

## COVID 19 RAMIFICATIONS ON TOURISTIC RESULTS IN 2020

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**Abstract:** *The number of COVID 19 infections worldwide by the end of September 2020 rose to more than 34 million cases. At the same time number of fatalities caused by the same virus exceeds one million. In the year 2020 about ten per cent drop of economic growth was experienced compared to the previous year due to COVID 19 crisis and with probably the biggest impact on tourism industry. The results of global tourist international arrivals in April, May and June 2020 with drop of 95-98 per cent are self-explanatory. Thus, stabile and continuing growth from the beginning of 21st century has been suddenly brutally interrupted returning the tourism industry on level of at least 30-40 years back, maybe even more. The consequences of COVID 19 on touristic results have been analysed in the paper. The analysis is based on four different geographical areas – global, European, Southeast European and Croatian, based on the last 20 years of tourism results. Since similar dramatic situation has also affected air transport industry, the correlation between the tourism and air carriers' results in the last two decades is also considered in this paper. Different scenarios of the future recovery of tourism industry are considered in the paper.*

**Keywords:** COVID 19; tourism industry; air transport industry.

**JEL classification:** L83, L93, O18, Z32.

### INTRODUCTION

The term tourism is formed from a word tour deriving from an ancient Greek word *tornos* (τόρνος), meaning “tool for drawing circles” (Harper, 2020). That meaning is possible to interpret as a vague definition of tourism – going away with the intention to return home. But the simplest definition is that tourism is leisure travel. There are numerous more complex and detailed definitions of tourism. The United Nations World Tourism Organization (UNWTO, 2020 a) defines tourism as a social, cultur-

al, and economic phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business/professional purposes. These people are called visitors (which may be either tourists or excursionists; residents or non-residents) and tourism has to do with their activities, involving tourism expenditure. The term tourism is used to characterize a sociocultural phenomenon that involves transport, motivations, accommodation, hospitality, impacts and the economic, cultural, social and environmental sectors affected and fuelled by the movement of people around the world (Lohmann & Panosso Netto, 2016, p. 26). Another definition describes tourism as a system of technical, technological, organizational, economic, and legal elements with an intention of providing accommodation, catering, transport, agency brokering and other services connected with the travel purpose (Mrnjavac, 2002, p. 242).

Tourism became an important source of income for many countries, since it brings large amounts of income into a local economy – in a form of revenue from goods and services and employment opportunities in tourist sector (UNWTO, 2020 b). UNWTO (UNWTO, 2020 a) defines basic types of tourism: domestic and international. International tourism can be divided into inbound and outbound. Foundations of tourism are mainly cultural assets and biodiversity of the location. Tourism travels (where tourist bear the cost of the trips by themselves) can be divided to: group touristic travel, individual touristic travel, honeymoon trips, sporting events, adventuristic trips, ecocultural trips (Tatalović, Mišetić, & Bajić, 2012, p. 472).

**Figure 1.** Forms of tourism



**Source:** Prepared by authors according to (Lew, 2010)

Numerous specialty forms of tourism have emerged over the years, each with its own adjective. Figure 1 represents most common forms of tourism.

Object of the paper is comparison of touristic results before and after the COVID 19 pandemic on global, regional, and national level. The ramifications of the pandemic had an utter effect on touristic results, and the recovery of touristic arrivals on all levels

is hard to predict. In a way, since tourism and air transport have a close relationship, it is possible to compare the recovery scenarios and have an idea of a period in which the touristic results will return to levels prior to COVID 19 pandemic.

The paper is organized as follows. Section 2 reviews the literature on tourism, tourism recovery after shocks, relations between tourism and air transport. Section 3 describes the data and methodology, while sections 4 to 7 include touristic results on global, regional (Europe and southeast Europe) and national (Croatia) levels, respectively. Section 8 includes concluding remarks.

## LITERATURE OVERVIEW

There isn't a lot of literature on conclusive COVID 19 effects on tourism, or any other branch of the economy, or air travel, at the time of writing this paper. However, certain implications can be drawn from the research on prior global and regional crises and pandemics, and existing literature on tourism such as (Lew, 2010), (Lohmann & Panosso Netto, 2016) and (Mrnjavac, 2002).

