

# ANNALS

BELGRADE LAW REVIEW

ANALI  
PRAVNOG FAKULTETA U BEOGRADU

- 953 Zoran RADOVANOVIĆ  
COVID-19 BETWEEN MEDICINE, LAW AND POLITICS
- 977 Boris Begović  
THE GLOBAL ECONOMIC EFFECTS OF THE COVID-19 PANDEMIC: A BIRD'S-EYE VIEW
- 1017 Dragica VUJADINOVIĆ  
THE WIDENING GAP BETWEEN PROCLAIMED GENDER EQUALITY AND REAL STATE OF AFFAIRS IN TIMES OF COVID-19 PANDEMIC
- 1049 Marija DRAŠKIĆ  
AVOIDING MANDATORY COVID-19 VACCINATION: ARROGANCE TOWARD SCIENCE AND LACK OF RESPECT FOR COMMON SENSE
- 1079 Milica KALIĆ, Danica BABIĆ, Slavica DOŽIĆ, Jovana KULJANIN, Nemanja MIJOVIĆ  
IMPACT OF COVID-19 ON THE AVIATION INDUSTRY: AN OVERVIEW OF GLOBAL AND SOME LOCAL EFFECTS
- 1129 Mirjana DRENOVAK-IVANOVIĆ  
THE IMPORTANCE OF THE RIGHT TO A HEALTHY ENVIRONMENT DURING THE PANDEMIC
- 1147 Svetislav KOSTIĆ  
TAX TREATMENT OF FLEXIBLE FORMS OF WORK IN SERBIA IN LIGHT OF THE COVID-19 GLOBAL PANDEMIC
- 1165 Valerija DABETIĆ  
ONLINE TEACHING – EDUCATION IN TIMES OF CRISIS OR EDUCATION OF THE FUTURE?
- 1193 Zoran S. MIRKOVIĆ  
MEASURES AGAINST THE PLAGUE AND OTHER CONTAGIOUS DISEASES IN SERBIA IN THE FIRST HALF OF THE 19<sup>TH</sup> CENTURY

#### **EDITOR-IN-CHIEF /**

Marija Karanikić Mirić,  
University of Belgrade Faculty of Law, Serbia

#### **GUEST EDITOR /**

Ivana Krstić,  
University of Belgrade Faculty of Law, Serbia

#### **WEB SITE EDITOR /**

Boris Begović,  
University of Belgrade Faculty of Law, Serbia

#### **EDITORIAL BOARD /**

Dušan Popović (University of Belgrade Faculty of Law, Serbia),  
Bojan Milisavljević (University of Belgrade Faculty of Law, Serbia),  
Vojislav Stanimirović (University of Belgrade Faculty of Law, Serbia),  
Ljubinka Kovačević (University of Belgrade Faculty of Law, Serbia),  
Danilo Vuković (University of Belgrade Faculty of Law, Serbia),  
Vanja Bajović (University of Belgrade Faculty of Law, Serbia),  
Svetislav Kostić (University of Belgrade Faculty of Law, Serbia)

#### **INTERNATIONAL EDITORIAL BOARD MEMBERS /**

Brian Leiter (University of Chicago Law School, USA), Ralf Michaels  
(Max Planck Institute for Comparative and Int. Private Law,  
Hamburg, Germany), Herbert Hovenkamp (University of  
Pennsylvania, USA), Eleanor Fox (New York University School of Law,  
USA), Yariv Brauner (University of Florida, USA), John Cerone (Tufts  
University, USA), Silvio Ferrari (University of Milan, Italy), Kenneth  
Einar Himma (University of Washington, USA), Christa Jessel Holst  
(Max Planck Institute for Comparative and Int. Private Law,  
Hamburg, Germany), Thomas Koenig (Northeastern University,  
USA), Peter Koller (University of Graz, Austria), Janez Kranjc  
(University of Ljubljana, Slovenia), Rainer Kulms (Max Planck  
Institute for Comparative and Int. Private Law, Hamburg, Germany),  
Ingeborg Maus (Goethe University Frankfurt, Germany), Thomas  
Mertens (Radboud University, Netherlands), Slobodan Milačić  
(University of Bordeaux, France), Paul du Plessis (The University of  
Edinburgh, Scotland), Vesna Rijavec (University of Maribor,  
Slovenia)

#### **MANAGING EDITORS/**

Nikola Ilić (University of Belgrade Faculty of Law,  
Serbia) and Novak Vujičić (University of Belgrade  
Faculty of Law, Serbia)

#### **TECHNICAL EDITOR /**

Milena Mitrović (Institute of International Politics  
and Economics, Serbia)

#### **PUBLISHER /**

Faculty of Law University of Belgrade

#### **PROOFREADING /**

Vuk Tošić

#### **LAYOUT MANAGER /**

Jovan Đorđević

#### **COVER /**

City Image

#### **TYPE SETTING AND LAYOUT /**

**DOŠIJE**  
STUDIO

#### **PRINTED BY /**

Sajnos

#### **COPIES /**

300

#### **SECONDARY PUBLICATIONS IN WHICH THE JOURNAL IS INDEXED /**

Directory of Open Access Journals (DOAJ); EBSCO;  
HeinOnline Law Journal Library; SCIndeks (Srpski  
citatni indeks); Cobiss; ERIHPLUS

# ANNALS

BELGRADE LAW REVIEW

ANALI  
PRAVNOG FAKULTETA U BEOGRADU

- 953 Zoran RADOVANOVIĆ  
COVID-19 BETWEEN MEDICINE, LAW AND POLITICS
- 977 Boris Begović  
THE GLOBAL ECONOMIC EFFECTS OF THE COVID-19 PANDEMIC: A BIRD'S-EYE VIEW
- 1017 Dragica VUJADINOVIĆ  
THE WIDENING GAP BETWEEN PROCLAIMED GENDER EQUALITY AND REAL STATE OF AFFAIRS IN TIMES OF COVID-19 PANDEMIC
- 1049 Marija DRAŠKIĆ  
AVOIDING MANDATORY COVID-19 VACCINATION: ARROGANCE TOWARD SCIENCE AND LACK OF RESPECT FOR COMMON SENSE
- 1079 Milica KALIĆ, Danica BABIĆ, Slavica DOŽIĆ, Jovana KULJANIN, Nemanja MIJOVIĆ  
IMPACT OF COVID-19 ON THE AVIATION INDUSTRY: AN OVERVIEW OF GLOBAL AND SOME LOCAL EFFECTS
- 1129 Mirjana DRENOVAK-IVANOVIĆ  
THE IMPORTANCE OF THE RIGHT TO A HEALTHY ENVIRONMENT DURING THE PANDEMIC
- 1147 Svetislav KOSTIĆ  
TAX TREATMENT OF FLEXIBLE FORMS OF WORK IN SERBIA IN LIGHT OF THE COVID-19 GLOBAL PANDEMIC
- 1165 Valerija DABETIĆ  
ONLINE TEACHING – EDUCATION IN TIMES OF CRISIS OR EDUCATION OF THE FUTURE?
- 1193 Zoran S. MIRKOVIĆ  
MEASURES AGAINST THE PLAGUE AND OTHER CONTAGIOUS DISEASES IN SERBIA IN THE FIRST HALF OF THE 19<sup>TH</sup> CENTURY

## **TABLE OF CONTENTS**

- 947 Ivana Krstić**  
Editorial Note

### **ARTICLES**

- 953 Zoran Radovanović**  
Covid-19 between Medicine, Law and Politics
- 977 Boris Begović**  
The Global Economic Effects of the Covid-19 Pandemic: A Bird's-Eye View
- 1017 Dragica Vujadinović**  
The Widening Gap between Proclaimed Gender Equality and Real State of Affairs in Times of Covid-19 Pandemic
- 1049 Marija Draškić**  
Avoiding Mandatory Covid-19 Vaccination: Arrogance toward Science and Lack of Respect for Common Sense
- 1079 Milica Kalić, Danica Babić, Slavica Dožić, Jovana Kuljanin, Nemanja Mijović**  
Impact of Covid-19 on the Aviation Industry: An Overview of Global and Some Local Effects
- 1129 Mirjana Drenovak-Ivanović**  
The Importance of the Right to a Healthy Environment During the Pandemic
- 1147 Svetislav Kostić**  
Tax Treatment of Flexible Forms of Work in Serbia in Light of the Covid-19 Global Pandemic

**1165 Valerija Dabetić**

Online Teaching – Education in Times of Crisis or Education of the Future?

**1193 Zoran S. Mirković**

Measures Against the Plague and Other Contagious Diseases in Serbia in the First Half of the 19<sup>th</sup> Century

BOOK REVIEWS

**1231** Belleflamme, Paul, Martin Peitz. 2021. *The Economics of Platforms: Concepts and Strategy*. Cambridge: Cambridge University Press, 256.  
(Ana Odorović)

**1239** Löhnig Martin, Masheva Ivelina (eds.). 2022. *Commercial Law in Southeastern Europe – Legislation and Jurisdiction from Tanzimat Times until the Eve of the Great War*. Vienna – Cologne: Böhlau Verlag, 135.  
(Đorđe Stepić)

**1246** Rubin, Miri. 2020. *Cities of Strangers: Making Lives in Medieval Europe*. Cambridge: Cambridge University Press, XV + 189.  
(Nina Kršljanin)

VARIA

**1253 Guidelines for Authors**



**Ivana KRSTIĆ, PhD\***

## ***EDITORIAL NOTE***

A month after the outbreak in China in December 2019, the World Health Organization (WHO) designated COVID-19 a public health emergency of international concern. On 11 March 2020, the coronavirus disease, COVID-19, which was already spread around the globe, was declared a pandemic. Dr. Tedros Adhanom Ghebreyesus, WHO Director-General, told a media briefing that “this is not just a public health crisis, it is a crisis that will touch every sector.”<sup>1</sup> The COVID-19 pandemic has undoubtedly caused the greatest crisis in modern time. The consequences of the virus are very

---

\* Professor, University of Belgrade Faculty of Law, Serbia, Guest Editor, *ikrstic@ius.bg.ac.rs*.

<sup>1</sup> World Health Organization. 2020. WHO Director-General’s opening remarks at the media briefing on COVID-19 – 11 March 2020. <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020> (last visited 4 December, 2022).

serious as it has reached almost every country in the world, with total of 646,070,635 confirmed cases and a death toll of 6,636,146.<sup>2</sup> However, not only has it had consequences on the health system, serious lockdowns, and led to the issue of production and distribution of vaccines, it has also caused serious human rights and humanitarian crises. Furthermore, it has affected the world economies which are struggling with rising unemployment, and led to the temporary closing of certain sectors, such as hospitality and civil aviation. Another important critical issue is ensuring human rights, due to many government restrictions, and enforcement of discriminatory measures, which have greater negative impact on certain groups in societies.

The *Annals of the Faculty of Law in Belgrade* has recognized the importance of the consequences caused by the COVID-19 pandemic and allotted one issue in 2022 to its influence in different legal and social areas. Therefore, this issue contains nine papers on the COVID-19 pandemic, a topic that was the 2021 strategic project of the Institute for Social and Legal Studies at the University of Belgrade Faculty of Law. Some of the contributions have a more global approach, while others primarily deal with measures implemented in Serbia. Therefore, the authors analyze the consequences and risks of the COVID-19 pandemic to certain areas and discuss opportunities related to the global and Serbian legal orders.

The contribution by Zoran Radovanović discusses the COVID-19 crisis and its interplay of medicine, law, and politics. The author explains the legal basis for international public health, anticipating the pandemic and confronting it, the world's response to the pandemic, as well as a Serbian approach to it. The author discusses some important issues, such as wrongly selected priorities, the ambivalent attitude of officials toward vaccination, and the falsification of data. Radovanović concludes that since the winter of 2022/2023, it would become an endemic disease, with reduced impact on the lives of people. However, the consequences of COVID-19 will remain, extending to the economic, psychological, and social levels. This conclusion gives an excellent introduction to the next paper, written by Boris Begović, on the global economic effects of the COVID-19 pandemic. It provides a general picture of the economic effects, covering the demographic effect, impact on economic growth, supply-side impact, demand-side impact, impact on poverty and economic inequality, and the legacy of macroeconomic policies (monetary and fiscal). The author concludes that the swift, massive and comprehensive government macroeconomic intervention was decisive in

---

<sup>2</sup> Worldometer. Countries where COVID-19 had spread. <https://www.worldometers.info/coronavirus/countries-where-coronavirus-has-spread/> (last visited 28 November, 2022).



avoiding a depression. However, this intervention led to inflation, an increase in sovereign debt, and big government (huge budgets, massive subsidies, transfers, etc.). Begović especially points out the need for more research on the impact of the COVID-19 pandemic on human capital, and the change in remote and online business activities.

The aspect of business activities, from the perspective of gender equality, was further analyzed in a paper by Dragica Vujadinović. The author finds that the international, European and Serbian gender equality framework is very solid, but the persisting hierarchical power relations, subordination, and gender inequality still exist in practice. This inequality was further accelerated during the pandemic, and the author concludes that all social crises lead to declining emancipatory trends and rising patriarchal ones. The proof of that is the matrix of domestic work and caring for children and family. Vujadinović argues that while patriarchy persists in all countries, poorer and more traditionalist societies and authoritarian states are more susceptible to it, which has also been visible during the pandemic. Despite this, the measures against COVID-19 were gender-neutral and did not deal with women who worked from home, women employed in healthcare and education, and in different service jobs, who experienced a decline in living and working conditions, because they also bore the burden of increased domestic obligations. Therefore, the author concludes that the gender gap will be wider and greater if the proper measures are not introduced, especially in times of crisis.

The issue of vaccination, mentioned in the papers by Zoran Radovanović and Boris Begović, was further elaborated in the paper by Marija Draškić. The title of her contribution is rather provocative as she asks whether avoiding mandatory COVID-19 vaccination is the consequence of arrogance toward science and a lack of respect for common sense. The author discusses whether it is permissible to prescribe mandatory vaccination, and whether it is constitutional and legal to introduce it in general, or only to certain categories only. In order to come to that conclusion, Draškić analyzes the decisions of the Constitutional Court of Serbia, the Constitutional Court of Croatia, and the Constitutional Court of Slovenia, as well as the judgment of the European Court of Human Rights (Grand Chamber) in the *Vavrička and Others v. the Czech Republic* case, from 8 April 2021. Relying to the mentioned sources, the author finds that mandatory vaccination is not a human rights violation, and her main argument is based on the basic scientific fact that vaccination cannot be effective without the existence of collective immunity.

The group of authors prepared a contribution on the impact of COVID-19 to the aviation industry in 2020 and 2021, which was one of the sectors shut down in the first year of the pandemic. The authors analyze the

impact of the pandemic on stakeholders in the aviation industry, which required countermeasures aimed at mitigating the effects of the pandemic. These were primarily the reconfiguration of networks and capacity, the switch to cargo operations, and staff reduction. The authors also conclude that the European aviation industry was hit harder by the pandemic due to an individualistic approach in implementing measures to combat the pandemic. This led to another conclusion – that universally recognized and harmonized rules for air passenger travel need to be provided in the aviation industry. Also, some long-term effects of the pandemic on aviation emerged, such as stricter hygiene and safety standards, further digitalization at airports, traveler vaccination certificates and test results in mobile apps, etc. However, some positive effects of the pandemic were recognized, such as the improvement of on-time performance indicators, and an increase in flight efficiency, along with subsequent environmental (CO<sub>2</sub> emissions) and economic (fuel) benefits.

Mirjana Drenovak Ivanović discusses the importance of the right to a healthy environment during the pandemic. The author analyzes whether environmental protection was a priority during the pandemic and, if yes, which aspects of environmental protection represented the primary concern. Also, she discusses whether the measures limiting public gatherings had an impact on public participation in decision-making, and whether the Government stipulated an environmental impact assessment of activities and decisions. The author concludes that public participation was very limited due to the many measures that affected public gatherings, which also led to a reduction in the volume of production and transportation, on one hand, and to more medical waste, on the other. In 2021, the participation of the public in decision-making was additionally restricted, which had a negative impact on environmental protection and the preservation of stable climate conditions. However, the author explains that, in order to reduce this negative effect, video conferences and comments on draft acts in electronic form were introduced, the impact of which needs to be further analyzed.

Another very important sector that was influenced by the pandemic is taxation. Thus, Svetislav Kostić scrutinizes the tax treatment of flexible forms of work in Serbia during the pandemic. The author argues that the COVID-19 pandemic contributed to the emergence of flexible forms of work, evasion of taxes and contributions for compulsory social security. Kostić explains that the Serbian Tax Administration attempted to collect taxes from persons that pursued flexible forms of work, which caused widespread protests. This dispute was resolved in an agreement that provided some transitional solutions and future changes to tax regulations. The author further analyzes these transitional solutions and provides very clear suggestions for longer-term solutions.

Valerija Dabetić prepared a paper on online teaching, illustrating the need for improving the digital skills of the new generation of lawyers. The author presents the results of a study that was prepared at the Faculty of Law during the pandemic. The goal of this research was to learn about with the experience of students, teachers, and associates, regarding online teaching. The study showed the positive and negative sides of this type of teaching. Dabetić argues that a modern way of life, cost reduction, and the need for further conquest of the digital space open up possibilities for the use of digital platforms even after the pandemic. On the other hand, the author highlights the issue of access to digital education and the discrimination to which students without internet and computers were exposed, as well as the need for further education of teachers and associates, which needs to be tackled if online teaching is to become a regular method of working with students.

However, COVID-19 is not the first public health emergency. Throughout history, infectious diseases have caused many problems for societies. Thus, Zoran Mirković deals in his paper with measures against the plague and other contagious diseases in Serbia in the mid-19<sup>th</sup> century. The author argues that at that time the lack of medical knowledge about the plague led to inadequate treatment and measures that were oriented toward the quarantining of affected people. Mirković concludes that despite all their shortcomings and resistance, these measures reduced the spread of epidemics. Many parallels can be drawn with the COVID-19 pandemic and therefore, this paper testifies to a history that can even explain the culture of resistance against certain health measures.

As mentioned above, these papers shed light on the impact of the COVID-19 pandemic on different legal, economic, social, and healthcare areas. However, the common denominators that pervade all contributions are different human rights issues and the impact of the pandemic on humanitarian and human rights crises. The same can be said for a historical overview and how much we learned from some previous public health emergencies. Therefore, the recommendations and conclusions provided by authors need to be carefully taken into account in any future crises, in order to be ready for some future pandemics. Only well-considered measures, which include impact assessment for individuals, including the most vulnerable groups in societies, may be considered to be adequate.



# /ARTICLES

UDC 616.98:578.834]:342.76; 616.98:578.834]:614.47

CERIF: B 230, S 143, S 170

DOI: 10.51204/Anali\_PFBU\_22401A

**Zoran RADOVANOVIĆ, PhD\***

## **COVID-19 BETWEEN MEDICINE, LAW AND POLITICS**

*Efforts to establish a coordinated international response to diseases that affect more than one country go back to the mid-19<sup>th</sup> century. Nowadays World Health Organization is the central point where the interests of 194 member states to preserve the health of their populations are convened, coordinated, and addressed. The critical concept that initiates an international reaction is a public health emergency of international concern, as exemplified by the COVID-19 pandemic. As of October 2022, it had claimed an estimated 20 million lives worldwide. Both in Serbia and elsewhere, the death toll greatly depended on the applied prevention and control measures, which included vaccination. Experiences gained so far point to preferable strategies that should be employed when humanity is confronted with the next similar challenge.*

**Key words:** COVID-19. – Pandemic. – International sanitary law. – Prevention. – Control.

---

\* Professor (retired), University of Belgrade Faculty of Medicine, Serbia, [zradovanovic2@gmail.com](mailto:zradovanovic2@gmail.com).

## **1. INTRODUCTION**

### **1.1. Legal Basis for International Public Health**

International cooperation in epidemic control dates back to the first Sanitary Conference in Paris in 1851. The third cholera pandemic had ravaged most of the world and Europe had an interest to apply efficient control measures – only up to the level that would not unnecessarily jeopardize international movement of goods and people. Fierce arguments were exchanged over the obligation to introduce quarantine, and eventually a joint Sanitary Convention was adopted. Its essence was that, when a dangerous infection spreads across international borders, the movement of people and goods should not be completely suspended. This principle has been maintained ever since.

By the beginning of the Second World War, 13 more sanitary conferences were held, and in 1948 the World Health Organization (WHO) has been founded. In 1951, the WHO adopted the International Sanitary (since 1961, International Health) Regulations (WHO, 1974) focusing on six quarantinable diseases: cholera, plague, smallpox, yellow fever, typhus fever, and louse-borne relapsing fever. Later, the last two diseases were removed from the list, and in 2007, a significantly different concept came into force, upon being approved by the World Health Assembly in May 2005 (WHO 2016). Instead of listing quarantinable diseases, the concept of a public health emergency of international concern (PHEIC) was introduced, as a serious threat that poses a risk to other countries, thus requiring an appropriate coordinated reaction of the international community.

### **1.2. Basic Terms and Definitions**

The key driving force in international health is the PHEIC. It has been defined as “an extraordinary event which is determined ... (i) to constitute a public health risk to other States through the international spread of disease and (ii) to potentially require a coordinated international response” (WHO 2016, 9).

As an extraordinary threat, such an event does not necessarily have to be an infectious disease. The definition comprises, for example, an extremist group dispersing chemical poisons or detonating a “dirty” radioactive bombs. However, thus far all six times that this attention system was activated, the

reason was a viral infection: swine flu (2009), Ebola in West Africa (2014), polio (2014), Zika fever (2016), Ebola in DR Congo (2018) and COVID-19 (2020).

The WHO does not have an officially established single definition of a pandemic, but distinguishes only its six stages. Adhering to those criteria, it declared the COVID-19 pandemic on 11 March 2020. Thus, the emergence of the new coronavirus joined the list of recent pandemics, together with swine flu (2009), AIDS (1981), cholera (1961), Hong Kong flu (1968), and Asian flu (1957), without going further into the past. In all these instances, the standard concept of a pandemic had been met as a condition when a newly emerged or re-emerged contagion occurs in at least two foci (usually in two countries) and is transmitted from there to at least one other continent or WHO region.

An epidemic is an occurrence in a community or region of cases of an illness, specific health-related behavior, or other health-related events clearly in excess of normal expectancy. Endemic implies the usual presence of a disease in an area or group (Last, Radovanović 2001).

Panzootic, epizootic and enzootic are respective terms for the animal kingdom.

## **2. EXPECTING THE PANDEMIC AND CONFRONTING IT**

### **2.1. On the Eve of the Pandemic**

Even for many educated laymen, it was apparent for years that the occurrence of an infectious disease of pandemic proportions was just a matter of time. Bill Gates has consciously warned the public, both at different conferences on the future of humanity and in scientific journals (Gates 2015; Gates 2018), that we were not prepared for such an imminent event. In the summer 2022, he wrote a book on how to confront the next pandemic (Gates 2022). His point was that, at least with the experience gained during the COVID-19 pandemic, an international prevention group should be formed (he referred to it as Global Epidemic Response and Mobilization, GERM).

In 2019, the WHO warned the world that a pandemic may be imminent and listed eight most likely candidates (WHO 2019). COVID-19 was added subsequently. The original list is presented with case-fatality rates in the brackets (Heymann 2015):

- 1) Nipah and henipavirus diseases (40%–75%)
- 2) Ebola virus disease and Marburg virus disease (22%–90%)
- 3) Middle East respiratory syndrome coronavirus (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS) (3%–10% and 34%–37%, respectively)
- 4) Crimean-Congo hemorrhagic fever (10%–40%)
- 5) Lassa fever (15%)
- 6) Rift Valley fever (1%)
- 7) Zika (less than 1%)
- 8) “Disease X”

The list has been accompanied by an explanation: “Disease X represents the knowledge that a serious international epidemic could be caused by a pathogen currently unknown to cause human disease” (WHO 2019). Since COVID-19 has been identified, the next mysterious disease X is waiting to be documented.

Both China and the WHO were exposed to criticism for allegedly reacting late at the very beginning of 2020. China’s officials indeed had a reputation for hiding health (as well as other) information in the past. However, this time they were fairly correct (see timeline). The alertness of the WHO should also not be doubted. If there was a delay, it would not have exceeded 7–8 days.

The issue of the right moment to react is a delicate one. The WHO received a lot of mainly unjustified criticism for proclaiming a PHEIC for the first time in history in connection with the 2009 influenza H1N1 pandemic (swine flu). It was indeed a new pathogen affecting disproportionately often people below the age of 60, although the total number of deaths appeared to be lower than feared. Five years later, the WHO was blamed in the media for failing to declare an occurrence of Ebola fever a PHEIC. Allegedly, the organization was not concerned about a tragedy occurring in Central Africa. However, once the epidemic of Ebola fever was declared a PHEIC, all human and material resources were concentrated in that direction, and many other diseases, notably malaria, took their toll beyond any expectation.



## 2.2. The Beginning of the Pandemic in China

The new coronavirus evolved in nature and there were two possible explanations for its spread among humans: either by jumping directly from bats, or indirectly, through some as yet unidentified animal host. The index case or patient zero in humans is still unknown. It might well be a scientist who collected viral samples in caves in South China, a laboratory technician who inadvertently got infected in their workplace, or far most likely – people who came in contact or consumed affected animal hosts.

The only certainty is that there was no ill intention, although some people had blamed biological warfare. The idea was so baseless that it was clearly driven by populist motives. At that time, the American National Institute for Allergy and Infectious Diseases (NIAID) was funding research on bat coronaviruses, conducted at the Wuhan Institute of Virology. (NIAID 2022)

The Chinese authorities announced that all virus isolates in December 2019 were genetically identical, implying that the pathogen was probably not transmitted to humans before early November. However, Dr. Peter Ben Embarek, the leader of the WHO team in Wuhan, stated that at least 13 variants of the new coronaviruses were circulating at that time (Walsh 2021), and such differences would require much more than a month to occur.

The timeline of events leading to the declaration of a PHEIC and pandemic could be summarized as follows (Radovanović 2022):

- 17 November 2019 – The first patient exhibited symptoms, according to a secret document, cited by the *South China Morning Post* from Hong Kong.
- 1 December 2019 – Chinese authors announced in a scientific journal that the first patient was recorded in Wuhan, Hubei province. According to Chinese official state reports, this happened on 8 December.
- 26 December 2019 – The head of the Respiratory Diseases Department of Hubei Provincial Hospital ordered staff to wear N95 masks when three members of the same family developed pneumonia.
- 30 December 2019 – Dr. Ai Fen, Head of the Emergency Department of Wuhan Central Hospital, received a report from the laboratory that “SARS coronavirus” had been isolated from one patient. She sent the sample to Shanghai for sequencing, photographed the finding and forwarded it by phone to her colleagues. She was reprimanded, and one of the recipients, ophthalmologist Li Wenliang, informed a wider circle of colleagues.

- 31 December 2019 – The World Health Organization (WHO) was informed of a pneumonia epidemic of unknown origin in Wuhan, China.
- 31 December 2019 – Eight colleagues discussed the report sent to them by Dr. Ai Fen. On the same day they were ordered by the authorities to write self-critical reviews for spreading the panic.
- 1 January 2020 – The authorities closed the fish market in Wuhan, where game meat was also sold.
- 5 January 2020 – The Shanghai laboratory announced that the new virus was similar to the one that caused SARS. Its sequencing (determination of the sequence of amino acids) had already been carried out by the Chinese Center for Disease Prevention and Control, but the result had not been released.
- 7 January 2020 – The Shanghai laboratory announced that it had identified the virus. It was provisionally called 2019-nCoV (2019 novel coronavirus).
- 8 January 2020 – The Chinese Center for Disease Prevention and Control reported (incorrectly) that the new virus did not have the ability to be transmitted from person to person.
- 9 January 2020 – The Chinese published the sequence of a new virus. This helped scientists in other countries to develop diagnostic tests.
- 11 January 2020 – A worker at the fish market in Wuhan died of the new infection.
- 13 January 2020 – The first case of infection outside of China was confirmed.
- 17 January 2020 – Based on the number of infected Wuhan people who flew by plane, the Imperial College of London concluded that the number of positives in Wuhan was 1,723, not 41. The information, by itself, did not necessarily imply a conscious concealment of data, because the Chinese authorities recorded patients with a severe clinical picture, and seemingly healthy persons were tested at airports around the world.
- 20 January 2020 – Chinese President Xi Jinping warned the citizens to beware of infection during Chinese New Year. On the same day, a scientist from mainland China and one from Hong Kong informed the public that the infection was being transmitted from person to person.
- 23 January 2020 – A cordon sanitaire was established for Wuhan.
- 24 January 2020 – The cordon sanitaire was extended to the entire province of Hubei.

24 January 2020 – Chinese authors published their experiences regarding 41 patients in *The Lancet*: “We fear that the new coronavirus has acquired the ability of efficient inter-human transmission.”

31 January 2020 – The WHO declared the existence of a PHEIC.

7 February 2020 – Li Wenliang died of COVID-19. He was referred to as a whistleblower, but he downplayed his credit by saying he only provided the whistle. He was also credited with the sentence “A healthy society should not speak with one voice.” Instead of an epitaph, a statement was shared on social networks: “Those who bring light to others should not be left to freeze in the snow.”

11 March 2020 – The disease was named COVID-19.

11 March 2020 – WHO Director-General Tedros Ghebreyesus declared a pandemic.

Along with this official version of events, there is an alternative chronology. It is dubious due to retrospective testing, so subsequent contamination of samples cannot be excluded. The point is that biological material from patients or environmental samples in Italy, Brazil and elsewhere were positive for COVID-19 in November 2019, or even a month or two earlier.

### **2.3. The Beginning of the Pandemic in Serbia**

The disease was officially recognized as being present in Serbia on 6 March 2020. The chronology of the first year of the pandemic control was as follows (Radovanović 2022):

5 February 2020 – As subsequently understood, the vitreous body of the eye of an individual autopsied at the Institute of Forensic Medicine in Belgrade contained the causative agent of the new infection. The deceased had not travelled abroad (Bogdanović *et al.* 2021).

24 February 2020 – A woman of Serbian origin came to Serbia, to visit relatives in Niš, traveling from Lugano via Bergamo, at the time the most affected focus in Europe. On her way back she was diagnosed with COVID-19, and was fair enough to inform Serbian officials.

26 February 2020 – The infamous “laughable press conference”, organized by politicians and doctors, was held in Belgrade, where a complete lack of understanding of the epidemiological situation was demonstrated.

- 1 March 2020 – Four contacts of the woman from Lugano, Switzerland, tested positive for COVID-19 at the Infectious Diseases Teaching Hospital in Niš. State officials covered up these four cases in order to schedule the parliamentary elections for June 21.
- 6 March 2020 – Officially announcement that the first sick person in Serbia was discovered on that day.
- 9 March 2020 – Two female students returning from Italy were escorted out to the Student Hospital in Belgrade to be quarantined.
- 13 March 2020 – The Crisis Headquarter for Suppressing the COVID-19 Infectious Disease was formed (there were officially 35 patients in the country on that day).
- 15 March 2020 – A state of emergency was declared, for the first time since the assassination of Prime Minister Đinđić (12 March 2003) and the beginning of NATO aggression (24 March 1999). Such a decision is supposed to be implemented only when the survival of the state or people is at stake.
- 15 March–6 May 2020 – Due to the limited capacity for laboratory diagnostics, the health authorities were unable to detect the sick and their contacts, so vulnerable population groups are isolated instead.
- 19 March 2020 – The Belgrade Nikola Tesla Airport was closed to commercial air traffic. Land borders are also close to passenger traffic. The closing of public service offices does not apply to the tax, customs and treasury administrations.
- 20 March 2020 – An epidemic of major epidemiological importance (state of emergency) was declared for the entire territory of Serbia.
- 20 March 2020 – The first COVID-19 death is reported in Serbia. The patient from Kikinda was infected by a man whose son had returned from Milan, Italy.
- 21 March 2020 – Lockdown: public transport was suspended, restaurants and shopping centers were closed. Gatherings of up to five people were still allowed.
- March 2020 – The measures were implemented incompletely (leaflets and information were not distributed at the border, patients wandered through the poorly organized system) or poorly (quarantines in barracks without necessary sanitary facilities).
- March 2020 – The highest government officials made unbalanced statements ranging from mockery to panic-mongering (see Section 4 for details on Serbia's response to the pandemic).

- 6 May 2020 – From one of Europe’s most rigorous lockdown systems, the opposite extreme was reached on the day that the state of emergency was lifted. Many measures were abruptly abolished or their ignoring was tolerated. This stance deviated from the expected approach and WHO advice.
- 6 May – 21 June 2020 – Everything was subordinated to election activities. Political rallies were held, and images of stadiums packed with 15,000–20,000 attendants went viral. Medical doctors from the Crisis Headquarter were involved in the promotion of the ruling political party.
- 6 May – 21 June 2020 – Medical doctors from the Crisis Headquarter knowingly gave the citizens incorrect information, that the “epidemic was dwindling”, that the virus would disappear during the summer, that its virulence was weakening, that the new hotspots were supposedly only “pockets”, that the “tail” of the epidemic was apparent, and that it was even the right time for deliberate infection.
- 1 June 2020 – Only 18 new infections were recorded, but two days before and after that Monday, there were officially more than 60 new positive cases, and in the following days the upward trend was more pronounced. As a manifestation of the government’s “elections before health” policy, the second wave represented a self-fulfilling prophecy.
- 22 June 2020 – The Balkan Investigative Reporting Network (BIRN) simultaneously published real and official data on the number of cases and deaths from COVID-19 in Serbia. The extent of the deception was convincingly demonstrated; for example on 14 April there were 38 deaths, and only five victims of COVID-19 were acknowledged. Attempts to deny the facts followed, but almost a year later, the health authorities admitted the manipulation.
- 27 June 2020 – Medical doctors involved in the initiative United Against COVID (UPK) publicly appealed to the authorities to genuinely commit in fighting the disease, as opposed to their anemic stance. Officials disparaged the signatories, but their number rose from about 350 to almost 3,000. The Government reacted by creating secret lists of “dissidents”, harassing of signatories, and relegating and dismissing some of them. Two groups of doctors were clearly formed – pro-government doctors and their opponents.
- 30 June 2020 – The Serbian Trade Union of Doctors and Pharmacists (SLFS) and the Party of Freedom and Justice (SSP) filed a criminal complaint against the Prime Minister, the Minister of Health and four other members of the Crisis Headquarter “for deliberately misleading the

public“ regarding the beginning, duration and course of the COVID-19 epidemic, and in connection with the elections, accusing them “of causing general danger, and endangering life and health“.

- 7 July 2020 – Serbian President Aleksandar Vučić announced strict measures, including a curfew. This was followed by spontaneous gatherings, with inserted provocateurs and the beating of protesters. The authorities then returned to the tolerant approach practiced during the May–June pre-election period. The further course of the epidemic measures featured a modified Swedish model, with a tacit emphasis on spontaneous infection.
- 21 July 2020 – The UPK demanded that the Government to replace the Crisis Headquarter, investigate the concealment of data, as well as “stand up against intimidation and politicization, which violate the dignity of healthcare workers.“
- 26 September 2020 – The UPK planned a peaceful march of health workers and citizens in white, with distancing (due to compliance with the measures). Photos of menacing white shadows in the dark would undoubtedly go viral, so the Minister of Health organized an urgent meeting with the UKP. He promised to stop the persecution of member of the UPK and to consider the UPK’s very detailed proposal for efficient measures, according to stages (four) and situations (fifteen). In the following weeks, the minister kept claiming that repeated shipments had not been delivered to him.
- 26 October 2020 – The UPK sent to the Serbian Medical Chamber a request for the right to information; the response of the SMC on November 10 was a classic example of evading questions.
- 30 October 2020 – The Decision of the Government of Serbia on the establishment of the Crisis Headquarter was published in the Official Gazette, months later (13 March–31 October 2010). The composition of members was significantly different than the original list.
- 13 November 2020 – The Law on the Protection of the Population from Communicable Diseases was amended by mentioning the Crisis Headquarter in one half-sentence. Thus, this body was brought into the legal framework.
- 26 February 2021 – The Day of Professional and Political Irresponsibility was marked in front of the Ministry of Health, in memory of the press conference held a year earlier. It was decided that in the future the most irresponsible statement and the most senseless action of the officials would be chosen on that day.

Further development: Serbia continued to be late with control measures, conceiving them more loosely than other countries and implementing them inconsistently, therefore performing poorly.

### 3. WORLDWIDE RESPONSE TO THE PANDEMIC

Theoretically, all the countries had to choose between four basic strategies for controlling the situation (Rudan 2020; Sacks *et al.* 2022). The first and most radical was *containment or zero COVID strategy*, comprised of “aggressive testing, contact tracing, and isolating,” with occasional short-term “lockdowns” if deemed necessary, and it may be abandoned when a large proportion of population has been vaccinated. The second is the *suppression strategy*: personal protective equipment is used, together with closing businesses, banning public events, etc. The third is *mitigation strategy*: a fairly liberal and tolerant approach, also referred to as “flattening the curve”. At the end of the day, number of cases is not much lower than without measures, but patients are distributed over a longer period of time, making it easier for the healthcare system to deal with the situation. The fourth is the *uncontrolled or herd immunity scenario*, which leads to many unnecessarily long-lasting COVID cases and deaths.

Igor Rudan, Chairman of the International Society for Global Health, compared the countries around the world, according to the scenario they relied on up to 20 April 2021. He used a different terminology but the grouping was basically the same as outlined above (Rudan 2021).

#### 3.1. The Complete Suppression of the Virus (Containment Strategy)

Radical textbook approach, comprised of careful border control, two-week quarantine measures for all those who enter the country, a meticulous approach to all detected cases, the rapid detection and subsequent isolation of all the contacts of an infected individual, and, optionally, a short-term “lockdown” in limited areas, accompanied by extensive testing. This approach was not particularly financially expensive, and life carried on almost as it would normally. Crude (non-standardized) mortality rates were extremely low:

- up to 1 per million inhabitants: Vietnam, Taiwan, Laos, Thailand, and Bhutan,

- up to 10 per million inhabitants: China, Cambodia, Singapore, and New Zealand,
- up to 100 per million inhabitants: Japan, Australia, Malaysia, South Korea, and Myanmar.

### **3.2. A Strong First Line of Defense (Suppression Strategy)**

Less stringent measures, allowing for a certain level of coexistence with the virus, but without allowing it to spiral out of control. This strategy is based on scientific knowledge and technology, as well as on intensive testing and the isolation of the contacts of the infected. In relative terms, crude mortality rates were low:

- 100–200 per million inhabitants: UAE, Qatar, Norway, Finland, and Iceland,
- 200–400 per million inhabitants: Denmark, Oman, Kuwait, and Bahrain.

### **3.3. The Relaxation and Subsequent Tightening of Measures (Mitigation Strategy)**

A strategy relied on by many countries following the first wave of the pandemic. It was a passive and therefore risky approach. Measures were applied too late, and in spite of applied to the entire populations, they were inefficient. Crude mortality rates ranged from moderately high to high:

- 500–700 per million inhabitants: Canada, and Israel,
- 800–1,000 per million inhabitants: Greece, Germany, Ireland, and the Netherlands,
- 1,000–1,500 per million inhabitants: Austria, Switzerland, Argentina, and Chile,
- 1,500–2,000 per million inhabitants: France, Spain, Italy, Croatia, the United Kingdom, Mexico, and Peru,
- over 2,000 per million inhabitants: Belgium, the Czech Republic, Slovakia, Hungary, Bulgaria, Bosnia and Herzegovina, North Macedonia, Montenegro, and Slovenia.



### **3.4. The Liberalization of Personal Risk Management (Herd Immunity Strategy)**

The decision was to avoid paying too much attention to the pandemic in order to preserve the economy. As may have been expected, crude mortality rates were high:

- 1,359 per million: Sweden,
- 1,749 per million: the United States,
- 1,755 per million: Brazil.

Rudan (2021) compared COVID-19 mortality rates to the percentage change of the gross domestic product in different countries in 2020 (International Monetary Fund 2021). He challenged fears that the enforcement of stringent anti-epidemic measures would lead world economies to double-digit downturns (Sullivan 2020) and referred to IMF estimates that the global economy has dropped 3.3% in 2020, which would be comparable to some previous economic crises triggered by other causes.

This analysis helped the following inferences to be derived: a) differences between countries were more than hundredfold; b) classical non-pharmacological measures (i.e., without vaccines and drugs) may be sufficient for an efficient COVID-19 control strategy, and c) health or economy was a false dilemma. The gross domestic product went up in countries with strict measures (Taiwan +3.1%, Vietnam +2.9%, China +2.3%), and notably decreased in countries that applied a relaxed strategy (Sweden –2.8%, USA –3.5%, Brazil –4.1%).

The last point on the false dilemma appears somewhat controversial. Rudan (2021) argues: “It has been shown that active implementation of classic epidemiological measures enables an almost normal, pre-pandemic way of living within a country’s national borders. It favours the continuation of economic growth and it simultaneously saves human lives.”

Rudan’s reliance on official mortality data would make epidemiologists skeptical. It is true that countries with poor health statistics have been excluded, but it is common knowledge that some countries faked their high COVID-19 mortality rates in order to keep “their reputation”. Furthermore, though African countries have not been taken into account due their young population, age standardization should have been expected.

From the point of view of an economist, criticism would be much harsher. As argued by Boris Begović (personal communication) and demonstrated by him (Begović 2022), Rudan’s (2021) inferences may be too superficial.

Serbia was not included in the analysis, but the next chapter demonstrates that the country performed very poorly.

The results presented here are to a great extent a consequence of non-pharmaceutical measures, since vaccines had just started to be widely applied. The use of most relevant antiviral drugs has lagged far behind. As an illustration, the European Medicines Agency, as the EU regulatory body for drugs, approved the first two monoclonal antibody therapies: it began to process of evaluating molnupiravir in November 2021, Paxlovid was registered on 28 February 2022, and as of the end of April 2022, favipiravir has not yet been approved. Remdesivir received conditional marketing authorization on 3 July 2020 (it was switched to full marketing authorization on 8 August 2022), but its effect was pretty poor.

Thus, as of the spring of 2021, morbidity and mortality worldwide were largely dependent on the widespread vaccination uptake. Availability of antivirals also had an impact, as did the quality medical care in general.

As of 21 September 2022, 6.6 million deaths had been officially recorded worldwide. The true global COVID-19 death toll is estimated at 21.7 million people (The Economist 2022).

#### **4. SERBIAN RESPONSE TO THE PANDEMIC**

Over the course of the two years prior to the end of 2021, Serbia recorded 49,638 more deaths than expected (Health Statistical Yearbook of RS 2022), and by 24 October 2022, the cumulative excess deaths in the country reached 63,684 (Our World in Data 2022a). The most striking fact is that among more than 200 countries and territories in the world, Serbia was not the first but one of the top ranking according to the estimated cumulative excess deaths per 100,000: Bulgaria 1,045, Serbia 905, Russia 902, etc. (Our World in Data 2022b). The same ranking was maintained when crude all-cause mortality rates in the world in 2020 were compared: Bulgaria 18 per 1,000 people, Serbia 17 (The World Bank 2022).

Total numbers of deaths are “hard” data, based on national civil registration and vital statistics offices. Countries may hide specific causes of death but total numbers of deaths could hardly be manipulated. Excess mortality data is derived as a result of comparison with past records, but the World Mortality Dataset, as a source of data for Our World in Data, starts with official national statistics and provides estimates that are updated on a weekly basis. On the other hand, in scientific literature mortality data

on COVID-19 are mostly taken from the World Health Organization, and it simply collects national data as received, without any attempt to challenge its reliability.

It is true that leading countries (in terms of excess mortality) have very old populations. Still, the human factor must be responsible for such an outcome. There are several identified problems Serbia has been facing (Radovanović 2022; Radovanović, forthcoming):

- a) The structure and functioning of the health care system before the pandemic: i) Long overdue reorganization of the system. ii) Neglected investment in human resources. iii) Obedient and often incompetent management selected based on political loyalty. iv) Non-integrated state and private sector. v) Widespread corruption at all levels. vi) Unmet demands for services and extremely long waiting lists. vii) Hasty decisions due to untimely planning, etc.
- b) Unpreparedness: i) Authorities ignored warnings from the WHO and the academic community. ii) On the eve of the pandemic, the country lacked operative plans for emergency situations, sufficient laboratory potentials, and protective equipment. iii) Consequently, strategy was determined by circumstances.
- c) Misunderstanding of the situation, as demonstrated by a strange combination of faked heroism, clowning, and panic-mongering: i) Paradigmatic is the media conference on 26 February 2020, when President Aleksandar Vučić claimed that plum brandy would save the nation, and a spokesman on the part of doctors advised women to go to Italian epidemic foci for “safe” shopping. ii) Particularly dangerous were promises of authorities that “biological superiority” would protect the Serbs. iii) Shortly after joking about the conditions needed for him to comply with individual preventive measures, President Vučić cried that cemeteries would not be large enough to accommodate all the victims of the pandemic. iv) Health Minister Zlatibor Lončar assured the people that Serbia would help China in developing the vaccine, though Serbia had not been able to restore the production of flu vaccine for 15 years. v) Foreign Minister Ivica Dačić (E.S.T. 2020) and the head of the ruling party electoral ticket Danica Grujičić (Novosti online 2020; Palelive 2021) argued that the disease was a case a biological warfare deployed against China, etc.
- d) Inappropriate organization of health services for epidemic control, with bad or unimplementable decisions by the authorities, occasionally leading to the near collapse of the system: i) Cases were instructed to contact epidemiologists, who worked around the clock, but were

unable to meet demand due to their insufficient numbers. ii) There was hardly anyone left to proceed with the epidemiological fieldwork, e.g. identify cases, trace their contacts, proceed with their isolation, etc. iii) Measures involving passengers in international traffic were often inadequate and/or partially implemented. iv) Many people returning from abroad were not informed of the regulations, but were still severely punished, e.g., for 2.5 and three years in prison. v) Some health workers were kept on duty till exhaustion. vi) Physiatrists and dental nurses were sent to “red zones” without previous training. vii) During epidemic waves, patients were forced to wait six or more hours in COVID clinics to be examined, then sent to a laboratory, and again back to the end of a queue, in overcrowded waiting rooms. viii) Non-COVID patients were frequently deprived of necessary care and treatment adjustment, while screening and other preventive activities were practically nonexistent. ix) Mostly due to suboptimal working conditions, COVID-19 took the lives of 147 medical doctors, and most of them were professionally exposed (the death toll among nurses and medical technicians is likely much higher but was never reported).

- e) Professional errors and mistakes (apart from previously listed):
  - i) The first two imported contacts were taken to the Student Hospital and unprepared staff was requested to quarantine them, as well as to provide their own personal protective equipment. ii) Authorities decided to set up quarantines in garrisons with a single bathroom and toilet facility per floor. iii) The first group of potential contacts was sent to a refugee camp with densely packed bunk beds. iv) Serological tests were criteria for hospital admission, leading to intrahospital outbreaks. v) Medical staff affected by SARS-CoV-2 frequently complained that clean and contaminated areas were interconnected. vi) Medical staff also pointed out that rules on red and green zones were not strictly observed. vii) A clear vision continuously remained absent.
- f) Questionable legality of the Crisis Headquarter (CH):
  - i) It was appointed by the Government, referring to the law that did not provide for it (Law on Government). ii) The Crisis Headquarter was incorporated into the Serbian legal system only six months later, by a single sentence in the amended Law on Prevention and Control of Infectious Diseases. iii) Even in that version of the Law, the key role was assigned to the Republic Committee for Infectious Diseases. iv) The Committee did not meet for months.

- g) Dubious decision on state of emergency: i) Such a radical solution is expected only if the very existence of the country is at risk. ii) The Parliament did not approve this move. iii) It would have been more appropriate to declare a major epidemic, i.e. extraordinary situation (Law on Prevention and Control of Infectious Diseases and Law on Reducing the Risk of Catastrophes). iv) The state of emergency was imposed on 15 March 2020, four days before an epidemic had been declared. v) Some restrictions were unnecessarily cruel, such as the ban on elderly leaving their home, except from 4 a.m. to 7 a.m. on Saturdays.
- h) The dominance of politics over professionalism: i) Preventive and control measures were designed in such a way so as not to interfere with the government popularity. ii) A fictional “victory over Covid” was proclaimed in May 2020, in order to proceed with election activities. iii) Consequently, at the time, doctors from the Crisis Headquarter spread unsubstantiated information that the virus lost its potency and that the epidemic was over. iv) They were actively involved in the elections, supporting the ruling party. v) Since then, a policy of spontaneous transmission has been implemented apparently for any reason other than demagogic. vi) The main effort of the Crisis Headquarter has been aimed at finding excuses for the lack of efficient control measures.
- i) Repression and vengeance by the government: i) The state of emergency was used to persecute the government’s political opponents. ii) Even doctors’ requests to be provided face masks were punished. iii) When 350 medical doctors (their number quickly rose up to 3,000) requested replacement of the Crisis Headquarter in August 2020, the reaction of the authorities was fairly cruel (some doctors were fired, seven heads of departments at the Military Medical Academy hospital were dismissed, directors of health institutions had to provide lists of “dissidents” to the higher authorities, etc.). The repression was temporarily abandoned when doctors threatened to go on strike.
- j) Ambivalent stance of officials toward vaccination: i) As a role model, President Aleksandar Vučić hesitated to be vaccinated for several months and ignored most personal protection measures. ii) Pro-government media did not discourage, and some of them even fueled popular xenophobic sentiments. iii) Regime-favored doctors were given a lot of media time and space to spread doubts about vaccines.

- k) Inappropriately selected priorities: i) The emergency importing of useless chloroquine, as a populist maneuver (just to “prove” that the Government is quicker and more caring than its counterparts elsewhere). ii) Procurement of ventilators far above needs, with President Vučić acting as the sole employee in a shipping company, personally delivering equipment to remote parts of the country. iii) The same track was followed with the provision of vaccines, but they became available well above demand, leading to vast quantities being gifted abroad or destroyed. iv) A portion of population appreciated that resources were invested in the licensed production of the Russian Sputnik V vaccine, but the idea ended up failing. v) The Government’s decision to develop a factory for the production of Chinese inactive vaccines was a short-term gain from a political point of view, but economically, medically and logically could hardly be justified.
- l) Conspiracy: i) Only summary data on morbidity and mortality for the whole country is available. ii) Lack of transparency has been a common feature of all procurements.
- m) Falsification of data: i) Balkan Research Network demonstrated that by 1 June 2020, the officials had hidden 61% of all COVID-19 deaths. ii) In Niš, 79% (283 out of 360) of the bodies buried in sealed coffins disappeared from the statistics. iii) There were days when a single doctor in a rural hospital reported more COVID-19 deaths than officially recognized in the whole country. iv) In the summer of 2020, for 35 days the reported number of COVID-19 deaths did not exceed unity, and the probability for such a distribution is 1:4 million. v) From 4 February to 5 March 2021, the probability of the occurrence of the distribution of deaths officially reported was 1:5 billion (I. Smolić – personal communication).

One may summarize that, with the exception of the first few weeks, Serbia opted for a fairly relaxed approach to controlling the epidemic and was confronted with grave consequences. Many other countries failed to consistently apply optimal measures (Sachs *et al.* 2022) and also suffered losses in human lives.

## 5. THE FUTURE

The destiny of any pandemic is to gradually transform into an endemic and resume an endemo-epidemic pattern. This means that the agent is constantly present in human populations, but occasionally – usually under

seasonal influences – affects more people than expected. Such epidemic waves will also be a feature of the new coronavirus, but they will interfere with normal human activities much less than the world has witnessed since early 2020.

This shift has been apparent during Serbia's seventh epidemic wave, in the summer of 2022. Numbers of affected people were high (much higher than recorded), but case fatality and mortality rates were 3 to 5 times lower than during the previous wave, in the spring of 2022, which was also caused by the Omicron variant of the agent.

Unless a highly unlikely mutation in the viral genome occurs, the Northern Hemisphere will undergo an increase in the incidence of COVID-19 in the winter of 2022/23, and after the spring of 2023, it will almost certainly become an endemic disease. Infection will increasingly move toward younger age groups. Epidemic waves will be smaller in scale and with lower mortality, for two reasons:

- a) large parts of the population will possess some immunity, acquired either by vaccination or previous infection, and
- b) when susceptible children do get sick, they rarely have a serious clinical picture.

It follows that the direct impact of acute COVID-19 on our lives will be reduced. Unfortunately, the scars caused by the three years of viral terror will remain. Dealing with the consequences of long COVID will be a particular challenge for both individuals and society. Problems are far from restricted to medicine, but rather they extend to the economic, psychological and social spheres.

Occurrence of COVID-19 has helped even laypersons to understand that another pandemic is a very realistic threat. It has been hinted for some time that an avian influenza, in particular the H7N9 subtype, might be the most likely candidate, but another coronavirus or an as yet unrecognized agent would not be a surprise.

## REFERENCES

- [1] Begović, Boris. 4/2022. The Global Economic Effects of the COVID-19 Pandemic: A bird's-eye View. *Annals of the Faculty of Law in Belgrade – Belgrade Law Review* 70 – forthcoming.

- [2] Bogdanović, Milenko, Ivan Skadrić, Tatjana Atanasijević, *et al.* 2021. Post-mortem histopathological and molecular analyses of the very first documented COVID-19-related death in Europe. *Frontiers in Medicine*. doi: 10.3389/fmed.2021.612758.
- [3] CDC. 2022. Nonpharmaceutical Interventions. <https://www.cdc.gov/nonpharmaceutical-interventions/index.html> (last visited 2 December, 2022).
- [4] Walsh, Nick Paton. 2021. CNN Exclusive: WHO Wuhan mission finds possible signs of wider original outbreak in 2019. *CNN*. <https://edition.cnn.com/2021/02/14/health/who-mission-china-intl/index.html> (last visited 2 December, 2022).
- [5] E.S.T. 2020. Dačić i Maduro saglasni: Koronavirus specijalno oružje za rat protiv Kine. *Republika*, 1 March. <https://www.republika.rs/vesti/srbija/190425/dacic-i-maduro-saglasni-koronavirus-specijalno-oruzje-za-rat-protiv-kine> (last visited 2 December, 2022).
- [6] ECDC. 2021. Non-pharmaceutical interventions against COVID-19. [https://www.ecdc.europa.eu/en/covid-19/prevention-and-control/non-pharmaceutical-interventions#:~:text=Non%2Dpharmaceutical%20interventions%20\(NPI\),health%20interventions%20against%20COVID%2D19](https://www.ecdc.europa.eu/en/covid-19/prevention-and-control/non-pharmaceutical-interventions#:~:text=Non%2Dpharmaceutical%20interventions%20(NPI),health%20interventions%20against%20COVID%2D19) (last visited 2 December, 2022).
- [7] Gates, Bill. 2015. The next epidemic – lessons from Ebola. *N Engl J Med* 372(15): 1381–1384.
- [8] Gates, Bill. 2018. Innovation for Pandemics. *N Engl J Med* 378(22): 2057–2060.
- [9] Gates, Bill. 2022. *How to prevent the next pandemic*. New York: Knopf.
- [10] Institute of Public Health of Serbia. 2022. *Health Statistical Yearbook of Republic of Serbia 2021*.
- [11] Heymann, Daniel L. (ed.). 2015. *Control of Communicable Disease Manual*. Washington: APHA Press.
- [12] International Monetary Fund. 2021. Real GDP growth. [https://www.imf.org/external/datamapper/NGDP\\_RPCH@WEO/AZE?year=2020](https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/AZE?year=2020) (last visited 20 April, 2021).
- [13] Last, John M., Zoran Radovanović (eds.). 2001. *Epidemiološki rečnik*, 2<sup>nd</sup> Yugoslav ed. Belgrade: University of Belgrade Faculty of Medicine.
- [14] National Institute of Allergy and Infectious Diseases. 2022. *Origins of Coronaviruses*. <https://www.niaid.nih.gov/diseases-conditions/origins-coronaviruses> (last visited 16 March, 2022).



