

Impact of the COVID-19 pandemic on tourism in the Czech Republic

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Our paper aims at scrutinizing and evaluating the impacts of COVID-19 pandemic on international and domestic tourism in the Czech Republic. Our methodology includes the analysis of empirical and statistical data provided by the statistical agencies that stems from the systematic and holistic literature review. The empirical research includes analysis and comparison of time series of economic indicators. The paper evaluates two groups of statistical indicators. The first group consists of domestic and inbound tourism in the Czech Republic. The second area of research is the analysis of the hotel sector in the Prague region. The analysis of the hotel industry focuses on the development of the following internationally used economic indicators: average daily rate, occupancy, and revenue per available room. Our results reveal that there were significant effects of the coronavirus pandemic both on the inbound and the domestic tourism which brought about a plethora of social and economic implications such as the decrease in the average occupancy of hotel rooms or the revenues for the tourism and hospitality sector. As a result of the pandemic, the tourism structure in the Czech Republic has changed significantly with the institutions of tourism undergoing serious transformational and structural changes that might take lots of time to revert and to mitigate by the relevant tourism authorities, stakeholders, and policymakers.

Keywords: tourism; hospitality; economic development; COVID-19; Czech Republic

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Влияние пандемии COVID-19 на туризм в Чехии

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В статье проводится оценка воздействия пандемии COVID-19 на международный и внутренний туризм в Чешской Республике. Наша методология включает анализ статистических и эмпирических данных, предоставленных статистическими агентствами. Мы также опираемся на результаты систематического и целостного обзора литературы. Эмпирическое исследование включает анализ и сравнение временных рядов экономических индикаторов. В работе оцениваются две группы статистических показателей. Первая группа характеризует внутренний и въездной туризм в Чехии, вторая – гостиничный сектор в пражском регионе. Анализ гостиничной индустрии фокусируется на развитии следующих экономических показателей, используемых в международном масштабе: средняя дневная стоимость, заполняемость и доход в расчете на один свободный номер. Результаты показывают, что пандемия коронавирусной инфекции оказала значительное влияние на въездной, а также на внутренний туризм, что, принесло множество социальных, а также экономических последствий, таких как, например, снижение средней заполняемости гостиничных номеров или доходов сектора туризма и гостеприимства. В результате пандемии COVID-19 институты туризма претерпели серьезные трансформационные и структурные изменения. Восстановление сектора и смягчение негативных последствий требует времени и усилий со стороны соответствующих туристических органов, заинтересованных сторон и политиков.

Ключевые слова: туризм; гостеприимство; экономическое развитие; COVID-19; Чешская Республика

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Introduction

It can be proclaimed that COVID-19 pandemic has created previously unknown situations and new models of interactions within our society. The crisis has shown that restrictive measures are not beneficial for the economy and are popular with the general public (Arias-Maldonado, 2020; Faggioni

et al., 2021; Strielkowski et al., 2022). All of these caused extensive damage and numerous issues, especially of an economic nature, inter alia in tourism, and specifically in the hospitality sector (Khalid et al., 2021; Ozbay et al., 2021; Peco-Torres et al., 2021; Kennedy et al., 2022).

One of the first research papers devoted to the measuring the potential impact of the coronavirus-induced restrictions on the travel tourism industry in the short and long run, both worldwide and on a geographical level, was the work of Skare et al. (2021). The paper attempted to explore what was expected to be the negative consequences for the travel and tourism industry. The conclusions demonstrated that the coronavirus crises had long-lasting negative effects on the tourism industry and economy. Estimated negative effects were far beyond those observed during past similar crises. It appears that future pandemics should be dealt with promptly, and in order to do so, policymakers and practitioners need to come up with some effective contingency plans. Moreover, Skare et al. (2021) also showed that the pandemic effects of COVID-19 on the tourism industry shared the effect of a common shock. Thence, a revival of the tourism industry worldwide would need cooperation rather than competition to minimize the costs and the adverse effects of the coronavirus disaster.

Surely, this comprehensive research was preceded by many partial, real-time assessments of the effects brought about by the COVID-19 disaster on the right to participate in hospitality and tourism and trying to illustrate where such rights are under threat (Baum and Hai, 2020). Other research has been conducted from a geographical perspective (Jaipuria et al., 2021; Deb and Nafi, 2020; Mariolis et al., 2021; Sah et al., 2020) revealing the direct repercussions on tourism and hospitality in each country, such as for example, in Croatia, as a result of the pandemic and the country's dependence on the tourism sector. They found that Croatia would experience one of the largest declines in GDP (up to 10%) among European countries in 2020. Using the Croatian tourism sector as an example, the results of our research suggest the negative shock of the global pandemic on tourism may have established a new trend though at a much lower level. While international tourism has bounced back from previous crises, including similar outbreaks of the infectious diseases, these episodes were generally more localized (Payne et al., 2021; Martínez and Short, 2021). Also, there are more inspiring analyses examining the links between the effects on other areas of life, such as impact on the environment (Nagaj and Žuromskaitė, 2021). Some authors tackled the changes in consumer behavior and the marketing process (e.g. Navrátilová et al. 2020; Streimikiene and Korneeva, 2020).