Pandemics like this one have a direct impact on industries like tourism and retail service. The economic ramifications of this pandemic will be severe, especially damaging not only in tourist destinations and there is a high percentage of cases, but also globally. The SARS outbreak in 2002 is a case in point (Lee & McKibbin, 2004).

One of the most important findings of pandemic research is that travel, and consequently tourism, is crucial to epidemiology and disease control. This also entails understanding that travel and tourism are both drivers to disease spread and economic ramifications, being significantly impacted by Nonpharmaceutical Interventions (NPIs) (Nicolaidis, Avraam, Cueto-Felgueroso, González, & Juanes, 2019).

## METHODOLOGY

For the scope of the research data was gathered on domestic and international touristic arrivals, tourism receipts, scheduled passengers carried, COVID-19 cases, fatalities, and real gross domestic product. All the data were collected for global, regional, and national level. The region chosen for research is Europe, and southeast Europe, since Croatia, also a country considered in the research, is a part of European union, and geographically a part of a southeast Europe, so the comparison of the gathered results can be comparable with other south-eastern countries due to socioeconomic and cultural similarities.

The data were collected from different sources such as UN World Tourism Organisation, International Monetary Fund (IMF), World Bank, International Air Transport Association (IATA), Eurostat, World of Meter, Croatian Bureau of Statistics, etc.

Year on year data on international tourist arrivals and scheduled air transport passengers carried were compared using Pearson Product Moment Correlation (PPMC). The PPMC is not able to tell the difference between dependent variables and independent variables, but it shows the linear relationship between two sets of data.

Comparison of touristic results for different geographical areas: global, regional (Europe and southeast Europe) and national (Croatia) levels, respectively, were made in the paper, including graphical and tabular data display.

## GLOBAL TOURISTIC RESULTS

Until the year 2020, the international tourist arrivals grew at a steady pace driven by relatively strong economy, technological progress, new business models and more affordable travel costs. Both emerging and advanced economies are benefiting from tourism income.

**Figure 2.** International tourist arrivals and tourism receipts (2000 - 2019)



**Source:** Prepared by authors from (UNWTO, 2020 c), (International Monetary Fund, 2020 b)

From the figure 2 it is evident that the average annual growth rate (AAGR) of international touristic arrivals (4.2 per cent) and tourist receipts (6.1 per cent) are very solid and stable. According to data in 2020, global tourist arrivals have plummeted due to pandemic of Covid-19. The negative Covid-19 effects reflects on AAGR which is unfortunately quite negative in all scenarios.

Worldwide, the domestic tourism market is over six times larger than the international tourism market. Domestic tourism comprises the activities of a resident visitor within the country of reference. The size of domestic tourism markets is usually the result of several factors including demographics, income levels, transport and hospitality infrastructures (UNWTO, 2020 d). According to available data (table 1), the world's largest domestic tourism markets in terms of tourist trips are India, China and the United States of America, mostly due to of their large populations and geographical size. An estimated 9 billion domestic tourist trips (overnight visitors) were recorded around the world in 2018, over 50 per cent in Asia and the Pacific (UNWTO, 2020 d). Other large domestic tourism markets include Japan, Brazil, France and Spain. Besides, it should be emphasised that countries with higher shares of domestic tourism are likely to recover earlier and faster from consequence of COVID-19 than countries dominant-ly related to international travel.

**Table 1.** World's major domestic tourism markets in 2018

Country	Domestic tourist arrivals (mil)
India	1 855
China	5 539*
USA	1 659
Japan	291
Brazil	191
France	190
Spain	170
Russia	48*
S. Korea	163
Germany	159

\*domestic tourist hotel arrivals

**Source:** Prepared by authors from (UNWTO, 2020 d)

Initiatives to promote domestic tourism due to Covid-19 in 2020 include:

1. Financial incentives;
2. Marketing and promotion;
3. Product development;
4. Partnerships;
5. Market intelligence; and
6. Capacity building and training (UNWTO, 2020 d).

From the above mentioned promotional incentives some regional initiatives are subject of special interest like Romania – Tourist Pass Holiday voucher, Serbia - 560,000 tourist vouchers intended for citizens of Serbia who wish to spend their vacation in the country, Slovenia – grant of EUR 200 voucher for every adult and EUR 50 for every child to spend in any accommodation units registered in Slovenia (UNWTO, 2020 d).