- [15] Novosti Online. 2020. *Ubeđena sam da se radi o biološkom oružju: Dr Danica Grujičić*. 16. September. <https://www.novosti.rs/drustvo/vesti/918144/ubedjena-sam-radi-bioloskom-oruzju-danica-grujicic-korona-virusu-vakcini-sopstvenoj-borbi-bolescu> (last visited 2 December, 2022).
- [16] Our World in Data. 2022a. Excess mortality: Cumulative number of deaths from all causes compared to projection based on previous years. <https://ourworldindata.org/grapher/cumulative-excess-deaths-covid> (last visited on 24 October, 2022).
- [17] Our World in Data. 2022b. Estimated cumulative excess deaths per 100,000 people during COVID, from The Economist, Nov 19, 2022. [https://ourworldindata.org/grapher/excess-deaths-cumulative-per-100k-economist?country=OWID\\_WRL](https://ourworldindata.org/grapher/excess-deaths-cumulative-per-100k-economist?country=OWID_WRL) (last visited 20 November, 2022).
- [18] Palelive. 2021. *Grujičić: Novi soj iz Južne Afrike potvrda da je virus korona biološko oružje*. 28. November. <https://www.palelive.com/grujicic-novi-soj-iz-juzne-afrike-potvrda-da-je-virus-korona-biolosko-oruzje/> (last visited 2 December, 2022).
- [19] Radovanović, Zoran. 2022. *KOVID-19*. Smederevo: Heliks.
- [20] Radovanović, Zoran. Forthcoming. Critical analysis of COVID-19 control in Serbia. *XX Congress of the Serbian Doctors: Proceedings*.
- [21] Rudan, Igor. 2020. *Answering 20 more questions on COVID-19* (March–April 2020). *J Glob Health* 10:020102.
- [22] Rudan, Igor. 2021. Evaluating different national strategies to contain the COVID-19 pandemic before mass vaccination. *J Glob Health* 11:01004.
- [23] Sachs, D. Jeffrey, Salim S. Abdool Karim, Lara Akinin, *et al.* 2022. The Lancet Commission on lessons for the future from the COVID-19 pandemic. *The Lancet Covid-19 Commissions* 400(10359): 1224–1280.
- [24] Sullivan, Arthur. 2020. Just how bad could the coronavirus crisis get? *DW*. 3 April. <https://www.dw.com/en/as-the-coronavirus-triggers-a-global-economic-crisis-just-how-bad-could-it-get/a-53000638> (last visited 20 April, 2021).
- [25] The Economist. 2022. The pandemic's true death toll. <https://www.economist.com/graphic-detail/coronavirus-excess-deaths-estimates> (last visited 21 September, 2022).
- [26] World Bank. 2022. Death rate, crude (per 1,000 people) – Serbia. [https://data.worldbank.org/indicator/SP.DYN.CDRT.IN?locations=RS&most\\_recent\\_value\\_desc=false](https://data.worldbank.org/indicator/SP.DYN.CDRT.IN?locations=RS&most_recent_value_desc=false) (last visited 2 December, 2022).

- [27] WHO. 1974. *International Health Regulation (1969)*, 2<sup>nd</sup> ed. Geneva: WHO.
- [28] WHO. 2016. *International Health Regulation (2005)*, 3<sup>rd</sup> ed. Geneva: WHO.
- [29] WHO. 2019. Prioritizing diseases for research and development in emergency contexts. <https://www.who.int/activities/prioritizing-diseases-for-research-and-development-in-emergency-contexts> (last visited 24 October, 2022).
- [30] WHO. 2022. Coronavirus disease (COVID-19): Masks. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19-masks> (last visited 2 December, 2022).

Article history:

Received: 31. 9. 2022.

Accepted: 30. 11. 2022.





UDC 338.23:[616.98:578.834; 338.222:351

CERIF: S 180, S 210

DOI: 10.51204/Anali\_PFBU\_22402A

**Boris BEGOVIĆ, PhD<sup>\*</sup>**

## ***THE GLOBAL ECONOMIC EFFECTS OF THE COVID-19 PANDEMIC: A BIRD'S-EYE VIEW<sup>\*\*</sup>***

'Health is not everything, but without health everything is nothing.'

Arthur Schopenhauer

*The aim of the article is to provide a general, broad picture of the economic effects of the COVID-19 pandemic, without going into the details. The impact of the pandemic on economic growth was sharp, with sudden and deep decline,*

---

<sup>\*</sup> Professor (retired), University of Belgrade Faculty of Law, Serbia, *begovic@ius.bg.ac.rs*.

<sup>\*\*</sup> I am grateful to Mihail Arandarenko, Nikola Ilić, Goran Janković, Gordana Matković, Marija Karanikić Mirić, Marko Paunović, Danica Popović, Zoran Radovanović and Branko Radulović for their helpful comments and suggestions. Naturally, none of them is to be held accountable for possible remaining errors and value judgments in this paper.

*followed by complete and swift recovery. Both the supply and the demand side contributed to this dynamic, based on the same factors (morbidity and mortality, behavioural adjustments of individuals, and government pandemic control measures), although with quite distinctive mechanisms of impact. It was the uncertainty of both the supply- and demand-side economic agents that was decisive for the sudden drop in the level of economic activity. Macroeconomic policies, both monetary (quantitative easing) and fiscal (budgetary deficits) proved timely and prevented a global depression. In the aftermath, the side effects of these policies are substantial inflation, increased basic interest rates to counter that inflation, increased sovereign debt, and its threatened sustainability.*

**Key words:** *COVID-19 pandemic. – Economic growth. – Government control measures. – Macroeconomic policies. – Inflation.*

## 1. INTRODUCTION

Since the outbreak of the COVID-19 pandemic, a horrendous volume of academic papers dealing with the economic effects of the pandemic has been published, with a substantial share of them dealing also with the macroeconomic policy responses to the crisis. The production has been so voluminous that even bespoke literature review articles have been published. This article is quite different. It is not a literature review. It is not a chronology of events. It is not a comment on specific government macroeconomic or any other policies designed to cope with the economic effects of the COVID-19 pandemic. The aim of the article is rather modest: to provide only a general broad picture of the economic effects of the COVID-19 pandemic, without going into the details and controversies. In short, it aims to provide a bird's-eye view from a considerable altitude – a sketch, not a detailed oil on canvas painting.

The structure of the article has been defined by this objective. The section following the introduction analyses the demographic impact of the COVID-19 pandemic, focusing only on the demographic effects that have significant economic impact. The third section of the article deals with the impact of the pandemic on economic growth. The fourth section of the article considers the supply-side impact of the pandemics as the explanation of the volatility of the level of economic activity. The fifth section deals with a complementary explanation based on the demand-side impact of the pandemic. The following section of the article considers the impact of the

pandemic on poverty and economic inequality. The seventh section deals with the macroeconomic policies that were enforced during the pandemic and their legacy. The eighth section concludes the article.

## 2. DEMOGRAPHIC IMPACT OF COVID-19 PANDEMIC

Although the subject of the paper is the economic effects of COVID-19 pandemic, the most significant of all impacts of the pandemic is its demographic effect – it is, after all, about human lives and health. Furthermore, the demographic effects have their own consequences on economic activity and growth, both on the supply side (labour and human capital supply on the production factor market) and on the demand side (consumption of goods and services). Accordingly, the demographic effects of the pandemic will be considered first.

### 2.1. Morbidity Rates

Total (cumulative) number of confirmed cases of COVID-19 worldwide, as of 15 October 2022, was almost 621million (620,878,405), according to the WHO.<sup>1</sup> There are two important remarks. On the one hand, this figure does not represent the number of people who contracted the disease, as some individuals contracted COVID-19 more than once. The number of cases is inevitably greater than the number of people who contracted the disease. On the other hand, the number of cases is indisputably underreported for a number of reasons, especially as testing has not been universally available, particularly during the period immediately following the outbreak of the pandemic (Lau *et al.* 2021; Whitaker *et al.* 2021). Furthermore, a substantial number of people who contracted the disease did not get tested or did not report the disease to the healthcare authorities, so these cases of COVID-19 have not been recorded. Finally, there is noise in reporting of the national health institutions to the WHO that has been downward biased.<sup>2</sup> Accordingly, all the biases in case reporting are downward, hence it is reasonable to

---

<sup>1</sup> <https://covid19.who.int/> (last visited 15 October, 2022). This date is a cut-off date for the demographic analyses in this article unless specified otherwise.

<sup>2</sup> As demonstrated by Richards (2020), this is especially the case in poor (developing) countries and their reporting to the WHO.

assume that the total number of COVID-19 cases is underreported. The expert opinion expressed in the WHO report is that the magnitude of underreporting is about 40 per cent (WHO 2021).

The global level morbidity rate of the COVID-19 pandemic is at this moment 2.83 per cent.<sup>3</sup> This is comparable with estimates of the Spanish flu pandemic, based on the estimate that the total number of the cases was around 500 million (Taubenberger, Morens 2006, 15), making the morbidity rate of that pandemic around 27 per cent.<sup>4</sup> Nonetheless, there is no room for jumping to the conclusion that the Spanish flu was 9.5 times more widespread, for a few reasons. First, the COVID-19 pandemic is still ongoing, with increasing cumulative total number of cases, possibly increasing the global morbidity rate.<sup>5</sup> Second, the number of recorded cases is biased downwards, implying that the true morbidity rate of the COVID-19 pandemic is already higher than recorded. Third, the estimated morbidity rate of the Spanish flu pandemic is only an expert opinion, rather than an estimate based only on solid health statistics and properly defined reporting procedures.

As to the global dynamics of the COVID-19 cases, two undisputed peaks of the pandemic can be identified (end of January 2022 and end of July 2022) for the time being (Figure 1).

It is an open question whether this dynamic is accurate, because of the downward bias in the recorded cases; the point is that the downward bias, making the true number of cases greater, is not constant in time. It is reasonable to assume that the downward bias was the greatest at the beginning of the pandemic, as there were no available tests in sufficient quantity and the symptoms of the disease were not well known to physicians, as medical protocols had not been developed yet. Hence, it is reasonable to assume that the left segment of the curve (Figure 1), referring to 2020, is in fact higher than the one disclosed on the figure, more than right segment of the curve, the referring to 2021.

---

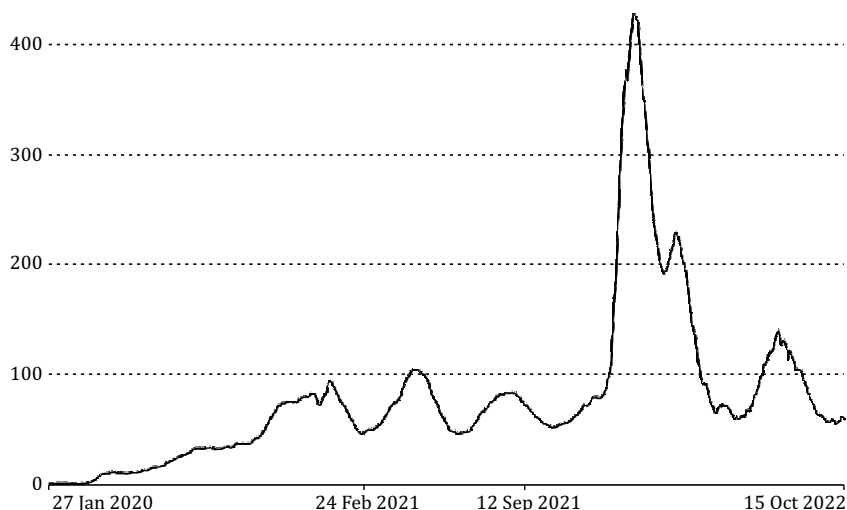
<sup>3</sup> The total world population estimate for 1 January 2020 was around 7,753 million and for 15 October 2022 it was around 7,980 million people. (Worldometer. Current Population. <https://www.worldometers.info/world-population/> (last visited 15 October, 2022). That yields around 21,973 million person-years of exposure to the pandemic, as of 15 October 2022.

<sup>4</sup> The most reliable estimate for the total world population in 1920 is 1.863 million (Maddison 2003). The time span of the Spanish flu was approximately one year; hence the same figure is a good approximation for the person-years of exposure of the population in that pandemic.

<sup>5</sup> It is calculated by using person-years of exposure to the pandemic, as the denominator in the rate calculation. Hence if the population increases faster than the number of cases, the morbidity rate declines.



Figure 1.  
Total daily new confirmed COVID-19 cases per million people worldwide  
(7 day rolling average)



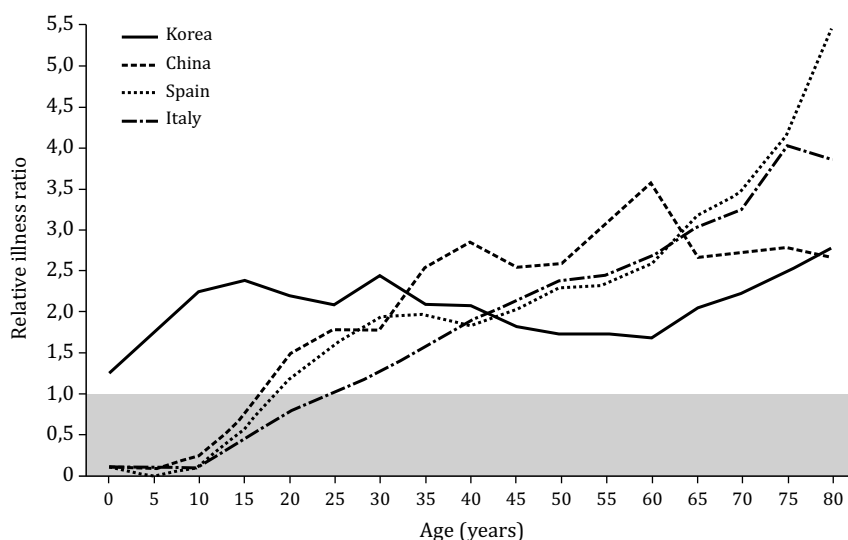
Source: John Hopkins University CSEE COVID-19 Data

The comparison of the morbidity rates across countries cannot provide reliable results because the downward bias in reporting cases of COVID-19 differs from country to country. The availability of the COVID-19 tests has been different, population density is different, the levels of development and coverage of health services differs, and the culture of visiting/calling medical staff varies, as well as the reliability and integrity of national health statistics, hence it would be very misleading to compare the morbidity rates across countries. It is evident and striking that rich (developed) countries have recorded morbidity rates substantially and consistently higher than those recorded in poor (developing) countries.<sup>6</sup> This can be explained only by systematic underreporting of the COVID-19 cases in the poor (developing) countries – nothing to do with the real morbidity rates variance across countries.

<sup>6</sup> Source: <https://covid19.who.int/table> (last visited 15 October, 2022). Even within the EU, the highest morbidity rates were recorded in richest countries (Austria 59.6 per cent and Denmark 57.0 per cent) while the lowest morbidity rate was recorded in the poorest country of the club (Bulgaria, only 18.2 per cent).

Considering the economic impact of morbidity, it is primarily relevant for supply of labour as the people who contract the disease cannot work during the illness and immediate post-illness recovery, and in that way the pandemic related morbidity implies contraction of the global supply of goods and services. Accordingly, the first important piece of information is the time span of illness and post-illness recovery from COVID-19. Although, there is a variation of the time span of illness in the case of COVID-19, it is, in most cases, a matter of weeks, so the time span is rather short, especially when compared to HIV/AIDS, malaria, tuberculosis as widespread diseases, particularly in developing countries. Taking such a time span of the illness into account, the global short run effects of morbidity COVID-19 on the labour supply have not been significant. This is not to say that in some sectors, especially sectors facing an increase in demand, such as healthcare sector, COVID-19 morbidity did not have significant labour supply diminishing effects (medical doctors, nurses, and other healthcare personal), particularly in the times of peak demand. The same conjecture can be made for courier services and delivery of meals/food/merchandise, although these jobs do not require high and specific human capital, like healthcare jobs, hence the labour supply substitution prospects are much bigger.

Figure 2.  
Relative illness ratio by 5-year age groups for selected countries in the first half of 2022



Source: Kang, Jung (2020, 157). Relative illness ratio is a measure of morbidity calculated as the share of COVID-19 cases in each group in the total number of morbidity cases divided by the share of the population in the same age group.

Another important piece of information for considering the labour supply effects of the pandemic is age structure of the people who contracted COVID-19. The statistics on the age structure of the COVID-19 are scarce, and they differ from country to country, but according to available data, it is predominantly older people, too old to be in the labour force, who contracted COVID-19 (Figure 2). The only exception has been South Korea, with a relatively flat curve, and the curve for China is not as steep as those for Spain and Italy.

Taking this into account, it seems that the global short run effects of the COVID-19 pandemic on the labour supply due to morbidity have not been substantial. The main reason for such an outcome is basically the short time span of the illness. The question remains whether the COVID-19 mortality produced a substantial effect on the labour supply. Hence, the attention should be redirected to the mortality associated with COVID-19.

## 2.2. Mortality Rates

Total number of recorded deaths from the COVID-19, as of 15 October 2022, was 6,543,138, according to the WHO. Taking into account that the estimate of the total world population on the same day was around 7,918 million people, and on the 1 January 2020 (the beginning of the pandemic) it was 7,877 million people, this yields a global mortality rate (the ratio of number of deaths to the world population during the pandemic, measured as person-years of exposure for the period) of 0.0379 per cent, for the time being.<sup>7</sup> This mortality rate is far below the mortality rate of the Spanish flu – though calculated using quite a different method, that was estimated to be 2.1 per cent – the Spanish flu mortality rate was around 55 times higher than the current COVID-19 mortality rate.<sup>8</sup> Furthermore, taking into account that the total number of recorded cases as of 15 October 2022 was around

---

<sup>7</sup> This is the 'crude mortality rate', entailing the total population, contrary to some specific mortality rates, such as infant mortality rate, etc. All mortality rates considered in this paper are crude mortality rates.

<sup>8</sup> This calculation is based on the estimate that the total number of deaths from Spanish flu was 40 million (Barro, Ursua, Weng 2020, 21), although this estimate is not comparable to the reported cases of COVID-19 deaths, because it is the excess mortality number, rather than the (missing) number of recorded deaths caused by the Spanish flu. Furthermore, this is an expert opinion, not an estimate based on vital statistics. Begović (2021) reviews various estimates of Spanish flu excess mortality. It is the following segment of this section of the paper that addresses the concept of excess mortality.

621 million, the average fatality rate of 1.05 per cent is much lower than most serious viral and bacterial diseases.<sup>9</sup> For example, the Ebola average fatality rate is around 50 per cent.<sup>10</sup>

There are several reasons why the data on the recorded number of deaths from COVID-19 are not accurate and why there is a great probability that the mortality figures are biased downward, i.e. that the true number of deaths from COVID-19 is greater than the reported number. The first reason for the bias is that some countries report only COVID-19 deaths occurring in hospitals and people who die from the disease at home are not or at least may not be recorded. This bias is especially prominent in countries/regions with limited hospital capacities and in which the level of hospitalisation of the patients (in-patients) who have contracted COVID-19 has been low. The second reason for downward bias is that most countries report only deaths for which a positive COVID-19 test had confirmed that the deceased patient was infected with the virus.<sup>11</sup> Accordingly, untested deceased individuals may not be included in the recorded COVID-19 deaths. Third, death reporting systems as a part of health statistics are frequently, especially in poor countries without well-developed health statistical reporting, insufficient to accurately measure mortality, i.e. the cause of the *exitus letalis*. This inability decreases the share of the recorded deaths that are attributed to a specific cause/disease, decreasing the number of recorded COVID-19 deaths. Finally, the number of recorded COVID-19 deaths has been manipulated by governments for political propaganda and public relations purpose, releasing doctored downward biased data, usually to demonstrate to the public that they are more efficient in coping with the pandemic than they actually were (Wang *et al.* 2022). All these deviations have the same direction of the error – downward bias.<sup>12</sup> Accordingly, it is reasonable to assume that the true number of the COVID-19 deaths is significantly greater than the recorded number, i.e. that the number of recorded COVID-19 cases is not accurate.

<sup>9</sup> Even though the fatality rate is overestimated, as many COVID-19 cases have not been diagnosed and reported (Angelopoulos *et al.* 2020; Mathieu *et al.* 2020), the true magnitude of the bias is unknown as the data on unreported cases of COVID-19 are not available, though, as already pointed out, the expert opinion expressed in the WHO report is that the magnitude of underreporting is 40 per cent.

<sup>10</sup> World Health Organization. 2021. Ebola virus disease. <https://www.who.int/news-room/fact-sheets/detail/ebola-virus-disease> (last visited 15 October, 2022).

<sup>11</sup> Mathieu *et al.* (2020) provide more details about mechanisms of these measurements. <https://ourworldindata.org/excess-mortality-covid#estimated-excess-mortality-from-the-world-health-organization> (last visited 15 October, 2022).

<sup>12</sup> Diagnostic errors are not listed because it is assumed that they are random and therefore unbiased. In principle, the probability of a false positive diagnosis is equal to the probability of a false negative. Accordingly, these errors do not contribute to the downward bias in reporting.

Even if the number of recorded COVID-19 deaths was accurate, let us suppose that, for the sake of argument, it would be an indicator only of the mortality directly caused by COVID-19 pandemic, completely neglecting mortality indirectly caused by the pandemic, the mortality that would not have happened without the pandemic. The pandemic, with the overburdening of the healthcare system, undermined the provision of other healthcare services – it reduced supply of the treatment of other completely non-related to COVID-19 diseases. General hospitals and specialised non-COVID-19 hospitals were converted to COVID-19 facilities, hence both capital (healthcare premises and equipment) and labour (healthcare personnel) have been reallocated from providing healthcare in all other cases to providing healthcare for people who contracted COVID-19, as demonstrated by Fetzer and Rauh (2022).<sup>13</sup> That means that insufficient medical treatment was available for curable diseases, including, for example, open heart and other surgeries, which increased mortality of these diseases. Furthermore, due to the perceived limited provision of non-COVID-19 healthcare services and asymmetry of information, fewer people sought treatment for non-COVID-19 diseases although it was provided, especially in cases of chronic diseases where deaths could be avoided with proper treatment (cardiovascular conditions, respiratory diseases, HIV/AIDS, malaria, tuberculosis, etc.).

The other side-effect of the pandemic was a thorough change in lifestyle due to the pandemic. There have been two reasons for that change. The first one are the widespread non-pharmaceutical precautionary government pandemic control measures, like social distancing and various types of lockdowns, including even curfews in some areas, during certain periods of the pandemic, especially early on, when no vaccines were available. The second one is voluntary behaviour restrictions that people imposed on themselves in fear of contracting COVID-19. These lifestyle changes have caused two countervailing effects on mortality that were caused by COVID-19 pandemic. On the one hand, the lack of regular recreational physical exercise, either due to lockdowns or to fear from contagion, led to the deterioration of the health of many people with chronic diseases, like cardio-vascular conditions, and their premature death, consequently increasing mortality. On the other hand, lockdowns prevented the contraction of other infectious diseases with possible lethal outcomes, such as influenza

---

<sup>13</sup> The capacity of the health care system is fixed in the short run, primarily due to the inflexible supply of specialised labour (medical doctors and nurses), hence the change means only reallocation of available capital and human resources from one use within the healthcare system to another.

(flu),<sup>14</sup> and decreased mortality of traffic, mainly road accidents, due to travel restrictions, as demonstrated by Oguzoglu (2020). Furthermore, because of the decreased level of economic activity due to the pandemic, the level of air pollution dropped, pushing down the number of deaths due to chronic respiratory diseases (Bourzac 2020; He *et al.* 2020). Because these indirect effects of the pandemic are countervailing, which one is dominant is an empirical question and the answer differs from one country to the other.<sup>15</sup>

From the viewpoint of economics, and perhaps not only economics, the crucial issue is the total loss of life due to the pandemic, meaning mortality both due to the direct and indirect effects of the COVID-19 pandemic. In short, the mortality that is relevant for considering both the supply-side and the demand-side effects of the pandemic is the mortality that would not have happened without pandemic. That is precisely the excess mortality.

### 2.3. Excess Mortality Rates

The excess mortality concept is based on counterfactual reasoning because it represents the difference between actual (recorded) mortality, regardless of the cause of death, and the mortality that would have been achieved, again regardless of the cause of death, without the pandemic (Wang *et al.* 2022, 1514). Accordingly, the rationale of the measure is to encompass total net mortality due to the pandemic, regardless of the specific cause of death. In that way both the direct and indirect effects of the COVID-19 pandemic on mortality are included.

<sup>14</sup> As pointed in Mathieu *et al.* (2020), because COVID-19 ‘competes’ with other causes of death, such as the flu, this means that COVID-19 deaths are not by default excess deaths. It is possible for there to be more confirmed COVID-19 deaths than excess deaths, and in fact it is also possible to have confirmed COVID-19 deaths without *any* excess deaths. The drop of excess death during some periods in some countries is explained by frail individuals who died from COVID-19 earlier in the year who might have otherwise died from their chronic diseases, such as heart disease, respiratory diseases, etc. (Schwartz *et al.* 2020).

<sup>15</sup> Brodeur *et al.* (2021) points out that there is heterogeneity across countries regarding population compliance with the government lockdown policies and reviews the literature that addresses the factors of that heterogeneity (Coelho *et al.* 2020; Fan *et al.* 2020). Whatever the factors may be, it is important to distinguish between nominal lockdowns and effective lockdowns. The findings regarding the economic effects of the lockdowns are based only on the effective lockdowns.

Data on all-cause mortality is much more reliable than specific COVID-19 deaths records, but since this is a counterfactual analysis, the data on mortality without the pandemic is not available and must be estimated, with a substantial number of methodological challenges.<sup>16</sup> It was Wang *et al.* 2022 that produced the most reliable estimate of global mortality without the pandemic, using a bottom-up approach based on the estimates for all countries and territories, obtained through six regression models, each of them selected for a country/territory according to its specific demographic features. The mean values of the estimated excess mortality, as well as the 95 per cent confidence intervals, were generated for the national, regional, and global levels.

The results of this estimates are for the period from 1 January 2020 to 31 December 2021. During that period the total number of reported COVID-19 deaths was 5.946 million worldwide, but the estimate in Wang *et al.* (2022, 1518) indicates an excess mortality of 18.2 million people, implying that the ratio between excess mortality and reported COVID-19 mortality on the global level is 3.07.<sup>17</sup> This means that the excess mortality rate of the pandemic is, or more precisely, on 31 December 2021 was 0.1161 per cent, while the mortality rate based on the recorded COVID-19 deaths was 0.0379 per cent. The estimated value of the COVID-19 excess mortality rate, compared to the expert opinion of the excess mortality rate of the Spanish flu (2.1 per cent) demonstrates that the Spanish flu pandemic was (for the time being) 55 times more deadly.

Excess mortality rates significantly differ from country to country, providing evidence of significantly different national patterns of the COVID-19 pandemic and distinctive conditions relevant for health outcomes: capacity and resilience of the healthcare system, vaccination effort and its reception among population, public policies of social distancing and lockdowns, preferences of the population for social distancing, etc. The country with the highest excess mortality rate was Bolivia (0.7349 per cent) followed by Bulgaria (0.6473 per cent) and North Macedonia (0.5836 per cent), while

---

<sup>16</sup> Begović (2021) reviews these challenges in the case of the Spanish flu pandemic, considering that the pandemic started during the major demographic impact event – the First World War. It was Murray *et al.* (2006) who addressed these challenges in the most consistent manner.

<sup>17</sup> This is the mean estimate. The estimate with a 95 per cent confidence interval is from 17.1 million to 19.6 million. This means that the probability is 95 per cent that the excess mortality figure is within this range. The corresponding probability that the global ratio between excess mortality and reported COVID-19 mortality is from 2.88 to 3.30.

Iceland, Australia, Singapore, New Zealand, and Taiwan (province of China) had negative excess mortality rates, meaning that the behavioural changes due to the pandemic, and strict lockdown measures, including severe traveling restrictions, reduced mortality more than it was increased by the COVID-19 deaths. As for the excess mortality rates in the small sample of the countries with substantial population, China recorded 0.0006 per cent,<sup>18</sup> India 0.1525 per cent, the United States of America 0.1793 per cent, and Russia 0.3746 per cent.

Because there is no linear relation between mortality and excess mortality, and because the factors that influence excess mortality, as well as the intensity of their impact, differ from country to country, the ratio between excess mortality rates and mortality rates based on reported COVID-19 deaths varies significantly across countries. There is a substantial heterogeneity in epidemiological profiles among countries, already mentioned distinctive conditions regarding the health outcomes, as well as heterogeneity regarding the downward bias in reporting of COVID-19 cases, i.e. manipulation of the data by governments for public relation purposes. In some cases the ratio is so high (Tanzania 178.9, Nicaragua 149.9, Burundi 126.9, Tajikistan 115.8, South Sudan 109.0, Eritrea 94.9, Chad 83.9, Burkina Faso 67.1, Somalia 66.8, etc.) that it can only be explained by faulty national reporting system for COVID-19 deaths. Whether this is the consequence of the poor effectiveness of the system itself, because it is not well developed, or deliberate government policy, with public relations aims, cannot be answered without delving into the specific details of each of these countries.

The only other study of the global excess mortality comparable to Wang *et al.* (2022) is the one conducted by *The Economist*.<sup>19</sup> This research resulted in quite similar estimates of global excess mortality due to the pandemic: 18.0 million people (200,000 less) with a somewhat wider 95 per cent confidence interval. Nonetheless, due to different applied methodologies, there are substantial differences in estimates at the country level. Perhaps the most

<sup>18</sup> Rather early and draconian lockdowns in China prevented the spread of the virus from Hubei province, where the city of Wuhan is located and in which 94 per cent of all excessive death in China are estimated to be, but also it enabled rather low national level of excessive mortality rate.

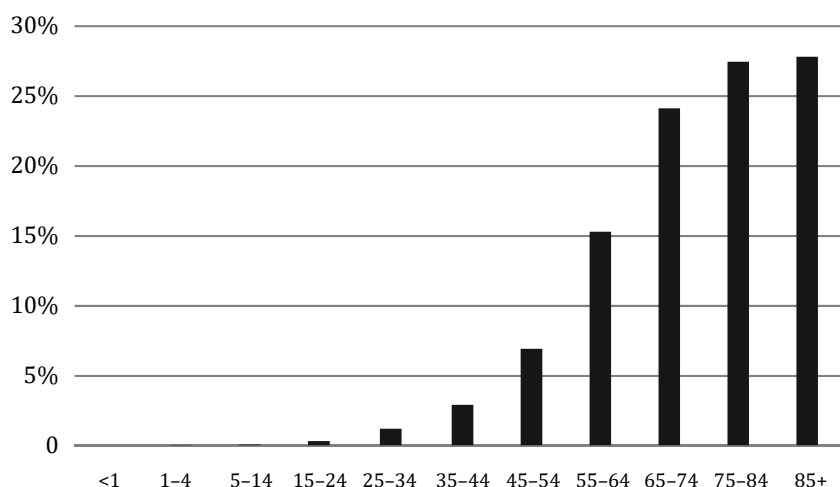
<sup>19</sup> *The Economist*. 2022. The pandemic's true death toll. <https://www.economist.com/graphic-detail/coronavirus-excess-deaths-estimates> (last visited 15 October 2022). This is ongoing research, hence the results disclosed on the web page are continuously updated and are not related to the results provided in this article, which refers to the results on 31 December 2021, i.e. results comparable to Wang *et al.* (2022).



important is China, where *The Economist* estimates of the excess mortality is 23 times higher than according to Wang *et al.* (2022).<sup>20</sup> The cases of the countries with lower excess mortality estimates provide for the convergence of the global estimates of the pandemic-related excess mortality between the two research endeavours.

The third research endeavour in the field of excess mortality is being pursued by the WHO.<sup>21</sup> The global estimate of the excess mortality is somewhat lower than in the two previous studies – 14.9 million people, with the lower 95 per cent bound of 13.2 million and the upper bound of 16.6 million. It is expected that all three studies will continue and that the estimates for 31 December 2022 will be available. That will resolve whether there is convergence of the results or not.<sup>22</sup>

Figure 3. Age structure of mortality in the USA



Source: CDC, [https://www.cdc.gov/nchs/nvss/vsrr/covid\\_weekly/index.htm#SexAndAge](https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm#SexAndAge)

<sup>20</sup> Even if *The Economist* estimate is accurate, China's excessive mortality rate is still very low, more than 6 times lower than the global average.

<sup>21</sup> World Health Organization. 2021. Global excess deaths associated with COVID-19 (modelled estimates). <https://www.who.int/data/sets/global-excess-deaths-associated-with-covid-19-modelled-estimates> (last visited on 15 October 2021).

<sup>22</sup> It is worth noting that only results of research done by Wang *et al.* (2022) are peer reviewed and published in the most respectable academic journal with clear and unambiguous description of the methodology.

As previously mentioned, it is excessive mortality that is relevant when considering economic effects of the pandemic, both in terms of labour supply and aggregate demand. Nonetheless, for labour supply, the critical information is the age structure of the excess mortality, as it provides intelligence on loss of the working age population. The only way to get that information is to analyse the age structure of reported deaths, i.e. reported mortality, and to assume that the age structure of the reported mortality equals the structure of excess mortality.

The most reliable available data on the age structure of reported deaths is from the USA (Figure 3).

The most important conclusion is that deaths of the people who are the core of the labour force (15–64 years) is only 25% of all deaths. The age structure of deaths is heavily tilted towards older people – over the age of 65 – already (to the great extent) out of the labour force. This is quite distinctive from the age structure of deaths during Spanish flu, in which most of the victims were not only of the working age, but also at the most productive age. Accordingly, due to the rather low excess mortality rate, substantially lower than the Spanish flu pandemic, and an age structure heavily tilted towards people out of labour force, the COVID-19 pandemic has not produced – for the time being and in the short run – a significant decline of the working age population and therefore has not significantly decreased the global supply of labour as production factor.<sup>23</sup>

Although it is evident that excess mortality is the demographic indicator that is relevant for the consideration of the economic effects of the COVID-19 pandemic, it is of utmost importance to understand the relative contribution of the factors to excess mortality, how that contribution pattern varies across countries and what are the factors that influence the pattern (Wang *et al.* 2020). Nonetheless, available estimates on excess mortality provide a solid foundation for analysing economic effects of COVID-19 pandemic.

---

<sup>23</sup> Bloom, Khoury *et al.* (2020) emphasises the often unmeasurable and disregarded economic contribution of older people, such as daily care for their grandchildren. With high mortality of the older people, their care services would have to be replaced by people from the labour force, undermining the effective supply of labour on the production factors market, as an indirect effect.

### 3. THE IMPACT OF THE COVID-19 PANDEMIC ON ECONOMIC GROWTH

The impact of the COVID-19 pandemic on the level of economic activity and economic growth will first be analysed in this section of the article and then the mechanisms of that impact will be analysed in the following two. The macroeconomic impact of the pandemic is disclosed by comparing economic growth rates for selected years (Table 1).

Table 1.  
Economic growth rates 2018–2022 for the world, groups of countries  
and selected countries (per cent)

	2018	2019	2020	2021	2022
<b>World output</b>	3.6	2.8	-3.1	6.0	3.2
<b>Advanced economies</b>	2.3	1.7	-4.5	5.2	2.4
USA	2.9	2.2	-3.4	5.7	1.6
Euro Area	1.9	1.3	-6.3	5.2	3.1
Germany	1.5	0.6	-4.6	2.6	1.5
France	1.7	1.5	-8.0	6.8	2.5
Italy	0.9	0.3	-8.9	6.6	3.2
United Kingdom	1.4	1.5	-9.8	7.4	3.6
Japan	0.8	0.7	-4.6	1.7	1.7
<b>Emerging markets and Developing economies</b>	4.5	3.7	-2.1	6.6	3.7
Emerging and developing Europe	3.1	2.1	-2.0	6.8	3.7
Emerging and developing Asia	6.4	5.5	-0.8	7.2	4.4
Latin America	1.0	0.0	-7.0	6.9	3.5
Middle East	1.9	1.4	-2.8	4.5	5.0
Sub-Saharan Africa	3.2	3.2	-1.7	4.7	3.6
China	6.6	6.1	2.3	8.1	3.2
India	6.8	4.2	-7.3	8.7	6.8

	2018	2019	2020	2021	2022
Russia	2.3	1.3	-3.0	4.7	-3.4
Brazil	1.1	1.1	-4.1	4.6	2.8
South Africa	0.8	0.2	-6.4	4.9	2.1

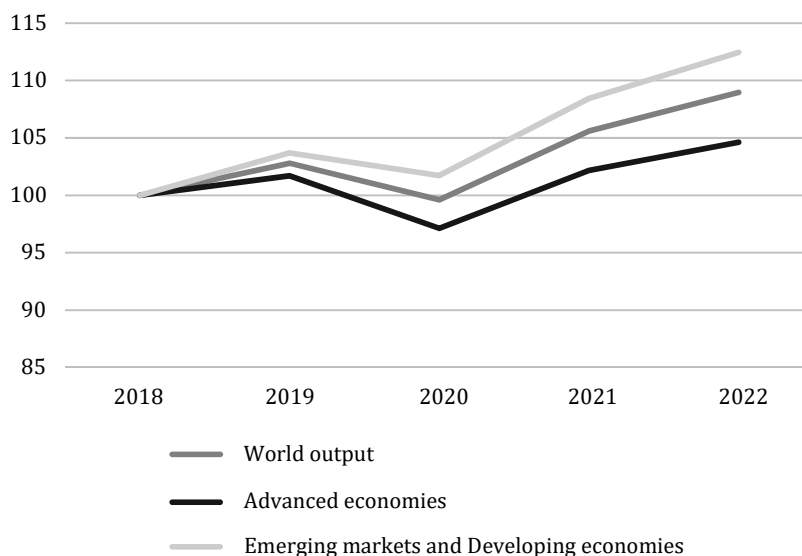
Source: IMF (2020), IMF (2021), IMF (2022a). Figures for 2022 are projections released by the IMF (2022a) in October 2022.

As January 2020 is considered the first pandemic month, the economic growth rate from 2019 is a reference growth rate for considering the economic effects of the COVID-19 pandemic, especially taking into account that this year was the year of rather sluggish economic growth compared to the previous year – 2018. The global 2019 growth rate, i.e. the growth rate of the world output, was significantly lower, as were the growth rates of all selected regions (save one with the equal growth rate), and almost all selected countries. The point is that in 2019 the world economy was already slowing down, for reasons that are beyond the scope of this article. The point is, however, that the growth rates in 2019 were not exceptional high – on the contrary, they were rather low, which make them an appropriate benchmark for considering the economic effects of COVID-19 pandemics.

The pandemic had substantial effects of on economic growth. Global growth rate dropped 5.9 per cent points (from 2.8 per cent to -3.1 per cent), growth rate of advanced economics dropped slightly more – 6.2 per cent points (from 1.7 per cent to -4.5 per cent) – and the growth rate of emerging markets and developing economics slightly less – 5.8 per cent points (from 3.7 per cent to -2.1 per cent). The only selected country that recorded a positive growth rate was China (2.3 per cent) but experiencing a growth rate drop of 3.8 per cent points (China's growth rate in 2020 was only 38 per cent of its growth rate in 2019). In short, sharp and substantial decline of economic activity was recorded in 2020 as a consequence of the outbreak of the COVID-19 pandemic.

This was followed by similar sharp and substantial recovery in 2020, with the growth rate of world output at 6.0 per cent in 2021 (5.2 per cent in advanced economies and 6.6. per cent in emerging markets and developing economies). The level of the world output in 2021 was higher than in 2019 – full recovery was achieved, even in the case of advanced economies with more modest growth rates in 2020 than the global one. The dynamics of the world output, as well as the output of the two groups of nations (advanced economies, on one hand, and emerging markets and developing economies, on the other), perfectly follows a V-shaped curve (Figure 4).

Figure 4.  
Dynamics of the aggregate output 2018–2022



Source: IMF (2020), IMF (2021), IMF (2022a). Figures for 2022 are projections released by the IMF (2022a) in October 2022.

This dynamic demonstrates that swift recovery of the world economy occurred without the end of the COVID-19 pandemic, as it was still ongoing at the time this article went to press. The recovery in 2021 is the consequence of introduction and adjustments of government policies, both macroeconomic and pandemic control, adjustments of economic agents and introduction of vaccination. Some of these adjustments, which lead to the recovery, and the sources of severe decline of the world output that preceded them, are to be considered in the following chapter, but for now only changes in the volume of international trade will be analysed. Changes in that volume were more intense than the changes of the output, both in terms of contraction in 2020 and recovery in 2021 (Table 2).

It is evident that the drop in the volume of foreign trade was much harder than the drop of the output, as well as that its recovery was more intense than the recovery of the output. Apparently, international trade was more vulnerable to the COVID-19 pandemic than the output, i.e. the level of economic activity.

Having sketched the world economy dynamics at the time of COVID-19 pandemic, the analysis of the factors that shaped the observed dynamics and the mechanisms of their impact will follow. Supply side factors and mechanisms will be considered first.

Table 2.  
Volume of the international trade (annual growth rates) for world  
and groups of countries (per cents)

	2018	2019	2020	2021	2022
<b>World Trade Volume (goods and services)</b>	3.6	1.0	-8.2	10.1	4.3
Advanced economies (import)	3.0	1.7	-9.0	9.5	6.0
Advanced economies (export)	3.1	1.3	-9.4	8.7	4.2
Emerging markets and Developing economies (import)	5.1	-0.6	-8.0	11.8	2.4
Emerging markets and Developing economies (export)	3.9	0.9	-5.2	11.8	3.3

Source: IMF (2020), IMF (2021), IMF (2022a). Figures for 2022 are projections released by the IMF (2022a) in October 2022.

#### 4. THE SUPPLY SIDE OF THE COVID-19 PANDEMIC IMPACT

There are several sources of effects of the COVID-19 pandemic on the supply side, i.e. the decreasing aggregate supply, irrespectively of the change in aggregate demand, thus decreasing the level of output. They are: (1) morbidity and mortality, (2) behavioural effects of the pandemic, and (3) government pandemic control measures. All of them will be considered in both the short run and the long run.

The first one is morbidity and mortality of the COVID-19 pandemic. It is intuitive to conclude that both morbidity (in the short run) and mortality (in the long run) decrease the supply of labour. This conclusion applies also to the human capital that is temporarily (morbidity) or permanently (mortality) lost from the production process. This intuitive finding is confirmed by the human capital augmented production function model (Bloom, Kuhn, Prettner 2022) adjusted to accommodate disease of interest, along the lines of the basic model (Lucas 1988).

Although this mechanism of aggregate supply drop is theoretically well established, it proved to be rather negligible in the COVID-19 pandemic. In the case of morbidity, the short time span of the COVID-19 did not significantly affect the aggregate supply of labour. As already pointed out, this is not to say that in some cases there was a substantial temporary and sectoral shortage

of labour decreasing the level of that specific output, especially in the health services. As to the mortality of the COVID-19, for the time being it has not generated significant shortage of labour for two reasons. First, the excess mortality of COVID-19, which is the only relevant mortality for the labour supply considerations, has been rather low (0.0379 per cent), much lower than the excess mortality of the Spanish flu (2.1 per cent), for example. The other reason is that 75 per cent of the deaths are people over 65 years of age, i.e. people who (to a great extent) had already been out of the labour force. According to these findings, the loss of human capital at the global level, i.e. the decline in supply of human capital, is also not significant.<sup>24</sup>

Economic historiography has demonstrated that huge mortality rates (like the Black Death bubonic plague pandemic) substantially decreased the supply of labour, pushing wages up and providing incentives for change of the capital-to-labour ratio, substituting labour with capital (Clark 2007; Jedwab, Johnson, Koyama 2022). This push of wages have not been recorded during the COVID-19 pandemic, hence the substitution of labour with capital in the cases where it has happened has not been caused by morbidity and mortality.

The long run effects of the COVID-19 pandemic on the supply of labour human capital are still unknown but should not be downplayed. Although there is some anecdotal evidence that prolonged COVID-19 can affect productivity of labour and even human capital (Lagadionu *et al.* 2021), there has been no systematic exploration of the subject for the time being. Especially missing are the results on the long run effects of COVID-19 on human capital since the outbreak of the pandemic was less than three years ago. It was demonstrated, by empirical evidence that supported the Fetal origins hypothesis in the case of Spanish flu (Almond 2006), that the detrimental effects of pandemic on human capital can occur decades later. It is still early to judge what will be the long run effects, if any, of COVID-19 on human capital and the effective supply of labour in the future.

The second source of decreasing aggregate supply is behavioural effects of the COVID-19 pandemic, as people, considered as labour force, voluntarily changed their behaviour with the outbreak of the pandemic and the prospects of contracting the disease. It is important to distinguish voluntary change of behaviour, considered as the second source of decreasing aggregate supply, from the changes of behaviour induced by government measures, such as

---

<sup>24</sup> People above 65 years have substantial human capital in terms of education and experience, but their human capital is generally not supplied to the labour market. Nonetheless, their human capital, in terms of good health, is usually depleted, due to their age.

mandatory social distancing and lockdowns. The point is that even without government pandemic control measures, the behaviour of the economic agents would change.

These behavioural responses were encompassed by a formal model (Eichenbaum, Rebelo, Trabandt 2020; Bloom, Kuhn, Prettner 2022), based on the standard microeconomic model of individual's rational behaviour aimed at utility maximisation. Although preventive activities (social distancing, purchasing of protective gear, etc.) generates disutility, they increase expected utility of noncontracting COVID-19 and all the consequences. Each individual selects their own equilibrium level of preventive measures, such as social distancing, with countervailing effects. Though this outcome has more severe impact on consumption and aggregate demand (to be considered in the next chapter), it also affects the labour supply, as the priority of social distancing made people with such preferences to leave the labour market, if certain adjustment was not possible.

As to the adjustments in the labour market, the labour supply is very heterogenous with some people/jobs easily switching to working from home and others sticking to their workplaces, mainly those in personal services industries. This division has been recorded between people with substantial human capital, college educated people, engaged in nonrepetitive jobs, on the one hand, for whom it was easy to switch to working from home, and people with low human capital, without college education, on the other, engaged in more or less repetitive jobs, for whom it was virtually impossible to switch – it was predominantly the latter who left the labour market.<sup>25</sup> With a high wage educational premium, at least in advanced economies, this development has had a significant impact on income inequality, which will be considered below.

The long run effects of social distancing on the aggregate supply and production process are still unclear. It is evident that Internet-based communications provided a reliable framework not only for education and working from home, but also for many forms of efficient and cost-cutting business communications. During the pandemics, the early IT glitches were sorted out, so this technology proved itself. Accordingly, the death of the office has been announced,<sup>26</sup> and even the future of the city has been questioned

---

<sup>25</sup> That is especially true in the case of informal employment in such jobs, as no government-induced restrictions or costs to the employer can be applied – labour shedding has been much easier for the employer in these cases.

<sup>26</sup> Catherine Nixey. 2020. Death of the office. *The Economist*. <https://www.economist.com/1843/2020/04/29/death-of-the-office> (last visited 15 October, 2022).



(Glaeser, Cutler 2021). Furthermore, there is transformation of many service industries, with online cultural, sport and entertainment events, including online sightseeing tours across the world (Barrero, Bloom, Davis 2022). Obviously, the (innovation technology) seeds of these developments had already been planted – it was the pandemic that made them to grow.

The third and possibly the most important source of effects of COVID-19 pandemic on the aggregate supply are government pandemic control measures: compulsory social distancing and lockdowns, including border closures. These measures affected not only the labour supply, but predominantly business decisions. As to the compulsory social distancing, many of the services (culture, entertainment, hospitality, sports, tourism & travel, some segments of education) were affected by the outright ban or limited supply quotas during certain stages of the pandemic, especially its early stage. Lockdown restriction increased the cost of travel and transportation, and severely affected international supply chains of the modern global economy. During the pandemic, globalised and highly segmented production chains that dominate modern manufacturing (Baldwin 2016) proved to be very vulnerable to logistics, and lockdowns proved to be effective constraint to such logistics, in terms of transportation of either inputs or outputs. That is the reason why global industrial output crucially depends on the lockdowns in China, because a huge number of intermediary products (components) manufacturers are located in that country.

As demonstrated in China (and not only in China) there is a trade-off between harsh government pandemic containment measures, dominantly lockdowns, and the level of economic activity (Deb *et al.* 2022). This finding is rather intuitive, because lockdowns generate constraints on economic activities. Whole containment measures save lives, due to the constraints, it leads to the drop in the level of economic activity, i.e. the decline in output. Nonetheless, as demonstrated (Bloom, Kuhn, Prettnner 2022), this is not the only trade-off: the most important is intertemporal trade-off. If lockdowns are introduced decisively and quickly, that may reduce how long they have to be applied, reducing the time span of the decreased level of economic activity, and enabling economic activity to recover rather swiftly. In addition, sharp lockdown measures reduce the level of economic activity sharply at impact, while continuing without the measures leads to more infections and deaths over time. Thus, in the latter case, the adverse economic effects spread out in time and into the longer run (Bloom, Kuhn, Prettnner 2022, 87). Another important intertemporal choice is not about the economy in general, but about spreading COVID-19 cases over time, ‘flattening the curve’, to enable the fixed-capacity healthcare system to cope with the pandemic. In short, there are many trade-offs and substantial part of them are intertemporal.

It is not only intertemporal choices regarding the pandemic containment measures, but the contents of these measures, i.e. tools that should be used. It was demonstrated (Brotherhood *et al.* 2020), by using extensive set of lockdown policies across the US economy, that testing (of all symptomatic individuals) and quarantining (positive cases) policies were much less detrimental to the level of economic output than general lockdowns.

The long run effects of the noted fragility in the logistics of the international supply chains remain uncertain, as the future path of globalisation also remains unclear, with deglobalisation and reshoring as options that become more viable with the pandemic effects on supply chains and with risk avoidance becoming a priority over outright profitability. Furthermore, it seems that the pandemic-augmented populism and anti-globalisation pressures especially in the advanced economies (Ciravegna, Michailova 2022), were already strong before the pandemic due to discontent of globalisation (Eichengreen 2018). It remains unclear what the future strength of populism will be, but it seems unlikely that globalisation will speed up in the decade following the end of the pandemic. It is both advanced economics and especially emerging markets and developing economics that will pay the price of slowed globalisation or even deglobalisation.

All three sources of decreased aggregate supply, save the first one (morbidity and mortality), worked full power in 2020. That is the supply-side explanation of the drop of output in that year. But the V-shaped curve of economic activity demonstrates that recovery in 2021 was more than enough to compensate for the drop in economic activity. Relevant question is how that happened, taking into account that the pandemic was still ongoing in 2021, with average weekly case numbers above those from 2020? There are three main possible answers to this question, i.e. explanations for the sudden increase in output, considered from the supply side. The first one is the adjustment of the economic agents to the new conditions, maximising individual utility or profitability under now constraints, those they have become accustomed to. The second one is the decrease in uncertainty. As pointed out (Baker *et al.* 2020), about 50 per cent of the drop of the output was due to uncertainty in the first year of the pandemic.<sup>27</sup> Uncertainty had substantially decreased in the second year: economic agents were more certain about the virus and the features of the diseases, more confident about government intervention – both pandemic control (compulsory social distancing and lockdowns) and macroeconomic intervention (especially

---

<sup>27</sup> Brodeur *et al.* (2021) points out that there is no close historical parallel the COVID-19 pandemic, hence the knowledge of the previous pandemics and their effects obtained in hindsight is of little use or comfort to the economic agents.

subsidies and cash benefits for consumers due to the huge budgetary deficits), more certain about conditions of demand for their products – in short, they were in a better position for business planning and execution of these plans. Perhaps the third answer is rolling out the vaccines and triggering the vaccination process, decreasing risks of contracting COVID-19 and especially substantially decreasing the risk of death or severe consequences if the disease is contracted. This changed the utility function of individuals and enabled them to engage more freely in both production and consumption. Vaccination also enabled governments to relax a bit the strict lockdowns and other containment policies, which contributed to the change of the legal framework of individuals' behaviour.

With aggregate supply side explanation of the V-shaped curve (the sudden drop of economic activity and equally sudden recovery, i.e. bounce back) provided, now the same exercise should be done from the aggregate demand side.

## **5. THE DEMAND SIDE OF THE COVID-19 PANDEMIC IMPACT**

As in the case of the aggregate supply, there are several similar if not identical sources of the effects of the COVID-19 pandemic on the demand side, decreasing aggregate demand irrespectively of the change of aggregate supply, and consequently, further decreasing the level of supply and output. They are the basically the same as in the case of supply side: (1) morbidity and mortality, (2) behavioural effects of the pandemic, and (3) government pandemic control measures. Nonetheless, the mechanism of their impact on aggregate demand is quite distinctive. Most of them are considered in short run, according to the nature of demand, but the long run effects of these changes, and especially government macroeconomic policy to increase the aggregate demand, will be considered in the long run, either in this section or one of the subsequent sections.

The first source of the kind, as in the case of the supply side, is morbidity and mortality associated with the COVID-19 pandemic. It is intuitive that in the short run, mortality permanently decreases consumption and accordingly aggregate demand. Nonetheless, taking into account the low mortality rate of COVID-19, this effect on aggregate demand has not been significant during the pandemic. Furthermore, taking into account that 75 per cent of the cases were persons age 65+, most of them pensioners, it is reasonable to assume that in both pay-as-you-go systems and in funded pension insurance schemes, by stopping paying these entitlements, either consolidates deficits,

if any, or increases payments to the remaining pensioners, compensating demand decline in the short run.<sup>28</sup> In the long run, after the pandemic, these entitlements are expected to grow due to demographic trends unrelated to the pandemic.

The effect of morbidity on aggregate demand is uncertain. On the one hand, it is expected that the illness decreases private consumption, as individuals/households are focused on the illness, with forgone consumption that is not related to coping with the illness and the recovery. Furthermore, illness means that no labour engagement is feasible during its span, and no available income is generated during that time (if there is no social insurance program in place), further driving down aggregate consumption. On the other hand, morbidity increases healthcare expenditures, either public (through publicly provided health services based on health insurance, funded by taxes or contributions) or private expenditures, either channelled through expenditures of private health insurance fund or out-of-pocket payments by households. Hence it is an empirical question whether morbidity increases or decreases aggregate demand. With increased prevalence of serious COVID-19 cases, it should be expected that an increase of aggregate demand, due to disproportional increase of public consumption in the provision of health services, which more than compensates for the decrease in non-health related private consumption. In short, the increase in public expenditures due to morbidity can more than offset the decrease of the non-health related decrease in private consumption, increasing aggregate demand.

That increase in the short run public expenditures on healthcare can be constrained by a fixed capacity of the healthcare outlets. Nonetheless, the outbreak of the pandemic creates strong incentives for investment in new healthcare capacities (hospitals, equipment, etc.) increasing public expenditures and therefore aggregate demand. Furthermore, the pandemic increased expenditure for developing future treatments of COVID-19 and vaccines, also increasing aggregate demand.

The second source of COVID-19 pandemic impact on aggregate demand is the behavioural changes of the population due to the pandemic and its consequences. The most important change of behaviour is increase in saving, i.e. increasing of the share of available income that is not spent, decreasing private consumption, especially of durables. The main motive for such saving is precautionary saving due to uncertainty brought by pandemic. This is very reasonably and quite expected behaviour for individuals/households, as

---

<sup>28</sup> As to the age structure of consumption, it is intuitive that old people spend most of their income due to high discount rate, i.e. their saving rate is low (Kuhn, Prettnner 2018).

substantial number of extraordinary and nonrecurring spendings due to the pandemics can be expected, as well as job/income losses due to the pandemic recession. Hence, it is quite reasonable for most households to reduce their consumption to the essentials in such an uncertain environment. Such behaviour by households implies a drop of aggregate demand, a decline of the economic activity, and an increase unemployment (Guerrieri *et al.* 2022).<sup>29</sup> This was basically a vicious circle: precautionary savings due to pandemic decrease aggregate demand, this drop in demand creates a recession, and the recession strengthens incentives for precautionary saving, creating the even deeper recession.

