 29.9% and 0.4%, respectively, of the total length of motor roads.

As before, the existing administrative barriers, including pressure from supervisory bodies and excessive bureaucracy, create obstacles in the way of innovative solutions, the use of modern materials and structures, and the selection of highly-performing contractors through tenders for the implementation of building construction projects.⁴

One of the main reasons for traffic congestion on many motor roads of federal and regional importance has become the gap between supply and demand in transportation services sector. The demand for road infrastructure services is growing rapidly due to swift motorization⁵ and increasing population mobility, as well as to the ever-increasing volume of freight transported by road,⁶ and is surpassing the pace of growth of the infrastructure that is necessary to satisfy it (*Fig. 44*). The upward trend displayed by the motorization rate also

¹ Own estimations based on open data released by State Corporation *Avtodor* and Rosstat as of year-beginning 2019.

² The contracting of roadwork projects must be completed by the regions by March 1. RF Ministry of Transportation's Press Center. URL: <https://mintrans.ru/press-center/news/9406>.

³ Proposals (draft) on the execution of the instruction of the RF President of the Russian Federation issued following the Meeting of the State Council Presidium on improving Russia's road network, 2015. Association of Road Design and Survey Organizations. URL: http://rodosnpp.ru/media/rodos/documents/2015/perepiska/dr_org/_120215_-19.pdf.

⁴ Transcript of the meeting of the State Council on road network development and road safety. URL: <http://kremlin.ru/events/president/news/60825>.

⁵ According to data released by Rosstat and the RF Ministry of Transportation, alongside an increase, over the period 1998–2008, of the length of public roads by 15%, the car fleet gained almost 75%. Later on, in 2008–2018, the growth of the car fleet and the motorization rate (vehicles per 1000 people) became somewhat slower. Growth over that decade amounted to 23% (for all types of motor vehicles, including trucks, buses and coaches, trolleybuses, and passenger cars) and 46%, respectively. It should be noted, however, that in general over the period 1995–2007, population mobility on non-urban routes declined by 60% – mainly due to a reduction in travel related to leisure and tourism.

⁶ The increase in the volume of motor freight traffic in 2008 relative to 2000 amounted to 17.3%, while the increase in freight turnover amounted to 41.2%. The total amount of freight transported by motor vehicles in 2008 was 6.9 billion tons, while the volume of freight turnover amounted to 216 billion tkm.

continued in 2019. According to various estimates, the passenger car fleet at year-beginning 2020 amounted to 44.5 million units.