On the other hand, many research papers and reports provide concrete solutions to the crisis effects on the sector. Abbas et al. (2021) considered the consequences of the COVID-19 disease and suggested changes in approaches to the organization of the industry. They argued that it was necessary to take advantage of the innovations and changes that arise from the new structure of the tourism industry. The authors also discussed possible perspectives for the development and revival of tourism. They commented on the new procedures for the development of the sector and recommended competitive options for activities of the business entities. Furthermore, they suggested possible reforms and support for the public sector. The cited authors mentioned activities aimed at recovering tourism to its pre-COVID-19 state.

Tourism is one of the sectors of the national economy in the Czech Republic most affected by the pandemic. The measures carried out by the Czech state authorities for preventing the outcomes of the lockdowns and restrictions meant a mandatory interruption of work activities and considerable financial losses for tourism entrepreneurs. According to the Tourism Satellite Account, value-added in tourism in the Czech Republic has fallen by half due to the pandemic¹. Several authors have examined the ramifications of the coronavirus pandemic on tourism in the Czech Republic. Novotný and Pelešová (2021) evaluated the quality of measures during the coronavirus crisis. The authors analyzed the legal aspects of the crisis tourism sector. Král (2020) discusses the Lex Voucher Act, which solved the crisis in the travel agency sector. Vaishar and Stastna (2020) examine the economic aspects of the covid pandemic. They discuss the possibilities of developing new forms of tourism and changes in consumer behavior. The authors are considering prospects for the development of rural tourism as a result of the coronavirus.

Our paper complements the above-mentioned research. We also expand the issues in the field of institutionalist economic approach to analysing the impacts on the tourism and hospitality sector.

¹ Czech Statistical Office (2022). Tourism – time series. [Dataset]. https://www.czso.cz/csu/czso/cru_ts (accessed on 5 May 2022)

The research gap is particularly evident in the absence of comprehensive analyzes of empirical statistics on the consequences of the coronavirus. Our analysis is based on the current macroeconomic and microeconomic data. Therefore, it provides a new insight of the course of the coronavirus crisis in the Czech Republic. Unlike some previous papers mentioned before, it also covers the beginning of the convalescence period.

Research objective and methodology

The paper assesses the effects of the recent coronavirus disease on the tourism in the Czech Republic. We analyse and compare the impact on inbound and domestic tourism in the country. We also quantify the effects of COVID-19 pandemic on the regional differentiation of tourism in the Czech Republic. Another important research objective is the economic analysis of the hotel industry in the Prague region.

Our methodology includes the analysis of empirical statistical data and a systematic literature review. The theoretical frameworks is shaped relying on a comprehensive review of research papers or reports by national authorities and international organizations. The analysed sources examine tourism and hospitality. The research includes the material from the Czech Republic, European Union countries, as well as the groundwork covering the issues of global tourism economy.

The empirical research includes analysis and comparison of time series of economic indicators. The paper evaluates two groups of statistical indicators. The first group consists of domestic and inbound tourism in the Czech Republic. The time series of tourism in the Czech Republic covers the period 2012–2022. In 2022, data are only available for the first quarter. This is because the COVID-19 had the highest influence on tourism in the Czech Republic in 2020 and 2021. The analysed time series should show a period before the start of the pandemic (2012–2019), the period of the epidemic (2020–2021), and the short time of recovery (the first quarter of 2022). This part aims to evaluate the effects on inbound and domestic tourism.

We also compare the regional differentiation of tourism in the Czech Republic. According to the European Union classification, we analyze regions at the NUTS 3 level. Those are the following regions: Prague Region, Central Bohemian Region, South Bohemian Region, Plzeň Region, Karlovy Vary Region, Ústí nad Labem Region, Liberec Region, Hradec Králové Region, Pardubice Region, Vysocina Region, South Moravian Region, Olomouc Region, Zlín Region, and Moravian-Silesian Region.