Covid-19 pandemic had negative effects on global business and industrial development. According to WHO (World Health Organization, 2020) on November 10, 2020, the overall number of Covid-19 confirmed cases was 50.5 million cases worldwide, with the share of 43.1 per cent in Americas, 26.5 per cent in Europe and 19.2 per cent in Southeast Asia. Real global annual growth rate of GDP for 2020 is predicted on the level of -4.4 per cent, Euro zone drop of GDP is predicted to be 8.3 per cent with higher negative rate on European dominant touristic countries (Spain 12.8 per cent drop, Italy 10.6 per cent drop, France and Great Britain both 9.8 per cent drop) (International Monetary Fund, 2020 a). The world trends in China recovery of GDP is quite opposite from the world trend: in the second quarter 3.2 per cent growth rate and in third quarter 4.9 per cent growth rate (UNWTO, 2020 c). Broadly speaking, air travel grew each year on average, one-and-a-half to two times as fast as world GDP (Doganis, 2019, p. 178). In the case of such a huge pandemic effect this rule is obviously not realistic. Drop of 5 per cent GDP would assume a drop of air travel for approximately 10 per cent, but it will be closer to the drop of 70 per cent. It is also predicted that

Covid-19 will generate over 100 million job losses (World Travel and Tourism Council, 2020) in travel and tourism sector.

The development of global tourism is one of the most important drivers of the passenger air transport growth. With more vacation time, along with the trends of multiple use of vacation during the year, further stimulate the mobility of tourists, with airlines allowing the availability of even the most remote destinations in a relatively short time (Tatalović, Mišetić, & Bajić, 2017, p. 11). Some authors identify major areas that are ripe for change:

- Solutions for developing countries
- Low stress travel
- Bringing flight closer to home
- Connectivity and big data
- Sustainability (Taneja, 2019).

Besides, air traffic has increased due to drop of the travel costs (dropped by 50 per cent in the last 30 years) and improvement of the safety. The accident rate/million flights in 2017 was 1.08 down from 2.01 over the five-year period from 2012 to 2016 (Taneja, 2019, p. 38). US fatality rates by mode of transportation in the period 1999 – 2016 were for passenger automobile 34 per cent, light truck 29 per cent, motorcycle 10 per cent, bicycle 2 per cent, rail passenger 0.5 per cent, bus 1 per cent, and airline 0.01 per cent (Vasigh, Fleming, & Tacker, 2018, p. 436).

In the year of 2018 over 58 per cent of all international tourists arrived to their destinations by air. The share of air travel has increased from 46 per cent in 2000 to 58 per cent in 2018 (CAPA, 2019).

The correlation between the two parameters: air transport passengers and international touristic arrivals for the last 20 years is extremely high (Figure 3) on the level of 0.993.

**Figure 3.** Air transport passengers and international touristic arrivals correlation



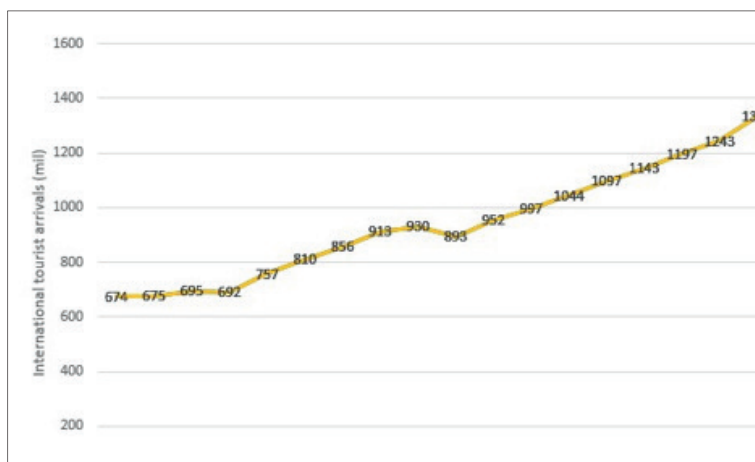
**Source:** (UNWTO, 2020 e), (The World Bank, 2019), (IATA, 2020)

Taking into consideration Covid-19 effects in 2020, the correlation index is quite similar, at the level of 0.955. The travel industry is very large, and it is growing very rapidly. The number of passengers flying worldwide is expected to grow, according to IATA, by 4.1 per cent per year, resulting in 7.3 billion passengers flying by 2034 (Taneja, 2018, p. 17). Now the economic and tourism recovery in different modes and shapes (V, U, L and W) divide the experts from optimistic approach (2021/2022) to extremely pessimistic approach (2029).