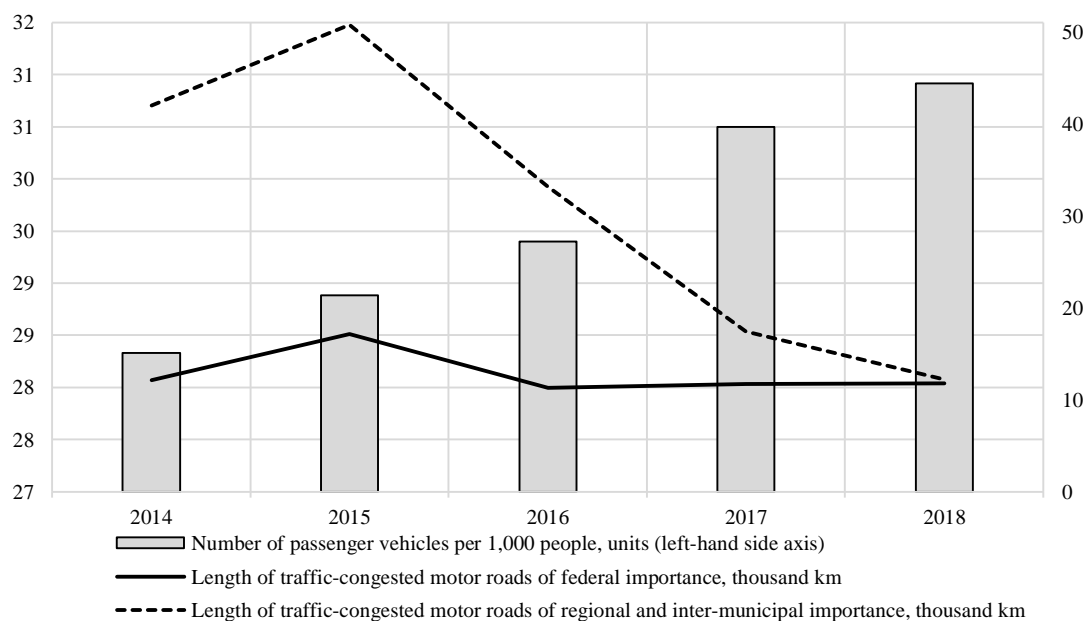


Fig. 44. The level and growth rate (% , relative to the previous period) of traffic congestion on federal and regional roads, and the level and growth rate of motorization, in 2014–2018

Source: Rosstat.

In this connection, it should be noted that the steadily growing demand for transportation infrastructure services has not led to a significant improvement in the state of the road network.

Over the period from 2014 to 2018, the length of lighting lines on roads of federal importance and civil engineering works increased from 6,000 to 9.600 km. At the same time, to date, the level of illumination of (federal) motor roads remains extremely low.¹ However, a positive trend has been observed in length of repaired roads. In 2019, the total length of repaired paved roads of regional and inter-municipal importance stood at 14.600 km, thus doubling the corresponding indicator for 2015. A significant growth was noted in the index of major repairs of motor roads of regional and inter-municipal importance: 1,185 km in 2019 against 401 km in 2018; however, this indicator is below that of the total length of federal roads that underwent major repairs (1,811 km in 2019).

Within the framework of the National Project *Safe and High-Quality Roads*² for 2018–2024, it is planned to upgrade the road networks in major cities and metropolitan areas, thus bringing them into conformity with the established norms and increasing their safety level. The measures designed to improve the road system performance indicators of the 38 largest urban agglomerations situated in 36 subjects of the Russian Federation were launched in 2017–2018, in the course of implementation of the Priority Project *Safe and High-Quality Roads*. The

¹ Transcript of the meeting of the State Council on road network development and road safety. URL: <http://kremlin.ru/events/president/news/60825>.

² By way of implementing the Executive Order of the President ‘On National Goals and Strategic Objectives of the Russian Federation through to 2024’.

number of subjects involved in implementing the current national project has increased to 83 (including 104 city agglomerations). Based on the implemented national project's results, by 2024, the relative share of regional roads consistent with the established norms is expected to increase to 50.9% (vs 41% at year-end 2018¹), the number of traffic accident hotspots is expected to decrease by half relative to 2017, while the share of traffic-congested federal and regional motorways is also anticipated to decline.² According to recent data, there is a positive trend in the share of federal roads that meet regulatory requirements, from 53% in 2012 to 83% at year-end 2018.

The motor road sector is also positively influenced by the measures designed to expand the road network, including the construction and putting in operation of expressways, to improve the road surface quality, and to eliminate the existing traffic bottlenecks. Another project, to be implemented over the next few years, is the Comprehensive Plan for the Modernization and Expansion of Trunk Infrastructure for the Period until 2024, approved in 2018; the plan outlines the measures designed to improve economic connectivity across the territory of the Russian Federation through the expansion and modernization of all modes of transportation. According to the Comprehensive Plan, by 2024, the construction of 300 km of motorways and expressways is to be completed, while the share of roads operating without overload will be increased from 26.9% to 67%. It is also planned to build international (high-speed) transportation corridors (Europe – Western China, West – East, North – South) as part of one of the priority directions in the transportation system development (integration into the global transportation space and the realization of this country's transit potential).³

Railway transportation

The relatively low variable (operating) costs per km (and high fixed costs) make railway transportation a very cost-effective and competitive method of carrying high-tonnage goods and passengers over long distances, as evidenced by the high share of railway transportation in this country's freight and passenger turnover.

