






# Consequences of the Pandemic COVID-19 on Transport and Tourism

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**Abstract:** *The global economic crisis was caused by the COVID-19 virus, the beginnings of which date back to December 2019. Is not an ordinary crisis, but belongs to the phenomenon that can only be compared to the crisis of 1929. Transport and tourism are among the economic sectors that were most affected by this crisis due to the quarantine measures that were present in all countries of the world. The complete lockdown caused by the COVID-19 virus prevented the movement of people and goods and thus completely prevented the functioning of traffic and tourism. The impossibility of traffic and tourism around the world contributed to a significant decrease in the income of these economic branches, as well as the gross social product at the national and global levels. The impact of the COVID-19 pandemic significantly encouraged the development of new forms of tourism as well as the expansion of rural tourism, eco-tourism, and wellness. The final consequences of the COVID-19 pandemic on transport and tourism will only be seen in the coming years.*

## 1. INTRODUCTION

The beginning of the pandemic caused by the COVID-19 virus in March 2020 contributed to a sharp slowdown in economic activity at the global level, the restrictions, and the complete suspension of transport during the quarantine in countries around the world. The aforementioned complete lockdown in countries around the world had the greatest impact on economic activities such as transport and tourism (Chang et al., 2020, p. 218; Więckowski, 2021, p. 1). The indirect impact of the absolute suspension of transport and tourism at the global level has significantly affected other economic sectors as well, reducing the profits of companies that participate in the supply chain of hotels with food, drinks, various services, etc. During the COVID-19 pandemic, workers in the transport and tourism sectors faced, in addition to an enormous decrease in passenger and tourist traffic, the biggest job losses compared to the post-World War II period (WBG, 2020, p. 5).

Analyzing the year 2018, before the COVID-19 pandemic, the transport and tourism sectors employed around 319 million workers globally (Ranasinghe et al., 2021). The largest number of employees were employed in transport companies and hotel chains.

Before the beginning of the COVID-19 pandemic, transport and tourism were one of the leading branches that exerted a dominant influence on the world market from the beginning of the XXI century until the biggest pandemic of the new millennium. The pandemic caused by the

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COVID-19 virus and its consequences represent the biggest challenge because they have so far dealt the biggest blow to transport and tourism. The work aims to present the economic consequences of the COVID-19 pandemic on transport and tourism, as well as the development of new forms of tourism in the post-pandemic period with special reference to the Republic of Serbia (MTTT, 2020, p. 32).

## 2. ECONOMIC CONSEQUENCES ON TRANSPORT AND TOURISM DURING THE PANDEMIC OF COVID-19

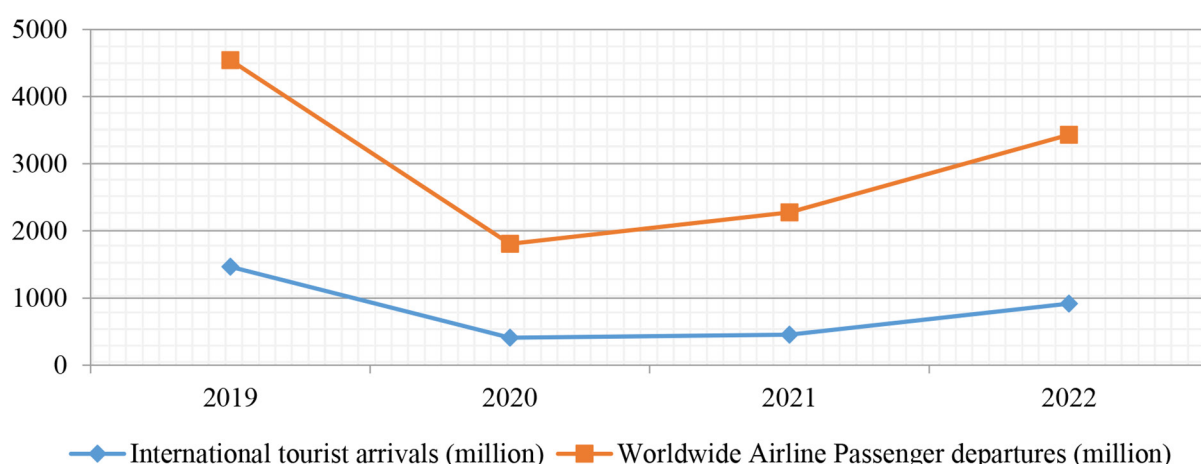
At the beginning of the COVID-19 pandemic, there was a sudden decrease in passenger traffic and the cancellation of tourist reservations around the world, and the introduction of quarantine measures led to a complete suspension of transport and tourist traffic. These measures contributed to the fact that most airlines around the world first reduced their fleet by 75%, and then completely grounded their planes with massive layoffs. Among the first airlines that stopped operating flights were Emirates, Fly Dubai, Turkish Airlines, Flybe, etc. (Akbar & Kisilowski, 2020).