There was another vicious circle at work in 2020 – the first year of the pandemic. The decrease aggregate demand – due to the pandemic and precautionary savings of households – decreases the level of economic activity, increasing unemployment, as people lost their jobs, and decreasing household incomes, pushing down private consumption and diminishing aggregate demand. Diminished aggregate demand further declines the level of economic activity, increasing unemployment, decreasing income and private consumption, further pushing down aggregate demand. Obviously, government unemployment insurance programs and various job subsidy programs are crucial for breaking this vicious circle.

Another behavioural change was restrained private consumption due to voluntary social distancing, aimed at avoiding infection and contracting COVID-19. That affected demand for many services, i.e. in many service industries (e.g. culture, entertainment, hospitality, sports, tourism & travel, etc.) demand was reduced the demand to zero for a while. Taking into account that a substantial segment of the global economy is based on the service industries, especially in advance economies, the decrease in demand for services made a substantial impact on the decline of aggregate demand. Adjustments by the population and service providers to the behavioural change increased demand for some specific services, such as food/merchandise delivery services operated by online platforms, streaming services for entertainment, as well as online cultural, academic and even sightseeing events, but this increase was far from full compensation for the decline in demand for services.

The third source of COVID-19 pandemic impact on aggregate demand are the government measures to contain the pandemic, e.g. compulsory social distancing and lockdowns. These measures particularly affected service

---

<sup>29</sup> The long run effect of this behavioural change is that the increased saving rate and subsequent increase in the volume of savings may enhance long run economic growth, due to the increased level of investments (Bloom, Kuhn, Prettnner 2022).

industries that are based on personal contacts and high likelihood for infection. Whether voluntary social distancing affected aggregate demand more than government measures is an empirical question. The important takeaway is that when the number of cases drops, then it is both government measures that are relaxed and the probability of infection that decrease, so both channels affecting the aggregate demand work in the same direction reinforcing each other.

A rather relevant analytical question is whether it is possible to distinguish the supply-side effects of the pandemic from the demand-side effects. Nonetheless, much more than an analytical question – this is relevant macroeconomic policy question. For example, if the economic downturn is caused by supply-side constraints (e.g. imparted chains of supply), policies directed at the demand side would not only be ineffective in terms of increasing the output but would also produce adverse effects, such as inflation (Acemoglu, Tahbaz-Salehi 2020). Nonetheless, as pointed out in the literature (Bloom, Kuhn, Prettnner 2022), based on the review of several models (Balleer *et al.* 2020; Brinca, Duarte, Faria-e-Castro 2020; Brodner *et al.* 2021; Baqaee, Farhi 2022; Guerrieri *et al.* 2022) the relative importance of the two sides is *a priori* unclear. As to the *a posteriori* models, it should be expected that the results, however reliable they might be, will crucially depend on the assumptions of the models used and especially on the sector and its features. For example, it is reasonable to expect that the output of the manufacturing industry, which is based on the global supply chains, even without behavioural adjustments and government measures that substantially affected demand, would suffer more from the supply-side effects than the service industries, which are based on local inputs and whose demand is vulnerable to behavioural changes regarding social distancing and government measures aimed at curbing the pandemic. Again, perhaps this is much more important for macroeconomic policies than for a *a posteriori* academic debate. Especially considering that government measures focused on controlling the pandemic have affected both the supply and the demand side, decreasing both.

This point is strengthened by the intertwining between the supply and the demand side in the modern globalised economy, described as a complex web of interconnected parties: employees, firms, suppliers, consumers, and financial intermediaries. Everyone is someone else's employee, customer, lender, etc. (Gourinchas 2022, 33). In short, it is a circular flow framework that is appropriate for considering the impact of the pandemic on the macroeconomy. Finally, as demonstrated by Guerrieri *et al.* (2022), the supply shock that works through lockdowns, layoffs, and firm closures not only decreases the level of economic activity *per se*, but also subsequently

creates a drop in aggregate demand and thereby deepening the recession – a ‘Keynesian supply shock’, as described by the author. This provides not only evidence of interdependency between demand and supply, but also the existence of a vicious circle, regardless of which of the two initially declined.

Furthermore, as to the undisputed interdependence between supply and demand, as already pointed out, it was uncertainty that was a crucial contributing factor to the sharp drop in economic activity in 2020. This uncertainty affected both the supply and the demand side, as demonstrated in this and the previous section of the article. With a substantial chunk of that uncertainty removed in 2021, as economic agents became used to the pandemic (‘better the devil you know than the devil you don’t know’) and familiar with government measures, both pandemic control and macroeconomic policies, and as the vaccines were rolled out, the aggregate output recovered to the pre-pandemic level, due to both increase supply and demand, regardless of their relative contribution.

## **6. THE IMPACT OF THE COVID-19 PANDEMIC ON POVERTY AND ECONOMIC INEQUALITY**

It is rather intuitive that poor households were affected economically by the COVID-19 pandemic much severely than the rich households, increasing intranational economic inequality.<sup>30</sup> The first reason for that is that their consumption prior to the pandemics was closer to the subsistence consumption and the drop in consumption due to the lack of income, brought about by sudden unemployment, may be of such magnitude that the outcome is consumption lower than subsistence consumption. This is especially significant in poor countries (Bloom, Kuhn, Prettnner 2022). Furthermore, the cumulative savings of the poor are rather small, even negligible (their saving rate is low due to the increasing marginal propensity to save), so their financial buffer is rather modest. All this has made poor

---

<sup>30</sup> This insight is based on the mechanism of income distribution affected by the pandemic. In short, it refers to pre-tax and pre-transfer income distribution. During the pandemic massive government transfers in rich countries temporarily decreased income inequality (OECD. 2022. Income inequality (indicator). <https://data.oecd.org/inequality/income-inequality.htm> last visited 1 December 2022). Nonetheless, the sustainability of these transfers is questionable, and based on historical research, it is convincing that pandemics have long-lasting implications on income inequality (Furceri *et al.* 2022). There is no reason to think that the legacy of the COVID-19 pandemic will be different. On the contrary, it could be more resilient than the legacy of the previous modern pandemics.

households very vulnerable to the pandemic and government measures to cope with it, making them prime candidates for transfer payments, not only for macroeconomic reasons (boosting private consumption as a segment of aggregate demand). Nonetheless, as pointed out by Glover *et al.* (2020), the costs of redistribution should also be taking into account.

During the lockdown stage(s) of the pandemic, the most important distinction that was created in the labour market was between the jobs that can be done from home and those jobs that require face-to-face interaction of some kind, some of them even within the informal sector. While remote working jobs were not affected, the face-to-face interaction jobs were substantially affected due to behavioural changes and lockdown policies, creating job losses, increasing unemployment and even increasing the number of discouraged workers – those who ceased actively searching for work. These developments should be considered within the framework of labour heterogeneity, especially in terms of human capital. Work from home requires a substantial level of human capital, usually college education and full IT proficiency. Accordingly, it is people with a high level of human capital – who already obtained educational premium in their wages and belong to the rich (specified as above median income people) – that remained employed with the more or less the same level of income, provided that the industry they worked in did not experience a complete, though temporary standstill (e.g. tourism). It is people with low human capital – whose wages are already below the median income and cannot work from home – that lost their jobs and income (Adams-Prassl *et al.* 2020; Yasenov 2020). This development not only decreased the welfare of the poor (specified as below the median income people), but also increased economic (income) inequality.<sup>31</sup>

It has also been demonstrated (Alon *et al.* 2020; Forsythe *et al.* 2020) that because women's employment is concentrated in face-to-face jobs in sectors of personal services, such as education, the income inequality between man and women increased with the pandemic.<sup>32</sup> Also, the closure of schools and

---

<sup>31</sup> In advanced economies income inequality has already increase in the last few decades due to intensive technological progress, globalisation, and the resulting change of the structure of the economy and available jobs, decreasing employment opportunity and wages for people with low (below-median) level of human capital (Case, Deaton 2021).

<sup>32</sup> As to education, the shift to online education protected the jobs of women with high human capital, as they continue to be employed, working from home. This may not be the case with women with a low level of human capital. Again, the crucial distinction is high/low human capital. Also, personal services in health care provided by woman (those whose demand substantially increased during



day-care centres led directly to increased childcare needs, with direct impact on women's employment, especially in the case of single mothers. This may further increase economic inequality along gender lines.

## 7. THE APPLIED ECONOMIC POLICIES AND THEIR LEGACY

Most of the economic policies or, considered from another viewpoint, economic policies with the most impact during the pandemic, have been macroeconomic policies, with its two pillars: monetary policy and fiscal policy.

Monetary policy was constrained because of its starting point. For years – since the 2008 financial crisis – the interest rate policies of the central banks around the world has been zero bound, meaning that there was no room for basic interest rate decrease – a conventional monetary policy measure to stimulate investments and capital expenditure. Not only that in the long run, investments, though with a time lag, contribute to the potential growth in the future, but they immediately increase capital expenditures (for equipment etc.) as well as employment, increasing aggregate demand. Accordingly, there are at least two channels in which the decline of basic interest rates increases aggregate demand, which dropped after the outbreak of the pandemic for the reason explained in the previous section. Such a decline was not available to policy makers.

A tried and proven (in the aftermath of the 2008 financial crisis) substitute has been applied – quantitative easing (QE): the outright purchasing of debt securities by central banks, increasing money supply since saving glut effectively decreases the monetary mass in circulation. It is QE that facilitates monetary expansion, effectively creating additional money in circulation (Tooze 2021a).

The other aim of QE, as an intervention by central banks, was stabilisation of the financial markets, especially debt securities markets, aimed at preventing financial crises that would spill over to the real sector, as it happened in the Great Depression of 1929 and the Great Financial Crisis of 2008. By having the dominant place on the purchasing side of the secondary market, central banks, applying QE, were market makers, regrading securities'

---

pandemic) are based on substantial and specific human capital, which cannot be accumulated swiftly, therefore once again the crucial distinction is high/low human capital.

prices, creating investors' confidence in the market and virtually eliminating liquidity risk for investors in debt securities, especially government bonds, and up to a point, mitigating their default risk.

The policy of almost unrestricted QE was effectively a monetary expansion tool and indirect mechanism for funding fiscal deficit, which was the main mechanism of fiscal policy, supporting aggregate demand when it substantially decreased with the outbreak of the pandemic. Direct borrowing by the governments, i.e. ministries of finance, for funding the deficit from the central bank as a creditor has been off the table for many years, and for good reason, given that the history of inflation is to a great extent the history of ministries of finances borrowing from the central banks. Instead, budgetary deficit was funded by issuing bonds on the primary market. Investors who purchased these bonds have been well aware that they can sell them to the central bank at any time, some of them doing so for various reasons, almost immediately after the purchase. In that way, QE has been a method for indirectly funding the budgetary deficit, at least a segment of it, which is essential for fiscal expansion.

Fiscal policy was based on the fiscal deficit and expansion. The main idea of such a fiscal stance was to boost consumption, both public and private, and to compensate for the drop in aggregate demand due to the pandemic (Tooze 2021a). Nonetheless, public expenditures can take many forms and in the case of the pandemic-induced aggregate demand drop it is important to choose measures that work more quickly than others. It was demonstrated that measures such as wage subsidies, expansion of unemployment insurance, transfers to poor people, and loan guarantees work quickly and effectively in maintaining aggregate demand (Céspedes, Chang, Velasco 2020; Didier *et al.* 2021; Elenev, Landvoigt, Van Nieuwerburgh 2021).

There are two main legacies of these macroeconomic policies. One is increased indebtedness, especially increased sovereign debt. According to IMF (2021b), the global public debt ratio jumped to a record high 99 percent of GDP. Due to huge fiscal deficits and negative growth rates, the first pandemic year (2020) brought about an increase of the debt to GDP ratio in advanced economies of 19.2 percentage points (to 124 per cent of GDP), 9.9 percentage points in emerging markets, and 5.3 percentage points in poor economies. Obviously fiscal deficits were the biggest in advanced economies. In the second pandemic year (2021) budget consolidation started, as did recovery, hence the change of the debt to GDP ratio in all three groups of countries for that year was negligible. In short, the level of government debt, measured as debt to GDP ratio, has substantially increased due to the pandemic.

The other legacy of the macroeconomic policies aimed at combatting the pandemic-induced recession is inflation. Monetary expansion, massive amounts of quantitative easing and helicopter money, have led to substantially increased inflation rates. After decades of negligible inflation rates (even deflation in some years and in some countries/monetary areas), in 2021 the year-on-year inflation rate was around 5 per cent in most countries, reaching as high as 10 per cent in some (IMF 2022a). A substantial segment of the population of advanced economies has never witnessed such price increases. The inflation was even augmented in 2022, mainly as an effect of the war in Ukraine, economic sanctions against Russia, and the consequent increase in energy and food prices. Whatever the source of inflation, the textbook appropriate remedy of the central banks is to increase interest rates, therefore, after years of zero bound interest rates there has been a universal increase of them. This makes the two macroeconomic legacies intertwined. For years the substantial debt burden was generally easy serviceable because low, zero-bound interest rates. Now, with the ongoing increase of interest rates and therefore the increase the slice of GDP that is used to service the debt (the interest payment portion of it), the sovereign debt sustainability of many countries will be at risk. It is uncertain whether this will produce more sovereign defaults in the future, but it will inevitably impact economic growth. Although the relation between the level of sovereign debt and economic growth is controversial up to a certain point (Abbass *et al.* 2020), there is no doubt that increased outlays for interest payments slows down the pace of economic growth.

It was Paul Krugman who, according to Tooze (2021b), commented in 2012: 'If it were announced that we faced a threat from space aliens and needed to build up to defend ourselves [the USA – remark by BB], we'd have full employment in a year and a half'. For Krugman, the major if not the only problem of the modern (American) economy has been insufficient aggregate demand and the lack of full employment thereof. The rationale for the quip is that such an invasion would break all political constraints to massive public expenditures, both consumption and transfers, and the substantial fiscal deficits. Again, according to Tooze (2021a), who is a vivid Keynesian, the aliens came in the form of COVID-19 pandemic. Indeed, all the political constraints for massive public expenditures and fiscal deficits were broken due to the pandemic. Nonetheless, what the USA and the rest of the world are left with is high inflation and increased public debt. So much for 'Keynesianism on steroids' thinking – purported by Krugman and Tooze.

This is not to say that the surge in government expenditure, fiscal deficits, and loose monetary policy, channelled through quantitative easing, was wrong. Far from that. This macroeconomic intervention was necessary and

made it possible for the world to not plunge into depression, but rather experience only a short recession and fast recover from it – the V-shaped curve scenario. It was unconventional macroeconomic policies, such as wage subsidies, equity (cash) injections, helicopter drops of liquid assets, and loan guarantees, that proved to be timely and effective (Cespedes *et al.* 2020). But this was a firefight operation. It was unavoidable and, in most countries, swift and decisive, although too excessive in hindsight. Nonetheless, there is substantial smouldering debris after such an operation. And the world will have to live with that debris. Incidentally, it is another ongoing crisis (the war in Ukraine and the economic sanction against Russia) that will make the pile of debris even higher.

## 8. CONCLUSION

The impact of the pandemic on economic growth was sharp, with a sudden and deep decline of the economic activity, followed by a complete and swift recovery, described by V-shaped curve of economic activity. Both the supply and the demand side contributed to this dynamic, based on the same factors (morbidity and mortality, behavioural effects, and government pandemic control measures: social distancing and lockdowns), although with quite distinctive mechanisms of impact for each side. It has been demonstrated that neither morbidity nor mortality were significant factors in the supply and demand dynamics. It was the uncertainty of economic agents, both on the supply and the demand, side that was decisive for the sudden drop in the level of economic activity. Once economic agents became accustomed to the pandemic, government pandemic control measures and macroeconomic policies – the global economy started to recover.

The economic lessons gained from the COVID-19 pandemic were learned in hindsight and they are not thorough, since the economic fallout of the pandemic will remain for decades to come. Perhaps the most important economic lesson is that a swift, massive and comprehensive government macroeconomic intervention was decisive for the world not to slide into depression. Nonetheless, this intervention created a legacy of inflation and increased sovereign debt. It created another legacy – big government is back. After this success, the confidence of the people in big government (huge, unbalanced budgets, massive subsidies, and transfers, etc.) is substantial. Small-state thinking is in retreat – it is not widespread at the present. The success of the governments in curbing inflation in the future will be crucial for keeping confidence in big government alive.

An unintended side-effect of the COVID-19 pandemic is massive production of academic articles on the various consequences of the pandemic and on the general economic effects of modern infectious diseases. This academic effort, based on big databases and empirical research, have moved the frontier of knowledge in economics and enable us to better understand human behaviour in adversity. It is rather useful knowledge given the likely prospects of pandemics in a globalised world.

Nonetheless, there are some areas that will require more research in due time. The most important area is the impact of the COVID-19 pandemic on human capital. The long run effects of COVID-19 are still unclear. It is also unclear what will be its impact on the children born during the pandemic, especially if the mother was infected during gravidity. Furthermore, the education process has been thoroughly disrupted during the pandemic, distance learning has become almost a standard, and the quality of this type of education is still unclear. We will empirically learn more about it in years to come.

The pandemic provided a grand entrance to working from home and generally remote working. These working practices are undoubtedly here to stay, but it is unclear which areas of work will be affected and to what extent. It is an open question how that will affect the office and the demand for business premises – and even the spatial organisation of cities. It is evident that online business meetings have become a more than reasonable substitute for most business travel and that new online substitutes for leisure travel have emerged. With the new cost functions of many firms and changed preferences of many people, innovations in this area are happening at the frantic pace, therefore these developments should be monitored and analysed, especially factors that will affect the future.

The unprecedented race to the develop an effective vaccine that was one of the responses to the pandemic. Although it is hailed as a success, more analysis is needed regarding the intellectual property rights arrangements and whether there is an arrangement superior to the current one. Furthermore, the distribution of the vaccine and the inoculation process should be researched in detail, especially considering the public good component of the inoculation. What is uncertain and warrants attention is the intensity of the spill-over effects from the innovations focused on the COVID-19 vaccine on other pharmaceutical products and the analysis of the factors that affect these spill-overs.

The future of globalisation is unclear. It is evident that the COVID-19 pandemic has highlighted a number of risks associated with globalisation. It is also beyond doubt that the pandemic provided fuel for populist,

anti-globalisation movements around the world. Nonetheless, the (future) impact of these developments remain unclear. To what extent they will slow down globalisation and even reverse it remains to be seen. This will be an interesting area for political economy analysis.

In the more academic economic focus, the COVID-19 pandemic is a great natural experiment that can be used in much empirical research as an undoubtedly exogenic change of the economic environment. Academic economists will have opportunity and moral obligation to conduct more research and offer a better understanding of the world we live in. Whether they will rise to the occasion is something only time will tell.

## REFERENCES

- [1] Abbas, S. Ali, Alex Pienkowski, Kenneth Rogoff (eds.). 2020. *Sovereign Debt: A Guide for Economists and Practitioners*. Oxford: Oxford University Press.
- [2] Acemoglu, Daron, Alireza Tahbaz-Salehi. 2020. Firms, Failures, and Fluctuations: The Macroeconomics of Supply Chain Disruptions. NBER Working Paper 27565.
- [3] Adams-Prassl, Abi, Teodora Boneva, Marta Golin, Christopher Rauh. 2020. Inequality in the Impact of the Coronavirus Shock: Evidence from Real Time Surveys. *Journal of Public Economics* 189: 104–245.
- [4] Almond, Douglas. 4/2006. Is the 1918 Influenza Pandemic Over? Long-Term Effects of in Utero Influenza Exposure in the Post-1940 U.S. Population. *Journal of Political Economy* 114: 672–712.
- [5] Alon, Titan, Minki Kim, David Lagakos, Mitchell VanVuren. 2020. How Should Policy Responses to the COVID-19 Pandemic Differ in the Developing World? NBER Working Paper 27273.
- [6] Angelopoulos, Anastasios Nikolas, Reese Pathak, Rohih Varma, Michael Jordan. 2020. On Identifying and Mitigating Bias in the Estimation of the COVID-19 Case Fatality Rate. *Harvard Data Science Review*. Special Issue 1: COVID-19. <https://doi.org/10.1162/99608f92.f01ee285>.
- [7] Baker, Scott R., Nicholas Bloom, Steven J. Davis, Stephen J. Terry. 2020. COVID-Induced Economic Uncertainty. NBER Working Paper 26983.
- [8] Baldwin, Richard. 2016. *The Great Convergence: Information Technology and the New Globalization*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

- [9] Balleer, Almut, Sebastian Link, Manuel Menkhoff, Peter Zorn. 2020. Demand or Supply? Price Adjustment during the COVID-19 Pandemic. *COVID Economics* 31: 59–102.
- [10] Baqaee, David, Emmanuel Farhi. 5/2022. Supply and Demand in Disaggregated Keynesian Economies with an Application to the COVID-19 Crisis. *American Economic Review* 112: 1397–1436.
- [11] Barrero, Jose Maria, Nicholas Bloom, Steven J. Davis. 2020. COVID-19 Is Also a Reallocation Shock. NBER Working Paper 27137.
- [12] Barro, Robert, José F. Ursúa, Joanna Weng. 2020. The Coronavirus and the Great Influenza Epidemic: Lessons from the “Spanish Flu” for the Coronavirus’s Potential Effects on Mortality and Economic Activity. NBER Working Paper 26866.
- [13] Begović, Boris. 1/2021. Ekonomske posledice španske groznice, *Analiz Pravnog fakulteta u Beogradu* 68: 122–158.
- [14] Bloom, David E., Simiao Chen, Michael Kuhn, *et al.* 2020. The Economic Burden of Chronic Diseases: Estimates and Projections for China, Japan, and South Korea. *Journal of the Economics of Ageing* 17: Article 100163.
- [15] Bloom, David E., Michael Kuhn, Klaus Prettnner. 1/2022. Modern Infectious Diseases: Macroeconomic Impact and Policy Responses. *Journal of Economic Literature* 60: 85–131.
- [16] Bosshart, Luis, Jeremiah Dittmar. 2021. Pandemic Shock and Economic Divergence: Political Economy Before and After the Black Death. Centre for economic Performance Discussion Paper No. 1805. London: London School of Economics.
- [17] Brinca, Pedro, Joao B. Duarte, Miguel Faria-e-Castro. 2020. Measuring Sectoral Supply and Demand Shocks during COVID-19. *COVID Economics* 20: 158–82.
- [18] Brodeur, Abale, David Gray, Anik Islam, Suriya Bhuiyan. 2021. A Literature Review of the Economics of COVID-19. *Journal of Economic Surveys* 35: 1007–1044.
- [19] Brotherhood, Luiz, Philipp Kircher, Cezar Santos, Michèle Tertilt. 2020. An Economic Model of the COVID-19 Epidemic: The Importance of Testing and Age-Specific Policies. IZA Discussion Paper 13265.
- [20] Bourzac, Katherine. 2020. COVID-19 Lockdowns Had Strange Effects on Air Pollution across the Globe. *Chemical & Engineering News* 98. 28 September.

- [21] Céspedes, Luis Filipe, Roberto Chang, Andrés Velasco. 2020. The Macroeconomics of a Pandemic: A Minimalist Model. NBER Working Paper No. 27228. National Bureau of Economic Research, Cambridge, MA.
- [22] Case, Anne, Angus Deaton. 2021. *Deaths of Despair and the Future of Capitalism*. Princeton and Oxford: University Press.
- [23] Ciravegna, Luciano, Snezhina Michailova. 2022. Why the World Economy Needs, but Will Not Get, More Globalization in the Post-COVID-19 Decade, *Journal of International Business Studies*, 53: 172–186.
- [24] Clark, Gregory. 1/2007. The Long March of History: Farm Wages, Population, and Economic Growth, England 1209–1869. *Economic History Review* 60: 97–135.
- [25] Coelho, Flávio. C., Raquel M. Lana, Oswaldo G. Cruz, *et al.* 2020. Assessing the Spread of COVID-19 in Brazil: Mobility, Morbidity and Social Vulnerability. *PloS One* 15(9): e0238214.
- [26] Deb, Pragyant, Davide Furceri, Jonathan D. Ostry, Novak Tawak. 1/2022. The Economic Effects of COVID-19 Containment Measures, *Open Economies Review* 33:1–32.
- [27] Didier, Tatiana, Federico Huneeus, Mauricio Larrain, Sergio L. Schmukler. 2021. Financing Firms in Hibernation during the COVID-19 Pandemic. *Journal of Financial Stability* 53: 100837.
- [28] Eichenbaum, Martin S., Sergio Rebelo, Mathias Trabandt. 2020a. The Macroeconomics of Epidemics. NBER Working Paper 26882.
- [29] Eichengreen, Barry. 2018. *The Populist Temptation: Economic Grievance and Political Reaction in the Modern Era*. Oxford: Oxford University Press.
- [30] Elenev, Vadim, Tim Landvoigt, Stijn Van Nieuwerburgh. 2020. Can the COVID Bailouts Save the Economy? NBER Working Paper 27207.
- [31] Fan, Ying, A. Yeşim Orhun, Dana Turjeman. 2020. Heterogeneous Actions, Beliefs, Constraints and Risk Tolerance during the COVID-19 Pandemic. NBER Working Paper No. 27211. Cambridge, MA: National Bureau of Economic Research.
- [32] Fetzer, Thiemo, Christopher Rauh. 2022. Pandemic Pressures and Public Health Care: Evidence from England. CAGE Working Paper No. 067. Warwick: University of Warwick.



- [33] Fetzter, Thiemo R., Marc Witte, Lukas Hensel, *et al.* 2020. Global Behaviors and Perceptions at the Onset of the COVID-19 Pandemic. NBER Working Paper No. 27082. National Bureau of Economic Research, Cambridge, MA.
- [34] Forsythe, Eliza, Lisa B. Kahn, Fabian Lange, David Wiczer. 2020. Labor Demand in the Time of COVID-19: Evidence from Vacancy Postings and UI claims. *Journal of Public Economics*, 189, 104238.
- [35] Furceri Davide, Prakash Loungani, Jonathan D. Ostry, Peitro Pizzuto. 2022. Will COVID-19 Have Long-Lasting Effects on Inequality?: Evidence from Past Pandemics, *Journal of Economic Inequality*. <https://doi.org/10.1007/s10888-022-09540-y> (last visited 28 November, 2022).
- [36] Glaeser, Edward, David Cutler 2021. *Survival of the City: Living and Thriving in an Age of Isolation*. London: Allan Lane.
- [37] Glover, Andrew, Jonathan Heathcote, Dirk Krueger, José-Víctor Ríos-Rull. 2020. Health versus Wealth: On the Distributional Effects of Controlling a Pandemic. Penn Institute for Economic Research Working Paper 20-014.
- [38] Gourinchas, Pierre-Olivier. 2020. Flattening the Pandemic and Recession Curves. Mitigating the COVID Economic Crisis: Act Fast and Do Whatever. 31–39 In *Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes*, edited by Richard Baldwin and Beatrice Weder di Mauro. London: CEPR Press.
- [39] Guerrieri, Veronica, Guido Lorenzoni, Ludwig Straub, Iván Werning. 5/2022. Macroeconomic Implications of COVID-19: Can Negative Supply Shocks Cause Demand Shortages? *American Economic Review* 112: 1437–1474.
- [40] He, Guojun He, Yuhang Pan, Takanao Tanaka. 2020. The Short-Term Impacts of COVID-19 Lockdown on Urban Air Pollution in China. *Nature Sustainability* 3: 1005–1011.
- [41] IMF. 2019. *World Economic Outlook, October 2020: Global Manufacturing Downturn, Rising Trade Barriers*. Washington, DC: International Monetary Fund.
- [42] IMF. 2020. *World Economic Outlook, October 2020: A Long and Difficult Ascent*. Washington, DC: International Monetary Fund.
- [43] IMF. 2021. *World Economic Outlook, October 2021: Recovery During a Pandemic: Health Concerns, Supply Disruptions, and Price Pressures*. Washington, DC: International Monetary Fund.

- [44] IMF. 2022a. *World Economic Outlook, October 2022: Countering the Cost-of-Living Crisis*. Washington, DC: International Monetary Fund.
- [45] IMF. 2022b. *Fiscal Monitor, October 2022: Helping People Bounce Back*. Washington, DC: International Monetary Fund.
- [46] Jedwab, Remi, Noel D. Johnson, Mark Koyama. 1/2022. The Economic Impact of the Black Death. *Journal of Economic Literature* 60: 132–178.
- [47] Kang, Seung-Ji, Sook In Jung. 2/2020. Age-Related Morbidity and Mortality among Patients with COVID-19. *Infection and Chemotherapy* 52: 154–164.
- [48] Kuhn, Michael, Klaus Prettnner. 1/2018. Population Age Structure and Consumption Growth: Evidence from National Transfer Accounts. *Journal of Population Economics* 31: 135–53.
- [49] Lagadinou, Maria, Eirini Kostopoulou, Ageliki Katarzy, *et al.* 2021. The Prolonged Effects of COVID-19: A New “Threat”?, *European Review for Medical and Pharmacological Sciences*, 25: 4611–4615.
- [50] Lau, Hien, Tanja Khosrawipour, Piotr Kocbach, *et al.* 2021. Evaluating the Massive Underreporting and Undertesting of COVID-19 Cases in Multiple Global Epicenters. *Pulmonology* 27: 110–15.
- [51] Lucas, Robert E. Jr. 1988. On the Mechanics of Economic Development. *Journal of Monetary Economics* 22 (1): 3–42.
- [52] Maddison, Angus. 2003. *The World Economy: Historical Statistics*. Paris: OECD Development Centre.
- [53] Mathieu, Edouard Hannah Ritchie, Lucas Rodés-Guirao, Cameron Appel. 2020. Coronavirus Pandemic (COVID-19). OurWorldInData.org. <https://ourworldindata.org/coronavirus> (last visited 28 November, 2022).
- [54] Murrey, Christopher J.L., Alan D. Lopez, Brian Chin, *et al.* 2006. Estimation of Potential Global Influenza Mortality on the Basis of Vital Registry Data from the 1918–1920 Pandemic: A Quantitative Analysis. *Lancet* 368: 2211–2218.
- [55] Richards, Robin. 2020. Evidence on the Accuracy of the Number of Reported COVID-19 Infections and Deaths in Lower-Middle Income Countries. K4D Helpdesk Report. London: DIFID.
- [56] Schwarz, Viktoria, Felix Mahfoud, Lucas Lauder, *et al.* 2020. Decline of Emergency Admissions for Cardiovascular and Cerebrovascular Events after the Outbreak of COVID-19. *Clinical Research in Cardiology* 109: 1500–1506.

- [57] Taubenberger, Jeffery K., David M. Morens. 1/2006. 1918 Influenza: The Mother of All Pandemics. *Emerging Infectious Diseases* 12: 15–22.
- [58] Tooze, Adam. 2021a. *Shutdown: How Covid Shook the World's Economy*. London: Allen Lane.
- [59] Tooze, Adam. 8/2021b. The Gatekeeper, Krugman's Conversion. *London Book Review* 43.
- [60] Vos, Theo, Sarah Wulf Hanson, Cristiana Abbafati, *et al.* 16/2022. Estimated Global Proportion of Individuals with Persistent Fatigue, Cognitive, and Respiratory Symptoms Cluster Following Symptomatic COVID-19 in 2020 and 2021. *Journal of American Medical Association* 328: 1604–1615.
- [61] Wang, Haidong, Katherine R Paulson, Spencer A Pease, *et al.* 2022. Estimating Excess Mortality Due to the COVID-19 Pandemic: A Systematic Analysis of COVID-19-Related Mortality, 2020–21. *Lancet* 399: 1513–1536.
- [62] Whittaker, Charles, Patrick G.T. Walker, Mervat Alhaffar, *et al.* 2021. Under-Reporting of Deaths Limits Our Understanding of True Burden of COVID-19, *British Medical Journal* 375: n2239.
- [63] WHO. 2021. *Global Report on Health data Systems and Capacity, 2020*. Geneva: World Health Organization.
- [64] Yassenov, V. I. 2020. Who Can Work from Home? IZA Discussion Paper No. 13197. Institute of Labor Economics. <http://ftp.iza.org/dp13197.pdf> (last visited 28 November, 2022).

Article history:

Received: 20. 9. 2022.

Accepted: 30. 11. 2022.



UDC 616.98:578.834]:342.722-055.1/.2; 305-055.1/.2

CERIF: S 112, S 150, S 155

DOI: 10.51204/Anali\_PFBU\_22403A

**Dragica VUJADINOVIĆ, PhD\***

## **THE WIDENING GAP BETWEEN PROCLAIMED GENDER EQUALITY AND REAL STATE OF AFFAIRS IN TIMES OF COVID-19 PANDEMIC**

*A premise of this article is that the existing gap between the advanced gender equality normative framework and the state of gender equality in real life has widened in times of crises, including the COVID-19 pandemic.*

*The background theoretical-methodological framework is presented in the introduction. The first chapter presents progressive gender equality achievements in the normative and strategic international, European and national framework. The next chapter explains why all crises have been worsening gender (in)equality in real life and even within the scope of already achieved rights. The third chapter outlines the negative impacts of COVID-19 on gender equality and living conditions of women globally, in the EU and Serbia. The fourth chapter addresses how the COVID-19 pandemic could contribute to*

---

\* Professor, University of Belgrade Faculty of Law, Serbia, [dragicav@ius.bg.ac.rs](mailto:dragicav@ius.bg.ac.rs).

*advancing gender equality. The conclusion sums up the main topics of analysis and considers challenges related to the pandemic's possible positive impacts on gender equality.*

**Key words:**      *Gender equality. – Patriarchy. – Gender discrimination. – Intersectional discriminations. – Pandemic.*

## 1. INTRODUCTION

The advanced gender equality normative framework within international human rights law, which has been expressed also in strategic and policy-making documents and incorporated in national legislations, has been in a state of discrepancy with, to a certain extent, still persisting hierarchical power relations, subordination, and gender inequality in real life. These phenomena represent manifestations of patriarchy, which has been counterpoised to tendencies of emancipation in the contemporary context. Real life nowadays has been characterized by the dialectic of patriarchy and its overcoming. The main premise of this paper is that the mentioned gap, which as a rule has existed globally and locally, becomes much wider and deeper in times of crisis, including during the current pandemic crisis.

The background premises of feminist critical analysis aim to outline the historical and theoretical-methodological framework for understanding the mentioned dialectic of patriarchy and emancipation and they include several additional layers of analysis, such as the overlapping between gender-based discrimination and other modalities of discrimination (issue of intersectional discrimination), and the impacts of all social crises on declining emancipatory trends and increasing patriarchal ones.

The political-historical and theoretical background framework of this analysis is summed up in the following premises:

- Premodern societies all feature heteronomous social relations and specific forms of personal and political dependency among the subordinated social strata. During the entire premodern history, the logic of patriarchal subordination and discrimination of women had been dominant. Patriarchy has remained the dominant model of social relations, constituted by hierarchy, power relations, subordination of women, personal and political dependency, and accompanied by a system of values that had devaluated women in all pre-modern societies. Modernity was the first historical epoch that brought emancipatory

tendencies and led to the establishing of the dialectic of patriarchy and emancipation, i.e., manifestations of hierarchical power relations and attempts toward their overcoming in favor of gender equality.

- When attempting to analyze the contemporary position of women, it is necessary to take into consideration each concrete case of gender relations in the context of the concrete-historically determined dialectic of patriarchy and emancipation. This means that the mentioned mutually counterpoised civilizational tendencies have been differently manifested in particular cultures, regions, societies, social groups and social strata.

Concerning these two background premises, it is important to bear in mind that modern and contemporary society have brought about epochal changes, which have enabled the civilizational step forward toward overcoming patriarchy and the gradual establishing of gender equality. Factors of industrial and political revolutions in Western civilization contributed significantly to ideas and practices of establishing political and economic independence of the individual and universal equality of all individuals. When reading the Declaration of the Rights of Man and of the Citizen, women recognized their own rights among the equal rights of the man and the citizen, and their attempts that the rights of females to vote and education be recognized had prompted the emergence of suffragette movements. After the Second World War and the legacy of the Holocaust, the UN Universal Declaration of Human Rights of 1948 indicated processes of focusing international law on human rights, universal equality and equal concern for the dignity of each individual (see, for example, Moyn 2010, 12–13; Corradetti 2012, XV). These were foundations for the constant advancing of the normative and strategic gender equality framework in later decades of the 20<sup>th</sup> and 21<sup>st</sup> centuries (Vujadinović 2019; Vujadinović 2020). The processes of establishing widespread education and ever more widespread exiting of women from the private sphere and their entering the public sphere of work, politics, culture, as well as emerging of new social movements, including feminist ones, have contributed to the constant advancement and enrichment of the emancipatory tendencies of gender equality. Due to the processes of internationalization and globalization in economics, politics, law, culture, and mass media, the mentioned dialectic has been omnipresent, but always in a contextually determined manner.<sup>1</sup> On

---

<sup>1</sup> The merit of the civilizational advancement of gender equality has differed a lot within the global contemporary real-life context. There are huge differences in the scope of women's emancipation, depending on where they were born and in which conditions their private and public life have been conducted. In other words, an

the other hand, the processes of globalization have not been followed only by the reproduction of the inherited “old” patriarchy, but also by appearance of a “new patriarchy” (see, for example, Vujadinović 2017; Campbell 2013). Within different manifestations in different contexts of the dialectic of patriarchy and emancipation, the overlapping of different modalities of discrimination has been combined with the reproduction of both the “old” and “new” patriarchy. “New” modalities of patriarchy have been linked to neoliberal globalization, and could be also called, as suggested by Campbell, “neoliberal neopatriarchy”. Namely, the rapid globalization and the culture of hyperindividualism in fact led to yet more extreme forms of oppression within precarious working conditions across the globe, i.e., brutal working week conditions for working women, which are institutionalized in the interests of men, due to the fact that women primarily have been encumbered by duties of care. Furthermore, gender-based violence has proliferated and sex trafficking is thriving as the globally lucrative trade (Campbell 2013; Campbell 2014; Higgins 2018). In addition, processes of media tabloidization and trends of sensationalism, social media trends of relativization of the basic values of dignity and respect, and consumerism also contribute to the emergence of new forms of patriarchalism (Vujadinović, Stanimirović 2016).

These insights about the concrete-historical determination of manifestations related to different tendencies of patriarchy and its overcoming, imply the need for introducing the additional premises.

- The concrete-historical approach to contradictory tendencies of patriarchy and emancipation from patriarchy, has to be intersectional in the case of each individual, social group and referential phenomenon. Gender-based discrimination must be combined with other discriminatory factors, i.e., analyzed in the context of other relevant bases of discrimination, such as class, race, religious orientation, cultural heredity, individual and collective systems of values. This theoretical-methodological premise informs us that the critical analysis of gender relations has to be intersectional always, meaning that it

---

intensity of gender (in)equality depends on more or less advanced economic development, on a more democratic or more authoritarian political order, on whether historical heredity and cultural setups have been more or less rigidly designed, on the quality and scope of education, religious affiliation, sexual orientation, race, class, nation, personal educational and economic statuses, etc. However, germs and elements of patriarchy could be found even in the most developed countries, and among most educated and economically independent women within their individual system of values, habits, familial relations, as well as concerning manifestations of discrimination within societal structures in which their public life has been conducted (Vujadinović 2017).



should recognize all mutually overlapping discrimination factors (e.g., race, class, religion, culture) as combined with discrimination based on sex and gender. In the case of countries and regions with a stronger authoritarian political order and/or a rigid religious and traditionalist cultural heredity, there could be proportionally more dominant elements of patriarchy, and more difficulties for emancipatory elements to sustain under rising suppression during any crisis. Subordination of women exists in all social classes and strata within the mentioned circumstances, but the conditions of huge poverty, impoverishment, and hunger, as well as wars, natural catastrophes and crises, have represented additional factors of influence that have a much greater effect on women from lower classes and strata. In short, the burden of gender-based discrimination has been mostly manifested among individuals who have been discriminated against in a multilayered fashion (poor, uneducated, unemployed, encumbered by rigid religious and traditional norms in the private sphere, to the particular dressing code, devoid of the right to education and work, such as Afghanistan women under Taliban rule, economic or even personal dependence on male family members, exposure to violence and rape with impunity, belonging to non-white races, persons with disabilities and LGBTQ+ persons (see, for example, Vujadinović, Stanimirović 2016; Wing 2022; Crenshaw 1989). All these factors or some of them can be cumulated in intersectional discrimination of a female individual.

- The intersectional approach to detecting power relations and all layers of discrimination of women and girls requires not only a concrete-historical approach in each particular case and context, but also demands a constant sensitivity to non-binary persons. Therefore, the need emerges for extending the theoretical-methodological framework in a way that would also take into consideration non-binary and trans-gender modalities of gender relations (see, for example, Verdu 2022; Banović 2022; Saeidzadeh 2022). An openness for all concrete expressions of non-binary gender identities implies theoretical and practical readiness for understanding and protecting the equal human rights of the vulnerable LGBTQ+ population. It has been fully opposite to the pejoratively interpreted “gender ideology”, which is promoted by extreme right-wing academics and right-wing social movements. These opponents of gender and trans-gender equality attempt to derogate the principles of gender equality as well as neglect the human rights of transgender persons and persons of different sexual orientation by designating the struggle for their protection as a false, artificial, imposed “gender ideology” (see, for example, Antonić 2021).

It is also necessary to introduce the premise related to the issue of crises and their impact on gender equality.

- Each crisis opens the space for regressive processes in regard to strengthening patriarchal tendencies and intersectional discrimination of women and girls. The deterioration of living conditions of the female population has happened in every crisis, including during the COVID-19 pandemic.

This premise informs us that the processes of emancipation have been fragile, that they have been hardly achieved and can be lost not so difficultly in both real life and the normative-legal framework. The deterioration of the achieved female rights protection emerges with the establishing of less democratic or authoritarian and totalitarian regimes, as well as with social-political changes that lead to rising emphasis of traditionalism, religious affiliations, inherited habits, and to a certain degree of traditional patriarchal roles of women. Repatriarchalization has been accompanied by processes of clericalization and re-rationalization and always comes with or becomes strengthened by the rising trends of ethnonationalism as well as by outbreaks of conflicts, wars, militarization, and violence in the public and private space (for the case of Serbia in the 1990s, see, for example, Vujadinović 1995).

It could be noted that all crises, which occur in societies because of wars, economic break-downs, and all other possible causes, have as a rule affected women more (see, for example, Browne *et al.* 2014). The patriarchal heredity of millennia of establishing and reproducing subordination of women and their reduction to roles related to family care, child bearing and sustaining everyday life in a private sphere, on the one hand, and linking men to the public sphere and to power relations, with their dominance in both the private and public sphere, on another, has not been overcome up to this day. The patriarchy has been weakened because it lost its unison dominance, i.e., because of being counterpoised in contemporary times by the emancipatory tendencies of overcoming power relations in the public and private spheres. However, patriarchy has persistently existed and reproduced not only within its traditional modalities but also in the new ones; as already mentioned, the so-called “new patriarchy” emerges with the processes of globalization, internationalization, consumerism, tabloidization of the media, and digitalization of social networking. In crises, the manifestations of both the “old” and “new” patriarchy have gained strength and, they, as a rule, pose a threat to previously achieved emancipatory lifestyles and habits, and previously achieved freedoms and rights of women (Campbell 2013). This

also applies to all vulnerable social groups, among which the intersectional mutual overlapping of different bases of discrimination has also been linked to discrimination based on sex and gender (Wing 2022).

In light of the abovementioned background premises focused on the dialectic of patriarchy and emancipation, it is worth commenting the main “discrepancy premise” once again. The statement about the advanced normative framework does not intend to “idealize” the state of international human rights law and its implications on the rights of women and gender equality, while the dialectic of patriarchy and emancipation has been manifested also in the normative legal framework alone, and therefore the regressive processes are always possible again. The opposite statement, about the reproduction of patriarchal heredity in real life today, does not intend to “demonize” the real state of affairs. Emancipatory trends have been constantly present everywhere and are prevalent in more developed democratic societies; they act as a more or less powerful “counter-weight” and they manage to defeat patriarchy in different micro and macro ways, which means creating a spiral of unstoppable progress of gender equality in the contemporary world. However, this last statement must not be “idealized” and taken for granted, because the regressive attempts against gender equality and attacks aimed at abolishing it must always be taken seriously and cautiously.

## **2. CIVILIZATIONAL ADVANCES IN THE NORMATIVE AND STRATEGIC APPROACH TO GENDER EQUALITY<sup>2</sup>**

International human rights law and the most advanced achievements of constitutional democracy have established and promoted the principle of gender equality, while at the same time the reality has been overburdened with contradictory progressive and regressive tendencies.

The attempt of the normative-legal and strategic framework has been to boost and accelerate emancipatory processes in the sphere of gender relations and to enhance, through public policies, the overcoming of the patriarchal heredity in general and in specific states and societies. One of the key findings of the Global Gender Gap Report of the World Economic Forum, from March 2021 is that given its current trajectory, it would take 135.6 years to close the gender gap worldwide (World Economic Forum 2021, 5).

---

<sup>2</sup> Parts of this chapter are taken from Vujadinović *et al.* 2020, 15–25.

The message is clear that it is necessary to stimulate the mentioned process through the normative and strategic context, and with a help of public policies.

The principle of equality between men and women is one of the basic principles of human rights. The United Nations (UN) and its international instruments require its Member States to ensure equal enjoyment of human rights by all. International Covenant on Civil and Political Rights (1966), in addition to the general non-discrimination clause, puts emphasis on gender equality and specifically requires Member States to ensure equal enjoyment of all rights (contained therein) by men and women.<sup>3</sup> This is equally true for the International Covenant on Economic, Social and Cultural Rights, with regards to the second generation of human rights.<sup>4</sup>

Additional impetus for the achievement of gender equality was provided by the Convention on the Elimination of All Forms of Discrimination against Women (1979),<sup>5</sup> which requires Member States to ensure equality between women and men in different fields (Fenelly 2018, 449–455). The obligation to remove the stereotypical perception about the roles of men and women, at all levels and forms of education, through revision of textbooks and educational programs, adjustment of teaching methods, etc., was particularly emphasized.<sup>6</sup> The Member States are also required to eliminate

---

<sup>3</sup> International Covenant on Civil and Political Rights, *Official Gazette of the SFRY – International Agreements*, No. 7/71, Arts. 2–3 & 26.

<sup>4</sup> International Covenant on Economic, Social and Cultural Rights, *Official Gazette of the SFRY – International Agreements*, No. 7/71, Arts. 2–3.

<sup>5</sup> Although the text of the Convention on the Elimination of All Forms of Discrimination against Women (*Official Gazette of the SFRY – International Agreements*, No. 11/81) only mentions discrimination based on sex, the Committee for Elimination of Discrimination against Women is of the opinion that the Convention aims to eliminate all forms of discrimination against women, including gender discrimination (General Recommendation No. 28 on the Core Obligations of States Parties under Article 2 of the Convention on the Elimination of All Forms of Discrimination against Women, CEDAW/C/GC/28, para 5). At the same time, this convention goes beyond the concept of discrimination applied in many international sources of law, because it recognizes the problem of intersectional discrimination against women, which arises from the fact that discrimination based on sex and gender is closely related to other factors of unfavorable treatment of women, such as race, ethnicity, health, age, sexual orientation, and gender identity.

<sup>6</sup> Convention on the Elimination of All Forms of Discrimination against Women, Art. 10.

discrimination against women, in order to guarantee the same employment rights, the same employment opportunities, the same criteria for selection of candidates and free choice of occupation and employment.<sup>7</sup>

Equality between men and women is emphasized as one of the UN 17 Sustainable Development Goals, since discrimination based on sex (and gender) negatively affects economic prosperity, health and wellbeing, both individually and globally.<sup>8</sup>

The principle of equality is also at the core of the standards of the International Labour Organization (ILO), with the most important standards being those relating to equal pay for men and women for equal work or work of equal value (ILO Convention No. 100) and those relating to protection against discrimination in employment and occupation (ILO Convention No. 111).<sup>9</sup>

The Council of Europe adopted *the Convention on Preventing and Combating Violence against Women and Domestic Violence* in 2011, in Istanbul. Issues of preventing and banning the violence against women, including sexual violence, have been the main focus of the Convention (the so-called Istanbul Convention).<sup>10</sup> Addressing the problem of violence against women holistically, the Convention develops complex mechanisms for the fight for women's equality based on the "4 Ps" principle: (integrated) policies, prevention, protection, and prosecution. Integrated policies include the adoption and implementation of effective, comprehensive and coordinated policies, relevant to preventing and combating all forms of violence covered by the Convention.

---

<sup>7</sup> *Ibid.*, Art. 11, para 1, items a–c. These provisions take into account the challenges that women face in accessing dignified and safe employment and prohibit their exclusion from the labor market and certain professions and jobs, for cultural and traditional reasons that exist in certain countries. Women are therefore granted the right to the same employment opportunities as men and the freedom to choose occupation and employment, the right to career advancement, job security, and training, as well as the right to enjoy all rights and benefits related to employment, in order to create the conditions for the effective enjoyment of the right to work for workers of both sexes (Fennelly 2018, 454). In addition, the Convention upholds the obligation to recognize the right to maternity leave and to protect the workers who use it from negative consequences (Art. 11, para 2), and to provide support to working parents, especially mothers, primarily by improving the conditions for childcare (Art. 11, para 1, item f).

<sup>8</sup> *Sustainable Development Goals* (SDGs). 2012. United Nations Conference on Sustainable Development, Rio de Janeiro.

<sup>9</sup> The ILO Declaration on Fundamental Principles and Rights at Work, 1998, para 2.

<sup>10</sup> Convention on Preventing and Combating Violence against Women and Domestic Violence, *Official Gazette of the RS – International Agreements*, No. 12/13.

Process of accession of Serbia to the EU after 2000 has brought to Serbia the streaming toward the best achievements of international law and EU law regarding gender equality. Advancing of the normative and strategic frame within family law, inheritance law and criminal law concerning issues relevant to gender equality has happened in the revised versions of these fields of legal regulation. Within the accession process it is also necessary to establish particular laws against gender inequality and discrimination against women. Gender-based discrimination was prohibited by the Law on Prohibition of Discrimination (2009),<sup>11</sup> while the Law on Equality of Sexes (2009)<sup>12</sup> requires public authorities to pursue an active policy of equal opportunities in all areas of social life.

New versions of these laws were enacted in 2021, and the Law on Equality of Sexes has been renamed the Law on Gender Equality.<sup>13</sup> Law on Gender Equality regulates the issue of gender equality in sixteen fields of social life, and it puts a special focus on prevention of gender-based violence and on prohibition of direct or indirect discrimination on any basis and in any sphere of life. This Law obligates the public authorities of all institutions to pursue a systemic policy for promoting gender equality, to introduce gender sensitive titles, positions and professional affiliations, to start establishing annual plans with particular measures related to gender equality, and to produce annual reports about realized as well as not achieved aims, as put forth in annual plans; the obligation to collect gender sensitive data about employed persons, about persons on leading positions, and reasons for more men being appointed on them, reasons for gender misbalances in recruitment, promotion, career development, as well as regarding salaries (gender pay gap): there are also proposed obligations to collect data about reported sexual harassment, discrimination and gender-based violence. This law includes sanctions for not adopting a plan of special measures and for not producing the annual reports. A person responsible for gender equality has to be appointed in each public institution.

Promoting gender equality and combating gender-based discrimination also represent Serbia's strategic commitments. The key strategic document is the National Strategy for the Promotion of Gender Equality for the period 2016–2020,<sup>14</sup> which identifies gender-sensitive education as one of the

---

<sup>11</sup> Law on Prohibition of Discrimination, *Official Gazette of the RS*, No. 22/09.

<sup>12</sup> Law on Equality of Sexes, *Official Gazette of the RS*, No. 104/09.

<sup>13</sup> Law on Gender Equality, *Official Gazette of the RS*, No. 52, 24 May 2021; Law on Prohibition of Discrimination, *Official Gazette of the RS*, Nos. 22/2009 and 52/2021.

<sup>14</sup> National Strategy for the Promotion of Gender Equality for the period 2016–2020, *Official Gazette of the RS*, Nos. 55/05, 71/05.

special goals within the strategic goal of “Changed gender patterns and improved culture of gender equality”. In October 2021 the Governments adopted the new National Strategy for Gender Equality for the period 2021 to 2030 (Government of Serbia website 2021).

### **3. THE FRAGILITY OF GENDER EQUALITY EMANCIPATORY TENDENCIES IN TIMES OF CRISIS**

Times of crisis have been disadvantageous for the position of women all over the world. Every crisis – whether local or global, whether caused by the natural catastrophes or wars or widespread disease – does return women to a certain extent to the patriarchal matrix of domestic work and caring for the children and the family. Emancipatory processes do falter and retreat toward traditional female roles in each situation of crisis. Every crisis, namely, strengthens the focus on survival and on the search for security and support among the immediate family members and within what is familiar and known. In other words, the focus is on the family and maintaining the given state of affairs or even reverting to tradition and inherited habits. Survival implies an emphasis on the care for the closest family members and material subsistence, i.e., for the elementary upkeep of the family, domestic economy, and providing food and lodging for children. The states of crises impose a reduction of amenities and models of behavior in the struggle for a mere survival and/or stability. The traditional female roles have been extremely advantageous/accommodable for such circumstances and resorting to them happens as a rule. Women accept the mentioned recurrence either voluntary or by the imposed context.

The key point of this seemingly simplified statement has been that the processes of females entering the public sphere in modern and contemporary times, both globally and locally, have had in their background the heredity of millennia of identifying women with their roles of mothers and wives in the private sphere. The processes of emancipation from the deeply rooted patriarchal heredity have been of a short historical duration and have therefore been very fragile. They have been unstoppable in principle, while the civilizational flywheel in their favor has been launched; however, on the other hand, deadlocks and steps backwards have always been possible and do happen.

Establishing gender equality as an opportunity, a reality and a long-lasting aim has represented a historical phenomenon of modernity. Only under the influences of the modern industrial and political revolutions of the 18<sup>th</sup> and 19<sup>th</sup> centuries, widespread education from the early 20<sup>th</sup> century, and

widespread entry into the labor market and subsequently public offices, have women achieved basic human rights, entered the public sphere and many aspects of gender equality have emerged; therefore, only “recently” have we seen the partial cutting of the “umbilical cord” to long pre-modern history that linked women to the private sphere and traditional roles. This “cord” has been only partially cut because of the constant struggle between traditional patriarchal inheritance and emancipatory steps over what happens in each individual woman and man, as well as at the micro and macro level of all institutional and social frames in all contemporary societies (Vujadinović 2017; Vujadinović 2022).

The fragility of gender equality emancipatory tendencies has been the structural one, because each crisis affects women poorly, in a way that dispatches them more easily and quickly, and in greater numbers into the private sphere, to which they belonged by traditional default. Their unpaid work for a huge area of domestic tasks has always been a crucial factor of stabilization and survival during crises (Vujadinović 1995; Browne *et al.* 2014).

The background of this logic lies in a patriarchal matrix that is still strong, which has been diminished and has been significantly overcome in contemporary times, but still exists. Patriarchy persists everywhere, but especially in poorer and more traditionalist societies, and in authoritarian states and societies overburdened with conflicts and wars. In other words, it persists especially in the intersectionally weakened female social strata, i.e., among women who have been simultaneously poor, uneducated, colored, trans-gender, and have been living in impoverished and militarized societies. All this applies to the global, national and local level – and especially in times of crisis.

#### **4. COVID-19 PANDEMIC AND GENDER (IN)EQUALITY**

The current pandemic represents a global, local and individual crisis, which has been reflected in all spheres of life and has caused quite a few negative consequences for everyone, and especially for women.