The main limitations of the railway infrastructure are the existence of bottlenecks in some parts of the railway system; the long length of tracks and delays in their scheduled repairs; the absence of high-speed railway lines; and the low density of the railway network in Siberia and the Far East.

The density index of the railway network over the period 2000–2018 remained virtually unchanged. Besides, in a number of regions (the Altai Republic, the Republic of Tyva, Kamchatka Krai, Magadan Oblast, as well as the Nenets Autonomous Okrug and the Chukotka Autonomous Okrug) there is no railway network at all, which increases the load on other modes of transportation (road transportation for short and medium trips, and air for long trips) and reduces the overall transportation infrastructure availability for the population and the economy.

As of year-end 2019, the length of railways operated by *Russian Railways* OJSC (and its subsidiaries) amounted to 85,600 km, while the length of electrified railway lines was 43,800 km. At present, the company handles 46% of Russia's total freight turnover (including pipeline

¹ Data released by EMISS; own calculations.

² Implementation of the National Project *Safe and High-Quality Roads*. URL: <https://bkdrf.ru/massmedia>.

³ Directive of the RF Government No 2101-r dated September 30, 2018 (as amended on August 17, 2019) 'On approving the comprehensive plan for the modernization and expansion of trunk infrastructure for the period until 2024'.

transportation), and 26.4% of passenger turnover.¹ As part of its railway infrastructure development in 2019, the company put into operation 422.7 km of railways, and more than 400 km of railway lines and station tracks were electrified.²

Since 2013, the structure of rolling stock in the railway sector has undergone some changes (Fig. 45): there was a reduction in the number of freight cars and a simultaneous increase in locomotives, passenger railcars, and electric railcars.

The introduction of more stringent rolling stock technical condition requirements, in particular the shortening of the service life of freight cars, has led to a shrinkage in the rolling stock available in the freight transportation market. As of December 2019, railroad freight rates rose 4.2% relative to December 2018; as of June 2019, these rates rose 4.7% relative to June 2018; and as of December 2018, they rose 5% relative to December 2017. At present, there has been an increase in the output of the domestic-market-oriented railway engineering sector³ and in the volume of railway cars purchased in order to boost the output of rail supply enterprises.⁴