We use the coefficient of variation to evaluate regional differences between the Czech regions. We compare the development of differences in the whole period 2012–2022. In the years 2020–2021. We also evaluate the results of the coronavirus-induced restrictions on the regional differentiation of tourism in the Czech Republic. The coefficient of variation is the ratio of the standard deviation to the arithmetic mean. The results of the coefficient of variation describe the development of disparities within the monitored group of regions. The coefficient of variation is given by the ratio of the standard deviation and the arithmetic mean. The standard deviation is defined as the square root of the variance and is a measure of the variance of the observed feature around the mean. We express the coefficient of variation in percent (multiply the value by one hundred). Within the time series, we will evaluate the development of the coefficient of variation. An increase in the coefficient of variation means an increase in the differences between the regions. The decrease in the percentage values of the coefficient of variation is the waning in the regional differentiation of tourism. In analyzing regional differentiation, we ask the research question of whether the pandemic had a greater impact on the development of urban or rural regions. We consider the assumptions of some authors (that COVID-19 should contribute to the development of rural tourism and other forms of sustainable travel).

As mentioned above, the second research objective is the analysis of the hotel sector in the Prague region. The economic analysis of the hotel sector deepens and complements the research on the development of tourism. Prague is the most significant region for international tourism in the Czech Republic (Strielkowski, 2016; Mitsche and Strielkowski, 2016; Ključnikov et al., 2018). Moreover, Prague is the region with the highest number of foreign arrivals. The hotel industry is one of the tourism sectors with the highest turnover in the Czech Republic. Our analysis aims at indicators that show financial performance and stability similar to other related studies conducted in the country (Lžičar et al., 2019). Thence, we analyse following internationally used economic indicators:

- Average daily rate (ADR) expresses the average daily price per occupied room;
- Occupancy (in %) is the ratio of occupied rooms to their total number for a certain period of time (month, year, etc.);
- Revenue per Available Room (RevPAR) is the price of the available room – Revenue per Available Room describes the economic performance of the hotel. The hotel management aims to sell at the highest possible prices, and achieve the highest possible occupancy. The revenue per available room indicator combines both occupancy and price.

Results

Relying on available data provided by Czech Statistical Office, we can deduce trends in tourism in the last decade. Tables 1 and 2 illustrate the time series of domestic and inbound tourism. The number of foreign and domestic tourists between 2012–2019 was constantly growing. Tourism in the Czech Republic follows world trends. The number of international arrivals increased by almost 40% between 2012 and 2019. Domestic tourism has increased by as much as 45%. Statistics confirm the sharp turnaround due to the coronavirus. Since March 2020, the number of domestic and foreign arrivals has been dwindling. From Table 2 we can find that the reduction in domestic tourism in 2020 was almost 30% and incoming even 75%. The adverse effect of the pandemic on tourism was also evident in 2021. Although the number of tourists increased slightly (by about 10%), the numbers from 2019 did not come close to the Czech Republic. The effects of the COVID-19 on tourism in the Czech Republic are completely unique. Compared to the previous financial and debt crisis, they are more than ten times higher².

If we compare the Czech Republic with other destinations, the development was in line with global trends. However, we can find some specifics in the European context. The decrease in 2020 was not as significant as in traditional tourism destinations. However, the recovery is still below average when compared to the situation in other European Union countries. The authors of this article estimate that the slow recovery is due to changes in tourists' consumer preferences. In 2021, tourists preferred rural destinations, coastal regions, and sustainable forms of tourism. Central European urban areas were less visited. A slower recovery was also evident in other Central European countries (Hungary, Slovakia or Austria).

Based on these data from 2020 and 2021, we can observe the shrinking and stagnation of tourism due to the pandemic. We can observe a revival of tourism in the Czech Republic only in the first quarter of 2022. The statistical data for the first quarter is not entirely meaningful. We ranked them due to changing trends in the tourism industry since we should analyze the increase in tourism in a broader context. Compared to the first quarter of 2021, we see growth in domestic tourism by hundreds of percent. Inbound tourism has even increased by more than 1000%. But the enormous percentage increase does not exactly correspond to reality. The authors of this article perceive the increase compared to 2021 as a statistical bias. In the first quarter of 2021, the Czech Republic had a high number of hospitalized patients with COVID and the level of restrictions in the economy was very high. It becomes obvious that tourism reached minimum values.