Overall global effects of Covid-19 at the beginning of November 2020 were over 50 million cases and over 1.2 million deaths caused by Covid-19.

According to UNWTO data represented on figure 4 there are three possible scenarios of Covid-19 negative effects on tourism. Optimistic scenario (scenario 1) predicts 58 per cent loss of international touristic arrivals which is 610 million arrivals. The second scenario predicts loss of 70 per cent, and the last scenario, most pessimistic one predicts 78 per cent loss of international touristic arrivals in 2020. According to the current covid-19 effects and lockdown measures imposed in numerous countries, the scenario 3 is the most probable one, if not even worse with international touristic arrivals less than 320 million expected in that scenario.

**Figure 4.** International tourist arrivals, 2000-2019 and scenarios for 2020



**Source:** (UNWTO, 2020 e)

According to data (UNWTO, 2020 e) in 2020 global tourist arrivals has plummeted to the levels of 35 year back. In 1985, global tourist arrivals counted up to 320 million arrivals (UNWTO, 2006) – same number of arrivals that is presumed to be achieved in the most pessimistic scenario for the year 2020.

## **EUROPEAN TOURISTIC RESULTS**

European contribution was up to 50 per cent of global international tourist arrivals in the year 2018 according to UNWTO (UNWTO, 2020 d). Tourism occupies an important place in the EU because of its economic and employment potential, as well as its social and environmental implications (European Commission, 2020).

According to Eurostat (Eurostat, 2020 a) one in ten enterprises in the European non-financial business economy belonged to the tourism industries. These 2.4 million enterprises employed an estimated 13.6 million persons. Enterprises in industries with tourism related activities accounted for 9.5 per cent of the persons employed in the whole non-financial business economy and 21.7 per cent of persons employed in the services sector. The tourism industries' shares in total turnover and value added at factor cost were relatively lower, with the tourism industries accounting for 3.9 per cent of the turnover and 5.8 per cent of the value added of the non-financial business economy (Eurostat, 2020 a).

In summer 2019, nearly one third (32 per cent) of annual nights spent at tourist accommodation establishments were recorded in July and August. The share of July and August in total nights spent at tourist accommodation in 2019 ranges from 23 per cent in Malta to 58 per cent in Croatia (Eurostat, 2020 b).

All world regions had large declines in the first eight months of this year in international tourist arrivals compared to the same period in 2019, with the largest decline of almost 80 per cent of Asia and the Pacific, which was first impacted with Covid-19 pandemic.

The regions of Africa and the Middle East recorded almost 70 per cent fewer arrivals of foreign tourists, while these arrivals in Europe were 68 per cent lower, and in the regions of the Americas (both Americas) 65 per cent less (Ministry of Tourism and Sport, 2020). For Europe, the most visited region, the UNWTO adds it had slightly smaller minuses of foreign tourist arrivals in July and August after the gradual reopening of borders, but also that it was a recovery of 'short life', because already in August began to introduce new travel restrictions and tips due to the increase in the number of infected.

Since the beginning of the Covid-19 pandemic, virtually all Member States have implemented containment measures and restrictions on non-essential travel, closed their borders and reinstated internal border controls within the Schengen area, often accompanied by requirements for cross-border travellers to stay in quarantine (Eurostat, 2020 b). This meant that millions of European citizens were suddenly unable to travel. From the data (World of Meter, 2020) Belgium is the worst affected country with Covid-19 in the world with over 1 000 deaths per 1 million population and with an average 7 times larger than Europe average (World of Meter, 2020).