This pandemic has been ongoing for several years now and it has imposed lockdowns and isolation within homes and families, on all individuals, everywhere and especially during the first two years. Working from home has become predominant. Working from home, in combination with domestic economy, which most often belongs to women due to inherited habits, and an overcrowded presence of family members at home, within the same space



and during unusually long periods of time, has also become the “normalcy”. These new living and working conditions have represented an unexpected and largely shocking experience. Family members have gotten accustomed to separate lives in the times of “normalcy” and much less everyday physical coexistence at home, due to processes of urbanization, separation of the workplace from the residence, as well as due to contemporary high mobility trends and emphasized dynamics of individualized lives. In short, they have been disaccustomed to spending abundant time together at home and within the family, especially under lockdown circumstances.

The pandemic crisis has brought into question established models of contemporary living; it has imposed locking individuals into the family circle in combination with working from home. Many divisions between the private life of an individual and their public behavior and activities, the individualized lifestyles of family members, have been relativized and collapsed under the imposition of collectivity while being locked in the home space. Children’s education from home has placed a greater burden on parents, especially mothers, in regards of helping in fulfilling school tasks and duties. Too many activities, covering too much of every day and during an extensive period of time, have overlapped within the home, which previously used to be primarily associated with the gathering of family members outside of working hours and at night. Comparatively speaking, many more persons must accept staying at home for much longer, regardless of whether the home space is large or small. Conflicts have been appearing, and previously conflicting relations have experienced heightened tension. There has been an increase in mental breakdowns, family violence, threats to children from violence in the family and more often from their fathers, threats to women from their partners, as well as endangerment of elderly people, and persons with disabilities from family members and within institutions of care. Of course, this does not mean that in times of crises, including this one, there are not also examples of increased solidarity and strengthening of interrelations within families and in general.

Oxfam International, a global movement for fighting inequality, poverty and injustice, had conducted a study on 14.3 million people in 68 countries. Oxfam reported indicative results related to impacts of the pandemics onto female population, in the document which title already sends an important message. The title *Five Ways Women and Girls have been hardest hit by Covid-19* (Oxfam International 2021), clearly implies a worse position of the female population compared to the male population, in the context of the pandemic. The main premise is that a backlash against women’s rights has occurred in many countries, and made things more difficult, particularly for women in a situation of poverty and vulnerability. In addition, the

pandemic crisis has torn away the gains of the past. Working conditions have worsened, much more precarious work has fallen to women. The pandemic has disproportionately pushed women out of employment, and therefore reversed decades of progress in female participation in the labor force. “Globally, women are overrepresented in the sectors of the economy that have been hardest hit, such as accommodation and food services. They are also much more likely to be in precarious and vulnerable employment. In low-income countries, 92% of women work in jobs that are informal, dangerous, or insecure and have faced the lack of access to social protection or safety nets” (Oxfam International 2021). At the global scale, 740 million women work in the informal sector, and the outbreak of the pandemic has caused a sharp fall in their income. From the time of the onset of the pandemic, it is estimated that more than 470 million of women have been pushed into severe poverty. A sharp decline in ensuring healthcare and especially reproductive healthcare has occurred, therefore increasing the risk of unwanted pregnancies, sexually transmitted diseases, and complications during pregnancy, delivery and abortions. “There are global predictions of up to 7 million unintended pregnancies worldwide due to COVID-19 and its measures” (Oxfam International 2021). Forecasts indicate that by 2030 there will be 13 million more child marriages, due to school closures and increased poverty. There are also estimates that the pandemic and rise of poverty, combined with the decline in girls’ education, will lead to the loss most of the advancements in education achieved in the past twenty years. This study also points that burden of unpaid work has been even greater than usually. “Women have kept the world running during the Covid-19 response, picking up the care workload in clinics, in homes and at the workplace. Globally, women make up 70% of the health and social care workforce. They are also most of the domestic workers in the world. While these jobs are essential for the pandemic response, they have long been undervalued and poorly paid, putting these women essential workers at greater risk of being exposed to the virus themselves.” (Oxfam International 2021) Oxfam research indicates that unpaid care work has become even much more intensive. Namely, prior to the COVID-19 pandemic, women and girls were already spending 12.5 billion hours per day on unpaid care work, however, lockdowns, illness, and school closures have increased their unpaid work dramatically. Indicative is that among those overburdened by unpaid work are single mothers, women living in poverty, and racially and ethnically discriminated groups. This research also points to the fact that women have been more exposed to hunger. “Women play a crucial role in the global food system as producers, as workers on plantations and in processing plants. Women are also typically responsible for buying and cooking food for the family. Yet on every continent the prevalence of food insecurity is higher for

women than for men” (Oxfam International 2021). Women are first to go hungry with the lockdowns, because of the pay gap, higher job insecurity, prevalent social norms, and their readiness to “first skip meals or eat smaller portions”. Restrictions of movement and being closed within the home has resulted in a rapid increase in violence against women and girls. At the same time support services have decreased their activities, and preventing and punishing of violence perpetrators has become less present. In addition, the increase in domestic violence becomes even greater in conditions of conflict. “In conflict-affected countries, the coronavirus pandemic adds an additional level of threat and insecurity for women, girls and non-binary people linked to rising social and economic pressures and lockdown measures” (Oxfam International 2021). The Oxfam analysis also points to the fact that women were absent in the mainstream decision-making in regards of the lockdown measures, and there was also reduced civil society activism and women’s organizations were restricted in spreading their voice. As a consequence, the intersectional approach to COVID-19 was missing from the policy measures, in the sense that “much of the global response to pandemic has not considered the gendered, intersectional impacts, with women in poverty and vulnerability, racialized, young and in reproductive age etc. having been more affected.”

#### **4.1. COVID-19 Pandemic and European Union – Issue of Gender (In) Equality**

In March 2021 the European Commission published a report (European Commission 2021) on the impacts of the COVID-19 pandemic on gender equality in the EU. The results indicated very negative impacts. Namely, in Europe as well as across the world the pandemic caused a widening of already existent gender inequalities in almost all spheres of life, therefore stopping advancements and reversing already achieved improvements. The deterioration of family violence has been dramatic in the EU. All member states have reported rising trends of domestic violence. For example, in France during the first week of the lockdown, there was a 32% increase in violence, in Lithuania the rise was 20% in the three first weeks of isolation. Ireland reported a five-fold increase in domestic violence, and Spain reported an increase of 18%. Besides the surge in violence, negative trends are obvious in the labor market, with women overrepresented in sectors that are impacted the worst by the crisis. Namely, they make up 76% of healthcare and social care employees, and 86% in personal care in health services workers. As a result, women “were at the frontline tackling the pandemic”, and they faced in the mentioned sectors “an unprecedented rise

in workload, health risk and challenges to work-life balance“. Women were additionally hard hit in the labor market, while they had more difficulties in reentering the labor market during the partial recovery, in the summer 2020, when employment rates rose more for men than women. More than 2.2 million women lost their jobs since the outbreak of the pandemic, and proportionally compared to men, half as many women returned to their jobs during the mentioned recovery.

The European Commission report also indicates the lockdown's negative impact on unpaid care and work-life balance: “on average, women spent 62 hours per week caring for children (compared to 36 hours for men) and 23 hours per week doing housework (15 hours for men).“ And again, like as in the Oxfam International report, the European Commission reports a striking lack of women in COVID-19 decision-making bodies: “Of 115 national dedicated COVID-19 task forces in 87 countries, including 17 EU Member States, 85.2% were made up mainly of men, 11.4% comprised mainly women and only 3.5% had gender parity. [...] At the political level, only 30% of health ministers in the EU are women.“

As stated above, 62 hours of women's childcare work per week, against 36 hours for men, and 23 hours against 15 hours in unpaid work per week, indicates a huge work-leisure misbalance. The closing of schools and many services, created much greater pressure on women, in different ways but with similar consequences for unemployed women and those who lost their job, but also for women who continued working from home, with the duty to additionally cover child care and learning from home, as well as taking care of feeding, hygiene within the family life, and often combined with care for elder family members in the home or out of the home (European Commission 2021).

The worsening working conditions for women in the labor market had also a very controversial consequence on the overlapping social and economic dimensions of intersectional discrimination, in the sense that the gap among women alone has widened – between women who are poor and less paid for care and services work, or who have lost their job, on the one hand, and women who have been on higher scales of salaries and have a better starting position for working from home (and generally for working). This gap has been additionally boosted by the gap in the digital sphere, where poor women have much fewer opportunities to achieve digital literacy and gain resources for digital work and, therefore, do not have opportunities to work in better-paid jobs from home. On the other hand, care services and jobs cannot be transformed into online modalities (Jepsen 2021).

The Index of Gender Equality in the EU for 2021 (European Institute for Gender Equality 2021) covers a range of indicators in the domains of society and life affected the most by the COVID-19 crisis. It shows significant worsening of indicators in different dimensions in the domains of work, money, knowledge, time, power and health. The interrelation of the COVID-19 pandemic and generally health, on one hand, and gender equality on another, indicates that women have been unproportionally represented in healthcare and, consequently, have been much more exposed to the impacts of the virus and in danger of contracting the disease. Healthcare workers have also faced mental disorders under pressure of the work overload and witnessing the suffering and dying of patients and care workers. Fertility rates dropped, especially in the countries most affected by the pandemic. Economic insecurity and the rise of unpaid women's care work, in combination with diminished access to sexual and reproductive health services have resulted in the postponement of plans for having children or abandonment of the idea of having children at all. The intersection of gender and health has the following conclusion: "Gender inequalities and gender norms intersect with socioeconomic, geographic, and cultural factors and create structural barriers when accessing healthcare. As highlighted in the domain of health, several population groups, such as lone parents, older people, migrants and people with disabilities, and women in particular, stand out as highly vulnerable to unmet healthcare needs" (European Institute for Gender Equality 2021, 103).

#### **4.2. COVID-19 Pandemic and Serbia – Issue of Gender (In)Equality**

The study conducted by the association Women's Platform for the Development of Serbia (Pajvančić *et al.* 2020), contains relevant conclusions. One of them is that the declaration of a state of emergency was questionable from a constitutional point of view, with a special problem related to the fact that the National Assembly had been excluded from deciding on declaring and lifting the state of emergency. The measures for combatting COVID-19 were gender-blind, and among them very few were related to the vulnerable groups. Certain measures for supporting vulnerable groups (among which women have been most represented) were enacted only following intervention by civil society and the Commissioner for Equality and the ombudsperson. The pandemic has strongly expressed and widened the existing inequalities and clarified the meaning of "vulnerability". The most affected were those invisible to the system, the poor, persons with disabilities, the unemployed and informally employed, and among them there are mostly women. Employed women, who had to work from home

or in healthcare and different services jobs, experienced a worsening of life and working conditions, because they bore also the burden of intensified domestic obligations (food, care for the elderly, children, schoolwork), as well as because of their widespread employment in jobs mostly exposed to the virus (healthcare, sanitation, etc.) (Pajvančić *et al.* 2020, 11). Lockdown measures most severely affected women over the age of 65, while the lack of movement and physical activities caused additional health problems. Also, systemic supplying support was absent, and voluntary support was poor and inefficient, to say the least (Pajvančić *et al.* 2020, 163). A special problem was that the state of emergency made even more difficult the position of women exposed to domestic violence, while the systemic measures for reporting violence in lockdown circumstances were not created. Furthermore, the increase of the mentioned violence also occurred in Serbia, as was the case elsewhere (Pajvančić *et al.* 2021, 104–111).

Although the virus itself does not discriminate, the impacts of COVID-19 have not been gender-neutral. The consequences of the pandemic, which are immediate and long-lasting, have affected disproportionately the lives of all marginalized groups, and especially women and girls (Pajvančić *et al.* 2021, 7).

The feminist association FemPlatz prepared the Report on Gender Equality in Serbia for 2020 (Beker *et al.* 2021). One of the general conclusions is that gender inequalities have been clearly expressed and deepened during the COVID-19 pandemic. Based on different analyses conducted in Serbia, the conclusion is that the burden, measured by exposure to risks from infection by the virus because of the job nature, as well as measured by the scope of engagement in everyday strategies for care about home and family, have been unproportionally more born by women than men. The conclusion is also that the general living conditions of women have been worsened in 2020, due to inappropriate measures for combatting COVID-19, in the situation when the virus pandemic had affected more women and exposed them to a great extent to the intensified risk of discrimination (Beker *et al.* 2021, 11, 13).

The team of Social Inclusion and Poverty Reduction Unit of the Serbian government announced in March 2020 the results of the survey covering more than 2000 respondents, related to the economic and social security impacts of COVID-19 on vulnerable groups (persons with disabilities, LGBTQ persons, single parents, women victims of violence, migrants, Roma female and male, young persons, homeless). The survival strategies for all was to buy elementary food, cheaper products, and smaller amounts of food products. Concerning the governments' support measures, vulnerable groups considered most important the financial measures of direct one-off

delivery of money, support for entrepreneurs, social transfers, temporary loan moratorium. Especially important to them are measures related to keeping jobs. Support in food, water, hygiene supply was important to the homeless, migrants, Roma, and single parents. Negative statements were related to the lack of sufficient financial support and access to services. The help came mostly from close family members, cousins, and neighbors, and vulnerable persons mostly had to fend for themselves. The worst situation in regard to social and health services happened in the case of women victims of violence and disabled persons, and the diminishing of necessary services was experienced also by single parents and members of the LGBTQ and Roma populations.

## **5. OPPORTUNITIES FOR PROGRESSIVE RESPONSES TO THE PANDEMIC CRISIS – NORMATIVE AND POLICY MAKING SOLUTIONS IN FAVOR OF GENDER EQUALITY**

Legal protection of women in developed Western countries and even in semi-peripheral states, such as Serbia, has achieved significant results. However, the reality of life in the context of an extraordinary heightened COVID-19 pandemic crisis, has practically led to the decline of women's status and life conditions everywhere, but with specific features and manifestations in each concrete context.

The fragility of emancipatory processes in the conditions of crises has been the common denominator for the worsening quality of real life, but crises too can threaten the advanced normative-legal framework. However, on the other hand, in times of huge historical turmoil and crossroads, crises sometimes contribute to civilizational steps forward in normative solutions.

Experiences from the First and Second World War bear certain indicators of this sort. The World Wars opened a window of opportunity for women, while female persons in huge numbers entered the public space through employment in factories, instead of the men, as well as by means of a patriotic help to the soldiers behind the frontlines or even in the war zones across Europe (Vujadinović 2019). The "benefits" from the First World War (Grayzel 2014), in regards of gender equality, came from its influence regarding the successful adoption of the universal right to vote in the United States of America in 1920 and in Great Britain in 1928. The patriotic spirit of women had a positive impact on the general public and contributed to diminishing resistance toward decades-lasting struggle of the suffragette movements for equal right to vote (Vujadinović 2019). After the Second World War, the universal right to vote was recognized almost in all countries, and the

processes of female widespread education as well as widespread female employment started happening soon after (Vujadinović 2019). The women's experiences from the 1941–1945 war changed them in a way that they were no longer fully prepared to accept the traditional female roles, and, therefore, the germs of the 1960s feminist and civil rights social movements had their roots in the mentioned women's self-empowering experiences (McEuen 2016).<sup>15</sup> Also, the Holocaust heritage crucially impacted the adoption of the UN Universal Declaration of Human Rights in 1948, which has represented the key basis of further advancement of human rights, including women's rights (Vujadinović 2020).

The COVID-19 pandemic has contributed to the advancement of the EU normative and strategic frame, with indications that the positive steps forward could be a good example and stimulus for international law, in a wider sense, and also for national legislation. The worsened gender imbalance becomes visible both globally and locally in pandemic conditions. Visibility of the fact that women have been predominantly engaged in jobs of health and social care and services, has been accompanied by rising awareness of the crucial importance of these, usually underestimated, jobs for the common welfare. This newly emerging awareness imposes the need for a strategic and policy-making reconsideration of these sectors, as they have been devaluated in financial terms and marginalized in terms of their importance and status, as previously stated.

The pandemic crisis has highlighted the most important points of the persistent and deteriorate structural gender inequalities in contemporary societies. Low salaries and hard working conditions in the health and social care sectors have come under scrutiny, and the crucial importance of the jobs devoted to care, health, education, social security, and services has become visible. In the EU, women present 93% of the labor in the childcare sector and among primary school teachers; women represent 86% of workers employed in personal care jobs and in healthcare; they account for 95% of the cleaning staff and side-help workers (European Movement Ireland 2021).

---

<sup>15</sup> Concerning the widespread employment phenomenon, for the case of the USA, McEuen says: "The Second World War changed the United States for women, and women, in turn, transformed their nation. Over three hundred fifty thousand women volunteered for military service, while twenty times as many stepped into civilian jobs, including positions previously closed to them. More than seven million women who had not been wage earners before the war joined eleven million women already in the American workforce. Between 1941 and 1945, an untold number moved away from their hometowns to take advantage of wartime opportunities, but many more remained in place, organizing home front initiatives to conserve resources, to build morale, to raise funds, and to fill jobs left by men who entered military service" (McEuen 2016, 1).



The need for better salaries and higher valuation of these mentioned jobs has come on the agenda. The importance of childcare functioning well has appeared as the crucial point too. The European Union has announced its objective for gender equality to become the horizontal aim, which must always be taken into consideration in all concerned measures, planned reforms and investments (European Parliament 2022; European Commission 2021).

The EU has passed a post-pandemic recovery plan, called NextGenerationEU (NGEU), which represents an instrument of support and solidarity for building the post-COVID Europe, which should be more green, more digitalized, and more resilient against all unpredictable risks (European Commission 2020). The main pillar of the recovery plan, which is expected to secure financial assistance for the Member States for fighting against the economic and social effects of the pandemic, is the fund called The Recovery and Resilience Facility (RRF). This fund, together with the EU Budget 2021–2027, represents the biggest-ever financial plan for stimulating the solidarity and welfare of the EU citizens. The mentioned funds for the post-pandemic recovery (NGEU and RRF), also emphasize the urgency of gender-sensitive policies and responses to the crisis. All Member States must explain within their application for recovery plans and projects their operative attempts toward advancing gender equality, and must demonstrate concrete examples of reforms and investments in which gender equality has been taken into consideration. In short, as mentioned above, gender equality has to be the horizontal aim in all proposed measures, planned reforms, and investments.

The European Commission has adopted a strategic document, titled *A Union of Equality: Gender Equality Strategy 2020–2025*, which establishes the policy objectives and key actions for advancing gender equality in the EU. “It aims at achieving a gender equal Europe where gender-based violence, sex discrimination and structural inequality between women and men are a thing of the past. A Europe where women and men, girls and boys, in all their diversity, are equal. Where they are free to pursue their chosen path in life, where they have equal opportunities to thrive, and where they can equally participate in and lead our European society.”<sup>16</sup>

---

<sup>16</sup> European Commission. 2020. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A Union of Equality: Gender Equality Strategy 2020–2025*. COM(2020) 152 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0152&from=EN> (last visited 13 October, 2022), 3.

Accordingly, the main principles of the EU strategy are: Ending gender-based violence, Challenging gender stereotypes, Closing the gender gap within the labour market, Attain equal participation across different sectors, Tackle the gender pay and pension gap, Tackle the gender care gap, and Attain a gender balance in decision making and politics (Human Rights Directorate 2020). In other words, it is structured around six themes: Being free from violence and stereotypes; Thriving in a gender-equal economy; Leading equally throughout society; Gender mainstreaming and an intersectional perspective in EU policies; Funding actions to make progress in gender equality in the EU; Addressing gender equality and women's empowerment across the world (Observatory European Charter for Equality of Women and Men in Local Life 2020).

The Gender Equality Strategy 2020–2025 represents an important instrument for implementing the Action Plan of the European Pillar of Social Rights, in a sense of advancing the welfare state which would be gender sensitive.

In order to monitor and track progress in the implementation of the Gender Equality Strategy 2020–2025 in each of the 27 Member States, in March 2021 the European Commission launched the so-called Gender Equality Strategy Monitoring Portal.<sup>17</sup>

In November 2020, the European Commission and the High Commissioner for Foreign and Security Policy announced the Gender Action Plan III (GAP III) for 2020–2025, which contains an ambitious agenda for empowering women in all external actions.<sup>18</sup> GAP III outlines a policy framework with five pillars of action for accelerating progress toward meeting the EU's international commitments. It pays out the tasks and aims that will promote gender equality through all external actions, political dialogue and diplomacy, with the aim of being applied at the national, regional and global levels. Furthermore, every attempt of this kind has to be followed by an intersectional approach and on a human rights-based perspective. GAP

---

<sup>17</sup> European Commission. 2021. Gender Equality Strategy Monitoring Portal. <https://composite-indicators.jrc.ec.europa.eu/ges-monitor> (last visited 10 October, 2022).

<sup>18</sup> The EU policy framework with five pillars of action for accelerating progress toward meeting international commitments and a world in which everyone has space to thrive. European Commission, High Commissioner for Foreign and Security Policy. 2020. Joint Communication to the European Parliament and the Council, EU Gender Action Plan (Gap) III – An Ambitious Agenda for Gender Equality and Women's Empowerment in EU External Action. JOIN(2020) 17 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020JC0017&from=EN> (last visited 18 November, 2022).

III emphasizes the importance of the common activities of all stakeholders, including the Member States, EU, multilateral, bilateral and regional partners, the NGO sector, and, especially, women's organizations and associations. The focus is also on the value idea that the EU will serve as the leading good example and role model, by establishing its own gender-balanced leadership and governing positions. Accordingly, it is stated that "[t]he EU is a global front-runner in promoting gender equality as a key political objective of its external action and common foreign and security policy, aimed at accelerating progress towards global goals including the Sustainable Development Goals (SDG) at the core of the 2030 Agenda. The EU pursues a three-pronged approach, combining gender mainstreaming, targeted actions and political dialogue."<sup>19</sup>

European co-legislators have established the Common Provisions Regulation 2021–2027 (CPR), a rulebook governing eight different EU funds, representing one-third of the EU budget, which is to be delivered to the Member States and regions. Legal preconditions for receiving these funds will be that the member states have abided by The Charter of Fundamental Rights of the European Union and that they have a developed national strategic framework for establishing gender equality in all projects proposed for receiving these funds. Furthermore, the proposed gender equality to be taken into consideration in all dimensions of project realization – during all preparatory phases, implementation, monitoring, reporting, and evaluating. In short, the legal framework predicts additional determinants related to gender equality for all the funds in the 2021–2027 period (Hammersley 2021).<sup>20</sup>

The aim of gender mainstreaming, which has been embedded in the EU Budget, recovery Plan and other mentioned accompanying funds, conditioned by the respect for the Charter and basic principles of gender equality, represents a strong strategic, political, legal and institutional support for advancing the living conditions for women, in the situation when the pandemic caused their decline and increase of gender inequality misbalances and gaps. They will undoubtedly represent a serious stimulus for the long-term promotion of gender equality in the EU. It should be reiterated that the results of the EU Index of Gender Equality sent a message

---

<sup>19</sup> *Ibid.*

<sup>20</sup> These are the following funds: the European Fund of Regional Development, the European Social Fund Plus, the Cohesion Fund, the Just Transition Fund, the European Maritime, Fisheries and Aquaculture Fund, Asylum, Migration and Integration Fund, the Integrated Border Management Fund, and Internal Security Fund.

that it is of crucial and urgent importance for decision-makers in the EU to integrate the issue of gender equality in all recovery measures, and especially in healthcare measures.

On the other hand, there are sound critical remarks, coming from some European social movements, civil society representatives, and some MEPs (Klatzer, Rinaldi 2020), which point to the much smaller than necessary emphasis on gender mainstreaming of all mentioned instruments, especially the recovery plan, which has been directly linked to the pandemic and the post-pandemic recovery. NextGenerationEU, namely, does not put enough focus on the sectors of care, health and social security and services, where mostly women have been engaged and employed. The economic stimuli are focused primarily on the economic sectors where men have been a dominant workforce, such as the digital, energy, agriculture, and construction sectors, while still neglected are the sectors of care, health, education, social work, culture, recreation (European Movement Ireland 2021; Klatzer, Rinaldi 2020). Critical remarks are related to the facts that potentials for investment in the sectors of care and the rise of employment in them have been neglected once again, that the opportunity for building a sustainable economy of care has been passed up, as well as that the burden of the unpaid work in the field of care has been also neglected and will lead toward further gender inequality. The point of criticism is that at the end of the day the advancement of gender equality has been left on the margins of the NextGenerationEU recovery package.

All in all, in spite of the mentioned critique, the policy orientation of the EU Budget, as well as of the post-COVID-19 recovery measures and other mentioned instruments, could be considered as gender sensitive and potentially contributive to overcoming the deepened gender gap in the EU Member States, as well as in countries that have been in the accession process, such as Serbia.

However, the outbreak of war in Ukraine overlapped almost immediately with the enacting of all the mentioned progressive and promising redistributive and solidary measures and instruments. The war has been followed by new emerging crises (military, security, migration, security, economic, and energy crisis), and at the same time also imposes the redistribution of financial support from solidarity to security. In other words, the consequences of the current war crisis and its accompanying multiple crises could call into question the full implementation of the recovery plan. Possible negative counter-impacts of the mentioned multiple crises could be the putting aside again of the plans for boosting the “female” sectors (healthcare, services, social welfare) and giving again priority to the military

industry, security and other “male” sectors. From the point of gender equality and human rights protection in general, it would be of a crucial importance for “Europe of Equals” to prevail over “Fortress Europe”.

## 6. CONCLUSION

Different aspects of the worsening position of women have been considered, taking into account the global and the EU levels, as well as the case of Serbia. The argumentation was developed around the main premise that the gap that has “normally” existed between the mentioned advanced normative framework of international law and strategic documents, in regard to the affirmation of gender equality and national legislatures based on them, on the one hand, and the state of affairs in the real social life, which has been exposed to the dialectic of patriarchy and a struggle for overcoming it, on the another hand, becomes significantly expanded and widened in times of crisis.

Since 2008 the global economic crisis has worsened the position of large groups of people and has especially greatly and deeply emphasized manifestations of intersectional discrimination of women. However, new modalities of the global crisis related to the COVID-19 pandemic have additionally deepened different dimensions of intersectional gender discrimination and gender inequality. The pandemic crisis made sharply visible the importance of economic sectors of social and health care, and different services in which women have been predominantly engaged and employed. Furthermore, a gendered dimension of these devaluated economic sectors is also identified.

Neoliberal responses to the global financial crisis in 2008 encompassed continuous stimulating investments into sectors of the economy that employ male workers and lead to the general impoverishing of women and an increasing gender gap, at both the macro and microeconomic levels (UN Women 2014; Pearson, Sweetman 2011; Hozić, True 2016; Seguino 2010). Viewed from a more general perspective, the neoliberal strategy of economic development has been dominant in the economic development of the EU since the 1990s: the “managerial mindset”, which is dominant within an economic frame, has been constantly in a struggle and at odds with a “constitutional mindset”, which is dominant in EU politics and law (Brunkhorst 2013). The strategy of advancing the constitutional democratic order, universal human rights, women’s rights, as well as rights of transgender persons, i.e., converging universal equality and the right to diversity, represents the mentioned “constitutional mindset”. Seeds of the mentioned neoliberal

strategy of development are also visible in the EU recovery plan, although the “constitutional mindset” of human rights, solidarity and gender equality prevails in this strategic EU economic and political document. The synergy of the ideas of constitutional democracy within Member States, and ideas and practices of “Social Europe” and “Green Europe”, as well as “Europe of Equals” have been backed by the “constitutional mindset”.

The international legal and strategic documents, and especially the ones coming from the EU, have advanced and stimulated gender equality in real life. However, the mentioned gap between what ought to be and what is has been constantly on the agenda.

The UN Sustainable Development Goals, as well as ideals of “Social Europe”, “Green Europe” and “Europe of Equals”, could essentially contribute to overcoming the structural gender gap and implementing a gender-sensitive post-pandemic recovery.

However, the new economic crisis, war crisis, energy crisis, migrant crisis, and security crisis that are currently shaking the EU and the world in the context of the war in Ukraine, might also this time – like many times before – lead toward giving priority to “more important” economy and security sectors. Namely, it could happen again that the focus is moved from empowering sectors of care, social security, health, services, and education toward enhancing armament and the military industry. In short, orientation toward security and defense policies might prevail over an orientation toward social and health security, and welfare policies accompanied by gender equality.

If the negative scenario prevails, with a reduced implementation of the NextGenerationEU recovery plan as a consequence, the gender gap would remain and could become even wider and greater, influenced by additional sources of crises, which have followed the COVID-19 pandemic crisis too quickly and too ominously. However, the “constitutional mindset” has been deeply rooted and continuously advanced within the normative-legal and strategic framework of the EU, and the NextGenerationEU recovery plan has become an important pillar for advancing solidarity and gender equality. Thus, a strong commitment to the basic principles of the EU, to the protection of human rights and gender equality will survive, persist and grow. The struggle will continue between attempts and tendencies of building “Europe the Fortress” and “Europe of Equals”, and there is a real chance that the strategical-developmental image of “Solidary Europe”/“Social Europe”/“Green Europe”/“Europe of Equals” will prevail.

## REFERENCES

- [1] Antić, Slobodan. 2021. *Iskušenja radikalnog feminizma*, 2<sup>nd</sup> ed. Belgrade: Službeni glasnik/Catena Mundi.
- [2] Banović, Damir. 2022. Queer Legal Theory. 73–93 in *Feminist Approaches to Law – Theoretical and Historical Insights*, edited by Dragica Vujadinović, Antonio Álvarez del Cuvillo, Susanne Strand. Heidelberg: Springer.
- [3] Beker, Kosana, Biljana Janjić, Valentina Lepojević. 2021. *Report on women's rights and gender equality in Serbia in 2020*. Pančevo: FemPlatz. [https://www.femplatz.org/library/reports/2021-10-18\\_PreneraZena\\_2020\\_EN.pdf](https://www.femplatz.org/library/reports/2021-10-18_PreneraZena_2020_EN.pdf) (last visited 18 November, 2022).
- [4] Browne, Evie, Huma Haider, Freyja Oddsdottir, Brigitte Rohwerder, Anna Louise Strachan. 2014. Gender in Fragile and Conflict-Affected Situations (Rapid Literature Review). Birmingham, UK: GSDRC, University of Birmingham. [https://genderandsecurity.org/sites/default/files/Browne\\_et\\_al\\_-\\_G\\_in\\_Fragile\\_Con-affectd\\_situatns\\_-\\_Lit\\_Review.pdf](https://genderandsecurity.org/sites/default/files/Browne_et_al_-_G_in_Fragile_Con-affectd_situatns_-_Lit_Review.pdf) (last visited 11 November, 2022).
- [5] Brunkhorst, Hauke. 2013. Beheading of the legislator: The European Crisis – Paradoxes of Constitutionalizing Democratic Capitalism. 37–54 in *Identity, Political and Human Rights Culture as Prerequisites of Constitutional Democracy*, edited by Miodrag Jovanović, Dragica Vujadinović. Hague: Eleven International Publishing.
- [6] Campbell, Beatrice. 2013. *End of Equality*. Chicago: The University Chicago Press.
- [7] Campbell, Beatrice. 2014. Why we need a new women's revolution. *The Guardian*. 25 May. <https://www.theguardian.com/commentisfree/2014/may/25/we-need-new-womens-revolution> (last visited 16 November, 2022).
- [8] Corradetti, Claudio (ed.). 2012. *Philosophical Dimensions of Human Rights – Some Contemporary Views*. Oxford: Springer.
- [9] Crenshaw, Kimberle Williams. 2003. Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Anti-Discrimination Doctrine, Feminist Theory, and Antiracist Politics. 139–167 in *Critical race feminism: A reader*, edited by Adrienne Katherine Wing. New York: New York University Press.

- [10] European Parliament. 2022. *Gender Equality in the Recovery and Resilience Facility*. [https://www.europarl.europa.eu/thinktank/en/document/EPRS\\_BRI\(2021\)698757](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)698757) (last visited 17 November, 2022).
- [11] European Commission. 2020. *The EU's long-term Budget and NextGenerationEU – Facts and Figures, 2021–2017*. [https://ec.europa.eu/info/publications/eus-next-long-term-budget-nextgenerationeu-key-facts-and-figures\\_en](https://ec.europa.eu/info/publications/eus-next-long-term-budget-nextgenerationeu-key-facts-and-figures_en) (last visited 17 November, 2022).
- [12] European Commission. Directorate General for Justice and Consumers. 2021. *2021 Report on Gender Equality in the EU*. Luxembourg: Publications Office of the European Union. [https://ec.europa.eu/info/sites/default/files/aid\\_development\\_cooperation\\_fundamental\\_rights/annual\\_report\\_ge\\_2021\\_printable\\_en\\_0.pdf](https://ec.europa.eu/info/sites/default/files/aid_development_cooperation_fundamental_rights/annual_report_ge_2021_printable_en_0.pdf) (last visited 30 October, 2022).
- [13] European Institute for Gender Equality. 2021. *Gender Equality Index 2021: Health*. <https://eige.europa.eu/publications/gender-equalityindex-2021-health> (last visited 15 August, 2022).
- [14] European Movement Ireland. 2021. *EU Recovery and Gender Equality*. <https://www.europeanmovement.ie/eu-recovery-and-gender-equality/> (last visited 10 October, 2022).
- [15] European Parliament. 2022. *Gender Equality in the Recovery and Resilience Facility*. [https://www.europarl.europa.eu/thinktank/en/document/EPRS\\_BRI\(2021\)698757](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)698757) (last visited 17 November, 2022).
- [16] Fennelly, David. 2018. Convention on the Elimination of All Forms of Discrimination against Women: Articles 1, 2, 3, 4 and 11 (CEDAW). 449–455 in *International and European Labour Law – A Commentary*, edited by Edoardo Ales, Mark Bell, Olaf Deinert, and Sophie Robin-Olivier. Baden-Baden – München – Oxford – Portland: Nomos – Verlag C.H. Beck – Hart Publishing.
- [17] *Government of Serbia website*. 2021. Usvojena Strategija za rodnu ravnopravnost od 2021. do 2030. godine. 14 October. <https://www.srbija.gov.rs/vest/582820/usvojena-strategija-za-rodnu-ravnopravnost-od-2021-do-2030-godine.php> (last visited 17 November, 2022).
- [18] Grayzel, Susan. 2014. Changing lives: gender expectations and roles during and after World War One. *British Library*. 29 January <https://www.bl.uk/world-war-one/articles/changing-lives-gender-expectations> (last visited 14 October, 2022).



- [19] Hammersley, Haydn. 2021. Common Provisions Regulation 2021–2027: Analysis of the final agreement. <https://edf-feph.org/content/uploads/2021/06/Analysis-of-the-final-Common-Provisions-Regulation-agreement-2021–2027–1.docx> (last visited 18 November, 2022).
- [20] Higgins, Charlotte. 2018. The Age of Patriarchy: how an unfashionable idea became a rallying cry for feminism today. *The Guardian*. 22 June. <https://www.theguardian.com/news/2018/jun/22/the-age-of-patriarchy-how-an-unfashionable-idea-became-a-rallying-cry-for-feminism-today> (last visited 30 September, 2022).
- [21] Hozić, Aida, Jacqui True (eds.) 2016. *Scandalous Economics: Gender and the Politics of Financial Crises*. Oxford: Oxford University Press.
- [22] Human Rights Directorate. 2020. Gender Equality Strategy 2020–2025. <https://humanrights.gov.mt/en/Pages/Gender%20Equality/European%20Affairs/Gender-Equality-Strategy-2020–2025.aspx> (last visited 15 October, 2022).
- [23] Jepsen, Maria. 2021. Good News for Gender equality as we exit the COVID-19 crisis?. *Eurofound*. 28 April. <https://www.eurofound.europa.eu/lt/publications/blog/good-news-for-gender-equality-as-we-exit-the-covid-19-crisis> (last visit 1 October, 2022).
- [24] Klatzer, Elisabeth, Azzura Rinaldi. 2020. *Next Generation EU leaves women behind. Gender Impact Assessment on the EC proposal for #nextGenerationEU*. The Greens/EFA Group in the European Parliament. [https://alexandrageese.eu/wp-content/uploads/2020/07/Gender-Impact-Assessment-NextGenerationEU\\_Klatzer\\_Rinaldi\\_2020.pdf](https://alexandrageese.eu/wp-content/uploads/2020/07/Gender-Impact-Assessment-NextGenerationEU_Klatzer_Rinaldi_2020.pdf) (last visited 30 October, 2022).
- [25] McEuen, Melissa A. 2016. Women, Gender, and World War II. *Oxford Research Encyclopedia of American History*. <https://doi.org/10.1093/acrefore/9780199329175.013.55> (last visited 16 November, 2022).
- [26] Moyn, Samuel. 2010. *The Last Utopia: Human Rights in History*. Cambridge, Mass. – London: The Belknap Press of Harvard University Press.
- [27] Observatory European Charter for Equality of Women and Men in Local Life. 2020. The European Union and Gender Equality. <https://charter-equality.eu/the-charter/the-eu-and-gender-equality.html> (last visited 14 October, 2022).
- [28] Oxfam International. 2021. 5 ways women and girls have been the hardest hit by Covid-19. <https://www.oxfam.org/en/5-ways-women-and-girls-have-been-hardest-hit-covid-19> (last visited 12 October, 2022).

- [29] Pajvančić, Marijana, Nevena Petrušić, Sanja Nikolin, Aleksandra Vladislavljević, Višnja Bacanović. 2020. *Rodna analiza odgovora na COVID-19 u Republici Srbiji*. Belgrade: OSCE Mission in Serbia – Ženska platforma za razvoj Srbije 2014–2020.
- [30] Pearson, Ruth, Caroline Sweetman. 2011. *Gender and the Economic Crisis*. Oxford: Oxfam.
- [31] Saedziadeh, Zara. 2022. Feminist Methodologies and Gender Research. In *Gender Competent Legal Knowledge*, edited by Dragica Vujadinović, Mareike Froehlich and Thomas Giegerich. Heidelberg: Springer.
- [32] Seguino, Stephanie. 2/2010. The Global Economic Crisis, its Gender and Ethnic Implications, and Policy Responses. *Gender&Development* 18: 179–199.
- [33] Social Inclusion and Poverty Reduction Unit, Serbian Government. 2020. Posledice COVID-19 pandemije na prihode i potrošnju domaćinstava iz perspektive osetljivih grupa. <https://socijalnoukljucivanje.gov.rs/rs/posledice-covid-19-pandemije-na-prihode-i-potrosnju-domacinstava-iz-perspektive-osetljivih-grupa/> (last visited 13 October, 2022).
- [34] Vujadinović, Dragica. 1995. Civilno društvo i svakodnevni život – Slučaj Srbije. 303–329 in *Potisnuto civilno društvo*, edited by Vukašin Pavlović. Belgrade: EKO centar.
- [35] Vujadinović, Dragica. 2013. Human Rights: A Dworkinian View. 95–117 in *Identity, Political and Human Rights Culture as Prerequisites of Constitutional Democracy*, edited by Miodrag A. Jovanović and Dragica Vujadinović. Hague: Eleven International Publishing.
- [36] Vujadinović, Dragica, Vojislav Stanimirović. 2016. Rodni odnosi u Srbiji u doba tranzicije – između emancipacije i retradicionalizacije. 189–215 in *Demokratska tranzicija Srbije – (Re)kapitulacija prvih 25 godina*, edited by Bojan Vranić, Goran Dajović. Belgrade: Pravni fakultet.
- [37] Vujadinović, Dragica. 2017. Teorijsko-metodološki okvir za razumevanje rodni odnosa – slučaj Srbije. 99–111 in *Pravni kapaciteti Srbije za evropske integracije*, edited by Stevan Lilić. Belgrade: Pravni fakultet u Beogradu.
- [38] UN Women. 2014. *The Global Economic Crisis and Gender Equality*. New York: UN Women.
- [39] Vujadinović, Dragica. 2019. Rod i pravna regulativa. 97–115 in *Studije roda*, edited by Dragica Vujadinović and Vojislav Stanimirović. Belgrade: Pravni fakultet.

- [40] Vujadinović, Dragica 2020. Od antičke teorije prirodnog prava do savremene teorije ljudskih prava – moguće promišljanje kontinuiteta i diskontinuiteta. 62–79 in vol. 10 *Perspektive implementacije evropskih standardau pravni sistem Srbije*, edited by Stevan Lilić. Belgrade: Pravni fakultet.
- [41] Vujadinović, Dragica. 2022. Feminist Reconsideration of Political Theories. 1–31 in *Feminist Approaches to Law – Theoretical and Historical Insights*, edited by Dragica Vujadinović, Antonio Álvarez del Cuvillo, Susanne Strand. Springer.
- [42] Verdu Sanmartin, Amalia. 2022. The Concept of Gender in Law. 31–53 in *Feminist Approaches to Law – Theoretical and Historical Insights*, edited by Dragica Vujadinović, Antonio Álvarez del Cuvillo, Susanne Strand. Springer.
- [43] Wing, Adrien K., Caroline Pappalardo. 2022. Critical Race Feminism: A Different Approach to Feminist Theory. 53–73 in *Feminist Approaches to Law – Theoretical and Historical Insights*, edited by Dragica Vujadinović, Antonio Álvarez del Cuvillo, Susanne Strand. Springer.
- [44] World Economic Forum. 2021. *Global Gender Gap Report 2021*. [http://www3.weforum.org/docs/WEF\\_GGGR\\_2021.pdf](http://www3.weforum.org/docs/WEF_GGGR_2021.pdf) (last visited 18 September, 2021).

Article history:

Received: 5. 10. 2022.

Accepted: 30. 11. 2022.



UDC 342.76(497.11); 351.77:[616.98:578.834

CERIF: S 112, S 140

DOI: 10.51204/Anali\_PFBU\_22404A

**Marija DRAŠKIĆ, PhD\***

**AVOIDING MANDATORY COVID-19 VACCINATION:  
ARROGANCE TOWARD SCIENCE AND LACK OF RESPECT  
FOR COMMON SENSE**

*This paper is a continuation of the research that the author started several years ago and which was published in the article Compulsory Vaccination of Children: Rights of Patients or Interests of Public Health? The emphasis will be on professional and scientific discussions on whether it is permissible to prescribe mandatory vaccination during the COVID-19 pandemic, as well as whether this is in line with the Constitution and legally allowed for all or only for certain population categories in Serbia. Earlier decisions of the constitutional courts of Serbia, Croatia, and Slovenia, as well as the recent judgment of the ECtHR in the Vavrička case will be reconsidered. All these decisions by the highest national courts, as well as the judgment of the European Court of Human Rights, have unequivocally confirmed that mandatory vaccination is not contrary to some basic human rights regularly invoked by opponents of vaccination.*

**Key words:** *Mandatory vaccination. – Pandemic. – COVID-19. – Law on the Protection of the Population from Communicable Diseases. – Case law of the European Court of Human Rights.*

---

\* Professor, University of Belgrade Faculty of Law, Serbia, [maja@ius.bg.ac.rs](mailto:maja@ius.bg.ac.rs).

*A few days ago a doctor died in Niš, an anti-vaxxer, born in 1973. He was at home in bed for three days, he had a high fever but wouldn't turn to doctors for help, so he died within less than 24 hours. That is so sad. He was a specialist physician, a multi-talented person, he played the guitar and had three children.*

(Dr. Tatjana Adžić, director of the  
Batajnica COVID hospital,  
in *Politika* 2021, 7)

## 1. INTRODUCTION

The issue of mandatory vaccination during the COVID-19 pandemic is, without a doubt, a controversial and planetary phenomenon – literally! Namely, while nearly half of humanity is desperate for vaccines that will reduce infection rates and high mortality in the countries of the so-called third world, the World Health Organization (WHO) is wondering whether it is fair that millions of people in a handful of high-income countries have received a vast majority of vaccines, in a significant part of that other half of the world a fierce battle is being fought against practicing any, and especially mandatory vaccination, in spite of the fact that the COVID-19 pandemic is raging and claiming millions of lives.

Medically speaking, it is indisputable that vaccines have saved many human lives and that they are the safest form of protection from a large number of serious contagious diseases. True, along with the first laws in the world that prescribed mandatory vaccination – as was, for example, the 19<sup>th</sup>-century Prussian law on mandatory vaccination against smallpox – there were also public debates on the benefit or harm of vaccines. The biggest known anti-vaccination movement began after British gastroenterologist Andrew Wakefield and 12 of his colleagues published a paper in 1998 in the prestigious medical journal *Lancet* in which they presented 12 cases they believed indicated that the MMR vaccine – a combined vaccine against measles, mumps and rubella – may predispose to behavioral regression and pervasive developmental disorder in children. Despite the small sample size and the speculative nature of the presented conclusions, the paper received wide publicity, and the percentage of vaccinated children rates began to drop nearly in the whole world, because parents were concerned about the risk of developing autism after vaccination. Overshadowed by Wakefield's "success" was the insufficiently known fact that, right after this event,

representative epidemiological and laboratory studies were conducted and published – as many as 14 such studies by independent experts were subject to an assessment by the World Health Organization – which refuted the posited link between MMR vaccination and autism, i.e., the unanimous conclusion was that there was no link between autism nor a spectrum of autistic disorders and the MMR vaccine. Moreover, the *Lancet* journal first admitted that Wakefield and the other authors had failed to disclose a conflict of interest in this matter (the research was funded with GBP 55,000 by lawyers who had been engaged by parents in lawsuits against vaccine-producing companies), and then completely retracted the paper in February 2010, admitting that Wakefield and the other authors were guilty of fraud and of forging the results. The current anti-vaccination movement, which has gripped a greater part of humanity and is very loud in its efforts to prevent any kind of mandatory vaccination against COVID-19, came as a phenomenon that has outdone even its first role model.

On the other hand, when looking at the obligation to vaccinate the population from the point of view of modern medical law, it needs to be reaffirmed that one of the most important patients' rights is the right to autonomy of will, i.e., the patient's right to self-determination. The essence of the right to self-determination is that every patient with legal capacity has the right to decide on everything that concerns their body or health. In other words, without a patient's consent, as a rule, no medical intervention can be performed on them, nor can a medical doctor resort to any diagnostic or therapeutic procedure – regardless of whether it is routine, painless, common, non-invasive, etc. – if consent to that medical intervention had not been previously obtained, preceded by the adequate informing of the patient of all the important aspects of one such intervention. Ultimately, this means that every person with legal capacity, i.e., a person capable of consenting to medical intervention, can refuse medical intervention, no matter how imprudent or dangerous that may seem, even in situations when such actions may result in the patient's death. However, even the patients' right to self-determination – just like certain other human rights, such as the right to respect for private and family life, home and correspondence, freedom of thought, conscience and religion, freedom of expression, and freedom of assembly and association – can be limited. The most important international treaty in the field of patient rights is the Council of Europe Convention on Human Rights and Biomedicine, which contains a general ban on restricting the exercise of the rights contained in the Convention, with the exception of those prescribed by law and that are necessary in a democratic society in the interest of public safety, for the prevention of crime, for the protection of public health, or for the protection of rights and freedoms of others. Similarly, Law on the Protection of the Population from Communicable

Diseases of the Republic of Serbia has recognized the protection of public health as a basis for restricting the right to patients' autonomy of will and provides for mandatory immunization of both children and other persons specified by the law.

## 2. LAW ON THE PROTECTION OF THE POPULATION FROM COMMUNICABLE DISEASES

### 2.1. Regular Mandatory and Recommended Immunization

The Law on the Protection of the Population from Communicable Diseases (LPPCM)<sup>1</sup> provides that immunization is carried out with immunological medication and that it can be mandatory or recommended.

Mandatory immunization primarily refers to children of a certain age, against certain diseases (tuberculosis, diphtheria, tetanus, whooping cough, polio, measles, rubella, mumps, viral hepatitis B, diseases caused by *Haemophilus influenzae* type B, and diseases caused by *streptococcus pneumoniae*).

Immunization is also mandatory for some adults, such as persons exposed to certain communicable diseases (hepatitis B, hepatitis A, typhoid fever, rabies and tetanus), persons at special risk of diseases (hepatitis B, influenza, meningococcal disease, diseases caused by *streptococcus pneumoniae* and *Haemophilus influenzae* B, chicken pox, infections caused by respiratory syncytial virus), people employed in healthcare institutions against certain infectious diseases, and international passengers against yellow fever and other contagious diseases as required by the destination country.

The common norm for all cases of mandatory vaccination is that the person to be immunized, or their parent or guardian, cannot refuse it, except when there is a temporary or permanent medical contraindication that is established by a physician with an appropriate medical specialty or a team of experts on contraindications.<sup>2</sup>

However, the thing that should be clarified at the very beginning, regarding terminology, which is particularly stressed in literature (Gravagna *et al.* 2020, 7865), is that *mandatory* immunization is by no means *forced* vaccination!

---

<sup>1</sup> Law on the Protection of the Population from Communicable Diseases, *Official Gazette of the Republic of Serbia* 15/2016, 68/2020 and 136/2020.

<sup>2</sup> Law on the Protection of the Population from Communicable Diseases, Art. 32 paras 1–4.



In other words, administering a vaccine without the consent of the person being vaccinated would run counter to the constitutional guarantee of inviolability of physical and psychological integrity.<sup>3</sup> The constitutional guarantee is also enforced by Serbia's Patient Rights Law (PRL) through the patient's right to personal autonomy, envisaging that no medical treatment can be carried out on a patient without his/her consent, i.e., that medical treatment can be applied against a patient's will or against the will of his/her legal representative only in exceptional cases, which are defined by law and are in accordance with medical ethics.<sup>4</sup> This means that refusal or omission of mandatory vaccination may be sanctioned only by a fine, precisely as stipulated by the Law on the Protection of the Population from Communicable Diseases.<sup>5</sup> However, since the linguistic meaning of this norm indicates that the legislator provided for the sanction of a fine only in the event of failure to adhere to mandatory vaccination of children ("mandatory immunization of a person of a certain age"), while all other indications for mandatory vaccination are not covered by the penal provisions of this law, refusal of mandatory vaccination could be grounds for the application of certain other epidemiological measures. These, above all, include measures that the minister of health may prescribe when declaring an infectious disease epidemic of greater epidemiological significance, precisely such as the COVID-19 pandemic (ban on public assembly, restriction of the movement of the population in areas affected by the emergency situation, ban or restrictions on travel, ban or restrictions on the circulation of certain types of goods and products, emergency vaccination and measures of personal protection from infection).<sup>6</sup>

---

<sup>3</sup> Constitution of the Republic of Serbia, *Official Gazette of the Republic of Serbia* 98/2006, Art. 25 para 1.

<sup>4</sup> Patient Rights Law, *Official Gazette of the Republic of Serbia* 45/2013, Art. 15 paras 2 and 3. For more on patients' right to self-determination see Draškić 2010, 37–53; Ivović 2004, 19–34; World Health Organization, Regional Office for Europe 1996, 18–19.

<sup>5</sup> "The person who refuses mandatory immunization of a person of a certain age shall be issued a misdemeanor fine in the amount of 50,000 to 150,000 dinars (Art. 32 para 2)." See Law on the Protection of the Population from Communicable Diseases, Art. 85 para 6.

<sup>6</sup> Law on the Protection of the Population from Communicable Diseases, Arts. 50–53. See Decision of the Government of the Republic of Serbia on declaring COVID-19, caused by the SARS-CoV-2 virus, a contagious disease, *Official Gazette of the Republic of Serbia* 23/2020...116/2020 and Order of the Minister of Health on declaring the epidemic of the contagious coronavirus disease an epidemic of greater epidemiological significance, *Official Gazette of the Republic of Serbia* 37/2020.

Recommended immunization is carried out if it is recommended by a medical doctor or a specialist in the relevant branch of medicine, in accordance with the program for the immunization of the population against certain contagious diseases both for children, i.e., persons of a certain age (against chicken pox, HPV infections, hepatitis A and B, influenza, and diseases caused by *streptococcus pneumoniae* and others, in accordance with the law), and for adults (on the basis of clinical indications, against hepatitis A and B, influenza, diseases caused by *streptococcus pneumoniae* and others, in accordance with the law). A special category of people for whom vaccination may be recommended is international passengers (against typhoid fever, hepatitis A and B, influenza, polio and others, in accordance with the law). Finally, immunization can also be carried out for other contagious diseases for which medical doctors are not required to recommend immunization, as well as at the patient's personal request.<sup>7</sup>

## 2.2. Emergency Mandatory or Recommended Immunization

In addition to regular mandatory immunization, the minister of health may also order emergency mandatory (or recommended) vaccination against other contagious diseases for all persons, i.e., for certain categories of people, if a risk of the transmission of this disease is determined, as well as if a contagious disease is imported into the country, in accordance with the plan to eliminate certain contagious diseases, i.e., in order to maintain the status of a disease that has been eradicated. Mandatory and recommended emergency immunization is ordered by the minister of health in accordance with the recommendations of the WHO, at the proposal of the Institute of Public Health of the Republic of Serbia<sup>8</sup> with the consent of the Republic Expert Committee for the Protection of the Population from Communicable Diseases.<sup>9</sup>

Both conditions that the Law on the Protection of the Population from Communicable Diseases alternatively envisages as prerequisites for an order on emergency mandatory vaccination are met in the case of the COVID-19 epidemic: it is a very dangerous contagious disease that has been found

---

<sup>7</sup> Law on the Protection of the Population from Communicable Diseases, Art. 32 paras 5 and 6.

<sup>8</sup> The competence of the Office of Public Health of the Republic of Serbia is performed by the Dr. Milan Jovanović Batut Institute of Public Health of Serbia.

<sup>9</sup> Law on the Protection of the Population from Communicable Diseases, Art. 33 para 3.

to be easily transmitted, and a contagious disease that has been brought into the country from abroad. The Institute of Public Health is authorized to propose such a measure, bearing in mind that it is the most competent to issue an opinion on the protection of the population from contagious diseases and that it is the main institution responsible for coordinating the implementation of epidemiological oversight in the territory of the Republic of Serbia and to issue expert instructions for epidemiological oversight for contagious diseases and special health issues.<sup>10</sup>

### *2.2.1. Republic Expert Committee for the Protection of the Population from Communicable Diseases*

The Expert Committee is a body established by the minister of health at the proposal of the Institute of Public Health and reference health institutions, and its principal legal jurisdiction is precisely the establishment of professional opinions on the preservation and improvement of health, prevention and suppression of contagious diseases, treatment and healthcare, as well as the improvement and development of the organization of health services that deal with the prevention, suppression and treatment of contagious diseases, and providing support for the sick based on evidence and international recommendations. The Expert Committee evaluates the epidemiological situation of contagious diseases in the Republic of Serbia, based on reports by the Institute of Public Health and provides conclusions and recommendations on improving the protection of the population from contagious diseases.<sup>11</sup> It would, therefore, be logical for the Expert Committee to back the proposal of the Institute of Public Health for emergency mandatory immunization to be carried out, due to the fact that a contagious disease epidemic of greater epidemiological significance had been declared,<sup>12</sup> which poses a serious threat to the health of the entire population of Serbia.<sup>13</sup>

---

<sup>10</sup> Law on the Protection of the Population from Communicable Diseases, Art. 7 para 3.

<sup>11</sup> Law on the Protection of the Population from Communicable Diseases, Art. 11.

<sup>12</sup> See the Order of the Minister of Health on declaring the epidemic of the contagious coronavirus disease an epidemic of greater epidemiological significance, *Official Gazette of the Republic of Serbia* 37/2020.