As a result of the COVID-19 lockdowns, the tourism structure in the Czech Republic has also changed significantly. The reduction in domestic tourism was lower than inbound. There was an increase in domestic tourists in the number of arrivals, which was in line with global developments. The decrease in foreign arrivals was associated with a change in the structure of foreign markets. Tables 1 and 2 illustrate that neighboring countries (Germany, Slovakia, and Poland) were the main arrival markets before the pandemic. These countries followed the United States, China, as well as Russia. South Korea was also in the top ten countries with the highest arrivals in the Czech Republic. The increase in arrivals from China and South Korea was very rapid. The reason was the increasing interest of Asian tourists in Czech cities, cultural and historical monuments, and spas (Tracz and Bajgier-Kowalska, 2019; Tyslová et al. 2020). The growing number of direct flights to Korea and China had a positive impact on tourism. In addition to Prague, the town of Český Krumlov in the South Bohemian Region was also a popular destination.

² Czech Statistical Office (2022). Tourism – time series. [Dataset]. https://www.czso.cz/csu/czso/cru_ts (accessed on 5 May 2022)

Table 1**Development of inbound and domestic tourism in the Czech Republic (2012–2022)**

2012		2014		2016		2018	
Country (Region)	Arrievals	Country (Region)	Arrievals	Country (Region)	Arrievals	Country (Region)	Arrievals
Czechia (residents)	7451773	Czechia (residents)	7491191	Czechia (residents)	9067413	Czechia (residents)	10635756
Germany	1521246	Germany	1553370	Germany	1881095	Germany	2031104
Russia	731835	Russia	391198	Slovakia	642145	Slovakia	730954
Slovakia	435595	Slovakia	492550	Poland	541332	Poland	620495
Poland	401997	Poland	448736	United States	515154	China	617935
United States	390635	United States	441457	Great Britain	473986	United States	554394
Italy	374651	Great Britain	397431	United States	407529	Russia	544216
Great Britain	368005	Italy	369268	Italy	370511	Great Britain	494939
France	296298	Other Asian countries	290615	China	355847	South Korea	415166
Other Asian countries	256728	France	272650	South Korea	325612	Italy	408422

Source: Own results based on the Czech Statistical Office (2022). Tourism – time series. [Dataset]. https://www.czso.cz/csu/czso/cru_ts (accessed on 5 May 2022)

Table 2**Development of inbound and domestic tourism in the Czech Republic (2019–2022)**

2019		2020		2021		2022 (the first quarter of 2022)	
Country (Region)	Arrievals	Country (Region)	Arrievals	Country (Region)	Arrievals	Country (Region)	Arrievals
Czechia (residents)	11107866	Czechia (residents)	8052274	Czechia (residents)	8813943	Czechia (residents)	1922280
Germany	2075460	Germany	814541	Germany	687479	Germany	234290
Slovakia	749631	Poland	290316	Slovakia	329554	Slovakia	98112
Poland	671857	Slovakia	272476	Poland	234180	Poland	78639
China	609727	Russia	132033	Netherlands	98948	Ukraine	46803
United States	584627	Great Britain	125565	France	98725	Great Britain	44484
Russia	564083	Italy	89050	Austria	95678	France	33587
Great Britain	495728	Austria	88970	Italy	93151	Italy	32521
Italy	409731	France	82339	United States	89629	Netherlands	32307
South Korea	387563	Netherlands	81655	Israel	74926	Austria	29215

Source: Own results based on the Czech Statistical Office (2022). Tourism – time series. [Dataset]. https://www.czso.cz/csu/czso/cru_ts (accessed on 5 May 2022)

During the pandemic, the number of tourists from Asian countries (China, South Korea, Japan, etc.) in the Czech Republic decreased significantly due to limited travel opportunities. Tourists from the USA do not begin to return until the second half of 2021. Arrivals from European destinations are growing. The outbreak of the coronavirus infection meant a change in travel planning. Destinations accessible by car have become more popular. In addition to traditional inbound countries (Germany, Poland, and Slovakia), there was an increase in arrivals from France, Italy, the Netherlands, and Austria. The novelty is the rapid growth of the Israeli market.

Tourism is unevenly distributed in the Czech Republic. The dominant region in the period 2012–2020 was the Prague region. As already mentioned, the reason was mainly a large decline of foreign tourists. Other attractive regions in terms of tourism included the Bohemian Fair, South Moravian, and Hradec Králove region. The regions with the lowest number of arrivals were the Vysočina region, the Pardubice region, and the Usti nad Labem Region. The spread of the coronavirus and subsequent restrictions have changed the regional differentiation of tourism. The reduction in inbound tourism meant the highest downturn in the Prague Region and other urban areas (especially the city Brno in the South Moravian Region).

Table 3**Regional differences in tourism arrivals**

Distribution of tourist arrivals in regions of the Czech Republic	
Year	Coefficient of variation in %
2012	126,7
2014	131,8
2016	130,2
2018	124,3
2019	122,1
2020	62,8
2021	64,5
2022 (the first quarter of 2022)	87,8

Source: Own results based on the Czech Statistical Office (2022). Tourism – time series. [Dataset]. https://www.czso.cz/csu/czso/cru_ts (accessed on 5 May 2022)

In contrast, in regions such as the Vysočina, Pardubice and South Bohemian, a lower overall decline was recorded due to the development of domestic tourism.