**Table 2.** Rankings of ten European touristic destinations and most effected European countries by Covid-19

Rank by number of international travellers in 2019	Country	Rank by number of total Covid-19 cases	Rank by number of total deaths	Rank by number of total tests	Rank by number of cases per 1 million population*	Rank by number of deaths per 1 million population*
1	France	1	3	5	6	6
2	Spain	3	4	4	5	2
3	Italy	5	2	6	20	4
4	Germany	6	7	3	31	27
5	UK	4	1	2	14	3
6	Greece	27	26	19	35	31
7	Austria	16	21	16	17	26
8	Russia	2	5	1	24	21
9	Portugal	14	14	10	15	17
10	Poland	8	11	9	23	24

\*countries with less than 0.5 million population are excluded from rankings

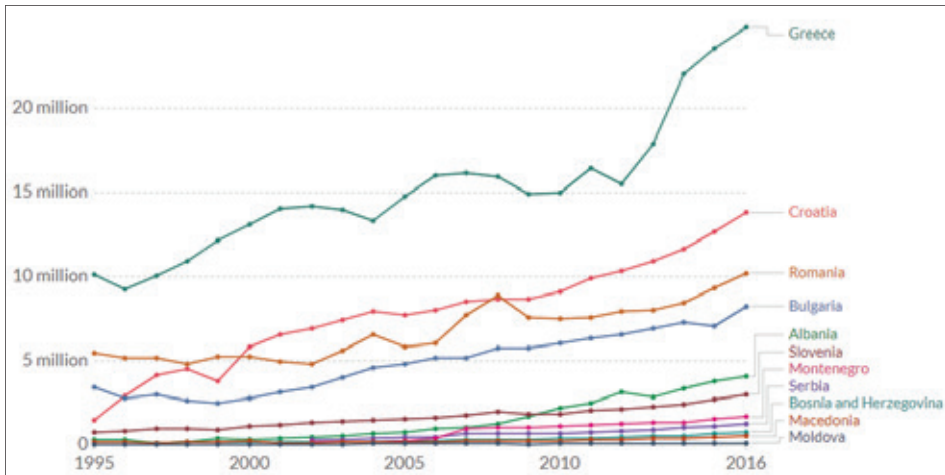
**Source:** Prepared by authors from (UNWTO, 2020 a), (World of Meter, 2020)

As an answer to the question “Is there any correlation between the most affected COVID 19 countries and the most developed touristic countries?” authors believe that there is a certain level of correlation. That insight is based on the figures in table 2: ranking of top ten European destinations as the most visited in terms of the number of international tourist arrivals in 2019, and the rankings of most Covid-19 effected European countries.

If the criteria is a number of cases, then it is visible that similar countries affected by Covid-19 are also among top 10 European touristic countries. From the table 3 it is obvious that the leading European touristic countries are also leading in ranking on Covid-19 effects in following criteria: number of total cases, number of total death and number of total tests. When taken into consideration number of cases per 1 million population the rankings are a bit different.

### TOURISTIC RESULTS OF SOUTH EAST EUROPE

For the purpose of this paper it was important to define and analyse the situation in the region of south east Europe (11 countries). These results will be compared with Croatian results in touristic sector and Covid-19 effects. From the figure 5 it can be concluded that the leading countries in international tourist arrivals in the region are Greece and Croatia followed by Romania and Bulgaria.

**Figure 5.** International tourism arrivals in SE Europe (1995 – 2016)

Source: (Roser, 2017)

According to the data in the table 3 regional country rankings and criteria for measuring Covid-19 effects show the ranking of every individual country in the south east Europe region. In terms of number of cases and deaths the worst situation is in Romania, followed by Moldova. Changing the criteria to cases per 1 million and death per 1 million population lowest ranking scored Greece, followed by Serbia and Albania. Measured by criteria total tests results are relatively close (12 – 17 tests per 100 population), with an exception of Albania with only 4 tests per 100 population. Average SE Europe score of cases per 1 million population approximately is 75 per cent higher than the world average, and 61 per cent higher than the world average of deaths per 1 million population. Position of Croatia rankings is in the middle of the regional results.