<sup>13</sup> According to statistical data, as of 11 October 2021 there had been a total of 1,005,168 persons infected with the SARS-CoV-2 virus in Serbia, a total of 8,737 people had died, and in recent days the officially announced daily death toll had exceeded 60. See <https://covid19.rs/> (last visited 11 October 2021). However, the data of the Statistical Office of the Republic of Serbia shows that the number

The problem, however, lies in the fact that the Expert Committee has not issued a single statement since the beginning of the COVID-19 epidemic, nor does the public in Serbia know whether it exists or who the members of the Expert Committee are,<sup>14</sup> but it would be logical to assume that – given that the Expert Committee is formed by the minister of health at the proposal of the Institute of Public Health and reference health institutions – it must comprise medical doctors of relevant specialties (epidemiologists, immunologists, virologists, microbiologists, pulmonologists, pharmacologists, etc.), as well as directors of the most important health institutions tasked with the treatment of this disease, and by no means politicians, ministers, state secretaries, or mayors. Instead of an invisible Expert Committee, only the Crisis Committee appears in public, having established under the Serbian Government Conclusion of 13 March 2020 and Decision on the Establishment of a Crisis Committee for the Suppression of the COVID-19 Contagious Disease. The Crisis Committee is tasked with monitoring the situation, directing and coordinating the actions and activities of all relevant bodies, organizations and services, as well as all other subjects, controlling the import and preventing the spread of the contagious coronavirus disease, providing proposals and recommendations for measures and activities

---

of people who died in the Republic of Serbia during the January–August 2021 period was 82,681 and, compared to the same period of the previous year, when there were 70,322 deaths, there is an increase of 12,359 deaths, i.e., 17.6%. See <https://www.stat.gov.rs/sr-Cyrl/oblasti/stanovnistvo/rođeni-i-umrli> (last visited 13 October 2021). The Committee for the Analysis of Fatal Outcomes, established by the minister of health on 27 May, established, based on hospital death certificates signed by attending physicians based on laboratory results or clinical pictures, that the number of people who died from being infected by the coronavirus in 2020 was 10,356. In spite of this, the official information still posted on the Ministry of Health website, without any explanation, was that 3,130 people had died – a figure that is three times lower and which was taken as the starting point for all future deaths in 2021. See <https://www.autonomija.info/birn-komisija-za-analizu-smrtnih-ishoda-sluzila-da-se-katastrofa-zataska.html> (last visited 27 October 2021). A total of 544 million people have been infected with the SARS-CoV2 virus worldwide and more than 6 million have died from it. See <https://www.who.int/emergencies/diseases/novel-coronavirus-2019> (last visited 8 November 2022). This data is also an indication that the number of deaths in Serbia was significantly reduced from the onset of the epidemic, since the worldwide death rate varied between 1.1% and 2.1%, while in Serbia it was constantly at 0.8%.

<sup>14</sup> Deputy Director of the Public Health Institute Dr. Darija Kisić Tepavčević told a press conference that “as for the Republic Expert Committee, of course it exists” and that its members are “mostly the same names that you now see (*sic!*), and its chair is Dr. Goran Stevanović, infectologist, the director of the Clinic for Infectious and Tropical Diseases.” See <https://www.slobodnaevropa.org/a/srbija-sa-dva-paralelna-stru%C4%8Dna-tela-za-suzbijanje-pandemije/30757505.html> (last visited 8 November 2022).

in controlling the import and prevention of the spread of the contagious coronavirus disease, monitoring the situation, directing and coordinating activities of crisis committees of local self-government units in controlling the import and prevention of the spread of the contagious coronavirus disease, proposing to the Government and relevant bodies, organizations, services and other subjects the undertaking of measures within their respective jurisdiction, as well as other activities in controlling the import and prevention of the spread of the contagious coronavirus disease and protection of the population.<sup>15</sup>

The Crisis Committee was, therefore, given powers that largely overlap with those of the Expert Committee, as defined in the Law on the Protection of the Population from Communicable Diseases. It remains unclear why was it necessary to have two parallel bodies with the same basic jurisdiction in preventing one and the same contagious disease. The fundamental legal jurisdiction of the Republic Expert Committee for the Protection of the Population from Communicable Diseases is precisely the establishment of expert views on the prevention and suppression of contagious diseases, but the Serbian Government arbitrarily transferred one such important responsibility to the Crisis Committee and tasked it, among other things, with “providing proposals and recommendations for measures and activities in controlling the import and prevention of the spread of the contagious coronavirus disease.” What is different is the makeup of the Crisis Committee, compared to the Republic Expert Committee for the Protection of the Population from Communicable Diseases. Even though we have no reliable information on the number of members of this Committee or their identities, based on its name and legal competences, as well as who appoints the members and at whose proposal – it is likely that it consists solely or predominantly of medical doctors. As opposed to this, the 28 members of the Crisis Committee were appointed: 8 ministers, 8 civil servants, the Mayor of Belgrade, and 12 medical doctors most of whom, at the same time, hold public posts as directors of major health institutions (actually only five of the medical doctors are not public office holders); the Crisis Committee

---

<sup>15</sup> See the Decision on the Formation of the Crisis Committee for the Suppression of the COVID-19 Contagious Disease, *Official Gazette of the Republic of Serbia* 132/2020, item 2. The legal basis for establishing the Crisis Committee was subsequently introduced into the Law on the Protection of the Population from Communicable Diseases, in the provisions on the measures to be taken in the event of an epidemic or a pandemic of a contagious disease of greater epidemiological significance (Art. 53a, para 1 item g), despite the fact that the Crisis Committee had already been clandestinely operating for six full months, even without this legal basis.

chair is the Prime Minister, and her deputy is the minister of health.<sup>16</sup> This makeup of the Crisis Committee shows that it is mainly a political body, and that there are grounds to legitimately raise the question of whether the Crisis Committee can provide proposals and recommendations for measures and activities in controlling the import and prevention of the spread of COVID-19 solely on the basis of medical criteria. And it is precisely these medical criteria that should be decisive when giving approval to the minister of health to carry out extraordinary mandatory immunization.

### 2.2.2. *World Health Organization Recommendations*

It is also necessary to consider whether a decision on emergency mandatory immunization would be in line with WHO recommendations.

On 13 April 2021 the WHO published a policy brief on its policy on mandatory vaccination, entitled *COVID-19 and mandatory vaccination: Ethical considerations and caveats* (WHO 2021a). In its introduction, the brief indicates the position that vaccines are one of the most effective tools for protecting people against COVID-19 and that it is therefore expected that many countries will be considering whether to make COVID-19 vaccination mandatory in order to increase vaccination rates and achieve public health goals. In addition, it is also not uncommon for governments and institutions to mandate certain actions or types of behavior in order to protect the wellbeing of individuals or communities. Such policies can be ethically justified, as they may be crucial to protecting the health and wellbeing of the public. Nevertheless, because policies that mandate an action or behavior interfere with individual liberty and autonomy, they should seek to balance communal wellbeing with individual liberties. While interfering with individual liberty does not in itself make a policy intervention unjustified, such policies raise a number of ethical considerations and concerns and should be justified by advancing another valuable social goal, such as protecting public health. This document, however, does not provide a position that endorses or opposes mandatory COVID-19 vaccination, even though it mentions that the World Health Organization does not presently support the direction of mandates for COVID-19 vaccination, believing that it is better to work on information campaigns and making vaccines accessible.<sup>17</sup>

---

<sup>16</sup> See the Decision on the Formation of the Crisis Committee for the Suppression of the COVID-19 Contagious Disease item 3.

<sup>17</sup> In addition, in February 2021 the WHO presented its position that national authorities and conveyance operators should not require vaccination against COVID-19 as a condition for international travel. See World Health Organization 2021b.

Still, the main focus of this document is ethical considerations and caveats for mandatory COVID-19 vaccination policies, which governments and other institutional policy-makers should have in mind when passing decisions.

#### *2.2.2.1. Necessity and Proportionality*

Mandatory vaccination should be considered only if it is necessary for the achievement of an important public health goal (e.g., herd immunity, protecting the most vulnerable, protecting the capacity of the acute healthcare system) and if that goal is identified by a legitimate public health authority. However, if such a public health goal can be achieved with less coercive or intrusive policy interventions (e.g., public education), mandatory vaccination would not be ethically justified, as achieving public health goals with less restriction of individual liberty and autonomy yields a more favorable risk-benefit ratio. Since mandatory vaccination represents a policy option that interferes with individual liberty and autonomy, it should be considered only if it would increase the prevention of significant risks of morbidity and mortality or promote significant and unequivocal public health benefits. If important public health objectives cannot be achieved without a mandate – for instance, if a substantial portion of individuals are able but unwilling to be vaccinated and this is likely to result in significant risks of harm – their concerns should be addressed, proactively if possible. Still, if addressing such concerns is ineffective and those concerns remain a barrier to the achievement of public health objectives or if low vaccination rates in the absence of a mandate put others at significant risk of serious harm, a mandate may be considered “necessary” to achieve public health objectives.

This is certainly the most important recommendation that the World Health Organization has made to its member states within its policy on mandatory vaccination. It advises progression and responsibility in making the decision on mandatory vaccination so as to balance, in an optimal manner, the public interest of protecting the population from a new and severe illness, while preserving, as much as possible, each individual's freedom of decision-making and autonomy. In other words, the introduction of mandatory vaccination is believed to be ethically justified in the event of the necessity to protect an important public health goal (such as protection of the most vulnerable individuals, protection of the capacities of the acute healthcare system, prevention of significant risks of morbidity and mortality, legitimacy of the authority passing such a decision, etc.), but, at the same time, with a warning that a less coercive approach should be taken if the same goal can be achieved through the system for educating and informing

the public, a proactive attitude toward those who express concern about mandatory vaccination, continuous and large-scale testing for COVID-19, etc. Such a test of the risk-benefit ratio should be carried out by every member state, but it is an unambiguous conclusion of the WHO that if in spite of all the applied noncoercive measures, the reservations of individuals who are able to be vaccinated but who do not wish to do so become a barrier to the achievement of public health objectives, i.e., if low vaccination rates – in the absence of mandatory vaccination – put others at significant risk of contracting the disease, a mandate may be considered necessary to achieve public health objectives.

#### *2.2.2.2. Sufficient Evidence of Vaccine Safety*

The second important ethical standard promoted by the World Health Organization (WHO 2021a) is the accessibility of data demonstrating that the vaccine has been found to be proven safe in the population for which the vaccine has been made mandatory.<sup>18</sup> When safety data is lacking or when it suggests that the risks associated with vaccination outweigh the risks of harm without the vaccine, the mandate is not ethically justified, particularly without allowing for reasonable exceptions (such as, for example, medical contraindications). Policymakers should consider specifically whether vaccines authorized for emergency or conditional use meet the evidentiary threshold for safety sufficient for a mandate (Gostin *et al.* 2021). Even when the vaccine is considered sufficiently safe, mandatory vaccination should be implemented with no-fault compensation schemes to address any vaccine-related harm that might occur. This is important, as it would be unfair to require people who experience vaccine-related harm to seek legal remedy for harm resulting from a mandatory intervention.

This part of the WHO Recommendation was already previously addressed by some constitutional courts. In a part of its decision on the constitutionality of the legal provisions on mandatory vaccination, the Constitutional Court of Slovenia established that the Communicable Diseases Act is inconsistent with the Constitution, because it does not provide a special procedure or the rights of the persons affected by the failure to prescribe justified reasons for exemption from mandatory vaccination, and, on the other hand, because

---

<sup>18</sup> According to the WHO, nine different vaccines have so far been approved for emergency medical use, which means that they are considered to be safe, and a total of 11,981,689,168 vaccine doses have been administered as of 17 May 2022. See [https://www.who.int/news-room/q-a-detail/coronavirus-disease-\(covid-19\)-vaccines?topicsurvey=v8kj13](https://www.who.int/news-room/q-a-detail/coronavirus-disease-(covid-19)-vaccines?topicsurvey=v8kj13) (last visited 8 November 2022).



it does stipulate the state's responsibility for compensation of harm that may occur as a consequence of mandatory vaccination. The Constitutional Court judged that the legislator should specifically regulate the protection of persons who have suffered harm due to vaccination, as well as the form of compensation for such harm. Namely, the principle of solidarity, which is, *inter alia*, the basis for prescribing the measure of mandatory vaccination, requires that the state that has prescribed such a measure for the benefit of all must provide compensation to harmed individuals for the harm caused to them by this measure, regardless of whether prerequisites exist for liability for damages according to general rules. In other words, it would be unacceptable for a person to bear the harm that is a consequence of a mandatory medical measure introduced for the general benefit. However, as this is a legal gap, i.e., it has to do with the fact that the legislator failed to legally regulate something that should be regulated, it is not possible to annul a legal provision as a sanction for the established unconstitutionality. This is why, in accordance with Article 48 of the Constitutional Court Act, the Constitutional Court of Slovenia adopted a declaratory decision and ordered the legislative body to eliminate, within a year, the Act's inconsistency with the Constitution, having in mind the reasons stipulated by the Constitutional Court in this decision.<sup>19</sup>

#### 2.2.2.3. *Sufficient Evidence of Vaccine Efficacy and Effectiveness*

In addition to sufficient evidence on vaccine safety, data should also be available that show the vaccine is efficacious in the population for which vaccination is to be mandated and that the vaccine is an effective means of achieving an important public health goal. For instance, if mandatory vaccination is considered necessary to interrupt transmission chains and prevent harm to others, there should be sufficient evidence that the vaccine is efficacious in preventing serious infection or transmission. Alternatively, if

---

<sup>19</sup> Decision of the Constitutional Court of Slovenia U-I-127/01, 12 February 2004, § 12–25, *Uradni list RS* 25/2004. According to Draškić 2018, 23–24. In executing this Constitutional Court decision, the Slovenian Parliament swiftly passed the Law on Amendments to the Communicable Diseases Act (*Uradni list RS* 119/2005), in which it prescribed both the reasons and the procedure for opting out of mandatory vaccination (Art. 3), and liability for compensation of harm caused to the persons who suffered harm to their health on account of being subject to mandatory vaccination, as stipulated by this Act (Art. 4). See also similar decisions of the Constitutional Court of Italy No. 307/1990, of 14 June 1990, and No. 118/1996, of 18 April 1996. According to *Vavrička and Others v. the Czech Republic*, No. 47621/13 and 5 others, 8 April 2021.

a mandate is considered necessary to prevent hospitalization and protect the capacity of the acute healthcare system, there should be sufficient evidence that the vaccine is efficacious in reducing hospitalization.<sup>20</sup>

The efficacy and safety of the existing COVID-19 vaccines, developed by thousands of researchers in the course of 2020, are essentially based on the same idea as the world's first vaccine, produced by English village doctor Edward Jenner against smallpox in the late 18<sup>th</sup> century. Namely, the mechanism behind the vaccine – the invention that saved the most lives since humankind began exploring the world – is ingeniously simple: by introducing a harmless agent into the human body, the immune system is trained, in advance, to recognize at some later time a dangerous disease-causing agent. The agent does not trigger the disease, but the human body perceives it as a disease-causing agent, it triggers an immune response within the body, destroys it, and learns how to kill every microorganism in the future that is linked to this agent. An agent can be the very virus that causes the disease, but which is previously broken into fragments or weakened in a long process in a laboratory, so it does not trigger the disease (so-called conventional vaccines, such as China's *Sinopharm* vaccine). An agent can also be an entirely different virus that essentially does not make the body ill, but into which key information has been inserted by means of genetic modification – the genome of the SARS-CoV-2 spike glycoprotein. The vaccine works in a way that, once administered, the adenovirus enters the human cells and delivers genetic information that induces the synthesis of the spike glycoprotein, the immune system reacts and triggers an immune response by producing neutralizing antibodies and a cellular immune response. In essence, by using a trick, an immune response with antibodies is created against COVID-19 “fraudulently” and safely, even though the immune system produces antibodies against a harmless microorganism that only serves as a vector (carrier, deliverer). This is how the vaccines developed by Russia's Gamaleya Institute (*Sputnik V*) and the University of Oxford (*AstraZeneca*) work. Finally, a vaccine does not have to contain the virus or any other pathogen, but rather messenger RNA (mRNA) can be used as an agent

---

<sup>20</sup> Even though studies have shown that several COVID-19 vaccines have a high level of efficacy, just like all other vaccines, COVID-19 vaccines will not be 100% effective. The WHO is working on ensuring that all approved vaccines are as effective as possible, so as to have the greatest possible impact on the pandemic. Additionally, since COVID-19 vaccines were developed only over the past several months, it is too soon to draw conclusions on how long the protection they provide will last. See [https://www.who.int/news-room/q-a-detail/coronavirus-disease-\(covid-19\)-vaccines?topicsurvey=v8kj13](https://www.who.int/news-room/q-a-detail/coronavirus-disease-(covid-19)-vaccines?topicsurvey=v8kj13) (last visited 8 November 2022). According to the data from the largest hospitals in Serbia that treated patients with COVID-19, fully vaccinated patients treated in hospitals accounted for only 5%–10%.

instead, as a matrix that carries the information for the synthesis of the spike glycoprotein. The mRNA is packed in lipid nanoparticles without any other adjuvants (enhancers) or dangerous substances, in a lipid membrane that enables it to pass through the cell membrane, and then synthesize the spike glycoprotein inside it. The immune system recognizes the spike glycoprotein as a foreign molecule, it is activated, and protective immunity is created (neutralizing antibodies and cellular immunity). The mRNA does not multiply in the cell and is very quickly broken down and removed. This innovative and revolutionary vaccine production model was used by German-American company *Pfizer-BioNTech* and by American company *Moderna* (Arsenović Ranin, Bufan, Filipić 2020, 1–7).

#### *2.2.2.4. Sufficient Supply*

In order for a mandate to even be considered, the supply of the authorized vaccines should be sufficient and reliable, including free access for those for whom it is to be made mandatory. The absence of a sufficient supply and free access would not only render the mandate ineffective in achieving vaccine uptake, but would also create an unduly burdensome demand on those who are required to be vaccinated, i.e., on those who would be in a situation to ask to be vaccinated but have no access to the vaccine.

#### *2.2.2.5. Public Trust*

Mandatory vaccination policymakers should carefully consider the effect that mandating vaccination could have on public confidence and public trust, particularly on confidence in the scientific community and public trust in vaccination generally (Schwartz 2020). If such a policy threatens to undermine confidence and public trust, it might affect both vaccine uptake and adherence to other important public health measures, which can have an enduring negative effect. This kind of danger was written about long before the current pandemic (Shetty 2010, 970–971; Amanna 2005, 307–315). This particularly refers to vulnerable and marginalized populations, and minority populations with a history of disadvantaged social status, so it is important that cultural considerations are taken into account. Vaccine hesitancy may be stronger in such populations and may not be restricted to just concerns about the vaccines' safety and efficacy.

#### *2.2.2.6. Ethical Processes of Decision-Making*

Finally, transparency and stepwise decision-making by legitimate public health authorities should be fundamental elements of ethical analysis and decision-making about mandatory vaccination. Reasonable efforts should be made to engage affected parties and relevant stakeholders, particularly those who are vulnerable or marginalized, to elicit and understand their perspectives. Legitimate public health authorities that are contemplating mandatory vaccination policies should use transparent, deliberative procedures to consider the ethical issues outlined in this document, including the threshold of evidence necessary for vaccine safety and efficacy to justify a mandate. As in other contexts, mechanisms should be in place to monitor evidence constantly and to revise such decisions periodically.

In its conclusion, the WHO states that vaccines are effective in protecting people from COVID-19 and that governments and institutional policy-makers should use arguments to encourage voluntary vaccination against COVID-19 before contemplating mandatory vaccination. Efforts should be made to demonstrate the benefit and safety of vaccines for the greatest possible acceptance of vaccination. Stricter regulatory measures should be considered only if these means are not successful. A number of ethical considerations and caveats should be explicitly discussed and addressed through an ethical analysis when considering whether mandatory COVID-19 vaccination is an ethically justifiable policy option. Similar to other public health policies, decisions about mandatory vaccination should be supported by the best available evidence and should be made by legitimate public health authorities in a manner that is transparent, fair, non-discriminatory, and involves the input of affected parties.

### **3. CASE LAW OF THE EUROPEAN COURT OF HUMAN RIGHTS**

The case law of constitutional courts and of the European Court of Human Rights (ECtHR) can also be an important guide to WHO member states when making decisions on mandatory vaccination, on whether mandatory vaccination is in accordance with the human rights guaranteed both by the many constitutional texts and by the most important international treaties on human rights. The most recent and the most comprehensive test of proportionality in assessing a decision on mandatory vaccination was demonstrated by the ECtHR in its recent Grand Chamber judgment in

*Vavříčka and Others v. the Czech Republic*.<sup>21</sup> The proceedings were initiated by five parents who believed that the legal obligation to vaccinate children in the Czech Republic, against diseases that are well-known to medical science, was incompatible with the right to respect for private life guaranteed by Article 8 of the European Convention on Human Rights. The first applicant was fined for failing to comply with the obligation to vaccinate his two children, while the children of the other applicants were refused admission to preschool for the same reason.

The ECtHR first repeated its position expressed several times in its case law that mandatory vaccination, as an involuntary medical intervention, represents an interference with the right to respect for private life. Even though none of the contested vaccinations were performed, i.e., none of the vaccinations were administered against the will of the applicants, nor could they have been – because the applicable domestic law did not allow for the performance of the obligation to be imposed by force – the Court believed that, because of their refusal, the applicants bore the direct consequences of non-compliance with the vaccination duty.<sup>22</sup> In order to determine whether such interference constituted a violation of Article 8 of the European Convention, the ECtHR examined whether such interference was justified, having in mind the limitations of the right to respect for private life contained in Article 8 para 2 of the European Convention. This means that the interference was in accordance with the law, and that it had a legitimate goal (the interests of national security, public safety or the economic wellbeing of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others), and that the interference was necessary in a democratic society.

Assessing the lawfulness of the interference, the Court found that the interference that the applicants were contesting had a basis in domestic law, based on a combination of primary and secondary legislation, for which the domestic courts had already established that they satisfy the requirements of the Czech constitutional law.<sup>23</sup>

The objective of the relevant legislation was to protect against diseases that may pose a serious risk to health. This refers both to those who receive the vaccinations concerned as well as to those who cannot be vaccinated

---

<sup>21</sup> *Vavříčka and Others v. the Czech Republic*, Nos. 47621/13 and 5 others, 8 April 2021, § 113–114.

<sup>22</sup> *Ibid.*, § 263.

<sup>23</sup> *Ibid.*, §§ 266–271.

and are thus in a state of vulnerability, relying on the attainment of a high level of vaccination within society at large for protection against contagious diseases in question. This objective corresponds to the aims of the protection of health and the protection of the rights of others, recognized by Article 8 of the European Convention.<sup>24</sup> The court ascertained that there is a general consensus that vaccination is one of the most successful and cost-effective health interventions, and that each state should aim to achieve the highest possible level of vaccination among its population. However, as there is no consensus on which means is the most suitable for the protection of interests at issue, the Court found that the state's margin of appreciation should be a wide one.<sup>25</sup>

Finally, in assessing the necessity and the proportionality of the interferences, as the most important criterion for the term “necessary in a democratic society,” the ECtHR noted that the European Convention, as well as other international legal instruments, impose on the states a positive obligation to put in place effective public measures to protect the life and health of those within their jurisdiction. The expert material submitted by the Government of the respondent state conveys the firm view of the relevant medical authorities of the Czech Republic that the vaccination of children should remain a matter of legal duty in that country, and underlines the risk to the individual and public health that a possible decline in the rate of vaccination would give rise to, in the event that were it to become a merely recommended procedure. In the light of these arguments, the Court believed that it could be said that in the Czech Republic the vaccination duty represents the response of the domestic authorities to the pressing social need to protect individual and public health against the diseases in question and to guard against any downward trend in the rate of vaccination among children. Having in mind the extensive scientific evidence showing that early childhood is the optimum time for vaccination, and the reasons presented in favor of the compulsory nature of child vaccination in the Czech Republic, the Court acknowledged the important public health reasons that this choice of health policy is based on, especially regarding the efficacy and safety of vaccination during childhood, as well as the general consensus that supports the objective of every state to achieve the highest possible degree of vaccine coverage.<sup>26</sup> Regarding the proportionality of the measure of compulsory vaccination, the Court reiterated that the vaccination duty

---

<sup>24</sup> *Ibid.*, § 272.

<sup>25</sup> *Ibid.*, §§ 277–278.

<sup>26</sup> *Ibid.*, §§ 279–289.

concerns diseases for which vaccination is considered effective and safe by the scientific community, but that this was not an absolute duty. An exemption from the duty was permitted notably in respect of children with a permanent contraindication to vaccination. In addition, there was also an additional exemption based on the “secular objection of conscience” which the Constitutional Court recognized in the case of the first applicant and further elaborated in subsequent cases. Even though vaccination was a legal duty in the respondent state, the Court emphasized that its honoring cannot be directly enforceable and that, in this sense, there is no provision allowing for forcible administration of a vaccine. The sanction imposed on the first applicant – a one-time administrative fine – could be considered relatively moderate. As for the other applicants’ children, the Court believed that their non-admission to preschool establishments was a measure aimed in particular at safeguarding the health of young children, which was essentially protective rather than punitive in nature. The exclusion of children from preschool establishments meant the loss of an important opportunity for them to develop their personalities and to begin to acquire important social and learning skills in a formative pedagogical environment. However, that was the direct consequence of the choice made by their respective parents to decline to comply with a legal duty, the purpose of which was to protect their health, especially in that age group. Moreover, the effects on the applicants’ children were limited in time. Upon reaching the age of mandatory school attendance, their admission to primary school was not affected by their vaccination status. The Court, therefore, found that it could not be regarded as disproportionate for a state to require those for whom vaccination represents a remote risk to health to accept this universally practiced protective measure, as a matter of legal duty and in the name of social solidarity, for the sake of the small number of vulnerable children who are unable to benefit from vaccination. This is why, in the opinion of the European Court of Human Rights, the measures complained of by the applicants stand in a reasonable relationship of proportionality to the legitimate aims pursued by the respondent state through the vaccination duty.<sup>27</sup>

---

<sup>27</sup> *Ibid.*, §§ 290–309. The same position was taken by the European Commission in *Carlo Boffa and 13 others v. San Marino*, No. 26536/95, 15 January 1998, and the ECHR in *Solomakhin v. Ukraine*, No. 24429/03, September 24, 2012, § 33–39. For more on these decisions see Draškić 2018, 17–20.

#### 4. RULINGS OF EUROPEAN CONSTITUTIONAL COURTS

The issue of the constitutionality of the cited provisions of the Law on the Protection of the Population from Communicable Diseases was also raised before the Constitutional Court of Serbia. The Constitutional Court delivered a decision rejecting several initiatives for the assessment of the constitutionality of Article 32 of the Law on the Protection of the Population from Communicable Diseases with the following rationale:

“Having in mind all the above mentioned, the Constitutional Court finds that it is the undisputed competence of the legislator to prescribe health protection measures by law, for which it has been established, in accordance with the rules of the profession, that they achieve the most favorable results in preventing the spread of contagious diseases. As immunization is a preventive measure of healthcare that is an area of public healthcare activity and one undertaken in order to protect the population in its entirety from certain contagious diseases, the Constitutional Court finds that the legislator acted within its constitutional authority when prescribing mandatory immunization against the contagious diseases specified by law. Namely, the aforementioned measure is aimed at eliminating certain diseases from the entire population, which is, in the understanding of the Court, a legitimate objective, and is at the same time an obligation of the state arising from the provisions of Article 68 para 1 of the Constitution and of the right to the protection of physical and mental health, guaranteed by it to everyone ...”

“Furthermore, as under the Law on Healthcare Protection, every individual is obliged to preserve and enhance both their health and that of other people, the Constitutional Court finds that the impossibility of refusing vaccination logically follows from the said obligation. Therefore, in this concrete case, in the understanding of the Court, the constitutional right to an individual’s health protection correlates, on the one hand, with the obligation of the state to take appropriate protection measures, including preventive measures aimed at the entire population and, on the other hand, with each individual’s obligation to undergo a measure also aimed at achieving the rights of others to health protection. In connection with this, the Constitutional Court also cites a provision of Article 26 of the Convention on Human Rights and Biomedicine, according to which the law can place restrictions on the exercise of certain rights contained in the Convention, including the right to refuse medical intervention, if the restrictions are necessary in a democratic society, among other things, for the protection of public health or for the protection of the rights and freedoms of others. Since the Convention, upon ratification, became an integral part of the legal order of the Republic of Serbia, in accordance with Article 16 para 2 of the Constitution, the Patient



Rights Law thus also stipulates that the patient has the right to freely decide on everything that concerns his/her life and health, except when that directly endangers the lives and health of others, and that a medical measure can be taken against the will of a patient, i.e., legal representative of a child, only in exceptional cases specified by law. In view of the above, and since, according to the legislator, the measure of mandatory immunization is prescribed by the provisions of the challenged Law, as a necessary measure to preserve collective immunity in order to eradicate contagious diseases and preserve the health of all, based on Constitutional Court findings, prescribing mandatory immunization against certain diseases specified by law is not contrary to the constitutional guarantee of the right to protection of physical and mental health under Article 68 para 1 of the Constitution, as stated by the petitioners. On the contrary, the aforementioned is undertaken precisely with the aim of achieving the highest possible level of preservation of the citizens' health and to eradicate certain contagious diseases, all in line with the cited constitutional provision."<sup>28</sup>

The Constitutional Court of Croatia has also rejected proposals for the initiation of proceedings for the assessment of the constitutionality of relevant provisions of the Law on the Protection of the Population from Infectious Diseases governing mandatory vaccination. One of the petitioners explained his request by saying that the disputed provisions imposed and sanctioned the obligation to vaccinate while the state did not guarantee the people that, following vaccination, they would not fall ill with the diseases they were obliged to vaccinate against. The petitioner also pointed to potential health complications related to vaccination, believing that the human body protects itself from infectious diseases more efficiently and with less risk through the development of natural immunity by means of various unconventional techniques (meditation, energization, music therapy) and a natural way of life, and by using natural products (especially bee products), than through mandatory vaccination.

The Constitutional Court of Croatia, however, found these assertions to be unfounded, guided by an opinion from the Ministry of Health that it obtained in the normative control procedure: "In the submitted opinions, the Government of the Republic of Croatia and the Ministry of Health stressed that active immunization was the most effective and the safest measure in preventing infectious diseases, which are most common during childhood when the biological defense mechanisms are the least developed. They

---

<sup>28</sup> Ruling of the Constitutional Court of Serbia IUz 48/2016, 26 October 2017, <http://www.ustavni.sud.rs/page/jurisprudence/35/> (last visited 8 November, 2022). According to Draškić 2018, 20–21.

state that the main purpose of active immunization is to develop specific resistance in the youngest, i.e., the most vulnerable population. Regarding complications that may arise from vaccination, it is said that clinical side effects occur very rarely, mostly locally in the form of redness and painful swelling. They point out that active immunization during childhood has been proved, both in the Republic of Croatia and elsewhere in the world, as the most effective health protection measure in the prevention of infective diseases, by means of which some diseases have been eradicated (smallpox), while some have become extremely rare (diphtheria, polio) or rare (measles).

“Considering the challenged provisions from the aspect of the aforementioned constitutional provisions, the authority of the legislator to prescribe health protection measures that are, according to the rules of the medical profession, proven to achieve the most favorable results in preventing the spread of contagious diseases, as well as sanctions for those who break the law by failing to abide by the prescribed measures, is indisputable [...] In view of the above, by refusing vaccination, parents endanger the health of their own children, the health of other persons who are not vaccinated due to medical contraindications, and that of persons for whom vaccination has not achieved a satisfactory level of protection (no vaccination protects 100% of vaccinated people), thereby denying them the right to a healthy life [...] That being said, in order to ensure the aforementioned right, it is justified to oblige citizens by law to vaccinate against diseases whose prevention is of interest to the Republic of Croatia [...] Therefore, in order to protect a child’s health and a child’s right to health, it is justified to deny parents the choice of non-vaccination, because a child’s right to health outweighs the parents’ right to (the wrong) choice.”<sup>29</sup>

The Constitutional Court of Slovenia also ruled on the constitutionality of the Slovenian Communicable Diseases Act, adopting an interesting decision. Namely, regarding the constitutionality of certain provisions of the Communicable Diseases Act, the Constitutional Court established that Article 22.1.1. of the Communicable Diseases Act is undoubtedly an interference with certain human rights – the right to self-determination, the right to protection of physical integrity (Article 35 of the Constitution), and the right

---

<sup>29</sup> Decision U-I-5418/2008, U-I-4386/2011 and U-I-4631/2011, 31 January 2014. The Constitutional Court of Croatia passed a decision rejecting the constitutional complaint filed against the ruling of the Magistrates Court in Varaždin that found the applicant guilty for failing to allow the vaccination of her underage daughter with the vaccine Pentaxim and Engerix against diphtheria, tetanus, whooping cough and polio. See decision U-III-7725/2014, 11 July 2017, <https://www.usud.hr/hr/praksa-ustavnog-suda> (last visited 8 November, 2022). According to Draškić 2018, 21–22.

to voluntary medical intervention (Article 51.3. of the Constitution) – but that the goal of the disputed legal provisions that determine mandatory vaccination is to prevent the spread of contagious diseases. Protection of individuals from contagious diseases, therefore, should be ensured to the highest possible degree, and the outbreak of epidemics prevented, seeing as in the past contagious diseases have resulted in damages to the health – sometimes in the death – of a large number of people. Vaccination against contagious diseases achieves immunity of the vaccinated person, and with a vaccination rate of 90%–95% collective immunity of the entire population is also achieved. Therefore, the spread of contagious diseases and outbreaks of epidemics can be prevented only if a satisfactory level of general immunization coverage is achieved. This is why it is necessary for every person to be vaccinated, unless there are justified reasons (contraindication) to omit vaccination. Since the Constitution itself allows for certain health measures to be prescribed by law even without patient consent (Article 51.3.), it is clear that mandatory vaccination can also be regulated by law in order to achieve the desired goal – ensuring collective protection from contagious diseases. This is why individuals cannot exercise their right to self-determination by claiming that the spread of contagious diseases will be prevented thanks to those who have consented to vaccination. Vaccination has greatly contributed to raising the overall level of health protection of the population, i.e., to significantly reducing the number of persons sick with contagious diseases or who succumb to them, as there have been no epidemics or even individual cases of persons contracting certain diseases in recent years. The Constitutional Court of Slovenia, therefore, concluded that mandatory vaccination, as prescribed by Article 22.1.1. of the Communicable Diseases Act, is an adequate measure for achieving the desired legitimate goal, i.e. the prevention and control of contagious diseases. Moreover, the Constitutional Court of Slovenia holds that the benefit of vaccination to the health of individuals and the broader community exceeds any possible damage which may be incurred by individuals due to the side effects of mandatory vaccination. In the opinion of experts, the risk of individuals suffering damage to their health due to vaccination is considerably lower than the damage that could be caused to them by the disease itself, which can have far more serious consequences than vaccination (Šelih 2000, 52–54). Even if there were side effects of vaccination in individual cases, they are mostly mild and regularly pass without any additional medical intervention or permanent damage (mild allergic reaction, slight fever, headache, etc.), while medical intervention or hospitalization are seldom required. As opposed to this, in situations where vaccination could pose a great risk to a patient's health, the Law provides for finding permanent or temporary justified solutions to omit vaccination. Omitting mandatory vaccination,

however, would be a big risk in situations in which the number of vaccinated persons in the overall population would drop below the critical limit, for that would mean a reoccurrence of certain contagious diseases or epidemics. Such consequences for the health and lives of people would be disproportionately greater than the risk of health problems that only exceptionally occur following vaccination. In other words, the Constitutional Court finds that the benefits of mandatory vaccination to the health of individuals and the broader community exceed the consequences of interference with the constitutional rights of each person, and thus mandatory vaccination, as defined by the Communicable Diseases Act, is not an excessive measure.<sup>30</sup>

Similar decisions with analogous reasoning to those cited in the decisions of the constitutional courts of Serbia, Croatia and Slovenia were also passed by the Constitutional Council of France, the Constitutional Court of Hungary, the Constitutional Court of North Macedonia, the Constitutional Court of Italy, the Constitutional Court of Moldova, the Constitutional Court of Slovakia, and the Court of Appeal in the United Kingdom.<sup>31</sup>

## **5. INSTEAD OF A CONCLUSION: ITALY'S EXAMPLE THAT SHOULD HAVE BEEN FOLLOWED**

Mandatory vaccination against contagious diseases, which can be dangerous, severe, and easily transmitted, is undoubtedly the safest way to protect public health and one of the ways to ensure the highest level of health and medical care nationally. However, in order for vaccination to be effective, collective immunity needs to be achieved, which means that it is not enough for individuals to get vaccinated and therefore protect themselves from contagious diseases, but almost all members of society need to do the same. The vaccine coverage rate that is necessary to stop an infection, differs depending on the contagious disease in question, but for those that are the most contagious, such as COVID-19, it is extremely high and requires coverage of about 90% of the population. It is also true that some people have medical contraindications to vaccination (for example, patients with malignant diseases, patients who have had organ transplants, pregnant women in the first trimester, people who develop allergic reactions

---

<sup>30</sup> Decision of the Constitutional Court of Slovenia U-I-127/01, 12 February 2004, § 12–25, *Uradni list RS* 25/2004. According to Draškić 2018, 23–24.

<sup>31</sup> See more in *Vavrička and Others v. the Czech Republic*, Nos. 47621/13 and 5 others, 8 April 2021, §§ 94–128.

to vaccines, etc.), but an immunity barrier in the population is important precisely for them, so they do not have the opportunity to get infected, even though they themselves have not been vaccinated.

In spite of this, there are people who oppose mandatory vaccination. The reasons for this attitude are many and they include a wide spectrum of circumstances, from the most banal ones – based on a combination of tales, rumors, prejudices, anecdotes, populist slogans and claims that are not supported by credible sources – to a general tendency of people to put up resistance against anything that is forced on them. Vaccination is presented as the citizens' right to freedom to decide about their own lives and health and as the right to freedom of thought in an atmosphere of political correctness, even though it is a matter of basic scientific facts in the domain of public health and general interest, where qualified professionals must have the last say.

Still, there is certainly an alternative to mandatory vaccination, though it is by no means “meditation, energization, music therapy and a natural way of life”, a medication that has not been scientifically approved for the treatment of this disease, or arbitrary use of various immune-boosting products. The alternative to mandatory vaccination is simply widespread voluntary vaccination, and this can be achieved solely by persistently and constantly informing people on credible scientific discoveries and by assuring them that scientifically verifiable facts exist and are available. Unfortunately, the incumbent authorities in Serbia are not acting in an enlightening and emancipatory manner; they have no intention of carrying out a serious and comprehensive vaccination campaign, obviously caring more about the fact that various xenophobic anti-vaxxer groups, extreme rightists, and theorists with the most diverse conspiracy theories constitute a significant part of the electorate. They have continuously used the majority of the media to spread confusing messages both in favor and against vaccination,<sup>32</sup> thus only additionally shaking the confidence of the people who are unable to resist fake news, who are confused and indecisive because they are incapable of critical thinking, or are simply insufficiently informed. Instead, a serious and responsible state would promote the clear and outspoken position that science is the supreme factor in the fight against pandemics and that measures for the protection of the population from severe contagious diseases must not be passed by those who know absolutely nothing about the field of epidemiology.

---

<sup>32</sup> See, for example, the numerous public appearances by Branimir Nestorović, professor of the University of Belgrade Faculty of Medicine, in which he presented scientific untruths, nonsenses, belittled and ridiculed the threat of the epidemic and on many occasions publicly promoted inappropriate behavior patterns.

The Italian Government, headed by Prime Minister Mario Draghi, demonstrated precisely this approach in a successful fight against the pandemic, yet without mandatory vaccination. This approach showed that national interests, public health and a legal state can function almost impeccably, because the most efficient network in Europe for widespread vaccination of the population was organized there. The target was set at the beginning of the vaccination campaign: 80 percent of the population must be immunized by the end of 2021, which would pave the way for the lifting of the state of emergency declared in connection with the pandemic.

What is particularly important – and could be an exceptionally important guide for Serbia (if it is not too late) – a media campaign was simultaneously conducted against fake news released by the so-called anti-vaxxer circles. Even though Italian society is highly susceptible to conspiracy theories – much more than other European Union members – the coordinated work on reporting and timely exposure of anti-vaxxer propaganda in the media produced excellent results, and subversive groups failed to spread their influence and remained limited to their narrow circles. It is known from the very beginning of the pandemic that somewhere between 10 and 15 percent of Italians were sworn opponents of vaccines and that it would be very difficult to persuade them to get vaccinated. This is why the key objective was to protect the remaining Italians, i.e., to ensure that opponents of vaccination were not in a position to contaminate the rest of the population. The clear results of the measures carried out by the Italian Government in suppressing the pandemic rather irritated the hardline anti-vaxxer core, because all conspiracy theories, starting with the most stupid ones – that vaccines killed people and contained microchips – to the theory on the collusion between the government, Big Pharma and the journalists who manipulated the results, faded away when confronted by exact figures. Mario Draghi pursued the policy of zero tolerance for anti-vaxxers from the very beginning, not allowing rightist parties (which anti-vaxxers mostly voted for) to impose conditions on the Government, the vaccination campaign, and the implementation of other anti-pandemic measures. The secret of the success of this policy was exposing the policy of extremist and rightist parties, which were willing to push the country into a new wave of the coronavirus pandemic, in order to obtain the votes necessary to gain power, yet without adequate tools to suppress the disease. With widespread vaccination and a consistent implementation of suppression measures, Italy became an example that should have been followed.

## REFERENCES

- [1] Amanna, Ian, Mark Slifka. 2/2005. Public fear of vaccination: Separating fact from fiction, *Viral Immunology* 18: 307–315.
- [2] Arsenović Ranin, Nevena, Biljana Bufan, Brankica Filipić. 2020. *COVID 19 vaccine u Srbiji*. Belgrade: University of Belgrade Faculty of Pharmacy.
- [3] Draškić, Marija. 2010. Usklađenost propisa Srbije sa Konvencijom Saveta Evrope o ljudskim pravima i biomedicini: pravo na samoodlučivanje deteta prilikom preduzimanja medicinskih intervencija. 37–53 in vol. 5 of *Pravni kapaciteti Srbije za evropske integracije*, edited by Stevan Lilić. Belgrade: University of Belgrade Faculty of Law.
- [4] Draškić, Marija. 3/2018. Obavezna vakcinacija dece: pravo pacijenta ili interes javnog zdravlja?. *Annals of the Faculty of Law in Belgrade* 66: 7–30.
- [5] Gostin, Lawrence O., Daniel A. Salmon, Heidi J. Larson. 6/2021. Mandating COVID-19 Vaccines. *The Journal of the American Medical Association* 325: 532–533.
- [6] Gravagna, Katie, Andy Becker, Robert Valeris-Chacin, Inari Mohammed, Sailee Tambe, Fareed A. Awan, Traci L. Toomey, Nicole E. Basta. 49/2020. Global assessment of national mandatory vaccination policies and consequences of non-compliance. *Vaccine* 38: 7865–7873.
- [7] Ivočić, Neda. 2004. *Saglasnost za medicinsku intervenciju i odgovornost lekara*. Podgorica: Pravni fakultet.
- [8] *Politika*. 2021. Korona odlaže godišnje odmore medicinaru. September 3.
- [9] Šelih, Alenka. 2000. Pravni vidiki obveznega cepljenja. *XI. srečanje pediatrov v Mariboru, Slovenska pediatrija*. Ljubljana: Pediatrična klinika.
- [10] Schwartz, Jason L. 2020. Evaluating and Deploying Covid-19 Vaccines – The Importance of Transparency, Scientific Integrity, and Public Trust. *The New England Journal of Medicine* 383:1703–1705.
- [11] Shetty, Priya. 2010. Experts concerned about vaccination backlash. *Lancet* 375: 970–971.
- [12] World Health Organization, Regional Office for Europe. 1996. *European Health Care Reforms: Citizens' Choice and Patients' Rights*. EUR/ICP/CARE 94 01/CN (A). Copenhagen: World Health Organization.

- [13] World Health Organization. 2021a. *COVID-19 and mandatory vaccination: Ethical considerations and caveats: policy brief, 13 April*. <https://apps.who.int/iris/handle/10665/340841> (last visited 7 November, 2022).
- [14] World Health Organization. 2021b. *Interim position paper: Considerations regarding proof of COVID-19 vaccination for international travelers*. <https://www.who.int/news-room/articles-detail/interim-position-paper-considerations-regarding-proof-of-covid-19-vaccination-for-international-travellers> (last visited 8 November, 2022).

Article history:

Received: 6. 7. 2022.

Accepted: 31. 10. 2022.







UDC 005.334:656.7; 616.98:578.834]:656.7

CERIF: T 310

DOI: 10.51204/Anali\_PFBU\_22405A

**Milica KALIĆ, PhD\***

**Danica BABIĆ, PhD\*\***

**Slavica DOŽIĆ, PhD\*\*\***

**Jovana KULJANIN, PhD\*\*\*\***

**Nemanja MIJOVIĆ\*\*\*\*\***

## ***IMPACT OF COVID-19 ON THE AVIATION INDUSTRY: AN OVERVIEW OF GLOBAL AND SOME LOCAL EFFECTS***

*The COVID-19 pandemic temporarily paralysed demand for air travel causing long-term implications for all industry stakeholders involved. Nobody was spared, and without government support, many airlines, airports and air*

---

\* Professor, University of Belgrade Faculty of Transport and Traffic Engineering, Serbia, [m.kalic@sf.bg.ac.rs](mailto:m.kalic@sf.bg.ac.rs).

\*\* Associate Professor, University of Belgrade Faculty of Transport and Traffic Engineering, Serbia, [d.babic@sf.bg.ac.rs](mailto:d.babic@sf.bg.ac.rs).

\*\*\* Associate Professor, University of Belgrade Faculty of Transport and Traffic Engineering, Serbia, [s.dozic@sf.bg.ac.rs](mailto:s.dozic@sf.bg.ac.rs).

\*\*\*\* Assistant Professor, Polytechnic University of Catalonia, Spain, [jovana.kuljanin@upc.edu](mailto:jovana.kuljanin@upc.edu).

\*\*\*\*\* PhD Student, University of Belgrade Faculty of Transport and Traffic Engineering, Serbia, [nemanja.mijovic91@gmail.com](mailto:nemanja.mijovic91@gmail.com).

*navigation service providers (ANSP), would have gone out of business already in the first year of the pandemic. In order to assess the global impact of COVID-19 on the aviation industry, this paper reviewed data from publications by various international aviation organizations, academic papers, and annual reports by airlines, airports and ANSPs, etc. The findings show that the global aviation industry was severely hit by the pandemic, pushing all stakeholders to adopt countermeasures, with the most common response by airlines being the reconfiguring their networks and capacity or switching to cargo operations, airports and other operators reacted by reducing staff numbers, while passengers had to adapt to the new travel rules and the new normality.*

**Key words:** *Aviation industry. – COVID-19. – Government support. – Passenger experience. – Response to crisis.*

## 1. INTRODUCTION

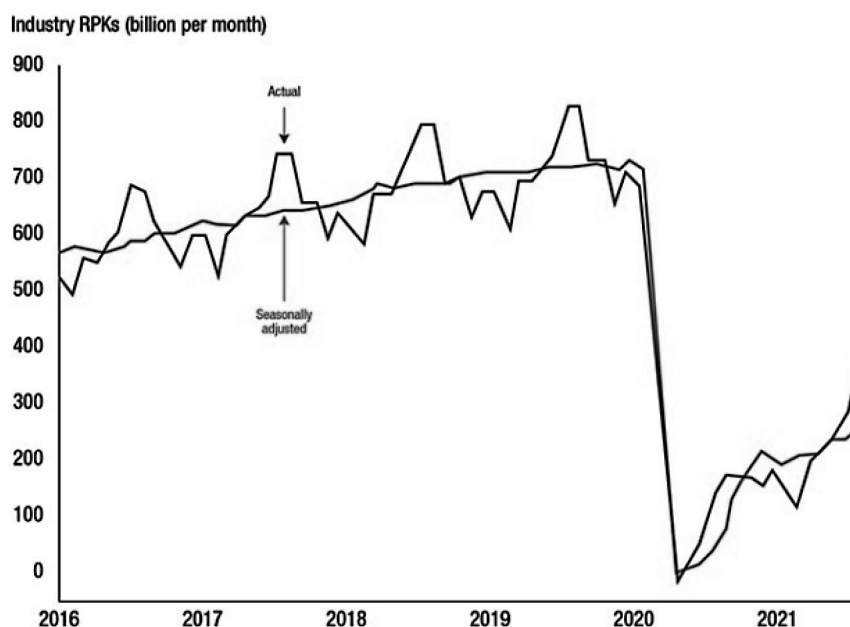
The pandemic caused by the COVID-19 disease has had a very negative impact on air travel demand, driving the aviation industry in 2020 to perform the worst results in the recent history of civil aviation, both in term of the transport of passengers and the transport of goods, Figure 1 (IATA 2021). The pandemic caused financial harm to all aviation stakeholders, most notably to airlines. They all reported massive net losses in 2020 in their income statements, with the exception for cargo airlines, which benefited from the rise in demand for air cargo (Bouwer *et al.* 2022). Although it was anticipated that in 2021 the aviation industry might recover from the impacts of the pandemic in 2020, only a moderate recovery in domestic travel was recorded, while international travel remained stagnant.

As of 24 March 2020, many airlines had temporally suspended (or ceased) their operations, and to make matters worse, the recovery of the operations pattern for COVID-19 turned out to be highly uncertain and substantially different than the short-sharp V-shaped pattern observed after the SARS outbreak (Suau-Sanchez *et al.* 2020). IATA (2021a) reported that the COVID-19 pandemic caused global passenger demand (revenue passenger kilometres or RPKs) to drop by 65.9% in 2020 compared to 2019, consequently leading to a decrease of airline passenger revenue by USD 418 billion – a 68.9% drop compared to 2019. According to IATA Outlook (2021b), in 2020 airlines posted the largest ever collective net loss – USD 126.4 billion. At the peak of the crisis, in April 2020, 66% of the world's commercial air transport fleet was grounded as governments closed borders or imposed strict quarantines (IATA 2021). The impact of COVID-19 on

global scheduled passenger traffic in 2021 (compared to 2019 levels), was slightly better, resulting in an overall 40% reduction in seats offered by airlines, a 49% reduction in passengers carried, and approximately USD 324 billion in net loss of gross passenger operating revenues of airlines (ICAO 2022). The effects of this crisis significantly outweighed the effect of the 2008 economic downturn, during which the airline industry reported USD 30 billion in net losses – an abrupt end to a 10-year profit run. In the long term, the impact of COVID-19 on the global air transport system appears to be more profound on the international market, in which airlines typically generate a large amount of their revenues.

Figure 1.

Global air passenger traffic (in revenue passenger kilometres – RPKs)



Source: IATA, 2021

The aviation industry in every region of the world has been strongly affected by the pandemic, and this significant drop in air traffic has given rise to public policy concern for the survival of many stakeholders in this sector, but most notably for flag carriers and international hub airports. Given the vital contribution of aviation to global trade, as well as to the overall labour market, many governments across the world have provided financial and other means of support. This, in turn, has given rise to concerns about competition and the maintenance of a level playing field in the air transport sector.

Taking all this into account, the aim of this paper is to explore the overall implications of the COVID-19 pandemic on the global aviation industry, identifying problems and highlighting different policy responses to the ongoing crisis. We examine the impact on aviation industry in the following areas: airline business and operations, airport business and operations, air navigation service providers (ANSP), aircraft manufacturers and leasing companies, general aviation, and passenger experience. The structure of the paper is as follows. Section 2 reviews the related studies on the impact of COVID-19 on aviation. Section 3 provides an overview on how the demand drop and flight suspensions affected the global air transport market. Sections 4, 5, 6, 7 and 8 discuss the impact on different stakeholders in aviation industry. Section 9 provides an overview of the aviation industry in Serbia during pandemic. Finally, the paper concludes by discussing future considerations for operators in the aviation industry who are still seeking how to restructure their operations and adapt to the new reality, and what lessons have been learned from the past two years.

## 2. LITERATURE REVIEW

The impact of COVID-19 on aviation has been the subject of many research papers due to its importance to society and the economy as a whole, especially during 2020 and 2021. All these papers used currently available data with the aim of determining the relationship between the state of reduced air travel demand and the pace of recovery, predicting the direction in which air transport will develop further, and anticipating recovery patterns from one of the strongest crisis that has ever hit the aviation sector. With regard to the research areas, the recent literature which investigates the impact of the COVID-19 pandemic on the aviation industry was thoroughly analysed, and the main findings are summarized in Table 1.

Table 1.  
Selected papers on the impact of the COVID-19 pandemic  
on the aviation industry

Author, year	Research area	Region	Main findings
Kim, Sohn 2022	Passenger, airline, and government policy	South Korea	<u>Passenger responses</u> : int. air passenger demand declined by more than 90%; domestic passenger demand recovered to 2019 levels in August 2020.

Author, year	Research area	Region	Main findings
Kim, Sohn 2022	Passenger, airline, and government policy	South Korea	<p><u>Airline responses</u>: domestic route transitions, cargo transport, and mergers and acquisitions; full service carriers (FSC): operations on indispensable int. routes; labour strategies (retirement, rotational unpaid leave, working from home, wage cutbacks, layoffs), loans, asset sales (real estate, company housing); low cost carriers (LCC): new domestic flights and increase of proportion of routes; exits from the market.</p> <p><u>The government responses</u>: established an airport quarantine system at Incheon International Airport; subsidies to airlines and airports.</p>
Beck, Hensher 2020	Passengers	Australia	<u>Survey results</u> : 37% of passengers experienced some kind of disruption to their planned travel; interrupted travel was primarily international (63%) as opposed to domestic (55%); almost half of respondents cancelled travel (49%), a large number returned tickets for vouchers or credit with the airline, with 11% having rebooked their flights for a later date.
Schultz <i>et al.</i> 2020	Aircraft ground operations	General	The passenger boarding process was prolonged due to physical distances between passengers, expansion of standard cleaning, and the disinfection after each flight. A significant extension of boarding times if the physical distance rule was applied.
Sun <i>et al.</i> 2020	Global air transport; air transportation networks	Worldwide	The Southern Hemisphere was more affected than the Northern Hemisphere regarding the drop in connectivity; the impacts of the COVID-19 pandemic on international flights were much greater than on domestic flights; each airport lost 50% of its connections on average; Europe has undergone probably the most significant changes regarding network connectivity.
Bauer <i>et al.</i> 2020	Airline business models	General	Strong reason and evidence to believe that the implications of the COVID-19 pandemic will accelerate the acceptance and use of point-to-point, ultra-long-haul services.
Warnock-Smith <i>et al.</i> 2021	Airline, airports	China	Less well-financed carriers whose networks are focused on international markets, premium traffic and discretionary leisure travel have been found to be impacted the most by the pandemic and are those that are likely to take the longest to recover. Better financed airlines with greater focus on domestic markets, non-discretionary traffic, and standard economy class fares have been found to be less severely impacted

Author, year	Research area	Region	Main findings
Warnock-Smith <i>et al.</i> 2021	Airline, airports	China	by the pandemic. Reductions in traffic caused very significant decreases in airport revenues and profits, especially for airports with large international traffic volumes (Beijing, Shanghai, and Hong Kong). However, airport construction and capacity expansion have returned, indicating the government's optimism about the future.
Garaus, Hudakova 2022	Airline, passengers	General	The aviation industry reacted to travellers' rising concerns about becoming infected with the disease by introducing several safety measures to ensure a safe trip. Employing an experimental design, the current research demonstrates that during the COVID-19 pandemic, consumers reacted more favourably to safety as compared to emotional advertising appeals.
Nhamo <i>et al.</i> 2020	Airports	Global network of airports	In the 10 days following the declaration of the pandemic in March 2020, departures plummeted to less than 10,000 aircraft globally. By the end of April 2020, there were fewer than 2,000 departures on average. Flying hours declined by 56% in North America and by 76% in Asia, with other regions recording much higher declines, totalling as high as 90%. Airlines grounded their fleets, which was an opportunity for airports to generate revenue from parking fees. Several airports across the world closed some runways to accommodate the aircraft. The bulk of employees were furloughed or laid off due to reduced operations or the closure of airports across the world. Also, airports responded by closing sections of the airport as cost containment measures.
Amankwah-Amoah 2021	Airlines, airports, passengers	Global airline industry	Development of the 'CoviNovation' including inflight social distancing, utilizing touchless technologies at airports, disinfecting aircraft with UV light, open-middle-seat policy, accelerated use of biometrics during check-in, and COVID-19 insurance, to point out some of the COVID-inspired processes and product innovations that were implemented in an attempt to respond to the crisis.
Arora <i>et al.</i> 2021	Airports	Global airline industry	Overview of the effects of the pandemic and categorization of the response mechanisms. The authors proposed a framework for a coordinated global response to future disease outbreaks.