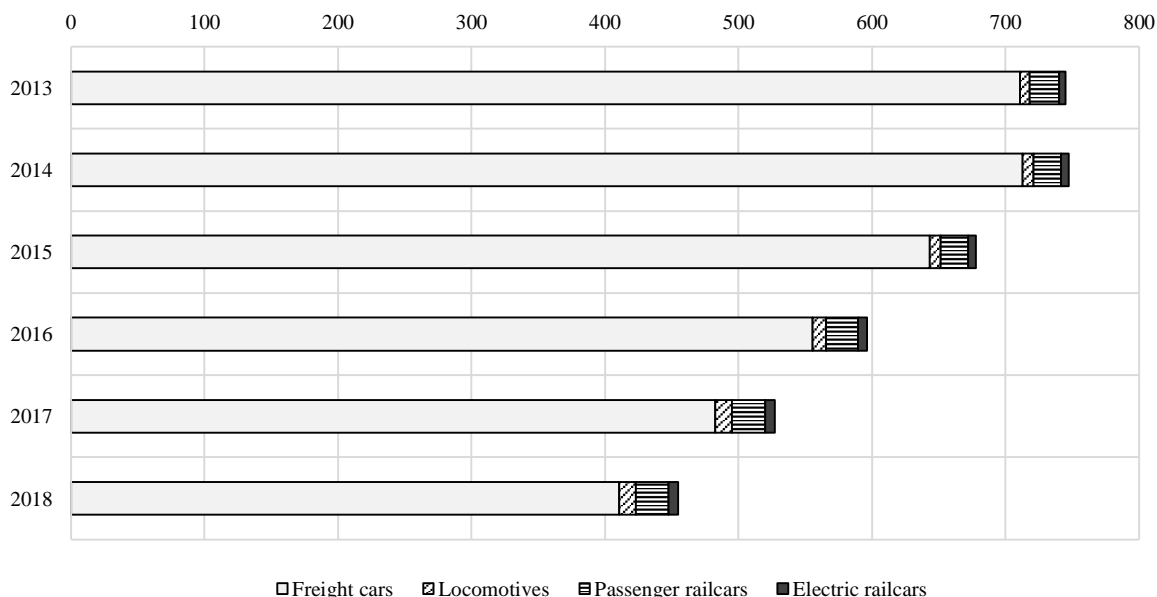


Fig. 45. The movement of railway rolling stock, 2013–2018, thousands of units

Source: EMISS; own calculations.

¹ Russian Railways OJSC. URL: https://www.rzd.ru/static/public/ru?STRUCTURE_ID=628.

² Press center of Russian Railways OJSC. URL:

http://press.rzd.ru/news/public/ru?STRUCTURE_ID=654&layer_id=4069&refererLayerId=4067&refererPageId=704&id=95113.

³ Freight cars face a peak in demand. Institute of Natural Monopolies Research (IPEM). URL: <http://ipem.ru/news/publications/1845.html>, <http://ipem.ru/news/ipem/1829.html>.

⁴ Khusainov, F. They wanted to do better: why freight cars are again in short supply on the market // RBC. URL: <https://www.rbc.ru/opinions/economics/26/10/2017/59f1e87a9a79470d83fc12b5>

The current depreciation rate of fixed assets in the rail transportation sector is 60%;¹ more particularly, in 2018, depreciation of railroad track superstructure was 40–50%, that of rolling stock, 50–60%, including freight cars (60%), passenger cars (50 %), and electric locomotives (40%).² According to data released by the Self-regulated Organization ‘Association Promzheldortrans’, in 2017 the average service life of locomotives in the non-public railway transportation sector was 33 years, and its wear rate was over 90%. The situation in 2019 demonstrated no fundamental improvement.

The demand for passenger rail transportation services has been boosted by the implementation of new infrastructure projects. In particular, there has been an increase in the passenger turnover on the Moscow Central Ring railroad: as of September 2019, the average daily passenger turnover on that line exceeded 500,000, a number that is 75% greater than the average daily passenger turnover in 2016.³ The number of passengers carried by *Sapsan Fast Train* between Moscow and St. Petersburg in February 2019 jumped 8.7% relative to February 2018. The opening of the new 19-km-long railroad track section over the Crimean Bridge and the launch of direct railway service connecting the Crimea with mainland Russia has had a positive impact on passenger traffic, and after the start of freight traffic (scheduled for June 2020), a similar impact is expected on freight turnover. In addition, *Russian Railways* OJSC is planning to boost the demand for passenger transportation services through non-price factors.

Several railway development projects are currently underway, including the construction of the Eurasia high-speed freight and passenger rail corridor within the framework of the priority project aimed at developing integration and transit potential. *Russian Railways* OJSC is also implementing the following infrastructure projects:⁴ railway infrastructure modernization along the Baikal-Amur and Trans-Siberian lines in order to boost their throughput of trains and carrying capacities (2013–2020); railway infrastructure development and renewal along the approaches to the ports in the Azov-Black Sea basin (2014–2020) and the Northwest basin (2015–2025). Besides, we should note the implementation of investment programs aimed at developing the Moscow transportation hub (2012–2024) and strengthening railway infrastructure in the framework of the Northern Latitudinal Railway project (2018–2022).

Air Transportation

In spite of its competition with road and rail transportation, the share of air transportation in total passenger turnover is steadily on the rise. However, the air industry is still experiencing certain problems, in the form of a shrinking number of airports, fluctuating fuel prices and forex rates, and a shortage of funding needed for providing the subsidized regional and local transportation services.