We evaluated the regional differentiation of tourism statistics using the coefficient of variation. Table 3 illustrates the values of the coefficient of variation. The ramifications of the coronavirus-induced lockdowns on regional disparities are relatively clear. The crisis has caused a reduction in regional disparities and a greater spread of tourism across the territory of the Czech Republic. The values of the coefficient of variation are reduced by almost half in 2020 and 2021 compared to 2019. The recovery of tourism in the first quarter of 2022 is again associated with an increase in disparities. The values of the coefficient of variation gradually increase. The highest number of tourists compared to 2021 is evident in the Prague region. The dominance of Prague is not the same as before the pandemic, so the values of the coefficient of variation do not reach the values from 2019.

So far, the values from 2021 are closer. The variation coefficient indicator allows us to evaluate changes in the distribution of tourism in the Czech Republic very well. The values of the coefficient of variation copy the decreases and post-coronavirus increases.

Table 4

Distribution of tourist arrivals in regions of the Czech Republic (2012–2018)

2012		2014		2016		2018	
Regions	Arrievals	Regions	Arrievals	Regions	Arrievals	Regions	Arrievals
Prague region (PRG)	5726454	PRG	6096015	PRG	7127558	PRG	7892184
South Moravian Region (SMR)	1317690	SMR	1499974	SMR	1647533	SMR	2040627
South Bohemian Region (SBR)	1107452	SBR	1176046	SBR	1446905	SBR	1726991
Hradec Králové Region (HKR)	968571	HKR	936736	HKR	1158127	HKR	1342757
Karlovy Vary Region (KVR)	853204	CBR	799530	KVR	948871	CBR	1122095
Central Bohemian Region (CBR)	809043	KVR	776671	CBR	939041	KVR	1118003
Liberec Region (LBR)	753932	MSR	703009	LBR	863520	LBR	997213
Moravian-Silesian Region (MSR)	698746	LBR	700144	MSR	816653	MSR	985795
Plzen Region (PLR)	595138	ZLR	603414	ZLR	686935	PLR	839900
Zlín Region (ZLR)	571719	PLR	568746	PLR	660011	ZLR	779124
Olomouc Region (OLR)	474868	OLR	487641	OLR	600106	OLR	700112
Usti nad Labem Region (ULR)	438715	VNR	447603	ULR	527461	ULR	632150
Vysocina Region (VNR)	416842	ULR	431882	VNR	522415	VNR	602487
Pardubice Region (PAR)	366443	PAR	359665	PAR	443717	PAR	467712

Legend: Pardubice Region=PAR, Vysocina Region=VNR, Usti nad Labem Region=ULR, Olomouc Region=OLR, Plzen Region=PLR, Moravian-Silesian Region=MSR, Liberec Region=LBR, Central Bohemian Region=CBR, Karlovy Vary Region=KVR, Hradec Králové Region=HKR, South Bohemian Region=SBR, South Moravian Region=SMR, Prague region=PRG.

Source: Czech Statistical Office (2022). Tourism – time series. [Dataset]. https://www.czso.cz/csu/czso/cru_ts (accessed on 5 May 2022), own processing

The microeconomic effects of the COVID-19 are illustrated in more detail by an analysis of the hotel industry, which we conducted in the Prague region. The strong influence of the crisis confirms a significant drop in the analyzed economic indicators (see Table 6). The effects of the crisis on the hotel industry were recorded on all analyzed economic indicators.

Table 5

Distribution of tourist arrivals in regions of the Czech Republic (2019–2022)

2019		2020		2021		2022 (the first quarter of 2022)	
Regions	Arrievals	Regions	Arrievals	Regions	Arrievals	Regions	Arrievals
Prague region (PRG)	8044324	PRG	2182443	PRG	2354720	PRG	757682
South Moravian Region (SMR)	2137259	SMR	1170773	SMR	1331887	HKR	345598
South Bohemian Region (SBR)	1788911	SBR	1120104	SBR	1119451	LR	238217
Hradec Králové Region (HKR)	1412307	HKR	995037	HKR	939280	SMR	205621
Karlovy Vary Region (KVR)	1190296	LBR	774686	CBR	781785	KVR	192654
Central Bohemian Region (CBR)	1172951	CBR	693980	LBR	722461	MSR	175797
Liberec Region (LBR)	1048865	KVR	677441	KVR	710460	SBR	153953
Moravian-Silesian Region (MSR)	1015746	MSR	612681	MSR	645902	OLR	135808
Plzen Region (PLR)	871893	PLR	533620	ZLR	555228	CBR	127607
Zlín Region (ZLR)	808451	ZLR	500512	PLR	554582	PLR	122314
Olomouc Region (OLR)	761615	OLR	472051	OLR	469007	ZLR	114835
Usti nad Labem Region (ULR)	659902	VNR	397509	VNR	450699	VNR	82630
Vysocina Region (VNR)	605326	UNR	383341	UNR	396878	UNR	79095
Pardubice Region (PAR)	480520	PAR	322270	PAR	351261	PAR	79061