Based on data from the International Air Transport Association (IATA), it is estimated that quarantine measures and restrictions on entry into certain countries of the world after the lifting of the lockdown contributed to the financial losses of airlines of 252 billion dollars in 2020. According to data for the year 2020 by the United Nations World Tourist Organization (UNWTO, 2020), the arrivals of foreign tourists, viewed from the aspect of transport as an economic branch, recorded a decrease of 70% - 75% compared to 2019 (Development Bank-ADB, 2020, p. 16). This has resulted in a loss of nearly \$450 billion in tourism sector revenue globally. Since these are only estimates, it is assumed that the losses caused by the COVID-19 virus pandemic in the transport and tourism sectors are much higher than estimated.

**Table 1.** Statistics of International tourist arrivals and Worldwide Airline Passenger departures

	2019	2020	2021	2022
International tourist arrivals (million)	1465.8	409.1	454.8	917
- change over the previous year (%)	3.7	-72.1	-69	-37.4
Worldwide Airline Passenger departures (million)	4543	1807	2277	3432
- change over the previous year (%)	3.8	-60.2	26	50.7

Source: UNWTO, 2023; IATA, 2023.



**Figure 1.** International tourist arrivals and Worldwide Airline Passenger departures

Source: Authors

The volume of transport and traffic of tourists has significantly decreased at the global level, as well as in the Republic of Serbia (Mandarić et al., 2022). The impact of the COVID-19 pandemic in the Republic of Serbia recorded an 82% decrease in transport during the period January-October 2020. Middle Eastern countries recorded a 73% decrease in tourist traffic, while African countries recorded a 69% decrease in tourist arrivals in the same period. Tourist traffic in Europe and the United States of America recorded a 68% decrease in traffic compared to 2019 (UNWTO, 2020). Seen from the point of view of the Republic of Serbia, the measures introduced by the Government, such as the closing of borders, and later the restrictions related to the entry of tourists into the country, had a direct impact on the reduction of the volume of transport and tourist traffic. The number of visits by foreign tourists to the Republic of Serbia for the first 9 months of 2020 recorded a decrease of 72% compared to the same period in 2019 (RIS, 2021).

### 3. HYPOTHESES

Based on the goal of this article presented in the Introduction, hypotheses will be set to be tested within the framework of research related to the consequences of the COVID-19 pandemic on transport and tourism.

**The basic (main) hypothesis reads:**

H0: The consequences of the COVID-19 pandemic on transport and tourism significantly affected the decrease in tourist demand.

**Auxiliary hypotheses:**

H1: New forms of tourism emerged as a consequence of the post-epidemic crisis caused by the COVID-19 virus.

H2: To eliminate the effects of the economic consequences of the COVID-19 pandemic within the framework of transport and tourism, a medium-term period will be necessary.

### 4. RESEARCH METHODOLOGY

For the preparation of this article, relevant secondary data based on scientific articles, conducted research, studies, reports of the World Tourism Organization and the Statistical Office of the Republic of Serbia, and interviews conducted with employees in the transport and tourism sector were used. During the investigation of the economic consequences caused by the COVID-19 virus on transport and tourism, descriptive, qualitative, quantitative, analytical, and comparative methods were used. During the preparation of the paper, to present the real situation in transport and tourism, a descriptive analysis of the state of transport and tourism, as well as other sectors that enable their smooth functioning, was carried out.