Author, year	Research area	Region	Main findings
Choi 2021	Airports	Incheon International Airport, South Korea	After COVID-19 pandemic, safety and hygiene will be the top priority. Dwell time increase may be a by-product. Results suggested that dwell time increase has a more significant impact on increasing the existing purchasers' spending than creating new buyers. Airport operators may introduce a service differentiation perspective, such as a dedicated service, to utilize the current buyers' dwell time more faithfully.
Zhang, A. <i>et al.</i> 2021;	Air transport network	ASEAN+5: 10 ASEAN Member States, plus Japan, Korea, China, Australia, and New Zealand	The impacts of the COVID-19 pandemic on air transport connectivity in the 'ASEAN+5' and the region's international trade are investigated and quantitatively examined as a critical, emerging region in both aviation and overall economic/trade activities. The authors provide an in-depth description of the interactions from a complex system perspective, using network science tools.
Fontanet-Perez <i>et al.</i> 2022	Airlines	United States: 10 main passenger airlines	The impact of the COVID-19 pandemic on the US airlines market, including the benefits and limitations of current business models in the context of increasing socio-economic uncertainty and stringent environmental regulations.
Cheong <i>et al.</i> 2021	Airlines	Singapore	The impact of the COVID-19 pandemic on Singapore Airline's profit recovery and aircraft allocation (the number of aircrafts to be allocated to serve passengers & cargo, and the number of aircraft that will go into storage) are examined.
Sobieralski 2020	Airlines	United States	Employees at major airlines will be the most impacted during the pandemic. LCC and regional airlines' business models afford the ability to weather uncertain times without the large employment reductions seen by the major carriers. Recovery following uncertainty shocks is estimated to take between 4 and 6 years.
Sun <i>et al.</i> 2021	Air transport network	United States, Europe-27 and China	The impact on the air transport system was explored from unique perspectives: the international country network, domestic subnetworks, and the heterogeneous effect on airports. Three regions/countries have different strategies for the COVID-19 pandemic. It is difficult to assess which of these strategies should be chosen and at which point, in order to expedite recovery.

Author, year	Research area	Region	Main findings
Sun <i>et al.</i> 2021	Liter. over. on COVID-19 and air transport	–	110 selected papers published in 2020 grouped into following categories: analyses of the global air transport system during the COVID-19 pandemic, impacts on the passenger-centric flight experience, and long-term impacts on aviation overall. Further, papers from each category are classified into several sub-categories.
Thep-chalerm, Ho 2021	Liter. over. and reports on COVID-19 and airline business	–	In response to the COVID-19 pandemic, airlines have updated their operational procedures and explored alternative revenue streams. Airlines need to focus on infection prevention, update their procedures according to the guidelines provided by health care organizations, aviation associations and state governments, as well as adjust their routes and network.

Source: Authors

Although some studies have discussed the impact of the COVID-19 pandemic on the aviation industry, there is still a gap in the relevant literature regarding in-depth analysis of the impact on different stakeholders. As already pointed out, this paper endeavours to close this gap by providing an extensive overview of how the aviation industry reacted to the COVID-19 crisis, together with industry performance in 2020 and 2021. Moreover, the typical crisis response strategies of different stakeholders in aviation across the world will be also examined as one of the important aspects that ensure their business survival. First, we provide an analysis of the reactions to the COVID-19 crisis worldwide and, where applicable, by region. Then, we point out the European stakeholders' strategic responses and outline some implications for the competitive environment in the industry. Finally, we provide a brief overview of the state of the aviation industry in Serbia and how the aviation stakeholders, in such a small market, responded to crisis.

### 3. AIR TRANSPORT OVERVIEW: THE PERIOD 2010–2022

Despite downturns caused by economic crises, recessions, fluctuations in jet fuel prices, and other crisis situations, world air traffic showed stable long-term growth prior to 2019. The COVID-19 pandemic, which hit the whole world in early 2020, is the first crisis that caused long-term disruption in the air transport market. The return to the 2019 level of air traffic and the continuation of the growing trend is uncertain. According to the current forecasts, made in early 2021, the air traffic full recovery cannot be expected

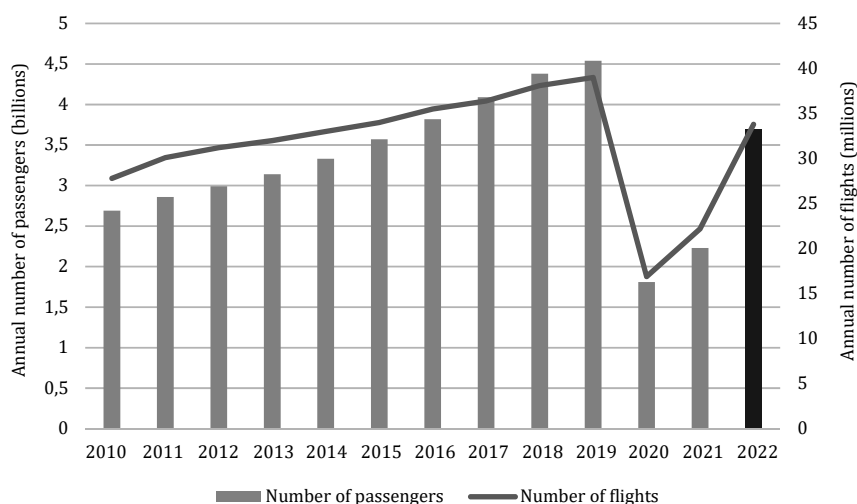
before 2024 (IATA 2020a). Until the beginning of 2020, the number of flights and the number of passengers in air transport had increased year after year. The development of passenger air transport worldwide (number of passengers and number of flights) in the period from 2010 to 2022<sup>1</sup> is shown in Figure 2. The number of passengers in 2022 is a projection based on results recorded for first ten months.

The total number of passengers in air transport in 2019 was 4.54 billion. Due to the crisis caused by the COVID-19 pandemic, the number of air passengers in 2020 decreased drastically and, according to ICAO estimates, amounted to 1.79 billion, which is 60.6% less than in 2019. It can be expected that the number of passengers in 2022 will almost double compared to 2020, but that number will also be significantly lower than in 2019 (app. 25% less).

Figure 3 shows the annual number of passengers per year (in million) in Europe, encompassing the EU, Iceland, Norway, Switzerland, Turkey, Serbia, Montenegro, Bosnia and Herzegovina, North Macedonia, and Albania. It is very important to emphasize that statistical data for EU-27 exclude the UK as of 2020. Thus, in 2020 and 2021, UK data is taken into account separately. The total number of air passengers in Europe in 2019 was 1.49 billion.

Figure 2.

Annual number of passengers in the world (in billions) and annual number of flights in the world (in millions), in commercial scheduled air transport.

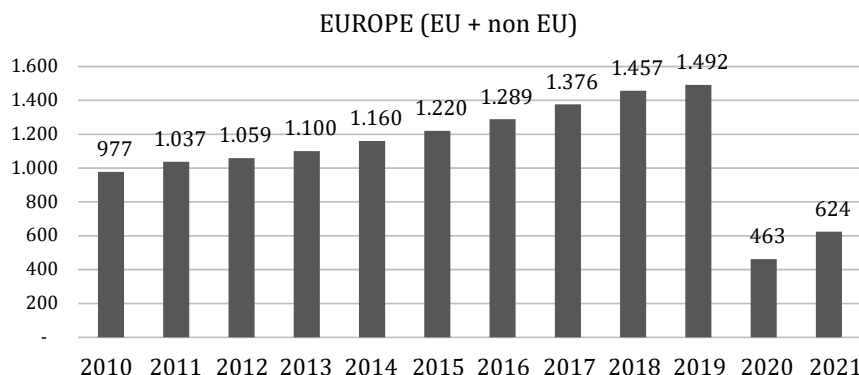


Source: Authors; Data source: Statista 2022a.

<sup>1</sup> Data for 2022 in Figure 2 is estimated.

Due to the impact of the COVID-19 pandemic, the number of passengers decreased drastically in 2020, by more than three times comparing to 2019. Air passenger transport in the European Union (EU-27) amounted to only 276.5 million passengers in 2020. This is a 76% decrease compared to 2019.

Figure 3.  
Annual number of passengers in Europe (in millions)



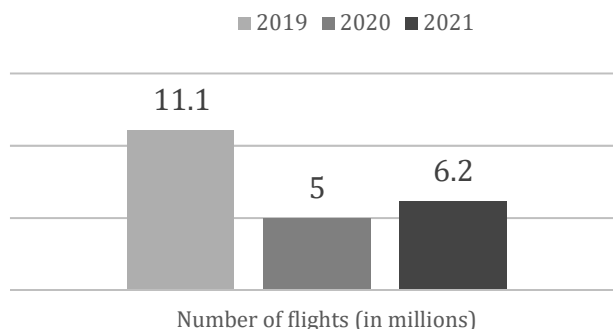
Source: Authors; Data source: Statista, national statistical agencies, airport websites, reports.

Around 30% of air passengers in the world use the LCC services, while in Europe the share of passengers who use low-cost airlines is even greater (36%). The LCC share on intra-European routes in the first half of 2022 year was 47%, compared with just short of 42% in the equivalent period of 2019 and also for 2019 as a whole (CAPA 2022).

In Europe, the number of flights decreased by 55.2% in 2020 and resulted in 6.1 million fewer flights compared to 2019 (see Figure 4, EUROCONTROL, FAA 2021). Even though the region saw significant improvement in the third and fourth quarters of 2021, Europe ended the year at 43.5% of its 2019 level. According EUROCONTROL,<sup>2</sup> 9.3 million flights operated throughout Europe are expected in 2022 (entire year), representing 84% of the 2019 traffic level.

<sup>2</sup> EUROCONTROL. 2022b. EUROCONTROL expects 9.3M flights in 2022. <https://www.eurocontrol.int/press-release/eurocontrol-expects-9-3m-flights-2022> (last visited 27 November, 2022).

Figure 4.  
Annual number of flights in Europe (in millions)



Source: Authors; Data source: EUROCONTROL 2022a.

The 7-day average number of flights in Europe in 2019 varied between 23 thousand to 35 thousand flights. From March 2020 to December 2020, the 7-day average number of flights between 3 thousand and 17 thousand flights, while in 2021 the daily number of flights was between 10 thousand and 25 thousand. Peak daily flights were on 27 Aug 2021 (26,773), –28% compared to the 2019 peak of 37,228 (28 Jun 2019) (see Table 2).

Table 2.  
Average number of flights in Europe variation, by country

Countries	Differences in flights (%), 2021 vs. 2019
United Kingdom, Ireland, Finland	– 62%
Sweden, Denmark, Latvia, Czech Republic, Hungary, Austria, Slovakia, Germany	between – 56% and – 50%
Switzerland, Lithuania, Estonia, Slovenia, Italy, Poland	between – 48% and – 46%
France, Portugal, Netherlands, Spain, Malta, Bulgaria	between – 44% and – 40%
Croatia, Norway, Romania, Luxembourg, Belgium, Moldavia	between – 39% and – 36%
Turkey, North Macedonia, Cyprus, Serbia, Montenegro	between – 35% and – 30%
Ukraine, Greece, Bosnia & Herzegovina, Albania	–27% and less

Source: Authors; Data source: EUROCONTROL 2022a.

## 4. AIRLINES

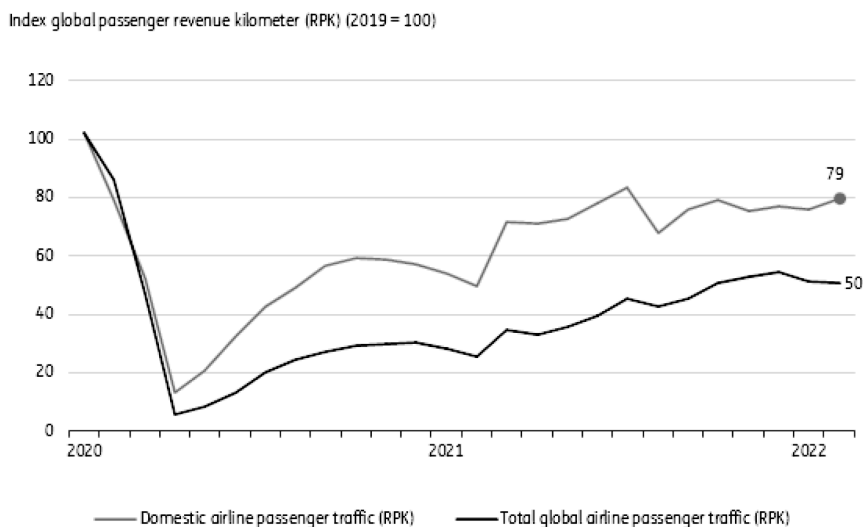
### 4.1. Worldwide

The airline industry is very sensitive to major external events such as terrorism, political instability, natural disaster, energy crisis, and major public health risk. Each of these events may severely affect both their operations and passenger demand. The same effect occurred this time when the COVID-19 pandemic began in early 2020 – the airline industry experienced a sharp decline in traffic operations. The final global economic impact of COVID-19 on civil aviation in 2020 and 2021 can be summarised as follow (ICAO 2022b):

- *2020 vs 2019: seats offered –50%; passengers flown –2.703 million; airline revenue loss USD 372 billion.*
- *2021 vs 2019: seats offered –40%; passengers flown –2.2031 million; airline revenue loss USD 324 billion.*

The COVID-19 pandemic has greatly reduced travel demand, affected investor expectations, and caused a negative impact on airline stock prices (Atems, Yimga 2021). The impact of the COVID-19 pandemic on international

Figure 5.  
Global airline passenger traffic 2020–2022.

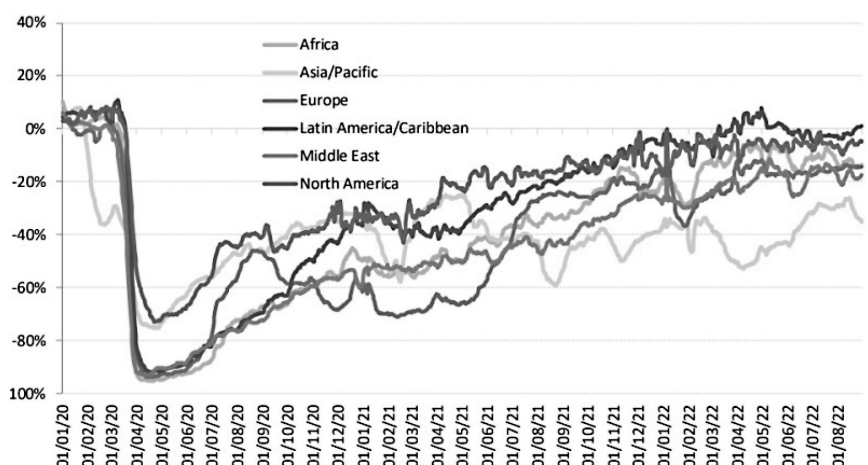


Source: IATA 2022b.

flights appeared to be much greater than on domestic flights (Sun *et al.* 2020), causing more financial damage to FSC than to LCC (Zhang *et al.* 2022). Accelerated recovery of the airline industry started in mid-2020, following the summer season, at a pace of around 4 percentage points/month, compared to 2019 (IATA 2022a). However, at the beginning of 2021, the recovery of airline industry was slowed down again by the impact of a new COVID-19 variant, Omicron. Countries around the world started to reimpose travel restrictions in order to slow the spread of the infection (Fig. 5). Despite all the restrictive measures, overall travel demand strengthened in 2021 due to passenger desire to travel – particularly for VFR (visiting-friends-and family) purposes and holidays – and an increased number of vaccinated people.

Undoubtedly different and uncoordinated restrictive measures, as well as the speed of their abolition, influenced the number of flights and total seat capacity by regions to recover at different pace (see Figure 6). While all regions were impacted by the crisis, regional difference in resilience and speed of recovery depended on operations of the domestic airlines. Airlines with larger domestic markets or with large cargo operations were certainly in better positions, and with their operations, led the industry on an upward trend.

Figure 6.  
Comparison of total seat capacity by region  
(7-day average, compared to 2019).



Source: ICAO 2022a.

Due to the fact that the airline industry traditionally has a highly cyclical business, with extremely high working capital turnovers, contrasted by very low profit margins (Doganis 2005), with so sharp decline in demand, it is not surprising that it was one of the global industries affected the most by the COVID-19 pandemic. The pandemic hit the airline industry when it had very low cash reserves, with most airlines having only two months' worth of cash or less available (Dube *et al.* 2021). In order to mitigate the effects of the COVID-19-induced crisis and protect themselves from bankruptcy, the airlines desperately struggled to obtain financial government/state aid. This presented a large shift in the regulatory policies of many countries, including that of the European Commission (EC), which strictly prohibited such practice in the decades prior to COVID-19. On 19 March 2020, the EC adopted a Temporary Framework for State Aid measures<sup>3</sup> to remedy serious disturbances in the economies of the Member States. Moreover, in early April 2020 the 41 Member States of EUROCONTROL approved the temporary deferment of route charges billed through the EUROCONTROL Multilateral Route Charges System, due in April, May, June and July 2020, with payments beginning in November 2020 (EUROCONTROL 2021a). In the US, the Coronavirus Aid, Relief, and Economic Security (CARES) Act entered into force in March 2020 (116th U.S. Congress 2020), to provide direct economic assistance for impacted industries. Around USD 58 billion was allocated to airlines that agreed to operate a minimum level of service for communities served pre-COVID-19, and to help cover employee wages, salaries and benefits until the end of September 2020 (NPR 2020). Starting in March 2020, various countries provided different types of financial support to airlines, which can be broadly split into the following categories (OECD 2021):

- a) hybrid debt,<sup>4</sup> including convertible bonds and warrants (e.g. Garuda Indonesia, Korean Air, Singapore Airlines, etc.);
- b) loans and loans guarantees (e.g. Austrian Airlines, SAS, Air France-KLM, Air New Zealand, IAG, EasyJet, Ryanair, etc.);
- c) fiscal transfers (e.g. Intercargo);
- d) equity acquisition (e.g. Finnair, Lufthansa Group, Cathay Pacific, El Al, Singapore Airlines, etc.);

---

<sup>3</sup> Communication from the Commission on the Amendment to the Temporary Framework for State aid measures to support the economy in the current COVID-19 outbreak (2020/C 112 I/01). 2020–04–03.

<sup>4</sup> Hybrid debt instruments have a combination of debt and equity component (OECD, 2021).

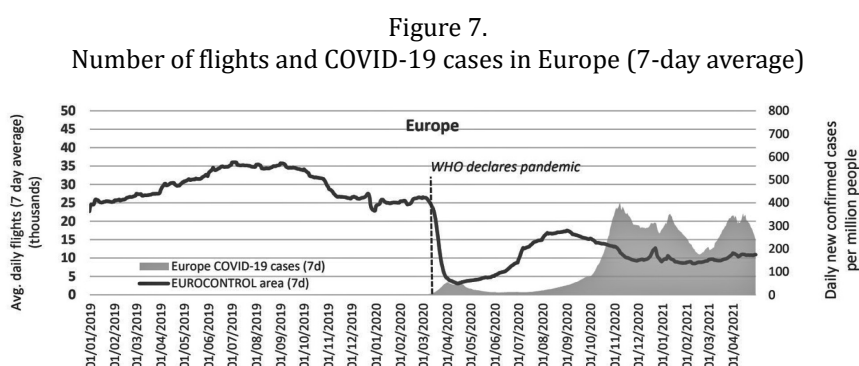


- e) others – wage subsidies, flight subsidies, etc. (e.g. Danish Air Transport and other airlines holding Danish air operator certificates, multiple airlines with employment in Hong Kong, etc.).

Due to the too long duration of the crisis and the uncertainty regarding the recovery of traffic, many airlines worldwide have cancelled aircraft orders or postpone their delivery from the manufacturers. For example, EasyJet postponed the delivery of 22 Airbus aircrafts from 2022–2024 to 2027–2028 (Reuters 2020). However, among the different regions of the world, Europe was certainly one of the most severely affected regions by COVID-19. The particular impact of COVID-19 crisis on European airlines will be explained in detail in the Subsection 4.2.

## 4.2. Europe

After the first European COVID-19 case was reported in January 2020, major European airlines reduced and eventually ceased their operations to China by the end of that month. In the following few months all European airlines grounded their fleets more or less completely due to the imposed travel restrictions (Albers, Rundshagen 2020). During the summer, intra-European flights and domestic flights within countries recovered quicker than intercontinental ones, but dropped again starting in September with airlines adjusting their schedules as a result of the second wave of the COVID-19 pandemic hitting Europe (EUROCONTROL, FAA 2021). The major obstacle for passengers to fly in Europe was the large number of different



Source: Authors; Data source: EUROCONTROL, FAA 2021

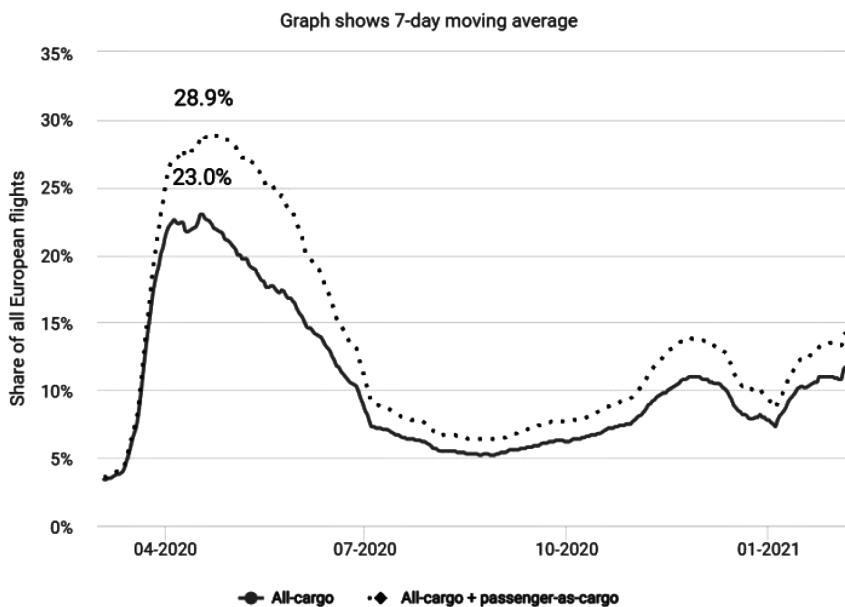
national rules in terms of quarantine and testing requirements. Figure 7 shows the 7-day moving average of daily flights in Europe, including the reported new COVID-19 cases per million people during 2020 and the first quarter of 2021.

During 2021 airlines in Europe started to increase the number of flights but this trend was not followed by an increase in the number of passengers, which resulted in an average global passenger load factors of around 70%, lower than the pre-pandemic levels of >80% (ING 2022). This increase in the number of flights (despite demand showing no signs of recovery) was possibly driven by the need to retain slot rights. Other European airline strategic responses to the COVID-19 pandemic, aimed at mitigating the severe effect of the COVID-19 pandemic, fall within one of the following category (Albers, Rundshagen 2020):

- retrenchment – refers to measures aimed at substantial cost/overhead and/or asset reduction. Airlines that applied it: almost all airlines announced job cuts and/or reduced work patterns; Air France (brought forward A380 retirement; restructured domestic network with fewer flights and more LCC Transavia flight); Austrian Airlines (reduced fleet by 25%, management by 30%); EasyJet (cancelled aircraft orders, slimmed fleet); Brussels Airlines (reduced fleet by 30%); Lufthansa (deep cuts into future fleet, grounded A380s, seven A340–600s and five B747–400s permanently); British Airways (withdrew B747 aircrafts from its fleet), etc.
- persevering – refers to measures aimed at preserving the ‘status quo’ of the companies, including debt financing or the consumption of slack resources (e.g. deployment of excess capacity) to get through the crises with no or minor changes in the organizations’ strategy, structures, and assets. Airlines that applied it: Most European airlines sought government support through grants, preferential loans/government guarantees, and subsidies; Ryanair (committed to drive price competition after crisis).
- innovating – refers to a variety of actions adopted by airlines to improve their strategic position in the short or long term, such as preparations for joint ventures and entering new markets. Airlines that applied it: Austrian, Icelandair, Sun Express, Swiss (reconfigured aircraft for cargo); Air France-KLM (transatlantic joint-venture with Delta Air Lines and Virgin Atlantic); British Airways (UK-Australia joint venture with Qatar Airways); Wizz Air (planned to enter new markets in Europe, increased scale of Abu Dhabi venture, intended to grow ancillary business).

- exit strategies – refers to the discontinuation of an organization's activities. Airlines that applied it: Air Italy (ceased operations); AtlasGlobal Airlines (filed for bankruptcy); Braathens (filed for court administration); CityJet (entered local equivalent of Chapter 11); Flybe (went into administration); Norwegian Air Shuttle (pilot and cabin crew subsidiaries filed for bankruptcy in Denmark and Sweden); LOT (gave up bid for Condor); Lufthansa (closed Germanwings subsidiary); Virgin Atlantic (abandoned the base at London's Gatwick Airport).

Figure 8.  
Cargo share of all European flights.



Source: EUROCONTROL 2021b.

To minimize huge losses, most airlines offered vouchers/coupons to passengers whose flights had been cancelled, as opposed to refunds (Collinson 2020). The offered vouchers were also restricted in terms of their use, with a limited duration, usually up to 12 months. Irish airline, Aer Lingus also offered vouchers to its passengers with a 10% bonus if they signed up for the voucher; the value of the ticket they paid for was increased by 10%. As a result, 16 major European airlines have reimbursed more than 500,000 flight vouchers they imposed on consumers for cancelled flights during the COVID-19 pandemic (European Commission 2022).

Unlike passenger traffic, cargo traffic in Europe resulted in a +1.9% increase of all-cargo flights in 2020, thanks to the need for goods and medical equipment to fight the pandemic. Previously, all-cargo flights constituted 3% to 4% of total European flights, but in 2020 their market share increased to between 10% and 11% (EUROCONTROL 2021b). Figure 8 shows the all-cargo flights market share during the 2020. In the first wave the share of all-cargo flights raised significantly, but that was because the other market segments declined by nearly 90% for total flights.

### 4.3. Business aviation

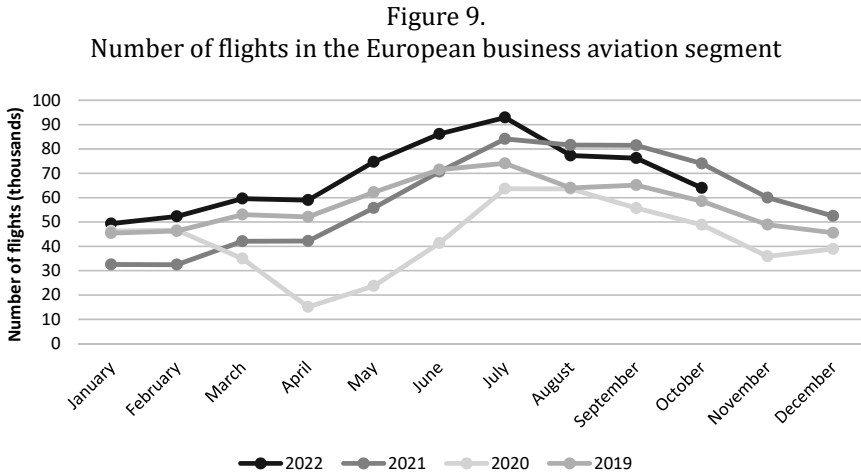
The COVID-19 crisis has had a profound impact on every aspect of airline industry, and business aviation is no exception. Compared to 2019, business aviation in Europe decreased by 24.4% in 2020, however this was much less than scheduled traffic (EUROCONTROL, FAA 2021). As airlines cancelled flights and governments imposed strict rules on international travel, many of those who could afford to fly turned to private jets. Also, clients could be driven up to the steps of aircraft that departed when they wished, flying in isolated cabins, etc., avoiding being in contact with other passengers. Private jet operators have reported that there has been an increase in first-time users of private aviation looking to reduce touch points at airports and minimize contact with the traveling public (French 2020; Georgiadis, Hancock 2020; Powley, Bushey 2020). Some of the demand for private flights is also reported to come from passengers who were looking to fly non-stop on routes that have been dropped by commercial airlines that reduced their networks during the pandemic (Powley, Bushey 2020).

Despite the severe disruption caused by COVID-19, business aviation continued to operate during the pandemic, setting the fundamentals of further growth in the post-pandemic business environment. Figures 9 and 10 depict the number of business aviation flights in the European and US market, respectively. Even though April was marked by a 71% decrease in activity in Europe and a 75% decrease in the USA, compared to normal levels, the European business aviation segment briefly matched 2019 volumes in August 2020 and then experienced a relapse in the autumn and winter (around -20%). The business aviation segment in the USA remained at -15.2% in Jun 2020.

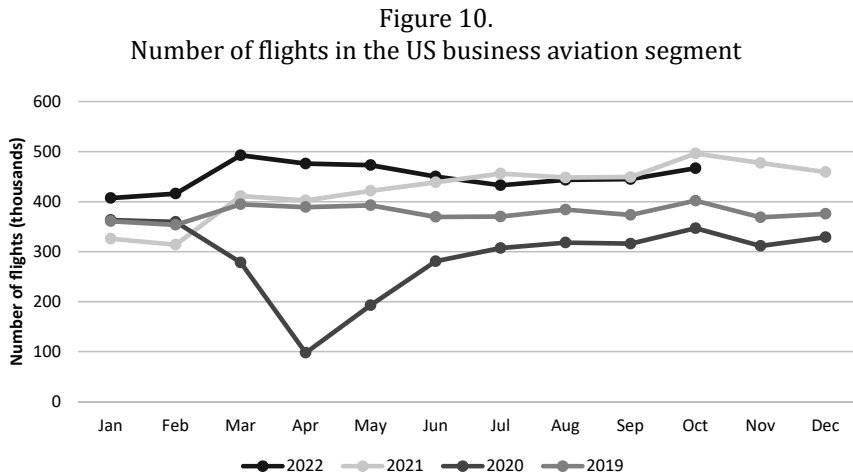
The US business aviation segment recovery started in March 2021, when 2019 levels were reached, stabilising at 17%–30% above 2019 since June 2021. The European market recovery restarted in April 2021, passing 2019 levels in July and stabilising at 20%–30% above 2019 since August 2021.

In 2021, leisure contributed strongly to the growth of business aviation in Europe as Mediterranean destinations recorded more movements compared to the 2019 levels.

Growth in the business aviation sector has come from a combination of operators finding new ways to reach customers, and new services to offer, such as shared flights, as well as new passengers turning to business aviation flights.



Source: Authors



Source: Authors

## 5. AIRPORTS

### 5.1. Worldwide

Prior to 2020 airports were considered powerful economic engines, essential to the economic development of cities, countries, and regions, by providing direct, indirect and induced employment. They contribute to national economies as well as overall world economy by providing services to airlines in moving passengers and cargo. However, the COVID-19 pandemic severely hit airports worldwide in terms of traffic and revenues during 2020 and 2021, with flights being cut by airlines, closed borders, travel restrictions, quarantine rules, and associated demand loss. Many of them were closed by governments to contain the spread of the virus.

During the first two years of the pandemic, the COVID-19 outbreak reduced the number of passengers at the world's airports by 11.3 billion (ACI 2022). Despite increasing vaccination rates and some international travel restrictions gradually being revoked, the total number of passengers<sup>5</sup> did not show the signs of recovery in 2021, at 4.4 billion (48.3% compared to 2019). International passenger traffic was weak in the first half of 2021, with a slight upturn by the end of the year due to the increasing number of people getting vaccinated. Domestic passenger traffic recovered faster than international traffic in 2021, and this was especially noted in the main markets such as the USA, which started to recover in 2020 and accelerated in 2021 (ACI 2021). Globally, airports lost more than USD 83.1 billion in revenue in 2021 (ACI 2022), although the magnitude of the COVID-19 pandemic effects differed by region. The impact of COVID-19 pandemic on airports is shown on Table 3.

The Middle East and Asia-Pacific were the regions most affected in relative terms (69.7% and 60.9% declines in 2021, respectively) compared to the projected baseline (-66.3% and -57.5% compared to 2019 levels). Europe was the most impacted region in absolute terms, losing more than USD 32.3 billion in revenues by the end of 2021, compared to the projected baseline (USD 29.4 billion compared to 2019).

---

<sup>5</sup> The main difference between the number of passengers at the airports and the airlines is in the methodology of counting passengers who use their services. Airport counts each passenger enplaned and deplaned individually, so a connecting (transfer) passenger is technically counted twice. Airlines count passengers on a flight segment basis.

Table 3.  
Impact of the COVID-19 crisis on revenues\* by region  
(2020, 2021, 2022, rounded to nearest million USD)

Region	2020	2021
	<b>Estimated revenue loss</b>	
Africa	-2,726	-2,586
Asia-Pacific	-32,686	-34,491
Europe	-43,762	-39,712
Latin America Caribbean	-7,044	-5,599
Middle East	-10,458	-11,111
North America	-25,178	-17,887
Worldwide	-121,853	-111,386
	<b>Estimated revenue loss (%)</b>	
Africa	-68.7	-60.1
Asia-Pacific	-55.3	-55.9
Europe	-69.5	61.5
Latin America Caribbean	-61.0	-46.7
Middle East	-68.5	-69.3
North America	-71.3	-49.2
Worldwide	-64.8	-57.2

Source: Authors; \*Revenues are estimated assuming constant quarterly airport revenues on a per-passenger basis and are based on ACI's 2020 Airport Key Performance Indicators, as well as input from ACI Regional Offices.

North America and Latin America-Caribbean recovered quicker than the other regions in 2021, and recorded decreases of 18.9% and 34.8% in 2021 respectively, compared to the projected baseline (down 14.2% and 30.2% compared to 2019). Africa's revenue performance was slightly better

than the global situation in 2021, recording a decline of 46.1% in revenues compared to the projected baseline (down 37.3% from the 2019 level), or an absolute loss of close to USD 2 billion (ACI 2022).

After the turbulent 2020, in 2021 airports all around the world adapted many changes to overcome obstacles imposed by the COVID-19 pandemic, through the introduction of new technologies, cleaning protocols, and passenger processing. Numerous changes were implemented in airport daily operations with respect to passenger processing regulations, sanitisation within airport buildings, the introduction of new biometric technology, etc. The main task for all airports was to enable passengers and airport staff to maintain physical distance. To help alleviate operational challenges and reduce risk of disease transmission between passengers and personnel, where possible, no-touch options have been introduced (e.g. touchless self-service check-in machines, touchless elevator buttons, touchless biometric passport check lanes) (Changi Airport 2020). Other actions that airports have taken in response to the crisis include: government support (e.g. financial assistance, airport taxes relief); reducing variable costs (e.g. closing portions of infrastructure, layoffs or salary reductions, reductions in contract services); cooperating with airlines (e.g. adjusting payment terms and releasing airlines and retail partners from some contractual obligations) (IFC 2020).

In order to support the measures against the pandemic, the International Civil Aviation Organization (ICAO) published guidelines for addressing the impact of the COVID-19 pandemic on the global aviation transportation system, including mitigation measures necessary for the reduction of public health risk to air passengers and aviation workers. The Council Aviation Recovery Taskforce (CART) Take-Off guidance includes four sections related to airports, aircraft, crew and cargo, together with recommendations for countries to evaluate passenger medical testing solutions. The module on airports contains specific guidance addressing elements for: the airport terminal building, cleaning, disinfecting, and hygiene, physical distancing, staff protection, access, check-in area, security screening, airside areas, gate installations, passenger transfer, disembarking, baggage claim and arrival areas.

The COVID-19 pandemic led to the adopting of rules on physical distancing, which in turn resulted in reorganizing the work of airport personnel. There was a decrease in demand for airport personnel, along with a reduction of operations at the airport and changes in airport procedures. A similar situation happened with ground handling agents in the area of passenger traffic organization (Okulicz, Rutkowska 2021). This situation put strong pressure on the income statements in the airport industry, leading them to



lay off excess workers, which involved thousands of aviation professionals. These aviation professionals (including handling, catering, airport, security and others) are necessary to provide airport infrastructure and services in a safe, secure, efficient and sustainable manner and their professional development (creating and enhancing their specific human capital) is a long-term process typically measured in years. Many of them who lost their jobs during the toughest period of pandemic did not stay in the aviation industry. Without efficient and skilled ground operations, flights cannot resume, and airports cannot deal with forthcoming operations. This was confirmed at many airports around the world, and particularly at European airports, in the summer of 2022, with major disruptions in the air transport system due to the insufficient number of workers on ground operations, generating high costs for both passengers and all other stakeholders.

Social distancing measures made it even more difficult to carry out operations at airports. Following this measure, passengers kept physical distance in queues for check-in, security control, boarding and baggage claim, so it was necessary to provide additional space inside the airport, which put more pressure on these systems to maintain seamless and safe processes. The addition of health documents prolonged waiting times at check-in due to the health-related questions and extra paperwork, so passengers started to arrive at the airport earlier and to spend more time at the airport (ARC 2022).

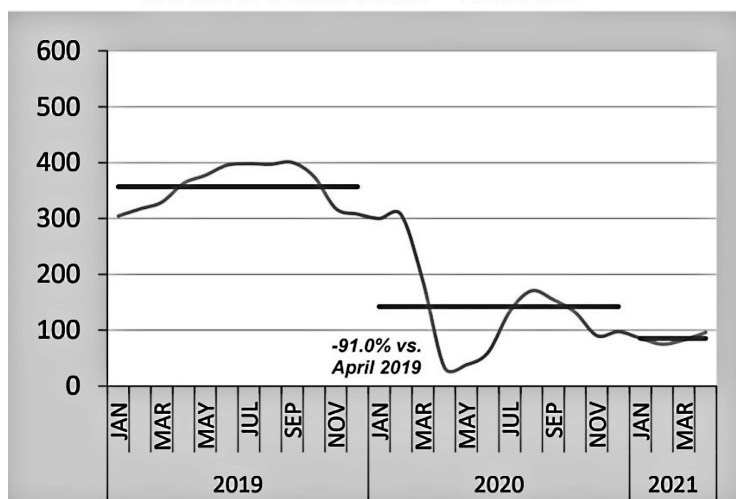
## 5.2. Europe

Flights in Europe took off during 2020 and 2021, though at the slower pace and far below the level in 2019 (see Section 3, Figure 4). In 2021, aircraft movements were up by 23.3% compared to 2020 but down by 48% against pre-pandemic (2019) levels throughout the European airport network (ACI, January 2022). The COVID-19 pandemic had a particularly profound impact on smaller regional airports in the EU, which mainly depend on tourism and experienced an even sharper traffic drop (Niestadt 2021).

Countries with more severe COVID outbreaks, including Spain, Italy, the UK, and Austria, enforced strict lockdowns and domestic aviation capacity restrictions, which affected operations and recovery. Air traffic recovery in Europe was significantly impeded due to a general fear of more waves and a significant increase in COVID cases during 2020 (especially during the summer months), causing the very low airport operations until end of the year (Hodcroft *et al.* 2020).

Figure 11 shows the evolution of the average number of daily IFR departures at the 34 main European airports during the period from 2019 to 2021. Fortunately, cargo traffic at EU airports doubled its market share from 3% to 6%, due to increased demand for medical supplies, food and other goods (EUROCONTROL 2021b). For example, Liège Airport (Belgium), experienced a 10.7 % increase in cargo flights (34,264 flights in 2020 compared to 30,934 flights in 2019) (Liege Airport 2021).

Figure 11.  
Average daily IFR departures at the 34 main airports in Europe



Source: Authors; Data source: EUROCONTROL 2021b

At the end of 2020, ACI-Europe warned that nearly 200 European airports could possibly face insolvency in the short term if sufficient government support was not provided (ACI 2020). In terms of government support related to COVID-19, there were several measures applied to airport operators in Europe, which can be grouped into the following categories: deferral of payments and taxes and wage support schemes, grants and fiscal transfers, state loans and loan guarantees, and equity injections (OECD 2021). The governments of Croatia and France both supported the airport sector in the form of loan guarantees and repayable advances. In Croatia the aid was limited to international airports. In Germany, Berlin Brandenburg Airport received low-interest loans; Munich International Airport received a direct subsidy; and the Cologne Bonn Airport was recapitalised by the regional government. The government of Iceland recapitalised the wholly

state-owned airports in Reykjavik. In Iceland the transaction included a commitment to a second, larger recapitalisation in 2021. The government of Lithuania supported its state-owned airports with three schemes including a reimbursement for salary expenses, reimbursement for directly COVID-19 related expenses, and a delay of profit distribution from the airports to the state shareholder. The government of Norway supported its state-owned national airport operator through three different channels: a grace period on state loans, exemption from paying dividends to the state owner for the financial year 2019, an operating subsidy of NOK 3.6 billion. In Sweden the government recapitalised its national airport operator to the amount of SEK 2.5 billion.

In regular times, the problem with congested airports and scarce capacity in Europe is solved through capacity control implemented in the form of slots (Babic, Kalic 2011). An airport slot is defined as permission given by a coordinator to use the full range of airport infrastructure necessary to operate an air service at a coordinated airport, on a specific date and time, for the purpose of landing or take-off, as allocated by a coordinator (Council Regulation No 95/93, 1993<sup>6</sup>). Slots in Europe are subject to Regulation 95/93 on common rules for the allocation of slots at Community airports and according to one rule airlines are required to use slots at least 80% of the time over the scheduling season for which they have been allocated. In the event that the airline uses it less than 80%, they will lose their slot. Due to the pandemic crisis, which forced airlines to suspend flights, IATA requested on their behalf that aviation regulators worldwide temporarily suspend the implementation of rules governing the use of airport slots for the 2020 season. The request was soon approved by the EC, granting the temporary suspension until June 2020 of the 80–20 ‘use it or lose it’ rule for airport slots (IATA 2020b).

COVID-19 affected airport industry very seriously, without exception. However, the path to recovery will depend on the airport type and the country’s response to the pandemic. It is expected that airport hubs serving large urban centres and financially strong airlines are more likely to recover quicker than regional airports.

---

<sup>6</sup> Council Regulation (EEC) No 95/93 on common rules for the allocation of slots at Community airports.

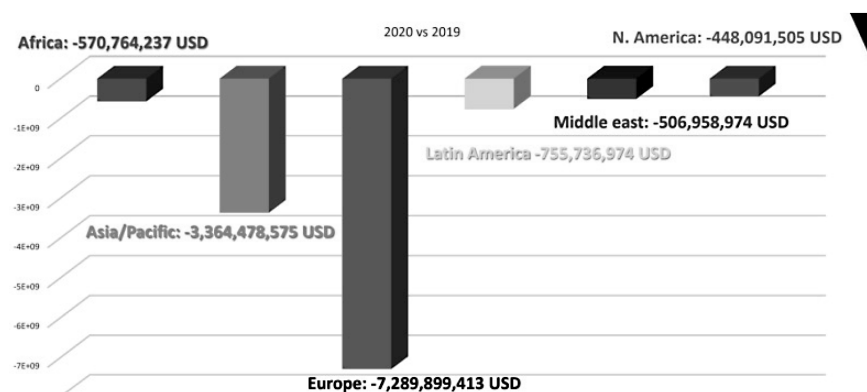
## 6. AIR NAVIGATION SERVICE PROVIDERS (ANSP)

### 6.1. Worldwide

Like airports and airlines, the COVID-19 pandemic has also impacted air navigation service providers (ANSP). These service providers are mostly government-owned entities with high and fixed overheads, i.e. fixed costs due to significant infrastructure costs and the highly skilled labour that is engaged. As worldwide scheduled passenger traffic decreased by 60 % in 2020, ANSPs suffered revenue losses of almost USD 13 billion (Figure 12). It should certainly be kept in mind that the regional difference in lost revenue stemmed as a consequence of the large differences in the unit rates that individual states specify for calculating user charges, rather than a reduced number of operations. Some countries impose a fixed charge, while others base it on the distance flown. Also, in the USA there are only two charges, for overflying the state and for flying over the ocean monitored by their ANSP. Generally, navigation user charges are highest in Europe. Although all regions experienced more or less the same reduction in traffic in 2020, certain regions, like North America and Europe, experienced a faster rebound in demand towards the end of the year.

Despite all restrictions and the closure of international borders during 2020–2021, ANSPs all over the world provided services for all aircraft permitted to fly, including military, emergency and repatriation flights, domestic travel, general cargo, and medical supplies.

Figure 12.  
Air Navigation charges losses 2020 vs 2019.



Source: ICAO 2021.

## 6.2. Europe

The European ANSP market refers to the European Common Aviation Area (ECAA<sup>7</sup>), including Switzerland, where each individual member state collaborates to ensure a harmonized air navigation region. Today most European ANSPs are independent enterprises, albeit government owned (Buyle *et al.* 2021). In such a constellation, ANSPs are authorized to collect revenues and manage their budgets independently from the government's budget. During the COVID-19 pandemic, many countries imposed travel restrictions, which affected heavily both the intercontinental and the intra-European share in the total number of flights (domestic and international). In 2019, 71.6% of traffic in Europe was international. International flights and domestic flights recovered quicker in the summer 2020, but dropped again in September due to airlines schedules adjustments triggered by the second wave of the COVID-19 in Europe, as well as by difficult travel conditions in terms of quarantine and testing requirements (EUROCONTROL, FAA 2021).

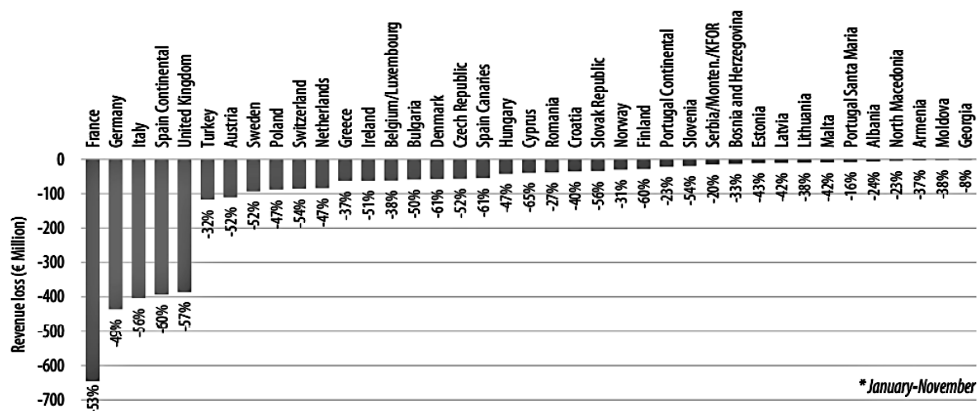
The significantly reduced air traffic failed to cover the fixed costs of ANS provision in Europe, causing a €4.7 billion in-year revenue losses in 2020 and €3.7 billion in-year revenue losses in 2021. Service charges collected by ANSPs in 2020 covered only 65% of ANSP costs (Klikac, Bishop 2022). Figure 13 depicts the en-route revenue losses change in comparison to 2019, showing that four Member States (France, Germany, Italy, and Spain) and the UK were the most affected by this pandemic.

Most of these losses are assumed to be recovered via increases in unit rates (which are paid by aircraft operators for services provided) over a period of five to seven years based on Commission Implementing Regulation (EU) 2019/317 (EUROCONTROL 2022a). These measures were designed to ensure both that ANSPs adjust their operations to the new realities and that aircraft operators are shielded from a sudden increase of ANS charges during recovery from the COVID-19 pandemic. The ANSPs in the eight European States, which are part of the EUROCONTROL Multilateral Route Charges System and are not bound by Single European Sky (SES) regulations, apply different national cost recovery schemes, which, for the majority of these States, are based on a 'full cost recovery' regime (EUROCONTROL, FAA 2021).

---

<sup>7</sup> The European Common Aviation Area agreement is an ambitious agreement between the partners from South-Eastern Europe: Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Serbia, Kosovo (This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence) on the one side and the European Union, United Kingdom, Norway and Iceland on the other side (Directorate-General for Mobility and Transport, European Commission 2022).

Figure 13.  
En-route revenue losses per charging zone (2021 vs. 2019)\*.

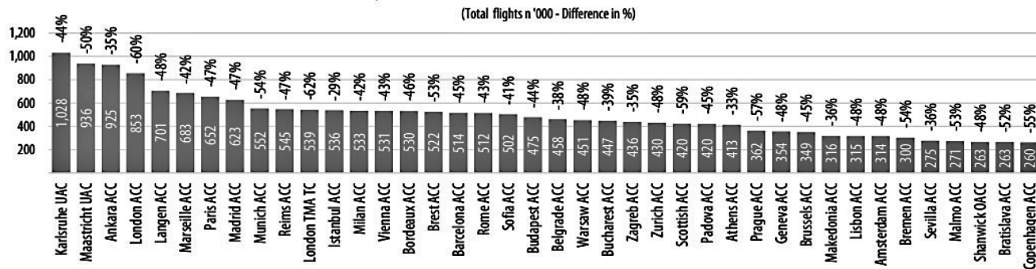


Source: EUROCONTROL 2022a.

Figure 14 charts the impact on Area Control Centres (ACC) comparing total traffic handled in 2021 and in 2019. The busiest one was Karlsruhe Upper Area Control (UAC), with 1,028 thousand flights and -44% on 2019 levels, followed by EUROCONTROL's Maastricht UAC (936K, -50%) and Ankara ACC (925K, -35%).

Figure 14.  
Top 40 ACC comparison.

Top 40 ACCs- Total Traffic and Variation 2021 vs. 2019  
(Total flights n '000 - Difference in %)



Source: EUROCONTROL 2022a.

Measures implemented by most ANSPs to reduce cost included staff reductions, salary and benefits reductions, early retirements, postponement of investments, etc. Around the world, salary freeze strategy was implemented in 2020, together with abolishment of additional payments for overtime work (imposed due to staff shortage on account of illness) and bonuses on

various grounds. Specifically, the Irish Aviation Authority (IAA), for example, implemented a three-phase cost containment programme, starting in March 2020, with a moratorium on recruitment, suspension of training for twenty-four recruits, the suspension of all non-essential training and pay increases, and a review of all capital expenditure to determine whether any investments could be deferred. In the United Kingdom, the National Air Traffic Services (NATS) reduced the number of contractors and reassigned the company's own employees. At the peak of the pandemic, NATS temporarily laid off more than 3,000 staff, while it received more than GBP 37 million in grants, under the government's job retention scheme. Generally, the state financial support in Europe was predominantly aimed at safeguarding ANSPs liquidity and alleviating payroll costs when furlough schemes were introduced. The most common mitigating measures implemented by European ANSPs in response to the pandemic in 2020–2021 were: aids from national governments and loans and cost containment measures (related to staff, capital expenditure, etc) (Turnbull *et al.* 2022).

## **7. AIRCRAFT MANUFACTURERS AND LEASING COMPANIES**

Since aircraft manufacturing and aircraft leasing companies provide global products and services, the impact of COVID-19 pandemic will be considered only at the global level. As mentioned previously, the crisis caused great uncertainty regarding the recovery of traffic, therefore, many airlines worldwide have cancelled aircraft orders or deferred their delivery. For example, in 2020 Airbus received only 383 aircraft gross orders, compared to 1,131 in 2019. In the same year, Airbus delivered a total of 566 commercial aircraft, which is 34% less than in 2019 (Airbus 2022). At the same time Boeing reported a 59% reduction in aircraft deliveries with only 157 commercial aircraft delivered in 2020, compared to 380 in 2019 and 806 in 2018 (Boeing 2021). The recorded decline in deliveries is partially due to the grounding of the Boeing 737 MAX. However, in this case it is difficult if not impossible to separate the impacts of these two factors.

The five-year revenues of Airbus and Boeing are given in Table 5. It can be noted that Airbus' revenue was affected by COVID-19 pandemic, since a significant reduction is apparent in 2020. Concerning Boeing's revenue, the decrease is recorded in 2019, which is consequence of Boeing 737 MAX accidents and grounding of all these aircraft. Additional reduction was caused by the COVID-19 pandemic in 2020 and 2021.

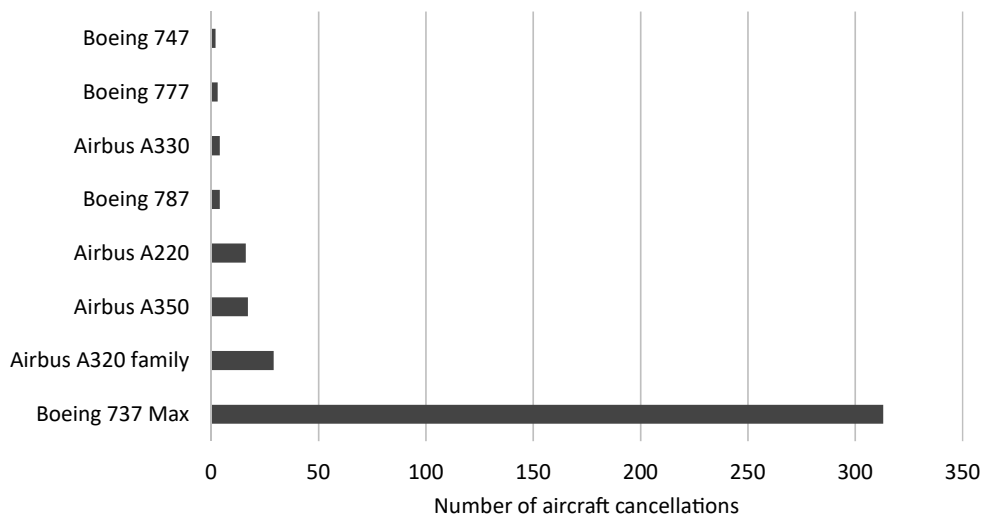
Table 5.  
Revenues for Airbus and Boeing in 2017–2021 (millions of EUR)

	2017	2018	2019	2020	2021
Airbus	59,022	63,707	70,478	49,912	52,149
Boeing	83,335	85,705	68,375	51,005	52,681

Data source: Boeing 2021; Airbus 2019; 2020; 2022.

Regarding the cancellation of aircraft orders, by aircraft type, the top ranked aircraft type is Boeing 737 MAX (a result of the grounding of the B737MAX), and it is followed by Airbus A320 aircraft family (Figure 15).

Figure 15.  
Aircraft order cumulative cancellation by aircraft type (as of July 2020).

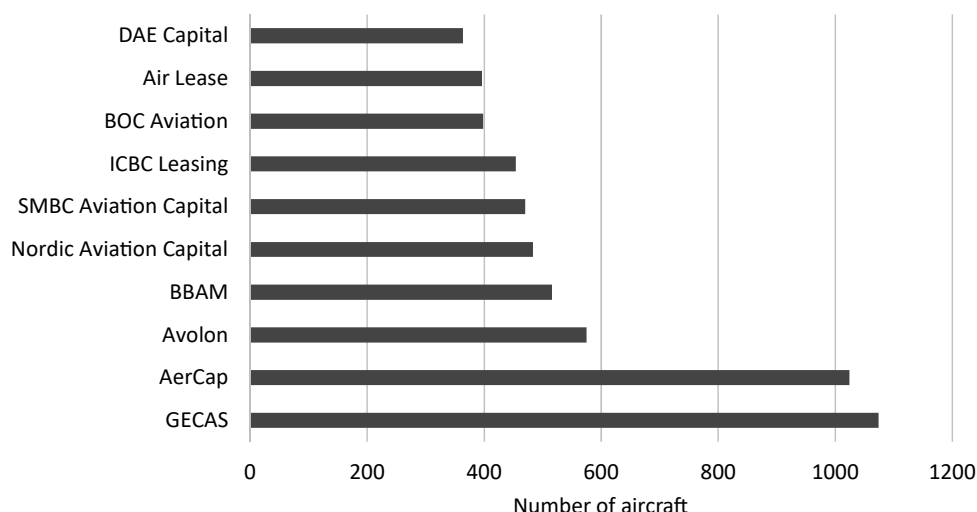


Data source: Statista 2021.