Legend: Pardubice Region=PAR, Vysocina Region=VNR, Usti nad Labem Region=ULR, Olomouc Region=OLR, Plzen Region=PLR, Moravian-Silesian Region=MSR, Liberec Region=LBR, Central Bohemian Region=CBR, Karlovy Vary Region=KVR, Hradec Králové Region=HKR, South Bohemian Region=SBR, South Moravian Region=SMR, Prague region=PRG.

Source: own results based on the Czech Statistical Office (2022). Tourism – time series. [Dataset]. https://www.czso.cz/csu/czso/cru_ts (accessed on 5 May 2022)

The average occupancy decreased from 80% in 2019 to 21% in 2020. The average daily rate was reduced from CZK 2,300 in 2019 to CZK 1,700 in 2020. The most important RevPar indicator fell by approximately CZK 1,800 before the crisis to 400 CZK.

Table 6

Economic indicators in the hotel industry in Prague Region

Year	Occupancy %	ADR CZK	RevPAR CZK
2014	70,6%	1999	1411
2015	75,1%	2140	1606
2016	77,1%	2199	1696
2017	80,1%	2298	1841
2018	78,7 %	2328	1831
2019	78,9%	2358	1859
2020	20,7%	1702	352
2021	26,1%	1786	465

Source: own results based on STR Global (2022). Data Solutions. <https://str.com/data-solutions> (accessed on 3 May 2022)

Table 7

Economic indicators in hotel industry (European Cities)

Cities	Occupancy %				
	2020	2021	January 2022	February 2022	March 2022
Prague Czech Republic	20,7	26,1	18,7	27,9	42,3
Vienna Austria	24,4	29,4	18,5	26,5	41,7
Budapest Hungary	21,8	31,5	33,9	41,3	54,4
Bratislava Slovakia	23,3	22,4	27,8	28,4	42,7
Berlin Germany	31,8	37,9	27,4	35,1	50,1
Paris France	30,4	43,4	35,4	49,1	68,8
Munich Germany	29,0	33,5	23,8	32,7	41,8
Warsaw Poland	27,4	36,7	36,5	45,6	82,5
Cities	ADR (in EUR)				
	2020	2021	January 2022	February 2022	March 2022
Prague Czech Republic	64,38	69,66	73,03	67,88	74,53
Viena Austria	90,63	97,99	96,40	92,57	91,79
Budapest Hungary	80,92	93,40	88,16	79,13	86,50
Bratislava Slovakia	66,11	68,49	69,27	65,42	72,63
Berlin Germany	84,19	82,99	75,88	79,49	84,25
Paris France	162,41	213,00	208,98	203,67	237,04
Munich Germany	91,76	91,31	84,10	100,54	90,05
Warsaw Poland	59,94	57,73	57,69	58,38	70,88
Cities	RevPAR (in EUR)				
	2020	2021	January 2022	February 2022	March 2022
Prague Czech Republic	13,34	18,15	13,64	18,97	31,55
Vienna Austria	22,16	28,78	17,80	24,55	38,24
Budapest Hungary	17,68	29,44	29,85	32,68	47,02
Bratislava Slovakia	15,41	15,36	19,25	18,56	30,99
Berlin Germany	26,76	31,46	20,80	27,92	42,22
Paris France	49,32	92,42	73,92	100,06	163,08
Munich Germany	29,57	30,56	20,02	32,86	37,67
Warsaw Poland	16,40	21,18	21,07	26,62	58,50

Source: STR Global (2022). Data Solutions. <https://str.com/data-solutions> (accessed on 3 May 2022), own processing

Table 7 shows an international comparison of the Prague region and other cities (Paris, Berlin, Vasava, Vienna, Budapest and Bratislava). The comparison does not look favorable. Compared to other cities, the Prague region shows significant economic diminution of applicants during the crisis and a slower recovery in 2022. However, the year 2022 belongs to the post-Pididian recovery. In particular, the data for March indicate a better tourist season than in 2021.