¹ On approving the Transportation Strategy of the Russian Federation for the period until 2030 (as amended on May 12, 2018) // Electronic fund of legal and regulatory-technical documentation. RF Government. URL: <http://docs.cntd.ru/document/902132678>.

² *Menshikov, V.V., Eliseev, Yu.P.* The role and place of various modes of transportation in military evacuation (railway transportation) // Science and Military Security (In Russian). 2018. No 1(12). P. 90–94.

³ Moscow City Mayor’s official website. URL: <https://www.mos.ru/news/item/61893073/>.

⁴ Information disclosure form for investment programs (on draft investment programs) and reports on their implementation. URL: http://www.rzd.ru/openinfo/public/ru?STRUCTURE_ID=5131.

Some airports need to be reconstructed; about a half of all airfields in the Far East does not have paved strips, and so cannot receive large aircraft; and the wear and tear of airport infrastructure is 80%.¹

The aircraft fleet is being updated: aircraft with a high degree of wear are written off, and new ones are purchased. In the civil aviation sector, the aircraft fleet has shrunk by 23% since 2009, and its structure has also changed. More particularly, An-2 and Tu-134 aircraft were discarded (their number declining from 129 in Q1 2009 to 9 at the end of Q4 2019); as well as Tu-154M, to be replaced by A319, A320, A321, and Boeing 737-800 (the number of the latter increasing from 8 in 2009 to 145 at year-end 2019). There is a discussion underway concerning the possibility of replacing the written-off obsolete aircraft with modern airliners.² One of the available options could be Russian medium-haul passenger airliner MS-21, to be put in operation in 2021.

One of the goals outlined in Executive Order of the President No. 204 dated May 7, 2018 is to increase the share of domestic scheduled flights bypassing the Moscow Aviation Hub, to 50% by 2024. One of the measures designed to alleviate the achievement of that goal is the adoption of a law whereby a zero VAT rate should be applied on the flights bypassing Moscow on their way to the Far Eastern Federal District, Simferopol, and Kaliningrad. It is expected that this measure will help increase the passenger turnover on domestic routes to 38.1%; previously, this tax regime was applied to only 20.5% of the total passenger turnover on Russia's domestic airlines.³ In its turn, this will not only boost the development of regional and local air transportation markets, but also the availability and quality of commercial passenger transportation services in accordance with the established social standards. The constraining factor could become the rising tariffs for air transportation services due to the high price elasticity of demand.

Maritime transportation

The maritime transportation industry has a strategic importance because it services foreign trade, in particular export raw materials transshipments. The industry is also exceptionally important for several geographically remote areas (with low transportation accessibility levels and/or severe climatic conditions), for example the Far East and the Arctic zone. In 2019, the Russian seaport industry consisted of more than 900 complexes in 60 ports with the total cargo handling capacity of over 1 billion tons.⁴

In 2019, the fleet of marine vessels totaled 2,700 units, with gross tonnage of 7.8 million gross register tons and passenger capacity of 6 thousand seats. By its age structure, the maritime transportation fleet can be characterized by a high wear rate: 46% of it are vessels aged 30 years or more, and 20% – 26–30 years. Those aged 0 to 20 years make up only a quarter of the total fleet. The renewal of the fleet by adding more energy-efficient and eco-friendly ships with a

¹ The RF Ministry of Transportation will prepare a program for developing airports in the Far East to the value of RUB 100 billion. // Vedomosti. URL: <https://www.vedomosti.ru/business/news/2018/04/27/768071-mintransportgotovit-programmu-razvitiya-aeroportov-dalnego-vostoka-na-100-mlrd-rublei>.

² A contract is signed for creating an airplane to replace the An-2 // RIA Novosti. URL: <https://ria.ru/20191017/1559873875.html>.