Figure 16 represents leading aircraft leasing companies (lessors) in 2020, by fleet size. It can be seen that the two leading lessors, by fleet size, were General Electric Capital Aviation Services business (GECAS) and AerCap.



Figure 16.  
Leading aircraft leasing companies in 2020, by fleet size.



Data source: Statista 2022b.

Regarding the profit of the leading lessors, it is noticeable that GECAS reported a profit reduction from year to year, while business results of AerCap were more consistent (Table 6). COVID-19 impacted both companies and according to their annual reports, they recorded losses in 2020 (AerCap USD 295 million, GECAS 786 USD million) (AerCap 2019; 2021a; General Electric 2019; 2020).

Table 6.  
Profit of leading lessors (billions of USD)

	2017	2018	2019	2020	2021
GECAS	2.1	1.2	1.02	-0.786	n.a.
AerCap	1.1	1.02	1.2	-0.295	1.01

Data source: AerCap 2019; 2021a; General Electric 2019; 2020.

However, AerCap recovered and finished 2021 with the profit of more than USD 1 billion, approaching the pre-Covid level of profit. Moreover, AerCap the global leader in aircraft leasing, announced on 1 November 2021 that it had completed its acquisition of GECAS from General Electric (AerCap 2021b). Now, questions that require answers have appeared, and these are:

does this capital transaction prove the resilience of leasing companies and their ability to manage their business and keep it successful even in this turbulent period for the aviation industry, or does this capital transaction prove the vulnerability of the leading lessors, hence the need to strengthen their positions, in regard to competitors.

Usually, in crises, aircraft leasing companies had the option of taking back their aircraft and leasing them to other airlines. The COVID-19 pandemic was specific due to the fact that there was no other airline that could lease an aircraft. As mentioned before, the pandemic period was extremely difficult for airlines, and they received financial supports from the governments. In such an unstable environment, the flexibility that leasing can offer airlines proved to be a very attractive option. The pandemic resulted in many sale-and-leaseback transactions between airlines and lessors, and these transactions were worth billions of dollars. Moreover, some of these transactions contributed to airlines liquidity, since airlines sold the aircraft they owned to lessors, and leased them back. Therefore, the crisis strengthened the relationships between lessors and their customers (O'Mara 2022).

## **8. PASSENGERS EXPERIENCE**

As the spread of the COVID-19 pandemic gained momentum in most parts of the world and became more intense, the nature of the air travel experience began to change. By the end of March 2020, industry-wide passenger kilometres (RPKs) fell sharply, 52.9% below their level a year earlier (IATA 2020c). Travel restrictions and lockdowns were lifted by the begging of summer, but the willingness of consumers to travel by air remained limited. Many of them were reluctant to travel due to the remaining travel restrictions, such as quarantining and testing. These requirements remained an obstacle for flying during 2021, even for those people fully vaccinated with vaccines approved by the World Health Organization (WHO).

During the past two years, part of the population still felt insecure in public places and feared infection, especially if traveling by plane, which further slowed the recovery of air travel. An IATA survey showed that more than 30% of respondents were willing to wait six months or more before considering travelling by air, and an additional 16% did not want to travel for at least a year (IATA 2020d). Part of the demand was errored by the economic crisis that was triggered by the COVID-19 pandemic. Many people have lost their jobs or had their wages cut since the start of the pandemic.

Beck and Hensher (2020) reported that 78% of Australian households changed their travel plans, with young people and low-income families being the most affected.

After the first lockdown in 2020, it is notable that leisure trips started to recover earlier and more rapidly in comparison to business trips (The Points Guy 2022). Business trips were significantly affected by digital remote work and other flexible working arrangements, which will likely remain in some form in the future. Moreover, a large number of cancelled flights, delays and the constant uncertainty regarding the scheduled flights does not help airlines to reawaken business trips.

Although significantly eased, sustained restrictions in many regions influenced passengers to fly more on short and medium routes, due to a lack of passenger confidence. At first, people were reluctant to fly abroad or too far, prior to the development of medicines and vaccines. Later, after the development of a vaccine, the willingness to fly abroad increased, but some people still hesitate to fly because of the inconsistencies in national travel rules. During certain periods in 2021 it was difficult for passengers to keep up with the constant changes in national government travel document requirements (different COVID-19 test requirements, various timeframes for testing, vaccinations, etc.). It is notable that travel rules were applied differently even within EU member states. For example, 30% of states that used the EU Digital Covid Certificate (DCC) did not accept rapid testing, and 41% of states did not allow vaccinated travellers from non-EU 'White-List' countries to enter, etc. (Airlines, IATA 2021). This is why domestic travel dominated the industry recovery in 2020–2021, while the recovery on long-haul routes will take longer.

Moreover, COVID-19 completely distorted the passengers' experience at airports, due to social distancing rules combined with screening requirements. It is a known fact that waiting times are tremendously important for the successful management of airports in nominal conditions. However, with the novel airport screening operations and equipment introduced to efficiently combat the spreading of the virus (see e.g. Dollard *et al.* 2020; Hussain *et al.* 2020), waiting times have been greatly increased. In addition, these safety procedures also led to a reduced shopping experience and the significant shrinking of the airports' commercial revenues.

The COVID-19 measures have also affected the turnaround process, mainly through changing the boarding strategy. Accordingly, the applied boarding strategies during COVID-19 varied across airlines and over time, e.g. the middle seat empty strategy applied by Wizzair and Alaska Airline (Milne *et al.* 2020), the back-to-front by row with business class last by United Airlines, random boarding by Hainan Airlines, and many others.

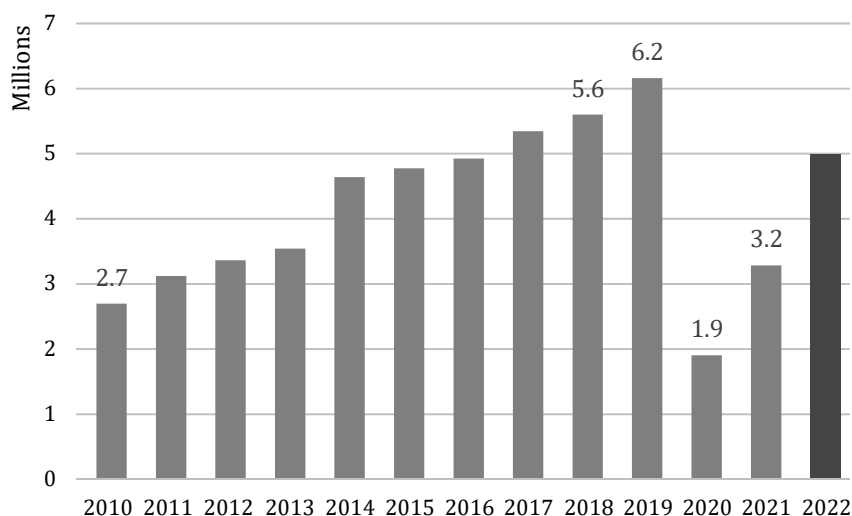
As time goes on, air travellers are showing signs of adjusting to the new normal, but many still remain concerned about how they can travel safely and what restrictions they will be subject to. Even before the COVID-19 pandemic, air travel was complex and stressful for many people, with rules that need to be followed. With the new rules and more documents, accompanied by longer waiting times at the airport, travelling by plane has become even more difficult. In order to increase passenger confidence in flying, airports and airlines will need to take many steps to increase standards for aviation safety and passenger wellbeing, and become even more safe, clean and hygienic.

## **9. IMPACT OF COVID-19 ON THE AVIATION INDUSTRY IN SERBIA**

The COVID-19 pandemic also caused the decline in air travel in Serbia. The number of flights in the airspace under the jurisdiction of the Serbian ANSP in 2020 (January–September) decreased by 90%, compared to the same period in 2019 (SMATSA 2020). In 2020, the number of passengers at Serbia's largest airport, Belgrade Nikola Tesla Airport, was 69.4% lower than to the previous year (Figure 17). Air traffic in Serbia was suspended from March 20 to the end of May, with the exception of the transportation of goods, medical equipment, mail, humanitarian aid, and rescue. In 2021 the passenger volume increased, but it was still almost half the volume in 2019. There were 4.2 million passengers in first nine months of 2022 and it is predicted to reach 5 million by the end of the year (Figure 17).

During the summer 2020, air traffic recovered to some extent thanks to a temporary improvement in the health situation. The national airline, Air Serbia, gradually restarted some flights in the period after the initial easing of measures in May 2020. At the end of May, Air Serbia organized flights to London, Frankfurt, Zurich and Vienna, and later, in the first two weeks of June, to Podgorica, Tivat, Sarajevo, Banjaluka, and Skopje. A big problem for the further recovery of air traffic during the summer of 2020 was caused by the closure of Europe towards Serbia, through travel bans or strong travel restrictions for Serbian citizens (quarantine, self-isolation, tests for COVID-19). Consequently, Air Serbia cancelled the renewal of flights to Madrid, Kiev, Nice, Helsinki, Malta, Cairo, Beirut, Rijeka, Pula, Zadar, and St. Petersburg, and cancelled the launch of all new routes (with the exception of Oslo). In addition, due to the ban, the airline was not allowed to fly to its two main markets – Moscow and Krasnodar (Russia), and Podgorica and Tivat (Montenegro) (Tango six 2020).

Figure 17.  
Number of passengers at Belgrade Nikola Tesla Airport



Data sources: Statistical Yearbook of the Republic of Serbia 2018; Vinci Airports 2020; Vinci Airports 2022.

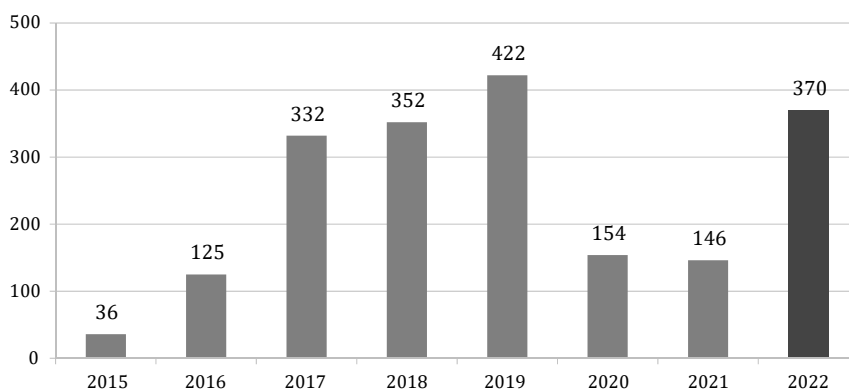
Despite this, Air Serbia had the strategy of reopening routes to a large number of destinations, but with low frequencies. Routes that had daily departures were reopened with fewer, some with only one departure per week. During the summer of 2020, Air Serbia had 135 weekly departures on 33 routes from Belgrade, and 6 weekly departures on 4 routes from Niš airport (Tango six 2020). During 2020 Air Serbia cancelled 23,079 flights, while during 2021 the airline cancelled 4,933 flights, which resulted in reduced revenue. Consequently, Air Serbia has reported a net loss of over EUR 77 million in 2020, while the net loss in 2021 was EUR 21.3 million. Air Serbia carried a total of 1,586,665 passengers in 2021, with the airline's average annual cabin load factor at 64%. The airline's traffic volume grew 39% compared to 2020, but was down 35% compared to 2019 (EX-YU Aviation News 2022).

Beside Air Serbia, other airlines gradually reopened routes to Belgrade Airport, which resulted in 1,904,025 passengers who used Belgrade Airport in 2020. This represents a decrease of 69% compared to 2019 (6,159,018 passengers). In 2021, Belgrade Airport served 3,286,000 passengers, or 73% more passengers than in 2020 (Vesti 2022). In 2020 the number of passengers at second largest airport in Serbia, Niš Constantine the Great Airport, was 63% lower than in 2019 (Figure 18). Cargo traffic also decreased, and the first seven months of 2020 63.8% less cargo was transported.

During April and May 2020, there was no cargo traffic at all (Danas 2020). Niš Airport had 2,662 passengers in January 2021, which is 93% less than in the same month the previous year. The crisis caused by the pandemic led to the reduction of the number of destinations from the Niš airport from 22 in 2019 to only two in 2021, and the number of weekly flights from 45 to five on average (Anadolu Agency 2021). In 2022 the first nine months counted 288 thousand passengers, and based on this it is expected to reach 370 thousand by the end of 2022 (Figure 18).

Even though the pandemic was in full swing, the largest development project in the history of the Belgrade Airport was launched, headed by operator VINCI and its partners, with the aim of creating the future hub in South-Eastern Europe. The construction is proceeding according in two phases (the first until 2025, the second until 2030). During the first phase plans call for the addition of an arrivals gallery on the roof of the existing terminal, the construction of a new boarding pier with three Multiple Apron Ramp System (MARS) contact stands, and the refurbishment of the existing facility with a new central security screening area. In the second phase the passenger processing areas, such as check-in, security screening, duty free and baggage delivery, will be added (EX-YU Aviation News 2021a).

Figure 18. Number of passengers at Niš Airport, Constantine the Great



Data source: Aerodromi Srbije 2022.

In 2020, Air Serbia and Etihad Airways decided to extend their partnership despite the fact that Etihad reduced its ownership stake in the Serbian airline from 49% to 18% during the pandemic. The two airlines have renewed and expanded their extensive codeshare agreement. Air Serbia has attached its code and flight numbers on Etihad's services from Paris, Zurich, Amsterdam, Frankfurt and London Heathrow to Abu Dhabi, while expanding its codeshare on Etihad's flights from Abu Dhabi to Manama, Bangkok,

Colombo, Dammam, Riyadh, Jeddah, Seoul, Karachi, Lahore, Kuwait, Muscat, Singapore, Sydney and Melbourne. The agreement presently covers more than thirty routes (EX-YU Aviation News 2021b).

## **10. CONCLUSION**

The COVID-19 pandemic had a strong impact on global aviation in 2020 and 2021, affecting the entire value chain from aircraft manufacturers to ANSPs, resulting in several hundred billion Euros in losses. In order to prevent the fast spread of COVID-19 around the world, all countries imposed protective travel restrictions, and during certain periods the complete suspension of air transport, which undoubtedly hit the aviation industry harder than many other industries.

However, it is notable that not all markets were affected equally. The European aviation industry seems to have been the hardest hit by the pandemic, and this may be related to fact that countries acted disunited and individually implemented measures to fight the COVID-19 pandemic. This resulted in a large number of different national rules in terms of quarantine and testing requirements, which has been a major barrier for air travel. Most governments acted individually and introduced measures to restrict travel, without synchronisation with the industry and other governments. This impeded global air connectivity, resulting in massive negative economic and travel consequences. Moreover, constant policy changes by governments, which left most of the industry little time to prepare and to coordinate, resulted in a slow demand recovery and low public confidence, which was not so much because of fear of the virus, but of sudden and arbitrary border restrictions. Thus, universally recognized and harmonized rules and requirements facilitating air passenger travel should be provided to the aviation industry.

Moreover, the pandemic has demonstrated that the air transport system is not as resilient as it was thought to be. Even though the technical and operational resilience of the air transport system has been significantly improved over the years, the economic resilience is still highly dependent on government support. As observed, most governments gave a high priority to maintaining the aviation industry in order to protect domestic and international connectivity, economic activity, jobs, and related sectors (e.g. tourism). Unaided, many airlines, airports and ANSPs would have gone out of business before the end of the first year of the pandemic. How the industry and governments reacted to pandemic raised another question: are job cuts the best way to save the industry in the short term? The industry's

reaction – cutting jobs to mitigate the huge revenue losses – resulted in the loss of thousands of highly skilled workers in ground handling, security, and other professional services required for running daily operations in the air transport system. Consequently, once the travel restrictions were removed and the demand for international travel returned after the two-year pandemic, airports across Europe struggled to adapt due to the lack of skilled workers. In the future, the industry should consider and develop programs for how skilled workers from the aviation industry could be otherwise utilised in similar situations.

Countries with strong domestic markets and domestic tourism, experienced faster recovery. Although initially domestic traffic was the main driver of recovery, later airlines retreated to core networks and concentrated on short and medium-haul flights, but with lower capacity. This strategy was more favourable for LCCs and some smaller airlines, such as Air Serbia, and it helped them to position themselves on time and gain market share as short-haul leisure demand returned quickly following the distribution of COVID-19 vaccines. Some airlines found a solution in replacing the passenger flights with cargo flights and took advantage of increasing online deliveries during the pandemic.

Of particular importance to airlines and airports is the fact that the demand structure has changed, with leisure travel and passengers VFR becoming more prevalent, compared to business travel. Business trips have been significantly affected by digital remote work and other flexible working arrangements, which will likely remain in some form in the future. Also, some negative consequences caused a reduction in this segment, such as the collapse of small businesses, large companies facing with financial issues, and many employees losing their jobs or facing uncertain futures. The business segment has always been crucial for airlines and airports, and with this reduction it means a loss of valuable customers and revenue. However, it is expected that when demand fully recovers, this segment also will increase, and business travellers will start use air transport more.

One of the impressions regarding the aviation industry is that all stakeholders (governments, airlines, airports, the aircraft manufactures, ICAO, IATA, etc.) worked together to ensure that when people started to fly again, travelling by plane would be as safe as possible. At the time when they were suffering huge losses due to a drop in demand, the entire aviation industry implemented many protective measures – even more than what was required – to reduce the risk of getting infected during travel. A particular challenge was to keep the aviation industry as safe as before the pandemic, bearing in mind the grounding of aircraft (which are not designed for long periods without use) and that pilots and air traffic controllers had



to maintain their licences when a majority of flight were cancelled. This pandemic showed that some industries, such as the aviation industry, require specialists that have no other customers and no alternative working positions (e.g. airport workers, pilots, air traffic controllers, suppliers of aircraft parts, etc.) and as such, they also need some financial stability during periods without operations to prevent even greater long-term harm to the industry.

This pandemic also created numerous opportunities. Many airlines and airports started implementing touchless technologies to reduce costs and offer the highest level of hygiene. Wider implementation of touchless technology, including touchless biometrics to verify passenger identity, will help reduce waiting times in the future while improving passenger experience. The pandemic also led to the retirement of large number of old, fuel-inefficient aircraft, which contributed to making aviation greener. Now all that is left is to encourage the industry to invest in more fuel-efficient replacements, although this is currently a low priority.

As COVID-19 spread across the world, and air traffic dropped dramatically, on-time performance indicators improved. Also, due to the lower traffic levels, flight efficiency increased along with subsequent environmental (CO<sub>2</sub> emissions) and economic (fuel) benefits. These economic benefits refer to less fuel consumption due to less traffic congestion, so airlines use the most efficient routes, while the waiting times in the air and on the ground are minimized. This unexpected situation offers an opportunity to review and evaluate the operations of all the stakeholders involved and to find a more efficient way to maintain the better service levels when traffic returns on pre-pandemic levels.

This research and systematic review should provide a foundation for more in-depth research on the financial and operational impact of the pandemic, and the sustainability of current business models of airlines, airports and ANSPs, as a commercial service to users (private good), as opposed to the responsibility of governments, and the importance of this sector for the economy and the transport infrastructure of every country (public good). COVID-19 also offers an opportunity to rethink global air transport operations. Many issues, such as those addressing the demand recovery pace, the sector's resilience on massive exogenous shock, and the environmental impacts, are also important to analyse in the future, once full recovery from the pandemic is achieved.

## REFERENCES

- [1] 116th U.S. Congress. 2020. Coronavirus Aid, Relief, and Economic Security Act (CARES Act), PUBLIC LAW 116–136. <https://www.congress.gov/116/plaws/publ136/PLAW-116publ136.pdf> (last visited 20 September, 2022).
- [2] AerCap. 2019. Annual report pursuant to section 13 or 15(d) of the securities exchange act of 1934 for the fiscal year ended December 31, 2019. <https://investors.aercap.com/shareholder-resources/sec-filings/content/0001378789-20-000004/0001378789-20-000004.pdf> (last visited 26 October, 2022).
- [3] AerCap. 2021a. Annual report pursuant to section 13 or 15(d) of the securities exchange act of 1934 for the fiscal year ended December 31, 2021. <https://investors.aercap.com/shareholder-resources/sec-filings/content/0001378789-22-000006/0001378789-22-000006.pdf> (last visited 26 October, 2022).
- [4] AerCap. 2021b. AerCap Completes Acquisition of GE Capital Aviation Services from GE. <https://www.aercap.com/media/news/aercap-completes-acquisition-of-ge-capital-aviation-services-from-ge/> (last visited 26 October, 2022).
- [5] Aerodromi Srbije. 2022. Statistics. <https://ini.aerodromisrbije.rs/en/statistics/> (last visited 22 November, 2022).
- [6] Airbus. 2019. Airbus reports Full-Year (FY) 2018 results, delivers on guidance. <https://www.airbus.com/en/newsroom/press-releases/2019-02-airbus-reports-strong-full-year-2018-results-delivers-on-guidance> (last visited 26 October, 2022).
- [7] Airbus. 2020. Airbus reports Full-Year (FY) 2019 results, delivers on guidance. <https://www.airbus.com/en/newsroom/press-releases/2020-02-airbus-reports-full-year-fy-2019-results-delivers-on-guidance> (last visited 26 October, 2022).
- [8] Airbus. 2021. Airbus 2020 deliveries demonstrate resilience. <https://www.airbus.com/newsroom/press-releases/en/2021/01/airbus-2020-deliveries-demonstrate-resilience.html> (last visited 26 October, 2022).
- [9] Airbus. 2022. Airbus reports strong Full-Year (FY) 2021 results. <https://www.airbus.com/en/newsroom/press-releases/2022-02-airbus-reports-strong-full-year-fy-2021-results> (last visited 26 October, 2022).

- [10] Airlines, IATA. 2021. European travel rules still confusing for passengers. <https://airlines.iata.org/news/european-travel-rules-still-confusing-for-passengers> (last visited 26 October, 2022)
- [11] Airport Research Center (ARC). 2022. Study: Impact of COVID-19 Measures on Airport Capacity. [https://arc.de/portfolio\\_page/impact-assessment-of-covid-19-measures-on-airport-capacity/](https://arc.de/portfolio_page/impact-assessment-of-covid-19-measures-on-airport-capacity/) (last visited 10 October, 2022).
- [12] Airports Council International – ACI. 2020. Almost 200 European airports facing insolvency in coming months. <https://www.aci-europe.org/media-room/279-almost-200-european-airports-facing-insolvency-in-coming-months.html> (last visited 26 October, 2022).
- [13] Airports Council International – ACI. 2021. Pandemic resurgence and increasing uncertainty are delaying recovery. <https://aci.aero/2021/11/01/the-impact-of-covid-19-on-the-airport-business-and-the-path-to-recovery-3/> (last visited 26 October, 2022).
- [14] Airports Council International – ACI. 2022. Delayed recovery, persisting financial challenges but renewed optimism and momentum. <https://aci.aero/2022/02/24/the-impact-of-covid-19-on-the-airport-business-and-the-path-to-recovery-4/> (last visited 26 October, 2022).
- [15] Albers, Sascha, Volker Rundshagen. 2020. European airlines' strategic responses to the COVID-19 pandemic (January–May, 2020). *Journal of Air Transport Management* 87, 101863.
- [16] Amankwah-Amoah, Joseph. 2021. COVID-19 pandemic and innovation activities in the global airline industry: A review. *Environment International* 156, 106719.
- [17] Anadolu Agency. 2021. Pandemija i avio-saobraćaj u Srbiji: Niški aerodrom suočen sa velikim padom broja putnika. <https://www.aa.com.tr/ba/ekonomija/pandemija-i-avio-saobra%C4%87aj-u-srbiji-ni%C5%A1ki-aerodrom-suo%C4%8Den-sa-velikim-padom-broja-putnika/2159667> (last visited 19 October, 2022).
- [18] Arora, Mohit, Stefan Tuchen, Mohsen Nazemi, Lucienne Blessing. 2021. Airport pandemic response: An assessment of impacts and strategies after one year with COVID-19. *Transportation Research Interdisciplinary Perspectives* 11, 100449.
- [19] Atems Bebonchu, Jules Yimga. 2021. Quantifying the impact of the COVID-19 pandemic on us airline stock prices. *Journal of Air Transport Management* 97, 102141.

- [20] Babic, Danica, Milica Kalic. 2011. Modelling the estimation of the airline profit in case of purchasing new slots for increasing flight frequency. 1060–1068 in *Proceedings of the Conference 14th EWGT Meeting & 26th Mini-EURO & 1st ESC RH*, edited by Jacek Żak. Amsterdam: Elsevier Procedia.
- [21] Bauer, Linus Benjamin, Daniel Bloch, Rico Merkert. 2020. Ultra Long-Haul: An emerging business model accelerated by COVID-19. *Journal of Air Transport Management* 89, 101901.
- [22] Beck, Matthew J., David A. Hensher. 2020. Insights into the impact of COVID-19 on household travel and activities in Australia – The early days under restrictions. *Transport Policy* 96, 76–93.
- [23] Belgrade Airport. 2020. VINCI Airports – traffic at 30 June 2020. <https://beg.aero/eng/node/354> (last visited 19 October, 2022).
- [24] Boeing. 2021. Airplane orders and deliveries. <http://www.boeing.com/commercial/#/orders-deliveries> (last visited 26 October, 2022).
- [25] Boeing. 2021. The Boeing Company 2021 Annual Report: Forward, Together. [https://s2.q4cdn.com/661678649/files/doc\\_financials/2021/ar/The-Boeing-Company-2021-Annual-Report.pdf](https://s2.q4cdn.com/661678649/files/doc_financials/2021/ar/The-Boeing-Company-2021-Annual-Report.pdf) (last visited 26 October, 2022).
- [26] Bouwer, Jaap, Vik Krishnan, Steve Saxon, Caroline Tufft. 2022. Taking stock of the pandemic's impact on global aviation. McKinsey and Company. <https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/taking-stock-of-the-pandemics-impact-on-global-aviation>. (last visited 26 October, 2022).
- [27] Buyle, Sven, Wouter Dewulf, Franziska Kupfer, Evy Onghena, Hilde Meersman, Eddy Van de Voorde. 2021. From traditional to professional Air Navigation Service Provider: A typology of European ANSP business models. *Journal of Air Transport Management* 91, 102006.
- [28] Cameron Sperance. 2022. Business travel recovery stalls after spring performance surge. *The Points Guy*. <https://thepointsguy.com/news/business-travel-recovery-stall/> (last visited 26 October, 2022).
- [29] CAPA. 2022. Europe aviation: LCCs consolidate market share gains in the recovery. <https://centreforaviation.com/analysis/reports/europe-aviation-lccs-consolidate-market-share-gains-in-the-recovery-618049> (last visited 27 October, 2022).

- [30] Changi Airport. 2020. Changi Airport rolling out contactless check-in kiosks, immigration counters. <https://www.channelnewsasia.com/singapore/covid-19-changi-airport-contactless-check-in-kiosks-immigration-638736> (last visited 11 September, 2022).
- [31] Cheong, Michelle L.F., Ulysses M.Z. Chong, Anne N.T.A. Nguyen, Su Yin Ang, Gabriella P. Djojoputro, Gordy Adiprasetyo, Kendra L.B. Gadong. 2021. Singapore Airlines: Profit recovery and aircraft allocation models during the COVID-19 pandemic. *Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management* Singapore, 7–11 March 2021.
- [32] Choi, Jong Hae. 2021. Changes in airport operating procedures and implications for airport strategies post-COVID-19. *Journal of Air Transport Management*, 94, 102065.
- [33] Collinson, Patrick. 2020. Airlines are breaking the law on refunds. Should we be sympathetic? <https://www.theguardian.com/money/2020/apr/10/airlines-law-refunds-voucher-schemes-coronavirus> (last visited 26 October, 2022).
- [34] *Danas*. 2020. Kako pandemija korona virusa utiče na avio-saobraćaj u Srbiji. <https://www.danas.rs/ekonomija/kako-pandemija-korona-virusa-utice-na-avio-saobracaj-u-srbiji-video/> (last visited 19 October, 2022).
- [35] Directorate-General for Mobility and Transport, European Commission. 2022. [https://transport.ec.europa.eu/transport-modes/air/international-aviation/status-aviation-relations-country/ecaa\\_en](https://transport.ec.europa.eu/transport-modes/air/international-aviation/status-aviation-relations-country/ecaa_en) (last visited 20 November, 2022).
- [36] Doganis, Rigas. 2005. *Airline business in the 21st century*. London: Routledge.
- [37] Dollard, Philip, Isabel Griffin, Andre Berro, *et al*. 2020. Risk assessment and management of COVID-19 among travelers arriving at designated U.S. Airports, January 17–September 13, 2020. *Morb. Mortal. Wkly. Rep.* 69, 1681–1685.
- [38] Dube, Kaitano, Godwell Nhamo, David Chikodzi. 2021. COVID-19 pandemic and prospects for recovery of the global aviation industry. *Journal of Air Transport Management* 92, 102022.
- [39] EUROCONTROL, FAA. 2021. Special report on the impact of COVID-19 on air navigation service provision in Europe and the US. A joint publication of the Air Traffic Organization of the FAA (FAA/ATO System Operations Services) and of EUROCONTROL (Aviation Intelligence Unit

- (AIU) on behalf of the European Commission. <https://www.eurocontrol.int/sites/default/files/2021-12/special-report-on-covid-19-impact-on-the-u-s-and-european-ans-systems.pdf> (last visited 26 October, 2022).
- [40] EUROCONTROL. 2021a. Central Route Charges Office. Report on the Operation of the Route Charges System in 2020. <https://www.eurocontrol.int/sites/default/files/2021-03/eurocontrol-crco-report-2020.pdf> (last visited 26 October, 2022).
- [41] EUROCONTROL. 2021b. Data Snapshot on the market share of cargo flights. <https://www.eurocontrol.int/publication/eurocontrol-data-snapshot-all-cargo-flights-market-share> (last visited 26 October, 2022).
- [42] EUROCONTROL. 2022a. Charting the European Aviation recovery: 2021 COVID-19 impacts and 2022 outlook. [https://www.eurocontrol.int/sites/default/files/2022-01/eurocontrol-think-paper-15-2021-review-2022-outlook\\_0.pdf](https://www.eurocontrol.int/sites/default/files/2022-01/eurocontrol-think-paper-15-2021-review-2022-outlook_0.pdf) (last visited 26 October, 2022).
- [43] European Commission. 2022. Consumer protection: Airlines reimburse over 500,000 flight vouchers as result of Commission and consumer authorities action in COVID-19 pandemic. [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_22\\_4383](https://ec.europa.eu/commission/presscorner/detail/en/IP_22_4383) (last visited 26 October, 2022).
- [44] EX-YU Aviation News. 2021a. Belgrade Airport expansion masterplan unveiled. <https://www.exyuaviation.com/2021/04/belgrade-airport-expansion-masterplan.html> (last visited 19 October, 2022).
- [45] EX-YU Aviation News. 2021b. Air Serbia and Etihad extend commercial partnership. <https://www.exyuaviation.com/2021/02/air-serbia-and-eti-had-extend-commercial.html> (last visited 19 October, 2022).
- [46] EX-YU Aviation News. 2022. Air Serbia registers €21.3 million loss in 2021. <https://www.exyuaviation.com/2022/07/air-serbia-registers-213-million-loss.html> (last visited 19 October, 2022).
- [47] Finances Online. 2022. Number of Flights Worldwide in 2022/2023: Passenger Traffic, Behaviors, and Revenue. <https://financesonline.com/number-of-flights-worldwide/> (last visited 19 October, 2022).
- [48] Fontanet-Pérez, Pol, Xose H. Vázquez, Diego Carou. 2022. The impact of the COVID-19 crisis on the US airline market: Are current business models equipped for upcoming changes in the air transport sector? *Case Studies on Transport Policy* 10, 647–656.
- [49] French, Sally. 2020. Afraid of Airlines? There's Always the Private Jet. *The New York Times*. <https://www.nytimes.com/2020/07/30/travel/private-jets-coronavirus.html> (last visited 26 October, 2022).

- [50] Garaus, Marion, Melania Hudakov. 2022. The impact of the COVID-19 pandemic on tourists' air travel intentions: The role of perceived health risk and trust in the airline. *Journal of Air Transport Management*, 103. 102249.
- [51] General Electric. 2019. Annual Report. [https://www.ge.com/sites/default/files/GE\\_AR19\\_AnnualReport.pdf](https://www.ge.com/sites/default/files/GE_AR19_AnnualReport.pdf) (last visited 26 October, 2022).
- [52] General Electric. 2020. Annual Report. [https://www.ge.com/sites/default/files/GE\\_AR20\\_AnnualLetterToShareholders.pdf](https://www.ge.com/sites/default/files/GE_AR20_AnnualLetterToShareholders.pdf) (last visited 26 October, 2022).
- [53] Georgiadis, Philip, Alice Hancock. 2020. Private jets take off as wealthy flyers seek to avoid virus: Flights Outpace commercial airlines as more passengers are prepared to pay a premium. *Financial Times*. <https://www.ft.com/content/17282807-ab86-4333-b6c2-b8128f87fd4f> (last visited 26 October, 2022).
- [54] Hussain, Saddam, Muhammad J.M. Cheema, Saad Motahhir, Muhammad M. Iqbal, Arfan Arshad, Muhammad S. Waqas, Muhammad U. Khalid, Saba Malik. 2020. Proposed design of walk-through gate (WTG): mitigating the effect of COVID-19. *Applied System Innovation* 3(3): 41.
- [55] IATA. 2020a. Recovery Delayed as International Travel Remains Locked Down, <https://www.iata.org/en/pressroom/pr/2020-07-28-02/> (last visited 27 October, 2022).
- [56] IATA. 2020b. IATA Welcomes EU Suspension of Slot Use Rules. <https://www.iata.org/en/pressroom/pr/2020-03-13-02/> (last visited 26 October, 2022).
- [57] IATA. 2020c. Air Passenger Market Analysis: Air passenger demand & capacity evaporate amid COVID-19. <https://www.iata.org/en/iata-repository/publications/economic-reports/air-passenger-monthly-analysis---mar-2020/> (last visited 26 October, 2022).
- [58] IATA. 2020d. Air passenger market analysis. <https://www.iata.org/en/iata-repository/publications/economic-reports/air-passenger-monthly-analysis---december-2020/> (last visited 26 October, 2022).
- [59] IATA. 2021. Airline Industry Statistics Confirm 2020 Was Worst Year on Record. <https://www.iata.org/en/pressroom/pr/2021-08-03-01/> (last visited 26 July, 2022).
- [60] IATA. 2022a. Passenger Demand Recovery Continued in 2021 but Omicron Having Impact. <https://www.iata.org/en/pressroom/2022-releases/2022-01-25-02/> (last visited 26 October, 2022).

- [61] IATA. 2022b. IATA Economics' Chart of the Week: The recovery in global air traffic continues. <https://www.iata.org/en/iata-repository/publications/economic-reports/the-recovery-in-global-air-traffic-continues/> (last visited 26 October, 2022).
- [62] ICAO. 2021. Navigational Charge Losses by FIR Regions & States. <https://data.icao.int/coVID-19/ansp.htm> (last visited 26 October, 2022).
- [63] ICAO. 2022a. 2021 global air passenger totals show improvement from 2020, but still only half pre-pandemic levels. <https://www.icao.int/Newsroom/Pages/2021-global-air-passenger-totals-show-improvement.aspx> (last visited 26 October, 2022).
- [64] ICAO. 2022b. Economic Impacts of COVID-19 on Civil Aviation <https://www.icao.int/sustainability/Pages/Economic-Impacts-of-COVID-19.aspx> (last visited 26 October, 2022).
- [65] Kim, Myeonghyeon, Jeongwoong Sohn. 2022. Passenger, airline, and policy responses to the COVID-19 crisis: The case of South Korea. *Journal of Air Transport Management* 98. 102144.
- [66] Klikac, Jakub, Michelle Bishop. 2022. What does the data say about ANSPs' resilience through the pandemic? <https://canso.org/what-does-the-data-say-about-ansps-resilience-through-the-pandemic/#> (last visited 26 October, 2022).
- [67] Liege Airport. 2021. 2020 was a record year for Liege Airport, confirming its key role as a health airport. <https://www.liegeairport.com/flexport/en/actualites/2020-was-a-record-year-for-liege-airport-confirming-its-key-role-as-a-health-airport/> (last visited 26 October, 2022).
- [68] Luman, Ruco, Oleksiy Soroka 2022. Global aviation outlook: delayed but persuasive recovery despite new turbulence. *ING*. <https://think.ing.com/articles/global-aviation-outlook-delayed-but-persuasive-recovery-despite-new-turbulence> (last visited 26 October, 2022).
- [69] Milne, R. John, Camelia Delcea, Liviu-Adrian Cotfas. 2020. Airplane Boarding Methods that Reduce Risk from COVID-19. *Safety Science*, 105061.
- [70] Nhamo, Godwell, Kaitano Dube, David Chikodzi. 2020. Impact of COVID-19 on the Global Network of Airports. 109–133 in *Counting the Cost of COVID-19 on the Global Tourism Industry*. Cham: Springer.



- [71] Niestadt, Maria. 2021. The future of regional airports: Challenges and opportunities. European Parliamentary Research Service, European Parliament. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/689346/EPRS\\_BRI\(2021\)689346\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/689346/EPRS_BRI(2021)689346_EN.pdf) (last visited 26 October, 2022).
- [72] NPR. 2020. What's Inside The Senate's \$2 Trillion Coronavirus Aid Package. <https://www.npr.org/2020/03/26/821457551/whats-inside-the-senate-s-2-trillion-coronavirus-aid-package/> (last visited 26 October, 2022).
- [73] O'Mara, Joe. 2022. The impact of Covid-19 on aircraft leasing. <https://www.world-leasing-yearbook.com/feature/the-impact-of-covid-on-aircraft-leasing/> (last visited 26 October, 2022).
- [74] OECD. 2021. State Support to the Air Transport Sector: Monitoring developments related to the Covid-19 crisis. <https://www.oecd.org/corporate/State-Support-to-the-Air-Transport-Sector-Monitoring-Developments-Related-to-the-COVID-19-Crisis.pdf> (last visited 26 July, 2022).
- [75] Okulicz, Malwina, Paulina Rutkowska. 2021. The Impact of Covid-19 on Airport Operations. 86–105 in *Advances in Air Traffic Engineering, ATE 2020*, edited by Anna Kwasiborska, Jacek Skorupski, Irina Yatskiv. Lecture Notes in Intelligent Transportation and Infrastructure. Cham: Springer.
- [76] Powley, Tanya, Claire Bushey. 2020. Wealthy, virus-wary tourists turn to private jets; Influx of leisure passengers keen to create a safer travel bubble allows market to avoid the worst of crisis afflicting big carriers. *Financial Times*, 12 July 25. <https://www.ft.com/content/063785d0-ed9a-4eae-b4ba-8a56cf59e905> (last visited 26 October, 2022).
- [77] Reuters. 2020. EasyJet defers Airbus aircraft deliveries. <https://www.reuters.com/business/aerospace-defense/easyjet-defers-airbus-aircraft-deliveries-2020-12-22/> (last visited 26 October, 2022).
- [78] Schultz, Michael, Jan Evler, Ehsan Asadi, Henning Preis, Hartmut Fricke, Cheng-Lung Wu. 2020. Future aircraft turnaround operations considering post-pandemic requirements. *Journal of Air Transport Management* 89, 101886.
- [79] SMATSA. 2020. Uticaj COVID-19 pandemije na vazdušni saobraćaj. <https://smatsa.rs/uticaj-covid-19-pandemije-na-vazdusni-saobra-caj/?script=lat> (last visited 19 October, 2022).

- [80] Sobieralski, Joseph B. 2020. COVID-19 and Airline Employment: Insights from Historical Uncertainty Shocks to the Industry. *Transportation Research Interdisciplinary Perspectives*, 5. 100308.
- [81] Statista. 2021. Mainline aircraft order cancellations as of July 2020, by aircraft type. <https://www.statista.com/statistics/1131733/aircraft-order-cancellation/> (last visited 19 October, 2022).
- [82] Statista. 2022a. Number of scheduled passengers boarded by the global airline industry from 2004 to 2022 (in millions). <https://www.statista.com/statistics/564717/airline-industry-passenger-traffic-globally/> (last visited 27 November, 2022).
- [83] Statista. 2022b. Leading aircraft operating lessors in 2020, by fleet size. <https://www.statista.com/statistics/674016/aviation-industry-aircraft-operating-lessors-fleet-size/> (last visited 19 October, 2022).
- [84] Statistical Office of the Republic of Serbia. 2018. *Statistical Yearbook of the Republic of Serbia 2018*, 334. <https://publikacije.stat.gov.rs/G2018/Pdf/G20182051.pdf> (last visited 22 November, 2022).
- [85] Suau-Sanchez, Pere, Augusto Voltes-Dorta, Natalia Cugueró-Escofet. 2020. An early assessment of the impact of COVID-19 on air transport: Just another crisis or the end of aviation as we know it? *Journal of Transport Geography*, 86, 102749.
- [86] Sun, Xiaoqian, Sebastian Wandelt, Anming Zhang. 2020. How did COVID-19 impact air transportation? A first peek through the lens of complex networks. *Journal of Air Transport Management* 89, 101928.
- [87] Sun, Xiaoqian, Sebastian Wandelt, Changhong Zheng, Anming Zhang. 2021. COVID-19 pandemic and air transportation: successfully navigating the paper hurricane. *Journal of Air Transport Management* 94, 102062.
- [88] Sun, Xiaoqian, Sebastian Wandelt, Hartmut Fricke, Judith Rosenow. 2021. The Impact of COVID-19 on Air Transportation Network in the United States, Europe, and China. *Sustainability* 13, 9656.
- [89] *Tango six*. 2020. Kako se leti u regiji tijekom Korona krize? <https://tangosix.rs/2020/11/08/kolumna-alena-scurica-kako-se-leti-u-regiji-tijekom-korona-krize/> (last visited 19 October, 2022).
- [90] Thepchalerm, Teeris, Phutawan Ho. 2021. Impacts of COVID-19 on Airline Business: An Overview. *GATR Journal of Business and Economics Review* 6(1): 81–91.

- [91] Turnbull, Peter J., Huw Thomas, Geraint Harvey. 2022. *Navigating the COVID-19 Crisis: Air Traffic Charging Models and Financing of Air navigation Service Providers*. Bristol: University of Bristol.
- [92] Twinn, Ian, Navaid Qureshi, Daniel Sebastian Perea Rojas, Maria López Conde. 2020. The Impact of COVID-19 on Airports: An Analysis. IFC. [https://www.ifc.org/wps/wcm/connect/26d83b55-4f7d-47b1-bcf3-01eb996df35a/IFC-Covid19-Airport-FINAL\\_web3.pdf?MOD=AJPERES&CVID=n8lgpkG](https://www.ifc.org/wps/wcm/connect/26d83b55-4f7d-47b1-bcf3-01eb996df35a/IFC-Covid19-Airport-FINAL_web3.pdf?MOD=AJPERES&CVID=n8lgpkG) (last visited 8 September, 2022).
- [93] Vesti. 2022. Vinci: Belgrade Airport Served Last Year 73 Pct More Passengers Than In 2020. <https://www.vesti.rs/Vesti/Vinci-Belgrade-airport-served-last-year-73-pct-more-passengers-than-in-2020.html> (last visited 19 October, 2022).
- [94] Vinci Airports. 2020. Activity 2019–2020 Positive Mobility Makers. [https://www.vinci.com/publi/vinci\\_concessions/2019-vinci-airports-activity-report.pdf](https://www.vinci.com/publi/vinci_concessions/2019-vinci-airports-activity-report.pdf) (last visited 22 November, 2022).
- [95] Vinci Airports. 2022. Communiqué de Presse, 2021 Annual Results. <https://ml-eu.globenewswire.com/Resource/Download/79e9e6e0-3b3b-4bfe-b505-14a8bdbc6f02> (last visited 22 November, 2022).
- [96] Warnock-Smith, David, Anna Graham, John F. O’Connell, Marina Efthymiou. 2021. Impact of COVID19 on air transport passenger markets: Examining evidence from the Chinese market. *Journal of Air Transport Management* 94, 102085.
- [97] Zhang, Anming, Xiaoqian Sun, Yahua Zhang, Shiteng Xu, Ronghua Shen. 2021. COVID-19, Air Transportation, and International Trade in the ASEAN+5 Region. *ERIA Discussion Paper Series*, No. 401.
- [98] Zhang, Yuan, LinChuang Zhu, Feng Hao. 2022. The Impact of the COVID-19 Pandemic on China’s Airline Industry. *Front Public Health* 10, 865463.

Article history:

Received: 1. 10. 2022.

Accepted: 15. 12. 2022.



UDC 616.98:578.834]:349.6; 349.6(497.11:4-672EU)

CERIF: S 120

DOI: 10.51204/Anali\_PFBU\_22406A

**Mirjana DRENOVAK-IVANOVIĆ, PhD\***

## **THE IMPORTANCE OF THE RIGHT TO A HEALTHY ENVIRONMENT DURING THE PANDEMIC**

*The protection and preservation of the environment and stable climatic conditions, as well as the right of public participation in environmental decision-making in public spaces, are emerging as topics of special significance, especially during the COVID-19 pandemic. The need for integrated protection of natural goods of general interest, harmonization with the EU acquis, the need to simultaneously overcome the COVID-19 crisis and implement the Green Agenda for the Western Balkans raises numerous questions, some of them being: is environmental protection a priority during the pandemic and, if so, which aspects of environmental protection represent the primary concern; have the measures limiting public gatherings had an impact on public participation in decision-making; and, do the proposed legislative amendments and additions*

---

\* Professor, Jean Monnet Chair in European Environmental Law, University of Belgrade Faculty of Law, Serbia, [mirjana.drenovak@ius.bg.ac.rs](mailto:mirjana.drenovak@ius.bg.ac.rs).

*complete the environmental protection system, with clear criteria for an environmental impact assessment of the related activities and the decisions to support their pursuit?*

**Key words:** COVID-19. – *Environmental Approximation Strategy.* – *Restriction measures.* – *Pandemic.* – *Public participation.*

## 1. INTRODUCTION

Analyzing the five-year period prior to March 2020, we come across a series of studies aiming to establish a link between respiratory system diseases and levels of air pollution encountered in urban areas (Croft *et al.* 2019, 321–330). When the data regarding exposure to poor air quality, used to monitor the effect of the virus spread through the population, were entered into the research models, it was found that there was a high probability for the development of a virus from the coronavirus family after the epidemic caused by the SARS-CoV-2 virus, which would have the highest impact precisely on that population (Kan *et al.* 2005, 1–4). The coronavirus disease (COVID-19) pandemic has killed a large number of people, further exacerbating poverty and inequality: inequality in the readiness to take emergency measures, inequality in access to means to curb the spread of the virus, inequality in access to information of public importance, inequality in the quality of basic requirements for life – among which the quality of the environment is becoming increasingly common. Even the earliest of studies on the repercussions of the pandemic lead us to the conclusion that long-term exposure to polluted air increases the risk of graver illnesses and deaths in those suffering from the COVID-19 disease (Wu *et al.* 2020, 1–6). The exposure to increased concentrations of PM 2.5 particles is directly proportional to the number of deaths caused by the disease (Shao *et al.* 2022, 1–10; Sicard *et al.* 2021, 1–12; Fos, Honore, Honore 2021, em0074).

The need for long-term recovery and overcoming the socio-economic consequences of the pandemic have led to the development of policies in Europe in which economic recovery is identified with the green transition (compare Norouzi, Elham 2021 46–60; Gerrard 2020, 81–88). After months of negotiations between Member States, the European Union's plan for joint action in “facing the challenges of the green transition” on the path to climate neutrality by the year of 2050, was shaped into the text of the European Green Deal. The adoption of the Economic and Investment Plan for the Western Balkans (2020) was an expression of the need to connect the

EU's goals in achieving climate neutrality with mitigating and overcoming disruptions in the economies that occurred in the Western Balkan countries as a result of the pandemic.<sup>1</sup> This was followed by the adoption of the Sofia Declaration on the Green Agenda for the Western Balkans, which set out the guidelines for the green transition, aimed at enabling decarbonization, reduction of environmental pollution, establishment of a circular economy system, sustainability of production and consumption, and protection of biological diversity and afforestation in the Western Balkans (Drenovak-Ivanović 2021a, 217–234; 2020, 133–144).

This paper presents conclusions aimed at answering the question whether the implementation of measures against the COVID-19 disease affected the process of harmonization with the EU law in the field of environmental protection and the application of the principle of public participation in the preparation of laws, planning and strategic documents, and whether amendments and additions to laws in the field of environmental protection include, *inter alia*, provisions important for overcoming challenges in this field, resulting from the COVID-19 pandemic.

## **2. THE IMPACT OF THE COVID-19 PANDEMIC ON THE COURSE OF APPROXIMATION WITH THE EU LAW IN THE FIELD OF ENVIRONMENTAL PROTECTION**

The environmental protection legal framework contains many laws and bylaws, which constitute one third of all sources of the EU law that are to be transposed in the process of approximation of Serbia's law with the EU *acquis*. The extent of the expected changes and the multi-year dynamics of approximation of domestic regulations with the regulations that make up the environmental *acquis* were presented in 2011 in the National Environmental Approximation Strategy for the Republic of Serbia.<sup>2</sup> The Strategy applies the principle that the EU *acquis* should be transposed in such manner that they reflect the requirements and standards "neither to a lesser nor to a greater extent" than in EU regulations. The basis of the Strategy can be found in

---

<sup>1</sup> European Commission. 2020. Economic and Investment Plan for the Western Balkans. {SWD(2020) 223 final}, COM(2020) 641 final.

<sup>2</sup> Nacionalna strategija za aproksimaciju u oblasti životne sredine za Republiku Srbiju [National Environmental Approximation Strategy for the Republic of Serbia], *Official Gazette of the RS*, No. 80/2011.

the National Program for Integration from 2008 to 2012 and the subsequent National Program for the Adoption of the EU *Acquis* (NPAA). The NPAA was revised three times, the last time being in March 2018.

Apart from the Law on Environmental Protection, Serbia's environmental law consists of: the Law on Strategic Environmental Impact Assessment, the Law on Environmental Impact Assessment, the Law on Integrated Prevention and Pollution Control, and the Law on Environmental Damage. These are laws that contain provisions about the basic principles of legal protection, based on the principles of prevention and precaution, and which refer to the protection of all environmental media. The adoption of amendments and additions to the aforementioned laws, new laws and accompanying bylaws, in accordance with the adopted dynamics, was supposed to have been completed by the end of 2019. Nevertheless, the laws governing the procedure of strategic environmental impact assessment and environmental impact assessment have not been amended nor supplemented, while the amendment of the law governing the procedure of integrated pollution control, enacted in November 2021, contains only the provision stating that the competent authority would issue an integrated permit, not by the previously planned deadline of 31 December 2020, which had expired almost a year prior to the amendment, but by 31 December 2024. Further amendments, regulating the new institutes as a part of the harmonization process with the Industrial Emissions Directive, were not considered. The adoption of the Law on Environmental Damage, whose draft was prepared in 2015, together with the draft of two bylaws, has been postponed several times, the last time until the end of 2021.<sup>3</sup>

The reports on the implementation of the National Program for the Adoption of the EU *Acquis* reveal a noticeable slowing of harmonization with the environmental *acquis* since 2016.<sup>4</sup> The first activities to be prolonged as a consequence of civil servants working under pandemic conditions, in a remote mode, in an online environment, were the activities aimed at the harmonization of laws.

The question that arises is whether the restriction measures introduced in order to curb the pandemic have also brought about the restriction of the right to public participation in the adoption of regulations in the field of

---

<sup>3</sup> Government Work Plan for 2021. February 2021, 187.

<sup>4</sup> Reports on the implementation of the National Program for the Adoption of EU *Acquis* from January 2013 to September 2019 are available on the website of the Ministry of European Integration: <https://www.mei.gov.rs/srl/dokumenta/nacionalna-dokumenta/npaa> (last visited 24 September, 2022). Later reports, however, are not available.



environmental protection, decisions regarding plans and programs that have an impact on the environment, and in the adoption of individual decisions regarding activities with an impact on the environment. In the last week of 2021, the public was informed via Ministry of Environmental Protection's website about the invitation to participate in the public discussion on the Draft Law on Strategic Environmental Impact Assessment, planned to be held from 24 December (the day the invitation was issued) until 14 January 2022. In the same period, the public was encouraged to submit proposals, suggestions, initiatives and comments, although the public discussion that would include the presentation of the draft and consultations with the community of experts, via video conference, was planned to be held near the deadline, on 11 January 2022.<sup>5</sup>

Although the preparation of drafts of the aforementioned laws had been postponed several times, the public was informed in December 2021 that a public discussion would shortly be organized on the drafts of all the aforementioned regulations, which form the basis of the environmental law. Public participation in public discussions has two main goals: to improve the quality of regulations in whose drafting the public also takes part and to provide a transparent procedure, including access to information of public importance, in determining whether the proposed solutions are based on public interest. The question that arises is whether the public participation procedure has "reasonable time limits" that leave "enough time to inform the public" about the public interest involved in the proposed drafts of the three basic laws on environmental protection, within periods of two weeks each, around the New Year's and Christmas holidays. These are minimum standards for informed public participation (Squintani, Perlaviciute 2020, 133–147).

The restrictions introduced to curb the pandemic, along with the increased number of procedures for adopting the plans and programs that require (interested) public participation, have led to limiting and denying the right to attend public discussions. This right was even more constrained due to the fact that the Draft IV of the Report on the Implementation of the Aarhus Convention had not been adopted even though it was prepared in 2020.

---

<sup>5</sup> Ministry of Environmental Protection of the Republic of Serbia. 2021. Public invitation to participate in the public discussion on the Draft Law on Strategic Environmental Impact Assessment. <https://ekologija.gov.rs/saopstenja/najave/javni-poziv-za-ucescu-u-javnoj-raspravi-o-nacrtu-zakona-o-strateskoj-proceni-uticaja-na-zivotnu-sredinu> (last visited 24 September, 2022).

### **3. THE IMPACT OF MEASURES PROHIBITING GATHERINGS IN PUBLIC PLACES IN CLOSED AND OPEN SPACES ON PUBLIC PARTICIPATION**

#### **3.1. Public Participation in Public Discussions on Environmental Impact Assessments and Strategic Environmental Impact Assessments of Projects and Plans**

In environmental decision-making, a good starting point for including the interested public in the process are public consultations, which provide an opportunity for individuals to express their views, opinions and proposals regarding the proposed activities (when adopting separate acts) or draft laws and proposed planning documents. Considering that since March 2020 on several occasions measures were introduced, limiting or prohibiting gatherings in public places in closed and open spaces, in order to curb the spread of contagion, further analysis will address whether such measures affected the implementation of the minimum standards for (interested) public participation in environmental decision-making.

Environmental protection provides a good example when it comes to regulating matters of special public importance. Therefore, according to the Rules of Procedure of the Government and the Law on State Administration, the proposer of the law is required to hold a public discussion not only when the draft law “significantly changes” the regulation of an issue, but also when it regulates segments of environmental protection as issues of “special public interest”.<sup>6</sup> In the latter case, the preparation of a draft law starts with the publication of an initial document that points out the problems in a certain area and their causes, as well as the expected effects of the law in overcoming the perceived shortcomings. For the purpose of informing the public and participants in public discussions, the initial document is uploaded to the website of the Ministry of Environmental Protection, which establishes a working group, as well as to the e-government portal.<sup>7</sup> The first rationale for involving the public in the preparation of regulations in

---

<sup>6</sup> Poslovnik Vlade [Rules of Procedure of the Government], *Official Gazette of the RS*, 61/2006 – revised text, 69/2008, 88/2009, 33/2010, 69/2010, 20/2011, 37/2011, 30/2013, 76/2014 and 8/2019 – other regulation, Art. 41. Zakon o državnoj upravi [Law on State Administration], *Official Gazette of the RS*, Nos. 79/2005, 101/2007, 95/2010, 99/2014, 47/2018 and 30/2018 – other law, Art. 77.