Conclusions

Based on statistical data and analyses, we can confirm the significant impacts of the COVID-19 pandemic on inbound but also on the domestic tourism in the Czech Republic. Our results demonstrate that the downturn in economic indicators of the hotel industry in Prague was higher than in the case of inbound tourism in the Czech Republic. In general terms, tourism in the Czech Republic shows similar trends to the European and global markets. The recovery of the tourism sector and the return to pre-coronavirus income and arrival values is likely to be a medium-term process for several years. Despite the fact that the initial decrease was not that significant, the overall effects of the coronavirus in the Czech Republic would probably be above average in European comparison. The recovery process is slower so far compared to Western and Southern European tourism destinations. The further development of post-pandemic recovery represents a promising area for further research.

As a result of the coronavirus lockdowns, the tourism structure worldwide has changed significantly. In the Czech Republic, as well as in Europe and in the world, domestic and international tourism developed differently. The effects of the pandemic were smaller for the domestic tourism. The cut in the number of foreign arrivals was associated with a change in the structure of foreign markets. During the pandemic, the number of tourists from Asian countries (China, South Korea, Japan, etc.) in the Czech Republic decreased significantly due to limited travel opportunities. Tourists from the USA did not begin to return until the second half of 2021. On the other hand, arrivals from the European destinations are growing. The COVID-19 virus meant a massive change in travel planning. Destinations accessible by car have become more popular and used. In addition to traditional inbound countries (Germany, Poland, and Slovakia), there was an increase in arrivals from France, Italy, the Netherlands, as well as Austria.

All in all, the COVID-19 pandemic and subsequent restrictions have changed the regional differentiation of tourism. The reduction in inbound tourism meant the highest slackening in the Prague Region and other urban areas (especially the city Brno in the South Moravian Region). In contrast, in the Vysočina, Pardubice and South Bohemian regions, a lower overall waning was recorded due to the development of domestic tourism. In recent years, tourism participants have increasingly visited natural attractions and rural regions. We do not consider the changes in the regional differentiation of tourism to be permanent. Unlike some authors (Vaishar and Stastna, 2020), we expect a gradual return of tourism to mass trends in the nearest future.

References

- Abbas, J., Mubeen, R., Iorember, P., Raza, S. and Mamirkulova, G. (2021). Exploring the impact of COVID-19 on tourism: transformational potential and implications for a sustainable recovery of the travel and leisure industry. *Current Research in Behavioral Sciences* **2**, 1–11. DOI: 10.1016/j.crbeha.2021.100033
- Arias-Maldonado, M. (2020). COVID-19 as a global risk: Confronting the ambivalences of a socionatural threat. *Societies* **10**(4), 92. DOI: 10.3390/soc10040092
- Baum, T. and Hai, N. (2020). Hospitality, tourism, human rights and the impact of COVID-19. *International Journal of Contemporary Hospitality Management* **32**(7), 2397–2407. DOI: 10.1108/IJCHM-03-2020-0242
- Deb, S. and Nafi, S. (2020). Impact of COVID-19 pandemic on tourism: Perceptions from Bangladesh. *SSRN Electronic Journal* 1–10. DOI: 10.2139/ssrn.3632798