³ Regional vector. RF Deputy Minister of Transportation Alexander Yurchik on the key issues of national civil aviation. RF Ministry of Transportation. URL: <https://www.mintrans.ru/eye/press-center/interviews/492>.

⁴ At the conference 'Seaports are this country's economic development driver', the industry's key issues were discussed. RF Ministry of Transportation. URL: <https://mintrans.ru/press-center/news/9337>.

higher cargo capacity will boost the total turnover volume and reduce the per unit freight transportation costs.¹

As far as infrastructural transformations are concerned, the maritime transportation industry attracts substantial private investments in port infrastructure. The main investment goals are to develop and increase the existing seaport capacities for the transshipment of domestic goods by domestic ports, to ensure comprehensive development of Russia's Arctic region, etc. Among the major ongoing infrastructure projects in the maritime transportation sector we may point out the construction of the port infrastructure facilities of Sabetta seaport (Yamalo-Nenets Autonomous Okrug),² the reconstruction of hydraulic structures at Magadan seaport,³ the construction of a coastal and marine infrastructure complex at Gelendzhik seaport,⁴ and the construction of an international sea terminal at Pionersky (Kaliningrad Oblast).⁵ A separate mention should be made of the development of the Northern Sea Route and a unified national transportation system in the Arctic zone.

Inland Waterway Transportation

As of year-beginning 2019, the total length of federal inland waterways was 101,500 km, of which 50,000 km are waterways with guaranteed dimensions of the shipway.⁶ It should be noted that from 1990 onwards, the length of the routes with standardized shipway dimensions shrank by 30% due to the reduction of deep water zones and their traffic capacities resulting from insufficient funding of the waterway infrastructure,⁷ and from 2014, the total length of inland waterways has also been on the decline.

The volume of cargo handled by inland water transportation has been decreasing since 2011. In 2019, this indicator lost 31% relative to 2011, and 8.5% relative to 2017. As for the index of cargo volume delivered by inland water transportation to the Far North and the localities of an equal status, it has remained sufficiently stable.

As before, a serious problem is the wear rate of material and technical means, which for inland water transportation amounts to 66%.⁸ At the end of 2017, the age of more than 55% of passenger carriers and more than 85% of cargo carriers was over 30 years⁹ (*Fig. 46*).

As of year-end 2019, the fleet of inland waterway vessels in good condition amounted to 11,700 self-propelled and 5,300 non-self-propelled vessels; since 2009, their number had decreased by 17.4% and 34%, respectively. A twofold decrease is observed in the fleet of towboats and self-propelled dry bulk carriers. The fleet of combination cargo/passenger carriers, on the contrary, increased by 66% to 2,300 units. Out of all modes of transportation, it

¹ The special role of maritime transportation // Sea News of Russia (Morvesti.ru). URL: <http://www.morvesti.ru/analitics/detail.php?ID=68603>.

² The project was launched in December 2017 in the framework of Yamal LNG.

³ Completed on June 30, 2018.

⁴ The project implementation timeframe: 2018–2022.

⁵ The construction project's deadline has been moved to 2020.

⁶ RF Ministry of Transportation; Federal Agency for Air Transportation. URL: http://www.morflot.ru/deyatelnost/napravleniya_deyatelnosti/rechnoy_flot/vvt.html.

⁷ The RF Ministry of Transportation: the length of RF inland waterways shrunk by 30% over 25 years. TASS. URL: <https://tass.ru/transportation/3458217>.

⁸ On approving the Transportation Strategy of the Russian Federation for the Period until 2030 (as amended on May 12, 2018). // Electronic fund of legal and regulatory-technical documentation. RF Government. URL: <http://docs.cntd.ru/document/902132678>.

⁹ As of March 22, 2019.

is inland waterway vessels in operation that display the highest degree of physical and technological obsolescence.