### 5. RESEARCH RESULTS

Based on the available data, the impact of the pandemic caused by the COVID-19 virus had the biggest consequences on the economies around the world after the Second World War. The economic effects of the COVID-19 pandemic can be measured by the consequences that were visible after the Great Economic Depression that lasted from 1929 to 1933. Transport and tourism

represent two economic branches, for the functioning of which it is necessary the existence of movement of people, the openness of borders without the existence of political and health barriers, etc. Given that after the declaration of the COVID-19 pandemic, state borders were closed and transport was suspended both between states and within national territories, transport and tourism experienced a complete collapse. This is supported by the fact that the total collapse of transport and tourism was contributed to by the situation when all the countries of the world closed their state borders and airspaces, and tourist destinations banned visits or introduced extremely strict restrictions due to the expansive spread of the COVID-19 virus (Development Bank-ADB, 2020).

The economic crisis caused by the COVID-19 virus has caused a significant reduction in the volume of transport and tourist traffic around the world. The economic consequences of the COVID-19 pandemic first hit and completely devastated the national economies of countries in which the transport and tourism sectors were the leading economic branches and the main participants in the creation of the social gross product. One of the first destinations that faced the strong economic consequences of the COVID-19 pandemic is the countries of Latin America and the Caribbean, as well as certain island states in the Indian Ocean and the Pacific. The countries that first felt the effects of the economic recession due to the COVID-19 virus pandemic are Mexico, Cuba, Maldives, Seychelles, Egypt, Tunisia, Kenya, India, China, Japan, Sri Lanka, Dominican Republic, Madagascar, Brazil, Australia, and New Zealand (CHTA, 2020).

With the beginning of the COVID-19 pandemic in March 2020 and during the following months, an increasing number of countries completely closed their national borders and airspace, so that transport and arrival of tourists were completely impossible. With the beginning of the pandemic, the flow of tourists decreased in March by more than 50% compared to the same period in 2019, while in April 2020, tourist traffic was almost 0% (Panetta, 2020).

To see more clearly the consequences of the COVID-19 pandemic on the transport and tourism sectors, it is necessary to point out that in the period from 2010 to 2018, these economic sectors achieved growth of 7.8% on average on an annual basis. An even more unfavorable situation in the tourism sector was contributed by very restrictive restrictions that came into force while cruise ships and tourist ships were on their cruises. A large number of countries refused to allow the entry of ships carrying tourists on cruises into their ports because there were passengers who were infected. Some countries, such as the USA, issued a decree issued by the US State Department to prohibit navigation in US waters from March 14 to July 24, which caused mass layoffs. Based on the research carried out by the Association of Hoteliers of Caribbean Countries, the recovery of transport from the USA, Canada, and Europe is primarily expected, followed by recreational tourism, Caribbean business, and recreational tourism (CHTA, 2020). According to the collected data from the UNWTO, visits by foreign tourists to African countries recorded a decrease of 35% in the period from January to April 2020. Countries such as Uganda, South Africa, Egypt, Morocco, Kenya, and other tourist destinations across Africa have canceled numerous arrangements and thus called into question the survival of numerous local tourist agencies. Due to the pandemic caused by the COVID-19 virus, African countries in which the transport and tourism sectors are the basis of the economy were forced to borrow at unfavorable interest rates from international financial institutions and foreign creditors, which further increased their poverty rates. An example of the above is the Republic of South Africa, which, due to the consequences of the pandemic, borrowed 4.3 billion US dollars from the International Monetary Fund for the first time (Issahaku, 2020).

**Table 2.** Correlations between International tourist arrivals and Worldwide Airline Passenger departures

Correlations		Inttour_arr	Pass_dep
Inttour_arr	Pearson Correlation	1	0.989*
	Sig. (2-tailed)		.011
	N	4	4
Pass_dep	Pearson Correlation	0.989*	1
	Sig. (2-tailed)	0.011	
	N	4	4

\* Correlation is significant at the 0.05 level (2-tailed).