**Table 3.** Rank of south east European countries by Covid-19 measuring criteria

Ranking	Country	Total cases	Cases per 1 million population	Total tests % population	Total death	Deaths per 1 million population	Population (000)
1 (30)	Romania	246663	12851	17.2%	7067	368	19193
2 (60)	Moldova	76582	18939	9.3%	1800	447	4031
3 (74)	Bulgaria	54069	7802	10.5%	1298	187	6930
4 (77)	Bosnia and Herzegovina	51505	22063	9.7%	1248	381	3274
5 (78)	Croatia	51495	12570	12.3%	562	137	4096
6 (79)	Serbia	48403	5547	15.4%	826	95	8725
7 (83)	Greece	40929	3933	17.2%	635	61	10405
8 (85)	Slovenia	35649	17147	17.7%	363	175	2079
9 (88)	N. Macedonia	32436	15569	12.1%	1004	482	2093
10 (92)	Albania	21202	7370	4.3%	518	122	2876

11 (96)	Montenegro	18714	29795	14.5%	313	498	628
TOTAL		677647			15634		64330

Source: (World of Meter, 2020)

Table 4 represent best touristic results for the first eight months of 2020 compared to touristic results for the same period in previous year. Slovenia recorded best overall results due to high domestic index in Slovenia which is 26 per cent higher than the previous period. According to the international tourist arrivals criteria relatively best score achieved Croatia with lowest drop of touristic arrivals (60 per cent).

**Table 4.** Total touristic arrivals Jan-Aug 2020

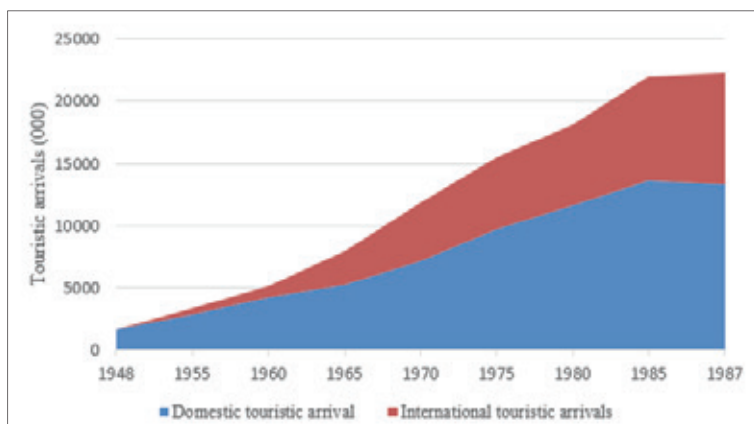
Country	Total touristic arrivals (000)	Index total	Index domestic	Index international
Bosna and Herzegovina	330	29.70	75.2	21.70
Croatia	6179	39.70	74.5	36.20
Montenegro	202	22.10	78.9	16.10
North Macedonia	337	40.10	74.7	17.80
Serbia	1269	50.90	74	26.50
Slovenia	2378	52.50	125.9	29.90

Source: Prepared by authors from various bureau of statistics data

### CROATIAN TOURISTIC RESULTS

Historically speaking as a part of Yugoslavia, Croatian touristic results were not devoted to international touristic arrivals, represented in the Figure 6. Structure of the international touristic arrivals, changed in the period 1948 – 1987: from 4 per cent of international touristic arrivals to 48 per cent in the year 1987.

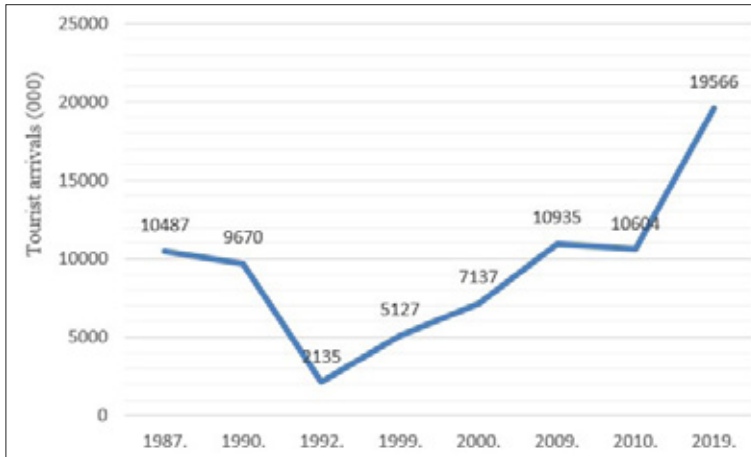
**Figure 6.** Structure of touristic arrivals in Yugoslavia (1948 – 1987)



Source: Prepared by authors from (Savezni zavod za statistiku i evidenciju FNRJ i SFRJ, 1991)

Within the countries of ex-Yugoslavia Croatian touristic share increased from 41 per cent in 1970 to 43 per cent in 1980 and reached 47 per cent in 1987. In last two years analysing all ex-Yugoslavian republics this share of Croatia touristic results increased to 58 per cent in 2018 and 56 per cent in 2019 respectively (Croatian Bureau of Statistics, 2020 a). The results of total tourist arrivals in Croatia are shown in the Figure 7.