- Faggioni, M., González-Melado, F. and Di Pietro, M. (2021). National health system cuts and triage decisions during the COVID-19 pandemic in Italy and Spain: ethical implications. *Journal of Medical Ethics* **47**(5), 300–307. DOI: 10.1136/medethics-2020-106898
- Jaipuria, S., Parida, R. and Ray, P. (2021). The impact of COVID-19 on tourism sector in India. *Tourism Recreation Research* **46**(2), 245–260. DOI: 10.1080/02508281.2020.1846971
- Kennedy, V., Crawford, K. R., Main, G., Gauci, R. and Schembri, J. (2022). Stakeholder's (natural) hazard awareness and vulnerability of small island tourism destinations: a case study of Malta. *Tourism Recreation Research* **47**(2), 160–176. DOI: 10.1080/02508281.2020.1828554
- Khalid, U., Okafor, L. and Burzynska, K. (2021). Does the size of the tourism sector influence the economic policy response to the COVID-19 pandemic? *Current Issues in Tourism* **24**(19), 2801–2820. DOI: 10.1080/13683500.2021.1874311
- Ključnikov, A., Krajčík, V. and Vincúrová, Z. (2018). International sharing economy: The case of airbnb in the Czech Republic. *Economics & Sociology* **11**(2), 126–137. DOI: 10.14254/2071-789X.2018/11-2/9
- Král, R. (2020). Ke slučitelnosti „Lex Voucher“ s právem EU. *Jurisprudence* **3**, 40–43.
- Lžičař, P., Rubáček, F. and Abrhám, J. (2019). Revenue management in hospitality industry: Case study of a selected congress hotel. Conference Proceedings of the 7th International Scientific Conference IFRS: Global Rules and Local Use – Beyond the Numbers, Prague: Metropolitan University Prague, pp. 365–374.
- Mariolis, T., Rodousakis, N. and Soklis, G. (2021). The COVID-19 multiplier effects of tourism on the Greek economy. *Tourism economics: the business and finance of tourism and recreation* **27**(8), 1848–1855. DOI: 10.1177/1354816620946547
- Martínez, L. and Short, J. (2021). The pandemic city: urban issues in the time of COVID-19. *Sustainability* **13**(6), 3295. DOI: 10.3390/su13063295
- Mitsche, N. and Strielkowski, W. (2016). Tourism e-services and Jewish heritage: a case study of Prague. *European Journal of Tourism, Hospitality and Recreation* **7**(3), 203–211. DOI: 10.1515/ejthr-2016-0022
- Nagaj, R. and Žuromskaitė, B. (2021). Tourism in the era of Covid-19 and its impact on the environment. *Energies* **14**(7), 1–18. DOI: 10.3390/en14072000
- Navrátilová, M., Beranová, M., Smutka, L. and Severová, L. (2020). Economic aspects of consumer behavior in tourism for a selected population group in the Czech Republic. *Terra Economicus* **18**(4), 149–168. DOI: 10.18522/2073-6606-2020-18-4-149-168
- Novotný, L. and Pellešová, P. (2021). Impact of the COVID-19 crisis on the regulation to tourism in the Czech Republic. *Central European Public Administration Review* **19**(1), 199–222. DOI: 10.17573/cepar.2021.1.09
- Ozbay, G., Sariisik, M., Ceylan, V. and Çakmak, M. (2021). A comparative evaluation between the impact of previous outbreaks and COVID-19 on the tourism industry 36(1), 65–82. *International Hospitality Review*. DOI: 10.1108/IHR-05-2020-0015
- Payne, J., Gil-Alana, L. and Mervar, A. (2021). Persistence in Croatian tourism: The impact of COVID-19. *Tourism Economics* **27**, 1–7. <https://doi.org/10.1177/1354816621999969>
- Peco-Torres, F., Polo-Peña, A. and Frías-Jamilena, D. (2021). The effect of COVID-19 on tourists' intention to resume hotel consumption: The role of resilience. *International Journal of Hospitality Management* **99**, 103075. DOI: 10.1016/j.ijhm.2021.103075
- Sah, R., Sigdel, S., Ozaki, A., Kotera, Y., Bhandari, D., Regmi, P., Rabaan, A. et al. (2020). Impact of COVID-19 on tourism in Nepal. *Journal of Travel Medicine* **27**(6), 1–9. DOI: doi.org/10.1093/jtm/taaa105
- Skare, M., Soriano, D. and Porada-Rochoń, M. (2021). Impact of COVID-19 on the travel and tourism industry. *Technological Forecasting and Social Change* **163**, 1–14. DOI: 10.1016/j.techfore.2020.120469

- Streimikiene, D. and Korneeva, E. (2020). Economic impacts of innovations in tourism marketing. *Terra Economicus* **18**(3), 182–193. DOI: 10.18522/2073-6606-2020-18-3-182-193
- Strielkowski, W. (2016). Innovations in tourism marketing: Operation Anthropoid in Prague. *Marketing and Management of Innovations* **4**, 106–112.
- Strielkowski, W., Firsova, I., Azarova, S. and Shatskaya, I. (2022). Novel Insights in the leadership in business and economics: a post-coronavirus update. *Economies* **10**(2), 48. DOI: 10.3390/economies10020048
- Tracz, M. and Bajgier-Kowalska, M. (2019). Profile of tourists visiting cultural heritage cities: Comparative study of selected cities in Central Europe. *Geographia Polonica* **92**(4), 455–468. DOI: 10.7163/GPol.0159
- Tyslová, I., Abrhám, J., Horváthová, Z. and Rubáček, F. (2020). Economic benefits of tourism: Cultural identity and tourism destinations in the Czech Republic. *Terra Economicus* **18**(2), 139–154. DOI: 10.18522/2073-6606-2020-18-2-139-154
- Vaishar, A. and Stastna, M. (2020). Impact of the COVID-19 pandemic on rural tourism in Czechia Preliminary considerations. *Current Issues in Tourism* **25**(2), 187–191. DOI: 10.1080/13683500.2020.1839027