**Source:** Authors

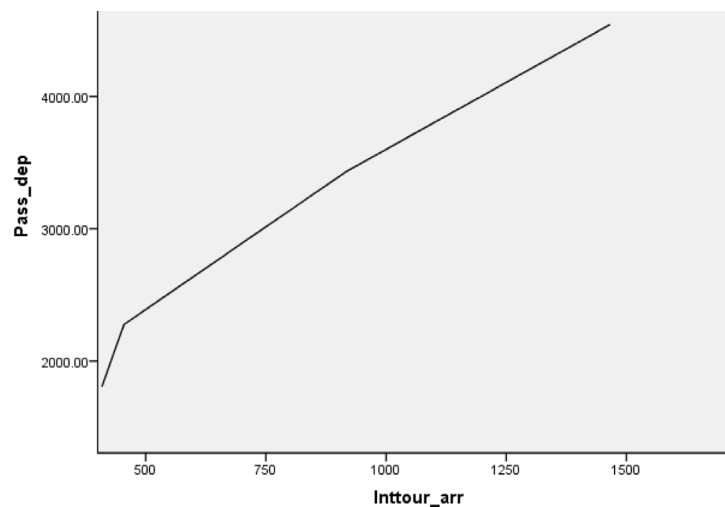
Countries within the European Union that before the COVID-19 pandemic had tourist traffic in which the arrivals of foreign tourists participated with more than 40% significantly affected. The countries of the European Union that experienced a significant collapse in transport and tourism due to quarantine measures include Spain, Italy, France, Greece, etc. Transport and tourism contribute to the GDP of countries of the European Union by 10%. Within the framework of transport and tourism in the countries of the European Union, before the start of the COVID-19 pandemic, about 2.4 million economic entities operating, of which 90% were small and medium-sized enterprises with 12% of the total number of employees in the European Union.

Although perhaps not only closely related to tourist flows, the correlation of international arrivals (Inttour\_arr) and air travel (Pass\_dep) can be seen in Table 2. The correlation is so strong and statistically significant that it shows the very high importance of air traffic for tourist movements.

The number of employees in the transport and tourism sector in the countries of the European Union was about 23 million workers, of which 37% were under the age of 35. With the beginning of the COVID-19 pandemic, in the first three months, the number of tourist reservations decreased by 90% compared to the same period of the previous year (UNWTO, 2020).

In the countries of the European Union, about 6 million workers lost their jobs in the transport and tourism sectors. Quantitatively looking at the consequences of the COVID-19 pandemic, hotels, travel agencies and transport by train and cruise ships saw a decrease in traffic of 85%, while air transport recorded a decrease in traffic of as much as 90% (Prašcević, 2020). The above-mentioned facts and data confirm the basic or main hypothesis of this paper that the consequences of the COVID-19 pandemic on transport and tourism have significantly influenced the reduction of tourist demand (Milojević et al., 2018).

The pandemic of the COVID-19 virus, as well as globally, also affected the reduction of the volume of transport and tourist demand in the Republic of Serbia. In 2019, the Republic of Serbia achieved a 7% increase in the number of foreign tourist arrivals and the same percentage increase in the number of overnight stays. During 2019, the realized income from tourism in the Republic of Serbia amounted to 1.4 billion euros compared to 1.2 million euros realized in 2018. Given that the previous two were extremely successful, it was expected that such a trend would continue in 2020 as well, given that in the first two months of 2020, the Republic of Serbia achieved a 21% increase in the number of foreign tourists and a 22% increase in the number of overnight stays. However, due to the declaration of a state of emergency in mid-March 2020, there was a sudden cancellation of the reservations of a large number of domestic and foreign tourists and the closure of travel agencies. As a result of the quarantine measures, many employees in the transport and tourism sector have lost their jobs, and travel agencies have gone bankrupt or lost their licenses to carry out tourism activities.