**Figure 7.** Tourist arrivals in Croatia (1987 – 2019)



**Source:** (Croatian Bureau of Statistics, 2020 a)

In spite of favourable touristic results, there are numerous shortcomings of the Croatian tourism: high seasonality, modest touristic offer, relatively low average touristic expenditure (according to various sources from 80 – 100 EUR per day) and unfavourable accommodation structure with dominantly cheap accommodation capacity.

In the first eight months of 2020, tourists realised 6.2 million arrivals and 36.6 million nights in commercial accommodation establishments, which was a decrease of 60.3 per cent in tourist arrivals and of 52.0 per cent in tourist nights, as compared to the same period of 2019 (Croatian Bureau of Statistics, 2020 b). The most foreign tourist nights were realised by tourists from Germany (32.5 per cent), Slovenia (14.4 per cent), Poland (12.1 per cent), the Czech Republic (9.0 per cent) and Austria (6.1 per cent) (Croatian Bureau of Statistics, 2020 a). All those countries recorded less tourist arrivals and nights in the first eight months of 2020 than in the same period of 2019, due to the effects of Covid-19 pandemic. Among other effects (transport, health care system, culture, sport...) that will result in drop of Croatia GDP rate predicted to be 9.0 per cent (International Monetary Fund, 2020 a). European Commission predicts even worse GDP rate – drop of 9.6 per cent in 2020 (European Commission, 2020).

**Table 5.** Comparison of Croatian Covid-19 status with the world statistics on Nov 3rd 2020

	<b>Total cases</b>	<b>Total deaths</b>	<b>Total recovered</b>	<b>Active cases</b>	<b>Total cases/1M pop</b>	<b>Deaths/1M pop</b>	<b>Total tests</b>	<b>Tests/11M pop</b>
Croatia	56 567	654	41 070	14 843	13 809	160	523 382	127 767
World	48 415 149	1 230 114	34 667 038	12 517 997	6 211.2	157.8		

**Source:** (World of Meter, 2020)

World average deaths per 1 million population is 157.8 and Croatian is 160, which is a world average. Approaching the end of the year situation in Europe and Croatia is unfortunately in rising negative trend.

### CONCLUSION

At the moment of defining paper abstract, the total number of Covid-19 cases by the end of September was 34 million. At the beginning of November 2020 Covid-19 infections passed 50 million cases. Similar negative trend happened in the world economy affected particularly in tourism and air transport industries, since those sectors measured for the last 20 years have almost perfect correlation scores (96-99 per cent). The consequences on touristic results in the year 2020, will be a dramatic drop of international tourist arrivals probably to the level realised in 1984/1985 (according to the pessimistic scenario of UNWTO 78 per cent drop is expected). Similar decline is expected with air transport passengers carried in 2020 (expected drop from 59 to 62 per cent), meaning back to the achievement of the year 2000 (close to 1.67 million passengers carried). Answer to the question if there is any correlation between the most affected COVID 19 countries and the most developed worldwide touristic countries is affirmative in the case of North America, South America, and Europe (France, Spain, Italy, Great Britain, Germany and Russia). But in the case of Asia the answer is negative (China, Japan, Singapore, Thailand, South Korea...). This statement is valid for international tourist arrivals, while domestic tourism is not so affected compared to international tourist achievements. Future tourism recovery will be very difficult to predict depending on infection magnitude, flexibility and duration. European and Croatian experts are willing to believe that recovery will not happen before the year 2024. Some other scenarios are more optimistic (2022), but some are expressing pessimism mentioning the Covid-19 scenario. Finally, let's quote the UNICEF warning: Population of three billion worldwide do not have conditions for hand washing procedures.

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