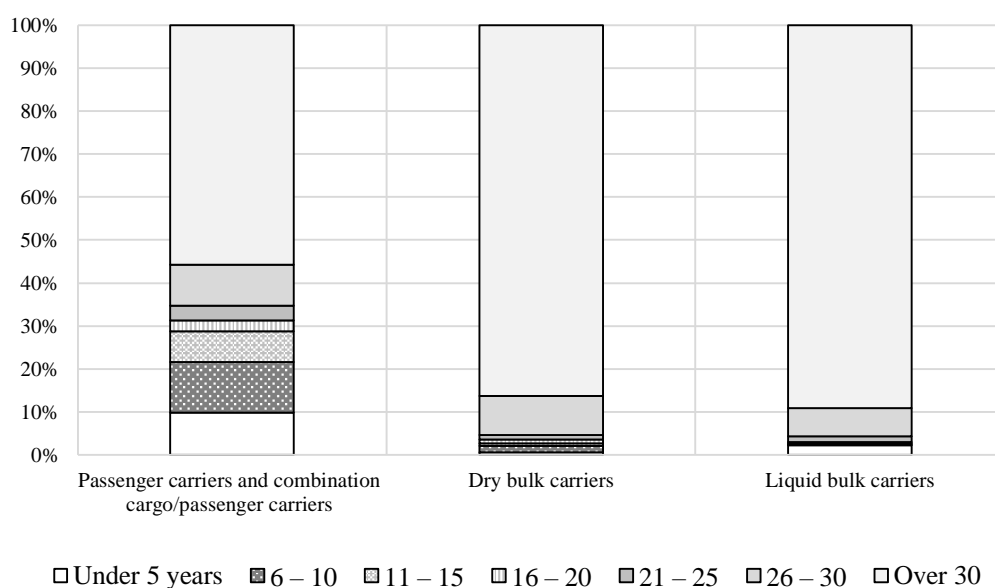


Fig. 46. The age structure of river and lake vessels in 2017 (year-end; as % of total)

Source: Rosstat.

In order to increase the competitiveness of inland waterway transportation, along with improving its fleet’s age structure, it is necessary also to equip it with hi-tech and more economical vessels. It is expected that after the most worn-out vessels, in particular river-sea navigation oil tankers, are written off, the supply of such services will shrink, thus pushing up the shipment tariffs by 2022.¹ The construction of passenger carrier fleet is sustained, among other things, by the development of domestic tourism and cruise market growth. Thus, since 2017, two Russian shipbuilding enterprises – Krasnoye Sormovo Shipyard PJSC and Lotos Shipbuilding Plant OJSC – have been constructing river-sea passenger vessels;² the first launches took place in 2019.

Among other things, a serious problem is associated with the safety issues resulting from the deterioration of navigation hydraulic structures, in particular, the high rates of wear and tear of port infrastructure, berthing facilities, and transshipment complexes. Most of the hydraulic structures on the inland waterways of the Moscow region have been in operation for 50–70 years.³ The estimated service life of many of the structures operated by Moscow Canal FSBI and belonging to hazard classes I and II (extremely high and high hazard), is 100 years, provided

¹ The bark is still afloat. The fleet of river vessels must be renewed // The Russian Newspaper. URL: <https://rg.ru/2018/04/16/park-rechnyh-sudov-neobhodimo-obnovliat.html>.

² Tsvetkov, Yu. The river transportation development is the state strategic goal // Sea News of Russia (Morvesti.ru). 2019. No 2. URL: <http://www.morvesti.ru/interview/detail.php?ID=77280>.