**Figure 2.** Relationship between international tourist arrivals and passenger departures – worldwide

**Source:** Authors

Transport and tourism in the Republic of Serbia achieved extremely poor financial results in 2020 as a result of quarantine measures and rigorous measures when entering and exiting the country. The aforementioned had a significant impact on the foreign exchange inflow from domestic and foreign tourists recording a decrease of 35.3% or 114 million euros, i.e. by 33.1% compared to the same period in 2019. In the second half of 2020, the number of domestic tourists influenced the recovery of tourism in the Republic of Serbia to a certain extent. However, this was not quite enough to remedy the consequences of the COVID-19 pandemic, i.e. to compensate for the absence of foreign tourists (MTTT, 2020). In 2020, 6.2 million overnight stays were achieved in the Republic of Serbia, or 38.4% less than in 2019. What stands out as a trend that followed after 2020 is reflected in new forms of tourism that have become very popular, especially after the lifting of quarantine measures (China-CEE Institute, 2020, p. 2). A new form of tourism that has become very popular is digital nomads who represent freelancers for whom the constant availability of the Internet is one of the most basic conditions for staying in a certain destination. Apart from digital nomads who advertise a certain tourist destination via social networks Facebook, Instagram and TikTok, the most popular forms of tourism are wellness and rural tourism. Based on the previously presented data, it can be concluded that the first hypothesis was confirmed, which is that new forms of tourism arose as a result of the post-epidemic crisis caused by the COVID-19 virus (Praščević, 2020, p. 14).

In the previously presented text, and based on relevant facts and information, it can be concluded that the consequences of the COVID-19 pandemic on transport and tourism are still unfathomable. Although three years have passed since the beginning of the COVID-19 pandemic, the real negative effects on economic sectors such as transport and tourism cannot yet be seen. Transport and tourism are extremely sensitive tertiary economic branches that depend on the free movement of people, and to a significant extent on their standard of living. Given that a large number of people lost their jobs due to the COVID-19 pandemic, it can be concluded that there has also been a violation of the standard of living, i.e. less allocation of financial resources for travel, recreation, and vacation.

Based on estimates of economic trends after the COVID-19 pandemic, most economists believe that it will take up to 5 years of stable economic growth to achieve the results in traffic

and tourism that were before the start of the COVID-19 pandemic. Based on the above, it can be concluded that the second auxiliary hypothesis has been confirmed, which states that a medium-term period is needed to eliminate the economic consequences of the COVID-19 pandemic within the framework of transport and tourism.

## 6. FUTURE DIRECTIONS OF RESEARCH

Future research related to the consequences of the COVID-19 pandemic on transport and tourism should focus on new trends that have emerged in response to the post-pandemic crisis. New trends are particularly represented in the field of tourism in the form of virtual presentations of tourist destinations and tourist offers. In addition to virtual presentations of tourist destinations, an increasing number of employees decide to do online business during their stay at a certain tourist destination. This form of business has contributed to a new business trend in the form of digital nomads. Also, an increasing number of travel agencies offer their clients the possibility of online reservation arrangements without going to the agency. Based on the mentioned trends of the increasing number of online reservations and the growing trend of digital nomads, the question of the survival of travel agencies in the future arises. Further research should be focused on the physical survival of travel agencies, given that an increasing number of tourists independently book airline and bus tickets through the websites of airline and bus companies, as well as accommodation through platforms such as Booking, AirBnB, Trivago, and Lock Trip.

## 7. CONCLUSION

Quarantine measures as well as restrictive measures that were in force after the end of the COVID-19 virus pandemic had a significant impact on service activities, especially in the transport and tourism sectors. According to UNWTO data, the restriction on the movement of people has had the greatest impact on transport and tourism compared to other service activities. Observed at the global level, the number of passengers in the second half of March and during April 2020 was reduced to zero, which was also the case with transport and tourism in the Republic of Serbia. After the COVID-19 pandemic, transport, and tourism at the global level managed to achieve positive growth rates to a certain extent, especially during 2022.

The positive growth rate of transport and tourism was also influenced by new forms of tourism, such as digital nomads, who, by promoting tourist destinations through social networks, contributed to increasing tourist traffic in certain destinations around the world. The tourism industry of our country, in cooperation with the Tourist Organization of Serbia, in the coming period, needs to make a significant effort in promotional activities, which will be directed towards village, rural, and recreational tourism, and wellness. It is necessary that the Tourist Organization of the Republic of Serbia, with its promotional activities, animates tourists from the region, as well as foreign tourists from countries such as the Middle East and Asia. It is believed that the mentioned measures at the world and national levels will significantly affect the recovery of transport and tourism in the years to come.

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