³ Government Program ‘Inland Waterway Transportation’, Subprogram ‘Public Transportation’. URL: <http://vestnik.mos.ru/files/other/pril/2011/51/408PP/Podprogramma-Obwestvennyj-transportation-Vnutrennij-vodnyj-transportation.doc>.

that the hydraulic units are duly repaired in accordance with the established technical schedules.¹

In order to expand the inland waterway transportation operations, it will be necessary to modernize the water infrastructure facilities, to increase waterway dimensions, and to carry out additional works involving their deepening, dredging, trawling, and expansion of the existing bottlenecks. The following major inland waterway transportation infrastructure projects can be noted, their goal being the elimination of bottlenecks and other infrastructural constraints: the construction of the Bagaevsky hydroelectric complex on the Don River (2018–2020) and the low-pressure waterworks facility in Nizhny Novgorod (2019–2020). These infrastructure projects, once completed, will improve the competitiveness and efficiency of inland waterway and create some additional cargo flows, thereby reducing the load on the other modes of transportation during the navigation period.

Pipeline transportation

The pipeline transportation routes are very lengthy, which is explained by the specificity of products that have to be transported from remote production sites and fields to their consumption points. As of 2018, the total length of the trunk lines amounted to 249,800 km, these being in the main natural gas pipelines (179,300 km). The length of crude oil and petroleum product pipelines amounted to 53,400 km and 17,100 km (21.4% and 6.8% of total length), respectively.

Pipeline transportation is also characterized by a high degree of depreciation of fixed assets. According to the Pipe Industry Development Fund (PIDF), the age of more than 20% of trunk pipelines and about 40% of oil production pipelines exceeds 30 years, while their trouble-free service life is 15 years.²

Meanwhile, a number of major infrastructure projects are being implemented in the pipeline industry, in particular the construction of Nord Stream 2 and Turkish Stream, to be put in operation in 2020 (however, the launch of these two gas pipelines may be delayed due to the foreign economic sanctions). In 2019, the Power of Siberia gas pipeline was brought into operation, which will ensure further development of the domestic gas transmission system and its access to new markets.

* * *

The state of the transportation complex is closely associated with the economic indicators, as well as the general situation in the country. The developments in the Russian and global economy in Q1 2020, in particular the volatile behavior of the oil market (in response to the breakdown of the OPEC+ agreement and the effects of several other factors) and the plunge of oil prices coupled with the ruble weakening, put the national economy under pressure, which also influenced the performance indices of the transportation complex. However, the spread of

¹ Report ‘On complying with the set of mandatory requirements and conditions, their content in the normative legal acts regulating the inland waterway transportation activity in Q1 2017’, prepared by the Central Administration for State River Supervision of the Federal Service for Supervision of Transportation (Rostransnadzor).

² The Pipe Industry development Fund called for an accelerated renewal of worn pipelines to prevent an environmental disaster. URL: <http://frtp.ru/2018/04/19/frtp-vystupil-za-uskorenie-obnovlenija-iznoshennyh-truboprovodov-dlja-predotvrashhenija-jekologicheskoy-katastrofy/>.

coronavirus infection produced some very significant negative effects, which required some decisive restrictive measures (closure of the country's external borders and cancellation of foreign flights, limitations imposed on domestic flights, the launch of a long holiday from March 30, the enforcement of a 'self-isolation' regime in several regions of the country, and some other measures). All these developments negatively affected the activities in the transportation sector, which thus became one of those sectors of the Russian economy that suffered most.¹

The government support of the industry, a gradual economic recovery after the coronavirus epidemic recedes and the restrictive measures are lifted, as well as the implementation of national projects in the transportation sector,² should all translate into a positive impact on the transportation complex in 2020. However, overall, one can hardly expect an upward trend to be demonstrated by its indicators compared with those of the previous year.

¹ Mishustin named the industries affected by coronavirus // RBC. URL: <https://www.rbc.ru/business/30/03/2020/5e819d039a7947925edc003a>.

² Bringing both the federal and regional road networks into conformity with the established norms, improving the safety and quality of transportation services and infrastructure, eliminating the transportation system's bottlenecks in the framework of the National Project *Safe and High-Quality Roads*. As part of the transportation-targeting section of the Comprehensive Plan for the Modernization and Expansion of Trunk Infrastructure for the Period until 2024, major federal infrastructure projects with state participation are being implemented.