<sup>7</sup> Pravilnik o smernicama dobre prakse za ostvarivanje učešća javnosti u pripremi nacрта zakona i drugih propisa i akata [Rulebook on good practice guidelines for achieving public participation in the preparation of draft laws and other regulations and acts], *Official Gazette of the RS*, No. 51/19, Art. 4.

the field of environmental protection, notifying and informing the public about the starting points, can be carried out without hindrance regardless of the pandemic measures to limit and prohibit public gatherings. The need for actively and passively informing the public and implementing the rules on informing the public about the preparation of draft laws, strategic and planning documents and the implementation of the stages of the environmental impact assessment procedure, in conditions of limited gatherings, was an opportunity to advance the work on the development of electronic communications regarding decision-making on matters of importance for environmental protection. Although there is an obligation to post an announcement on the website and web application eConsultations when drafting of legislation takes place, as well as basic information about the composition of the working group and planned solutions, a portal designed to ensure the inclusion of citizens, representatives of civil society and business entities in the process of adopting laws, bylaws and policies was launched in late 2021. The second rationale, obtaining and analyzing information, opinions, views and objections by organizing public consultations, including the participation of other state bodies, associations and organizations dealing with environmental protection and the community of experts, may be limited by the aforementioned measures.

The reports on Serbia's progress in European integration have been pointing out shortcomings in conducting public discussions since 2015. Namely, the Progress Report for 2021 indicates that as of March 2020, the application of the emergency procedure had been reduced from 19% to 9%, and that in 2021, 12 laws were adopted under the emergency procedure.<sup>8</sup> In the field of environmental protection, we encounter not only the adoption of laws and their amendments and additions under an emergency procedure,<sup>9</sup> but also the absence of public involvement via focus groups or round tables, even in cases where more than two years had passed between the establishment of the working group for drafting a law and the beginning of the public discussion (Popović 2021, 6). The progress report for 2020 indicates that the public was not adequately involved in the adoption

---

<sup>8</sup> European Commission. 2021. Serbia Report 2021. SWD (2021) 288. Brussels, 19 October, 11.

<sup>9</sup> For example, *Zakon o izmenama i dopunama Zakona o vodama* [Law on Amendments and Additions to the Law on Water] adopted on 14 July 2021, which was withdrawn from procedure after 9 days due to inadequate public discussion and the involvement of experts.

of regulations in the field of environmental protection and climate change, the provided explanation being inadequate time frames for consultations, which did not provide a basis for conducting qualitative public discussions.<sup>10</sup>

An assessment in the Report for 2021 points out that the quality of public consultations had deteriorated. The reasons for this were partly found in the application of measures to curb the COVID-19 pandemic. It should also be noted that the inadequate arrangement of public consultations led to the violation of “transparency of investments and their impact on the environment” and respect for freedom of expression and gathering.<sup>11</sup> Failing to implement minimum standards regarding the inclusion of the (interested) public becomes notable in the procedures of strategic environmental impact assessment and environmental impact assessment, especially after the adoption of measures limiting gatherings.<sup>12</sup>

### **3.2. Public Participation in the Preparation of Spatial and Urban Planning Plans**

The basis for environmental protection and mitigating the consequences of climate change can be found in strategic and planning documents and public policies that not only refer to the protection of ecological goods, but to a large number of social relations that directly or indirectly affect the environment. One of the examples are spatial plans or general regulation plans. These are acts of spatial and urban planning that define and protect areas of importance for the protection or preservation of the quality of the environmental media or for adaptation to climate change with appropriate planning measures. They provide the basis for spatial development that takes into account the needs for environmental protection and mitigating

---

<sup>10</sup> European Commission. 2020. Serbia Report 2020. SWD (2020) 352. Brussels, 6 October, 117–118.

<sup>11</sup> European Commission. 2021. Serbia Report 2021. SWD (2021) 288. Brussels, 19 October, 128.

<sup>12</sup> For example, due to epidemiological conditions, attendance at the public discussion was limited to 30 participants, and representatives of the public could not attend the public presentation of the Environmental Impact Assessment Study of the Linglong International Europe Ltd. factory construction project, which was held in September 2020. The same reasons led to the limitation of the right of the public to inspect the Draft Spatial Plan of the special purpose area for the construction of the Kolubara B thermal power station in September 2020, and at the end of 2020 the right to public inspection of the Draft Plan for the detailed regulation of part of Makiš Field with a Report on the strategic assessment of the Plan’s environmental impact. More about the topic: Coalition 27 (2020, 21–22).

the consequences of climate change. These are acts that, as a rule, are preceded by a strategic environmental impact assessment, as a procedure that provides the possibility of public participation.<sup>13</sup> The principle of public participation is also applied in the process of public inspection of the Draft General Regulation Plan and its amendments and additions.

The question arises whether the introduction of measures to limit gatherings affected the implementation of the principle of public participation in preparation and adoption of such acts. One of the acts whose amendments and additions were proposed in 2021 is the Draft Amendment and Addition to the General Regulation Plan of Belgrade. This act was to be made available for public inspection starting on 20 December 2021. The public review lasts 30 days. During the public inspection, the Prohibition of Gatherings Order was in force, which prohibited public gatherings in closed and open public spaces, with more than 500 people in attendance, with some exceptions that, *inter alia*, applied if the gathering permit was obtained from the Crisis Response Team for the suppression of the COVID-19 infectious disease.<sup>14</sup> The aforementioned measures did not limit the number of participants to an extent that could significantly affect the implementation of the principle of public participation.<sup>15</sup> However, a potentially negative effect of applying that principle was that the public review was planned during the New Year and Christmas holidays.

---

<sup>13</sup> See Plan of detailed regulation of part of Makiš Field, *Official Gazette of the City of Belgrade*, No. 153/2020, Basic principles – Protection and potential of space and basic building restrictions.

<sup>14</sup> Naredba o zabrani okupljanja u Republici Srbiji na javnim mestima u zatvorenom i otvorenom prostoru [Order on the prohibition of gatherings in the Republic of Serbia in public places in closed and open spaces], *Official Gazette of the RS*, No. 60/2021, Art. 1; Uredba o merama za sprečavanje i suzbijanje zarazne bolesti COVID-19 [Regulation on measures to prevent and suppress the infectious disease COVID-19], *Official Gazette of the RS*, Nos. 151/2020, 152/2020, 153/2020, 156/2020, 158/2020, 1/2021, 17/2021, 19/2021, 22/2021, 29/2021, 34/2021, 48/2021, 54/2021, 59/2021, 60/2021, 64/2021, 69/2021, 86/2021, 95/2021, 99/2021, 101/2021, 105/2021, 108/2021, 117/2021, 125/2021, and 7/2022, Art. 13.

<sup>15</sup> A year earlier, in December 2020, restriction measures prevented all interested parties from attending a public meeting where a decision was made on the Draft Plan for the Detailed Regulation of the Makiš Field and the Report on the strategic assessment of the Plan's impact on the environment was presented. See: Public inspection of the Draft Plan for the Detailed Regulation of the Makiš Field, Invitation of the Secretariat for Urban Planning and Building Permits, 25 October 2020.

### **3.3. Conclusion of the Aarhus Convention Compliance Committee on the Implementation of Restriction Measures and Public Participation in Decision-Making**

Having identified a series of examples with a clear tendency of limiting the rights guaranteed by the Aarhus Convention on access to environmental information and public participation in environmental decision-making, the Aarhus Convention Compliance Committee issued a Communication containing conclusions on the application of the Aarhus Convention during the COVID-19 pandemic crisis. The Committee concluded that the Parties to the Convention are required to implement the minimum standards of green democracy guaranteed by the Aarhus Convention, both during the period of pandemic restriction measures and during the period of economic recovery. The minimum standards can neither be limited nor rendered meaningless by the implementation of gathering restriction measures. If the right to access environmental information and the right of the public to participate in decision making cannot be implemented in the new conditions, the Parties are required to find alternative ways, which must not deviate from the minimum standards. Parties are encouraged to consult with the Committee in finding alternative ways.<sup>16</sup>

## **4. NEW LAWS IN THE FIELD OF ENVIRONMENTAL PROTECTION ADOPTED DURING THE PANDEMIC**

### **4.1. Law on Climate Change**

In March 2021, the National Assembly of the Republic of Serbia adopted the Law on Climate Change, introducing the obligation to determine the inventory of emissions with the greenhouse effect and issue permits for gas emissions that contribute to climate change (GHG permits). Although the Law entered into force on 31 March 2021, the rules on a GHG permit issuing procedure and the functioning of the GHG inventory could only be applied after the adoption of a number of bylaws (Kuzman 2021, 31–34). Among them was the act on the level of GHG emissions, in the purview of the Government, prescribing the sources of emissions for which the levels of GHG emissions

---

<sup>16</sup> Economic Commission for Europe, Meeting of the Parties to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters Compliance Committee. ECE/MP. PP/C.1/2020/5/Add.1, September 2020.

are determined, the percentage of reduction of GHG emissions compared to the previous year, as well as the means and methodology of determining the level of GHG emissions.<sup>17</sup> The legal framework consists of an act determining the list of authorities and organizations responsible for implementing the measures determined by the Climate Change Adaptation Program,<sup>18</sup> an act on the criteria and method of approving programs and projects implemented within the Clean Development Mechanism,<sup>19</sup> an act on the type of activities and gases for which a GHG emission permit is issued to a plant operator,<sup>20</sup> an act on the bodies and organizations that manage the information system and databases for the GHG Inventory and the data that will be collected for that purpose,<sup>21</sup> which are prescribed by the Government, as well as the acts that regulate more closely issues of importance for the label on fuel consumption and CO<sub>2</sub> emissions,<sup>22</sup> on monitoring and reporting on GHG emissions from plants and aviation activities,<sup>23</sup> on the GHG Inventory,<sup>24</sup> which are prescribed by the minister responsible for environmental affairs.

The Draft Law was presented in March 2018, which was followed by several public discussions with participation of representatives of the scientific and expert community. The adoption of final text of the law came at a time when the responsibility for decelerating climate change was associated with the activities of states related to the adoption of planning documents. After a series of examples establishing the responsibility of states for the implementation of measures and the adoption of acts relevant for decelerating climate change, or indicating the criteria that can be taken into consideration in determining responsibility, we come across the proceedings initiated before the European Court of Human Rights against Norway, one of the European countries with the largest oil and gas exploitation, in connection with possible violations of basic human rights caused by the issuance of new exploitation permits which, in the era of pronounced climate crisis, allow the expansion of oil exploitation (MacGillivray 2022; Greenpeace Norge 2021; Reuters 2022; Duffy, Maxwell 2020). If it accepts

---

<sup>17</sup> Zakon o klimatskim promenama [Law on Climate Change], *Official Gazette of the RS*, No. 26/2021, Art. 11.

<sup>18</sup> Law on Climate Change, Art. 15.

<sup>19</sup> Law on Climate Change, Art. 18.

<sup>20</sup> Law on Climate Change, Art. 25 and Art. 33.

<sup>21</sup> Law on Climate Change, Arts. 58–59.

<sup>22</sup> Law on Climate Change, Arts. 21–24.

<sup>23</sup> Law on Climate Change, Arts. 35–37, Art. 39, Arts. 41–43, Art. 45, Art. 46, Art. 48, Art. 50, Art. 52. Compare Art. 64.

<sup>24</sup> Law on Climate Change, Art. 58.

the application, the European Court of Human Rights will be in a position to decide whether the issuance of ten new exploitation licenses represents a “real and immediate risk” that could threaten the right to life and the right to respect for private and family life, including the negative impact of climate change on future generations, according to established projections. The case was launched a few months after a decision by the High Court in The Hague, requiring the Royal Dutch Shell company to reduce global GHG emissions by 45%, compared to the emissions it released in 2019, by 2030 (Macchi, Zeven 2021, 409–415).<sup>25</sup> The court held that the sustainability policy of the British-Dutch oil company did not contain clear bases or criteria to determine the fulfillment of the goals which were set, thus violating the obligation of due diligence in accordance with the UN Guiding Principles on Business and Human Rights (2011).

One of the consequences of climate change is the impact on habitats and nature, which opens the possibility for new global pandemics similar to COVID-19 pandemic (Rowell 2020, 10881). In the era of overcoming the crisis caused by the current pandemic, comparative law and practice pay special attention to issues of importance for overcoming the climate crisis. Although the Law on Climate Change was recently adopted, its implementation depends not only on the dynamics of the adoption of the aforementioned bylaws, but also on the dynamics of the adoption of the Low Carbon Development Strategy, the National Energy and Climate Plan, and the Nationally Determined Contributions in accordance with the Paris Agreement.

## **4.2. Law on Amendments and Additions to the Law on Nature Protection**

The preparation of amendments and additions to the Law on Nature Protection had begun with the establishment of working group in 2018. The public discussion, which represents an opportunity for the public to participate, was held in the form of gatherings in March and April 2021. The second gathering was organized online, with the explanation that it was due to the epidemiological situation and compliance with the restriction measures. On that occasion, the participants pointed out that the invitations to attend the public discussion were not transparent and they requested the

---

<sup>25</sup> District Court of The Hague, *Milieudefensie et al. v Royal Dutch Shell PLC* (26 May 2021) C/09/571932/HA ZA 19–379. On that occasion, a lawsuit was filed by 17,000 citizens and the *Friends of Earth* NGO.



extension of the public discussion, bearing in mind the importance of the proposed changes and the need to analyze the new institutes, including the procedures for assessing acceptability and introduction, and the role of the Council of Protected Area Users.

The amendments and additions to the law introduced the principle of precaution, which provides the possibility of implementing measures to prevent the endangerment of protected natural assets even in cases where scientific data is insufficient. It also introduced an act on nature protection conditions that must be obtained during planning, arrangement and use of space, natural resources, protected areas, as well as during the construction of any type of hydroelectric power plant.<sup>26</sup> One of the elements arising from the rules of EU environmental law refers to the acceptability assessment of planned activities, as an integral part of the environmental impact assessment. The NPAA envisages passing a Regulation on acceptability assessment of plans, projects and activities that may have a negative impact, governing issues of importance for defining the position of the acceptability assessment in the strategic environmental impact assessment and environmental impact assessment, the content of such study, the deadlines and the method of conducting the acceptability assessment procedure, and the procedure for determining whether there is an overriding public interest. Although the acceptability assessment procedure was introduced by the amendments and additions to the Law on Nature Protection, the basis of the course of the procedure has not been established.<sup>27</sup>

Among the reasons for adopting amendments and additions to the law, the need to regulate the construction of small hydropower plants in the protected area stood out. The new solution provides the possibility of constructing a hydroelectric power plant in a protected area, if the project is considered to be of public and general interest (which is determined in accordance with the law governing the use of renewable sources) or if it is a project of special or national importance for the Republic of Serbia.<sup>28</sup> The criteria for assessing whether a project is of special or national importance have not been determined.

The right to legal protection in environmental matters recognizes new forms of participation of the parties to the proceedings (Drenovak-Ivanović 2021b, 29–39) Among them are advocates of collective and broader

---

<sup>26</sup> Zakon o zaštiti prirode [Law on Nature Protection], *Official Gazette of the RS*, Nos. 36/09, 88/10, 91/10 – correction, 14/16, 95/18 – other law, 71/21, Art. 9.

<sup>27</sup> Zakon o zaštiti prirode [Law on Nature Protection], Art. 10.

<sup>28</sup> Zakon o zaštiti prirode [Law on Nature Protection], Art. 5 para. 15.

interests of the public. The new provisions of the Law on Nature Protection regulate the position of the Council of Protected Area Users.<sup>29</sup> This is a body consisting of representatives of local self-governments and organizations and associations whose activity takes place in the territory of the protected area. The Council can be established to ensure the interests of the local population and users of the protected area through cooperation on the protection and sustainable use of natural goods and resources. The new provisions do not refer to the legal position of the Council, so the question remains whether it is a body that can be a party to the decision-making procedure regarding environmental administrative matters.

## 5. CONCLUDING REMARKS

The COVID-19 pandemic period has featured measures introduced in order to limit public gatherings in varying extent: from restriction measures limiting departure from the place of residence to measures that determine the number of people allowed in a closed space at the same time. In 2020, the impact of the quarantine policy and the recommendation to stay home led to a reduction in the volume of production and transportation, but to an increase in medical waste, as a new challenge in the waste management system. In the first year of the pandemic, the need to reduce anthropogenic contributions to climate change led to the development of the European Green Deal and linking post-covid economic recovery to investments, with the goal of making the EU climate neutral by 2050.

In the second year of the COVID-19 pandemic, we were confronted with new legal challenges. The implementation of pandemic suppression measures in 2021 limited the participation of the public and interested public in decision making regarding environmental protection and deceleration of climate change. Compared to 2019, when seven meetings took place in the form of public discussion or public consultations (on the Draft Law and amendments and additions to the Law on Waste Management, on the Draft Decree on the Proclamation and Study of the Protection of the Cape Kalemegdan Natural Monument, on the Draft Law on Liability for Damage to the Environment), we observed a significant slowing of the activities of the competent ministry in the preparation of acts that transpose the EU *acquis*, which significantly deviated from the revised National Program for the Adoption of the EU *Acquis*. The importance of the environment as the basis

---

<sup>29</sup> Zakon o zaštiti prirode [Law on Nature Protection], Art. 68a.

of the green transition and negotiations on EU membership, in accordance with the cluster approach, created a need for further harmonization with the environmental *acquis* in 2021. In a series of public hearings, public consultations and granted inspections of draft regulations, strategic and planning documents and laws concerning low-carbon development, mitigation of climate change consequences, environmental noise protection, nature protection, protection and preservation of water resources, control of major accident hazards, environmental impact assessment procedures, as well as procedures for strategic environmental impact assessments, it has been noted that the measures to limit gatherings had a negative impact on the public's right to participate in decision making related to environmental protection and the preservation of stable climate conditions. In accordance with the Communication of the Aarhus Convention Compliance Committee on finding alternative ways for implementing the minimum standards of public participation in decision making, a model of wider public involvement through video conferences and the possibility to deliver opinions, comments and objections to the draft acts to the competent authority in electronic format as well should be found. However, the practical application of models brought about by limited public participation has caused numerous challenges. The analysis of the causes that produced such effects is of great importance for the development of models that will be applied after the pandemic, as a support for the development of green democracy.

## REFERENCES

- [1] Coalition 27. 2020. *Chapter 27 in Serbia: Progress in lockdown*. Belgrade: Young Researchers of Serbia.
- [2] Croft, Daniel P., Wangjian Zhang, Shao Lin, Sally W. Thurston, Philip K. Hopke, Mauro Masiol, Stefania Squizzato, Edwin van Wijngaarden, Mark J Utell, David Q. Rich. 3/2019. The Association between Respiratory Infection and Air Pollution in the Setting of Air Quality Policy and Economic Change. *Annals of the American Thoracic Society* 16: 321–330.
- [3] Duffy Helen, Lucy Maxwell. 2020. People v Arctic Oil before Supreme Court of Norway – What's at Stake for Human Rights Protection in the Climate Crisis?. *EJIL:Talk!*. 13 November. <https://www.ejiltalk.org/people-v-arctic-oil-before-supreme-court-of-norway-whats-at-stake-for-human-rights-protection-in-the-climate-crisis/> (last visited 24 September, 2022).

- [4] Drenovak-Ivanović, Mirjana. 2020. Green Agenda for the Western Balkans: Guidelines for Amending Environmental Legislation. 133–144 in Vol. 10 of *Perspectives of Implementation of European Standards in Serbian Legal System*, edited by Stevan Lilić. Belgrade: University of Belgrade Faculty of Law.
- [5] Drenovak-Ivanović, Mirjana. 2021a. The Impact of the Revised EU Enlargement Methodology on Serbia's Legal Capacity for Green Transition. 217–234 in *Institutional Changes as a Determinant of the Economic Development of the Republic of Serbia*, edited by Petar Veselinović, Milan Kostić. University of Kragujevac Faculty of Economics.
- [6] Drenovak-Ivanović, Mirjana. 2021b. *Legal Position of Representatives of Collective and Broader Interests of the Public in Environmental Protection*. Belgrade: University of Belgrade Faculty of Law.
- [7] Fos, Peter John, Peggy Ann Honore, Russel L. Honore. 2/2021. Air Pollution and COVID-19: A Comparison of Europe and the United States. *European Journal of Environment and Public Health* 5: em0074.
- [8] Gerrard, Michael B. 2020. Emergency Exemptions from Environmental Laws. *Columbia Law School Faculty Scholarship*: 81–88.
- [9] *Greenpeace Norge*. 2021. People vs. Arctic Oil – Summary of the Case. 10 June. <https://www.greenpeace.org/norway/nyheter/9306/people-vs-arctic-oil-summary-of-the-case/> (last visited 24 September, 2022).
- [10] Kan, Hai-Dong, Bing Heng Chen, Chaowei Fu, Shunzhang Yu. 1/2005. Relationship Between Ambient Air Pollution and Daily Mortality of SARS in Beijing. *Biomed Environ Sci* 18: 1–4.
- [11] Kuzman, Miloš. 2/2021. Legal Aspects of Carbon Dioxide Emissions Rights Trading in the Republic of Serbia. *Energija, Ekonomija, Ekologija* XXIII: 31–34.
- [12] Macchi, Chiara, Josephine van Zeven. 3/2021. Business and human rights implications of climate change litigation: Milieudefensie et al. v Royal Dutch Shell. *Review of European, Comparative & International Environmental Law* 30: 409–415.
- [13] MacGillivray Alba. 2022. The People vs. Arctic Oil: The Court Battle Between Activists & Norway. *Impakter*. 3 May. <https://impakter.com/the-people-vs-arctic-oil-the-court-battle-between-activists-norway/> (last visited 24 September, 2022).
- [14] Norouzi, Nima, Elham Ataei. 1/2021. Covid-19 Crisis and Environmental Law: Opportunities and Challenges. *Hasanuddin Law Review* 7: 46–60.

- [15] Popović, Mirko. 2021. *Analiza procesa usvajanja zakona u Republici Srbiji – Zakon o izmenama i dopunama Zakona o zaštiti prirode*. Otvoreni Parlament.
- [16] Reuters. 2022. Norway asks Human Rights Court to Dismiss Arctic Oil Case. 28 April. <https://www.reuters.com/world/europe/norway-asks-human-rights-court-dismiss-arctic-oil-case-2022-04-27/> (last visited 24 September, 2022).
- [17] Rowell, Arden. 2020. COVID-19 and Environmental Law. *Envtl. L. Rep.* 50: 10881–10887.
- [18] Shao, Longyi, Yaxin Cao, Tim Jones, M. Santosh, Luis F. O. Silva, Shuoyi Ge, Kátia da Boit, Xiaolei Feng, Mengyuan Zhang, Kelly Bérubé. 2022. COVID-19 Mortality and Exposure to Airborne PM2.5: A Lag Time Correlation. *Science of The Total Environment* 806: 151286.
- [19] Sicard, Pierre, Evgenios Agathokleous, Alessandra De Marco, Elena Paoletti, Vicent Calatayud. 1/2021. Urban Population Exposure to Air Pollution in Europe over the last Decades. *Environmental Sciences Europe* 33: 1–12.
- [20] Squintani, Lorenzo, Goda Perlaviciute. 2020. Access to Public Participation: Unveiling the Mismatch Between What Law prescribes and What the Public Wants. 133–147 in *Research Handbook on EU Environmental Law*, edited by Marjan Peeters and Mariolina Elia Antonip. Cheltenham, UK – Northampton MA: Edward Elgar Publishing.
- [21] Wu, Xiao, Rachel C. Nethery, M. Benjamin Sabath, Danielle Braun. 6/2020. Air Pollution and COVID-19 Mortality in the United States: Strengths and Limitations of an Ecological Regression Analysis. *Science advances* 45: eabd4049.

Article history:

Received: 5. 9. 2022.

Accepted: 1. 12. 2022.



UDC 349.22:331.5(497.11); 616.98:578.834]:331.526.8; 336.226.11

CERIF: S 140, S 143

DOI: 10.51204/Anali\_PFBU\_22407A

**Svetislav V. KOSTIĆ, PhD\***

## **TAX TREATMENT OF FLEXIBLE FORMS OF WORK IN SERBIA IN LIGHT OF THE COVID-19 GLOBAL PANDEMIC**

*The COVID-19 pandemic has accelerated the development of flexible forms of work, those forms of work that have essentially been enabled by the development of modern technologies. In the case of flexible forms of work, evasion of taxes and, perhaps more importantly, contributions to compulsory social security are quite pervasive. During the COVID-19 pandemic, the Serbian Tax Administration tried to collect taxes from persons who pursued flexible forms of work for employers or clients from abroad, which led to protests. Ultimately, the negotiations with the Serbian Government resulted in an agreement on transitional solutions, as well as future changes in the tax regulations. This paper aims to explain the essence of the problem that arises in Serbian tax law in connection with flexible forms of work, to analyze the proposed transitional solutions, as well as to offer some suggestions that could lead to longer-term solutions to this problem.*

**Key words:** *False self-employment. – Independence test. – Schedular taxation. – Global services market.*

---

\* Associate Professor, University of Belgrade Faculty of Law, Serbia, [skostic@ius.bg.ac.rs](mailto:skostic@ius.bg.ac.rs).

## 1. INTRODUCTION

The development of modern technologies has led to significant changes in the ways in which it is possible to perform work, and it has confronted us with the increasingly pronounced lack of a clear divide between employment and independent participation in the market. Namely, if we take the legal profession as an example, until only a few decades ago, it required the existence of a specifically designated place of work. Lawyers needed entire libraries of regulations, their basic tools for work and for communication with clients were static. Thirty years ago, lawyers could not pursue their job on vacation for objective reasons. They simply could not take everything they needed for work with them. Today, none of the above is true. The only thing a lawyer needs to do the job is a computer, which can be portable, where communication with clients primarily depends on the existence of (mobile) phone and Internet connectivity, and it is quite possible that all meetings with clients and discussions can be held without physical presence, through platforms intended precisely for these purposes.<sup>1</sup> Given that libraries of regulations are contained in virtual databases, that lawyers can communicate with clients from anywhere on the planet and at any time, where all of the above possibilities no longer entail significant costs, the question arises whether a specially designated work space or an office is needed. All the changes related to the way in which the legal profession is practiced can be seen in many other activities as well, primarily in the service sector, which today accounts for a significant part of the global economy.<sup>2</sup>

From the time being, an office is no longer required to do the job, when the means of work or communication become available to the broadest segments of the population, and certain tools can be provided to employees via the Internet anywhere on the planet,<sup>3</sup> the very need for at least a formal employment relationship, with all the rights and obligations

---

<sup>1</sup> For example, Webex, Zoom, Teams, etc.

<sup>2</sup> According to data from 2015, the services sector accounted for 76% of the gross domestic product in developed countries, and 55% in developing countries, with a steady increase in the share of the services sector in the gross domestic product of almost all countries. See WTO. 2019. *World Trade Report – the Future of Services Trade*, p. 15. [https://www.wto.org/english/res\\_e/booksp\\_e/00\\_wtr19\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/00_wtr19_e.pdf) (last visited 25 November, 2022).

<sup>3</sup> Where available, for example, an employer may have a subscription to specific software required to perform a certain task, and the employee is provided access to that software through appropriate codes, without the need to be at a certain place when accessing (e.g. they can access software from their home and do not have to be located at the premises of the employer).



that such a relationship imposes, can be called into question (Kostić 2021, 767). Moreover, modern technologies open up previously unimaginable opportunities for cross-border cooperation, where individuals have the opportunity to contact potential customers or employers from around the world, while employers, or persons in need of certain services, can search for labor far beyond the borders of the countries in which they are located or do business, without the concomitant need to move that same workforce from the countries in which it is located (de la Feria, Maffini 2021, 164).

The COVID-19 pandemic has significantly accelerated all these processes (Office for National Statistics 2020; Eurofund 2020). Employers around the world are increasingly accepting the model of working from home (more precisely, the model of working without a workplace), and this transition is no longer conditioned only by the emergency circumstances of the global pandemic, but is a future common form of labor relations (PWC 2020), especially if all savings that can result from work without a workplace, as well as hiring labor without concluding an employment contract, are taken into account.

In the past four years, these issues in Serbia have been the focus of the legislator as well as the general public, some of them even leading to civil protests on the streets of the capital, precisely during the time of the COVID-19 pandemic. In this paper, we will attempt to determine the basic elements of the development of Serbia's tax legislation related to flexible forms of work, which were essentially caused by the advancement of modern technologies and crucially accelerated by the ongoing global pandemic.

## **2. CONCEALMENT OF EMPLOYMENT AND ABUSE OF FLAT-RATE TAXATION OF INDEPENDENT ENTREPRENEURS**

Tax-wise, the very beginning of the COVID-19 pandemic in March 2020 was marked by the introduction of the so-called independence test to the Law on Personal Income Tax,<sup>4</sup> as well as the accompanying three-year transitional regime aimed at enabling a painless restructuring of parts of the Serbian economy and the cessation of aggressive techniques of tax optimization of labor costs.<sup>5</sup>

---

<sup>4</sup> See Law on Amendments and Supplements to the Law on Personal Income Tax, Art. 18, *Official Gazette of the Republic of Serbia*, No. 86/19.

<sup>5</sup> See Law on Amendments and Supplements to the Law on Personal Income Tax, Art. 10, *Official Gazette of the Republic of Serbia*, No. 86/19.

Already during 2017 and 2018 it was noted that in certain segments of the Serbian economy, and especially in its fast-growing IT sector, employers increasingly ceased to hire their workforce by establishing formal employment relationships, but rather did so through service contracts with seemingly independent service providers. The problem of so-called bogus self-employment (Hayes, Hastings 2017) is not particular to Serbia and is present in many countries worldwide, but its specificity in Serbia is that the use of this model of labor hiring was almost exclusively related to tax reasons. More precisely, the main reasons for such measures were the savings in taxes and contributions for compulsory social insurance, while the need to find ways to achieve them came not only from evasive motives, but also from the need to offer the workforce a higher net income with as little expenditure as possible, thus becoming more competitive in the labor market, which is increasingly global and cannot be limited by national borders.

Namely, if an employer in Serbia hires labor through an employment contract, they must first take into account that Serbia has a *net culture*, i.e., that an employee, when negotiating the earnings, does so in terms of net earnings, those that will remain after taxes on such income and related social security contributions have been assessed and paid. Therefore, if the employer wants to offer an employee a net salary of, e.g., 2,000 EUR, it will cost them a total of about 3,500 EUR. However, if a potential employee accepts (instead of employment) a model whereby they will be registered as an entrepreneur who pays the taxes on income from self-employment and contributions for compulsory social insurance on a lump sum basis, and therefore conclude a service contract with the employer (who now appears in the role of the principal), based on which they will perform all those tasks that they would otherwise perform under the employment contract, thus allowing either the achievement of significant savings or increase of the employer's competitiveness in the labor market. These benefits are primarily due to the shortcomings of the existing lump sum taxation system in Serbia, which primarily leads to aggressive tax planning in the case of high wages.

Let us explore how savings are achieved in the described case. While an employer is required to withhold and pay taxes and contributions for compulsory social insurance at the time of salary payment, in the name and on behalf of the employee,<sup>6</sup> in the case of remuneration paid to a registered entrepreneur based on services provided, the principal has no tax

---

<sup>6</sup> See Art. 99, para 1, point 1 of the Law on Personal Income Tax, *Official Gazette of the Republic of Serbia*, Nos. 24/01, 80/02, 80/02, 135/04, 62/06, 65/06, 31/09, 44/09, 18/10, 50/11, 91/11, 93/12, 114 / 12, 47/13, 48/13, 108/13, 57/14, 68/14, 112/15, 113/17, 95/18, 86/19, 153/20, 44/21, 118/21 (hereinafter: PITL).

obligations whatsoever. The entrepreneur, if they pay the tax on income from self-employment on a lump sum basis, determines their obligations without taking into account the actual income and expenses, but on the tax base assessed by the Tax Administration, based on a number of presumptions.<sup>7</sup> Bearing in mind that when assessing the tax base, the Tax Administration is led by certain binding guidelines, which by their nature imply generality, it is quite possible that an above average successful taxpayer is provided with a base that is significantly lower than their actual profit generated from their business.<sup>8</sup> For example, if the independent entrepreneur has the tax base for income from self-employment assessed in the amount of 140,000 dinars per month, and they receive a monthly payment from their principal in the amount of 420,000 dinars per month, their tax burden (including the burden related to contributions for compulsory social insurance) is three times lower than the one they would have been subjected to had they paid the tax on their actual income. Moreover, we recall that the net salary of 240,000 dinars per month (2,000 EUR) would cost the employer a total of 420,000 (3,500 EUR), and that an independent entrepreneur who pays the lump sum tax on a basis of 140,000 dinars per month, after paying taxes and contributions for compulsory social insurance from the 420,000 dinars of service payment, still keeps over 350,000 dinars. We note that tax planning through hiring labor through service contracts, instead of employment contracts, provides that engaging registered entrepreneurs, who pay taxes on income from self-employment on a lump-sum basis, allows for the hired person, taking as a reference point a 2,000 EUR net salary, either with up to 1,000 EUR per month higher net income (also avoiding the payment of the annual personal income tax)<sup>9</sup> or to provide them with the same net income at a significantly lower total cost to the employer. Finally, if one adds all the possibilities for optimizing the lump sum tax base, such as reporting a different code of activity from the one actually performed or a different place of activity from the one where it is actually performed, which implies a lower lump sum base (which are possibilities that are significantly increased

---

<sup>7</sup> See Art. 40 of the PITL.

<sup>8</sup> See Art. 41 of the PITL and Arts. 3–5 of the Decree on detailed conditions, criteria and elements for lump-sum taxation of taxpayers of income from self-employment, *Official Gazette of the Republic of Serbia*, Nos. 94/19, 96/19 – correction, 156/20 (hereinafter: the Decree).

<sup>9</sup> Taxpayers who pay tax on income from self-employment on a lump sum basis, and for whom income from entrepreneurial activity is the only source of income, do not meet the conditions to be considered taxpayers of the annual personal income tax. In this example, if the service provider had earned a gross salary of 420,000 dinars as an employee, they would have met the conditions to be considered taxpayers for the annual personal income tax.

by the limited audit resources available to the Serbian Tax Administration), the room for tax savings is expanded even more. In addition to the abovementioned, an employer who hires its workforce through a service contract also avoids the obligations imposed by labor law regulations, and the hired worker essentially exchanges protection for a higher net income.

The described phenomenon not only jeopardized the state's public revenues, but it also began to create serious problems within the economy itself. Namely, employers who were unable to hire labor through service contracts (e.g., due to obligations to their unions, in the country or abroad) or who were not willing to take the risk of liability for illegal tax evasion (which can certainly be considered real), they were put in a situation where they simply could not afford certain labor. The service providers agreed to conclude employment contracts but demanded the same net income that they earned as entrepreneurs, which the potential employers simply could not afford.

Having in mind not only the danger to public revenues, but also economic development as such, the Serbian legislator decided to introduce a mechanism into the legislation that has come to be known as the *independence test*.

### 3. INDEPENDENCE TEST

Three options were available to the Serbian legislator to fight against concealment of employment and abuse of lump-sum taxation by independent entrepreneurs and their respective employers.

Firstly, the principle of facticity is referred to in Article 9 of the Law on Tax Procedure and Tax Administration,<sup>10</sup> regarding individual audit procedures conducted on taxpayers by the Serbian Tax Administration. If the audit finds that the economic essence of the relationship between the principal and the independent service provider is the one of an employment relationship, then the Serbian Tax Administration would be entitled to consider the service contract a simulated legal transaction, where the tax dues would be assessed on the basis of the dissimulated legal transaction, i.e., the employment that the taxpayers tried to cover up.

---

<sup>10</sup> *Official Gazette of the Republic of Serbia*, Nos. 80/02, 84/02, 23/03, 70/03, 55/04, 61/05, 85/05, 62/06, 61/07, 20/09, 72/09, 53/10, 101 / 11, 2/12, 93/12, 47/13, 108/13, 68/14, 105/14, 112/15, 15/16, 108/16, 30/18, 95/18, 86/19, 144/20, 96/21 (hereinafter: LTPTA).

However, the legislator here faces several challenges. Firstly, without clear guidelines for determining the economic essence of the relationship, answering the question of whether the formal-legal relationship is simulated, and what exactly the dissimulated relationship is (the one that taxpayers tried to cover up), the practice of the Serbian Tax Administration could go astray. To exemplify, is it sufficient for a certain service provider to be considered an employee from the point of view of the economic essence of their relationship with the client, and the client as the employer, if, for example, the service provider generates more than 70% of their income from that principal. Legislation of some countries would answer affirmatively this question, while in others this fact would be only a possible indicator of the independence of service providers. Furthermore, the question also arises as to how to tax a dissimulated legal transaction, i.e., how to limit the wider scope of its recognition as an employment relationship. Namely, the field of labor legislation around the world is under great pressure to provide answers regarding the increasingly unclear divide between labor relations and independent entrepreneurship, where modern technologies have enabled the emergence of forms of work that do not belong to either category (Harris, Krueger 2015, 8–9). In Serbia, when it comes to public policy makers, this topic has not yet been on the agenda, so the unequivocal determination of the tax legislator that all insufficiently independent forms of work represent employment could adversely affect the further development of Serbia's labor law, i.e. hinder the introduction, for example, of a third category (following the example of a number of comparative legislations).<sup>11</sup> Finally, having in mind the scale of the described phenomenon, leaving the identified problem exclusively to the administrative management of the Serbian Tax Administration would open the issue of misdemeanor or criminal liability, primarily of persons who engaged workers by concealing labor relations, through service contracts with apparently independent service providers, where consistent implementation of such regulations could lead to extremely unfavorable consequences for the country's economic development.<sup>12</sup>

Another possibility was to solve the problem by amending the regulations on lump-sum taxation and the procedure for assessing the profit of taxpayers on income from self-employment, which was done to a significant extent in 2019.<sup>13</sup> However, the fact that lump-sum taxation cannot avoid a high level

---

<sup>11</sup> For example, that of the United Kingdom.

<sup>12</sup> Engaging seemingly independent service providers, instead of establishing employment with these people, was so widespread in Serbia's IT sector that its very survival would be called into question had the Serbian Tax Administration resorted to criminal sanctions for tax evasion against those responsible in such cases.

<sup>13</sup> By passing the Decree that replaced the previously applicable regulations in this area.

of generalization, and that problems related to inadequate reporting of activities, or the location of activities are largely due to extremely limited audit options available to tax authorities, have led to the conclusion that providing a solution in this field only would be insufficient.

Therefore, the legislator opted for the introduction of a complex test with nine criteria, where a taxpayer cannot be considered independent if at least five of them are met.<sup>14</sup> In other words, the legislator has explicitly prescribed what it considers the correct application of the general anti-abuse rule in specific circumstances of tax avoidance and abuse of rights. A tax inspector could certainly reach the same solution through independent work, relying exclusively on the provision of Article 9 LTPTA, but without a special regulation of this particular issue, a uniform administrative practice could not be expected, while it would take years before the jurisprudence of the Administrative Court would ensure uniform application. The consequence of failing the independence test is that the income of the taxpayer, a registered entrepreneur, earned from a relationship in which they cannot be considered independent is no longer taxed as income from self-employment, but as other income (and associated contributions for compulsory social insurance applied), which is significantly less favorable.

Having in mind the degree to which the Serbian economy (primarily its IT sector) relied on this form of tax planning to ensure its competitiveness in the global market, the legislator also provided for a three-year transitional regime for all those who conclude an employment contract with their principals, enabling thus the gradual increase in the total cost of labor, i.e., providing a relatively long period for taxpayers to adjust to the new reality.<sup>15</sup> In addition to the transitional regime, taxpayers also received something that is quite unique to Serbia's tax practice: all those who conclude an employment contract within the set time frame, both the natural persons and their employer (previously their principal), provided amnesty by the legislator.<sup>16</sup>

Despite the application of the new independence test and the accompanying transitional regime coincided with the onset of the COVID-19 pandemic, and the Serbian public voicing very loud warnings that the independence test would *bury* the Serbian IT sector, unofficial data shows that the number of extinguished or frozen entrepreneurial businesses that

---

<sup>14</sup> See Art. 85, para 1, point 17 of the PITL.

<sup>15</sup> See Art. 21ž of the PITL.

<sup>16</sup> See Art. 24 of the Law on Amendments to the PITL, *Official Gazette of the Republic of Serbia*, No. 86/19.

work under the corresponding activity codes has not only coincided with the number of newly employed persons by domestic employers in the IT sector, but was lower by 1000 than the number of newly created jobs in 2020 in this sector of country's economy.

#### **4. COVID-19 AND THE SO-CALLED FREELANCERS**

In October 2020, the Serbian Tax Administration publicly called on all taxpayers who earned income from abroad to settle their tax dues, thus opening a very serious issue in Serbia's society. Namely, the Serbian tax legislation requires resident<sup>17</sup> taxpayers who earn income abroad or from abroad to report it themselves within 30 days from the day of collection and to simultaneously assess and pay the corresponding taxes and contributions for compulsory social security insurance.<sup>18</sup> Initial audits by the Serbian Tax Administration during 2020 showed that (a) a significant number of Serbian citizens earn income from abroad, primarily by providing services to foreign clients, and that (b) most of them did not pay their tax dues resulting from these earnings. The reason why 2020 was the year in which the Serbian Tax Administration decided to address this issue is that the COVID 19 pandemic had highlighted the importance of cross-border provision of services by individuals, where modern technologies had not only made this form of business possible, but also provided tax authorities with far more advanced tools for taxpayer audits. The Serbian Tax Administration was not alone and there are similar examples worldwide where tax authorities focused on the same phenomena during the same period, with the case of Pakistan possibly being the most notable (Malik, 2020).

The resulting problem is colloquially known as "freelancer taxation", which may lead an uninformed participant in the discussion to think that freelancers truly represent a special category of taxpayers.

Namely, the call of the Serbian Tax Administration did not apply to all those natural persons who provided services to foreign clients as registered entrepreneurs. These persons duly settled their tax liabilities by paying taxes

---

<sup>17</sup> According to Art. 7, para 2 of the PITL, a tax resident (taxpayer who is required to pay tax on their entire income generated worldwide) is a natural person who has registered their place of residence in the territory of Serbia, or who has a center of their business and life interests in Serbia, i.e., a person who, intermittently or continuously, resides in the territory of Serbia for more than 183 days in a period of 12 months which begins or ends in the respective tax year.

<sup>18</sup> See Art. 95, para 6 of the PITL.

on income from self-employment and related contributions for compulsory social insurance. In the case of the registered entrepreneurs who failed the independence test in regarding to their foreign clients, as a rule, the solution was that they, since they could not be directly employed by a foreign client, establish single-member limited liability companies, employ themselves in these companies, and benefit from the three-year transitional regime provided for in support of the independence test. The call of the Serbian Tax Administration was aimed at those domestic individuals who earned income from abroad by providing services on the international market, but who were not registered as entrepreneurs, nor did they pay taxes and contributions for compulsory social security insurance on such income. In case of a taxpayer who is not registered as an entrepreneur but provides services on the market, the PITL stipulates that the income generated on this basis is taxed as other income, by virtue of the tax on other income, and this obligation is also accompanied by the duty to pay associated contributions for compulsory social security insurance.

Having in mind the number of “freelancers”, but also the rather low level of tax culture and knowledge of the basic elements of tax law in Serbia, a public outcry against the Serbian Tax Administration arose quickly, and extremely unfounded accusations against its work were frequently made (most commonly stating that it stipulates retroactive application of regulations, which was completely incorrect). It was somewhat surprising that organizations that aimed to represent a fairly diverse population of freelancers in talks<sup>19</sup> with the authorities appeared in the public space very quickly. These organizations were quite successful in their efforts.

Leaving aside the arguments that were presented in the sometimes passionate exchange of opinions between representatives of different parties, we can see that the issue of “freelancers” revealed some of the key shortcomings of the existing personal income taxation system in Serbia.

Namely, this system is based on a clear dichotomy between the tax on salaries, on the one hand, and the tax on income from self-employment, on the other hand. A taxpayer who earns income from their work is either independent (entrepreneur) or dependent (employee), so in accordance with this status, their income is subjected to the corresponding tax treatment. The tax on other income is provided for the taxation of income that a taxpayer who is not registered as an entrepreneur earns outside their employment, by providing services on the market. Since permanent activity

---

<sup>19</sup> For example, Association of Internet Workers (<https://uri.rs>).



on the market would imply registration as an entrepreneur, the conclusion is that the Serbian legislator intended for income generated occasionally, exceptionally, or which is only a supplementary source of personal income be taxed as other income.

The call of the Serbian Tax Administration and what followed as a public reaction revealed the fact that a large number (tens of thousands) of taxpayers in Serbia rely on other income as their only source of income, and that only in a certain number of cases their failure to register as entrepreneurs can be explained by evasive intent, i.e., a conscious attempt to avoid tax which can otherwise be settled. Unfortunately, a far larger number of them are taxpayers who are forced to choose between meeting the most basic needs of life on the one hand and paying taxes and contributions on the other, or taxpayers for whom payment of taxes according to existing regulations would mean condemning them to starvation. It is this conclusion that raises the question of the inadequacy of the existing tax system and the system of contributions for compulsory social security insurance for a very large number of taxpayers in the country.

## **5. ENTREPRENEURS WHO DO NOT PAY TAXES AND THE UNCONSTITUTIONALITY OF THE EXISTING TAX FRAMEWORK IN THE CASE OF POOR TAXPAYERS**

Taking into account all examples of “freelancers” covered by the Serbian Tax Administration’s call, we note two clearly expressed poles, and each of these two poles again can be divided into two categories.

In order to illustrate the observed divisions, it is enough to consider what exactly is the difference between, for example, the English teacher who tutors students in China, via a virtual platform, and the English teacher who tutors local students in their homes. Both teachers perform exactly the same activity, and the income they earn is taxable in Serbia under the same conditions, regardless of where the student is located (bearing in mind that in both cases the tutoring is conducted from Serbia). What diametrically distinguishes these two teachers is that one will be paid by bank transfer, while the other will, as a rule, be paid in cash. In other words, the only difference between these two entrepreneurs, but a crucial one when it comes to their tax treatment, lies in the fact that the Serbian Tax Administration will very easily be able to track the income of one English teacher, while in the

case of another it will be practically impossible.<sup>20</sup> Therefore, from the very beginning we notice a certain injustice caused by objective circumstances, that those freelancers whose clients pay by bank transfer will be in a more difficult position than those who can conduct business in cash, which will usually be those freelancers who provide their services on the international market, using opportunities provided by the unprecedented development of modern technologies. In the situation of a global pandemic, quarantines and curfews, opportunities for providing services in the domestic market decreased for a large number of activities, but for some of them there are opportunities to make up for the loss in the domestic market by entering the international market. However, entering the international market implies electronic payment, and thus significantly reduced opportunities to successfully avoid reporting income and consequently paying taxes.

Within the segment of freelancers who provide their services on foreign markets, i.e., those whose ability to avoid paying taxes is significantly limited due to the existence of clear trail of cash flow, there are two distinctly separated categories.

On one end there are those taxpayers who earned a substantial income, and who simply did not consider it necessary to report the same and pay pertinent taxes. The Serbian system of taxation of self-employment income enables taxpayers earning more than EUR 1,500 per month to bear the total tax burden (including taxes and compulsory social security contributions) which can in no way be considered excessive, especially when compared to the tax burden to which these taxpayers would be subjected in similar countries (Randelović 2021, 199–200). In addition, the tax regime to which the income of registered entrepreneurs is subjected is significantly more favorable and provides a lot of room for legal tax optimization compared to that prescribed for taxation of other income. Therefore, it can be concluded that in the case of these freelancers there are no arguments (except that they were unaware of their tax obligations and that no one pointed out to them when they communicated orally to tax officials) that would justify their avoidance of reporting their income and settling the pertinent dues.

However, with the decrease of the taxpayers' income, the above conclusion loses credibility. For example, a registered entrepreneur earning EUR 2,000 per month (i.e., since the income may vary from month to month, EUR 24,000 per year), subject to taxation of income from self-employment, could reduce

---

<sup>20</sup> Mechanisms of cross-assessment of the tax base, i.e., those provided by the Law on Determining the Origin of Property and Special Tax, imply high amounts of undeclared income, i.e., a significant amount of newly acquired property whose origin cannot be justified by the saved part of declared income (gift or inheritance).

their total tax burden (which includes contributions for compulsory social security) to around 18% (e.g., if they keep business books and decide to pay the entrepreneur's personal salary in the amount of the minimum wage), including the cost of keeping business records. A registered entrepreneur earning EUR 500 per month (EUR 6,000 per year) would have to face a total tax burden of close to 40% (regardless of which form of taxation they choose). In both cases, most of the burden is due to compulsory social security contributions. If, however, a registered entrepreneur earns less than EUR 500 per month (EUR 6,000 per year), not only does its tax burden increase in percentage (especially in the case of the lump-sum taxation system), but after the payment of taxes and contributions on their net earnings, this taxpayer's available income falls below the net minimum wage. The same conclusion is drawn in the case when such income is generated by a person who is not registered as an entrepreneur, i.e., a person who pays taxes on other incomes and the corresponding contributions for compulsory social security insurance on the generated income.

The previous analysis of tax treatment of entrepreneurs has shown that the current system contains pronounced elements of regression, i.e., that the tax burden on entrepreneurs grows as their taxable income decreases, with this regression being caused primarily by the method of payment of compulsory social security contributions, according to the current regulations.

Furthermore, because a non-taxable minimum has not been prescribed in the law (with the exception in the case of taxation of wages<sup>21</sup>), Serbia's tax system today may require a person who barely manages to earn enough to eat (e.g., 25,000 dinars per month) to pay the state almost half that amount, meaning that after settling the taxes and contributions, they are certainly is not left with enough to feed themselves.

Bearing in mind that the Serbian Constitution<sup>22</sup> explicitly provides that the obligation to pay taxes and other duties is based on the economic power of taxpayers,<sup>23</sup> a very serious question arises regarding the constitutionality of the current system of personal income taxation in Serbia, especially in regard to discrimination of those who are not formally employed (who are not guaranteed a minimum wage), or those who earn low income. Moreover, in the case of taxpayers who earned low income from the provision of services on the market (this being their only source of income), any forced collection of taxes and contributions for compulsory social security insurance would

---

<sup>21</sup> See Art. 15 a, para 2 of the PITL.

<sup>22</sup> *Official Gazette of the Republic of Serbia*, No. 98/06.

<sup>23</sup> Art. 91, para 2 of the Serbian Constitution.

be impossible (due to the lack of assets against which such collection could be enforced), or it would lead to serious social dilemmas, and even unrest (collection from those who cannot afford to pay in a society of pronounced social inequalities).

All of the above resulted in a temporary solution that completely exempted other income, in the amount of 384,000 dinars per year, from taxation, and thus from the payment of contributions for compulsory social security insurance, while increasing the amount of standard costs from 20% to 50%.<sup>24</sup> However, although this solution was primarily intended to solve problems from the past, its implementation has been extended until the end of 2022. The future taxation of other income has been changed so that a non-taxable amount is now also stipulated for this type of income,<sup>25</sup> i.e., the standard costs are prescribed in a fixed amount of money, instead of the percentage of generated income, as had previously been the case.

## 6. AN UNCERTAIN FUTURE INSTEAD OF A CONCLUSION

The provision of a fixed non-taxable amount instead of the percentage determination of standard costs, i.e., the solution that is to be applied starting 1 January 2023, as well as the existing transitional regime, are significantly more suitable for taxing the other income category, if other income is the only source of the taxpayer's taxable income. However, tens of thousands of taxpayers in Serbia earn this other income only as one type of supplement to their basic income (usually from employment). In the case of these taxpayers, both the transitional and the solution that is yet to be implemented provide them with special benefits that are not available to others, e.g., to taxpayers who earn their only income from employment or exclusively from performing entrepreneurial activities. In addition to the above, sole entrepreneurs remain a key category of taxpayers who have not been provided with a non-taxable minimum in Serbia in any way, making low-profit entrepreneurs particularly vulnerable.

The issue that Serbia is facing is that it is no longer possible to successfully adjust the legal framework to the modern reality, since it is overwhelmingly designed for the reality of bygone times. The COVID-19 pandemic has only

---

<sup>24</sup> See Art. 5 of the Law on Amendments to the ZPDG, *Official Gazette of the Republic of Serbia*, No. 44/21.

<sup>25</sup> See Art. 1 of the Law on Amendments to the ZPDG, *Official Gazette of the Republic of Serbia*, No. 44/21.

accelerated the necessity to face the conclusion that Serbia's schedular system of taxation can no longer respond to the increasingly pronounced demands for tax fairness. Working from home and the entry of a huge number of taxpayers into the international labor market, without leaving the country, has revealed a whole new *world of tax* for which Serbian legislation does not have adequate solutions. Not only are new forms of employment emerging, and it is uncertain which of *old* tax categories they fall into, but the disappearance of state borders within the global, virtual labor and services market necessitates a different approach to tax revenue collection and compulsory social security contributions. Combined with the challenges posed to Serbia's society by the emigration of the population and its low natural growth rate, the conclusion is that a fundamental reform of the system of personal income taxation and the system of compulsory social security insurance the urgent needed. The preparation for this reform in itself will require much time, because Serbia will have to make tax policy decisions on certain issues for the first time (as these have not existed previously). Unfortunately, at the present there is no discernable readiness for such a thorough and long-term approach, and it seems that the state will continue addressing 21<sup>st</sup>-century problems using a framework that was archaic even when it was introduced more than two decades ago.

## REFERENCES

- [1] de la Feria, Rita, Maffini Giorgia. 2/2021. The Impact of Digitalisation on Personal Income Taxes. *British Tax Review*: 154–168.
- [2] Eurofound. 2020. Living, working and COVID-19. COVID-19 series. Luxembourg: Publications Office of the European Union. [https://www.eurofound.europa.eu/sites/default/files/ef\\_publication/field\\_ef\\_document/ef20059en.pdf](https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef20059en.pdf) (last visited 23 November, 2022).
- [3] Harris, Seth D., Alan B. Krueger. 2015. A Proposal for Modernizing Labor Laws for Twenty-First Century Work: The “Independent” Worker, The Hamilton Project, Discussion Paper 2015–10. [https://www.hamiltonproject.org/assets/files/modernizing\\_labor\\_laws\\_for\\_twenty\\_first\\_century\\_work\\_krueger\\_harris.pdf](https://www.hamiltonproject.org/assets/files/modernizing_labor_laws_for_twenty_first_century_work_krueger_harris.pdf) (last visited 23 November, 2022).
- [4] Hayes, Jason, Thomas Hastings. 2017. The Practices of Enforcement Bodies in Detecting and Preventing Bogus Self-Employment. European Platform Undeclared Work. <https://www.ela.europa.eu/sites/default/files/2021-09/Study%20Practices%20of%20enforcement%20bodies%20detecting%20preventing%20bogus%20self%20employment.pdf> (last visited 23 November, 2022).

- [5] Kostić, Svetislav. 10/2021. A Plea for a Workforce Presence PE Concept in a Post-Covid Digitalized World. *Intertax* 49: 758–770.
- [6] Malik, Paras. 2021. FBR goes after Payoneer, freelancers over billions of rupees transferred from abroad. *Aboutpakistan.com*. 10 March. <https://www.aboutpakistan.com/news/fbr-targeting-payoneer-freelancers-over-billions-of-rupees-transferred-from-abroad/> (last visited 23 November, 2022).
- [7] Office for National Statistics. 2020. Coronavirus and homeworking in the UK: April 2020, Homeworking patterns in the UK, broken down by sex, age, region and ethnicity. *Statistical Bulletin*, 8 July.
- [8] PWC. 2020. PwC US CFO Pulse Survey, 15 June. <https://www.pwc.com/gx/en/issues/crisis-solutions/covid-19/global-cfo-pulse.html> (last visited 23 November, 2022).
- [9] Randelović, Saša. 1/2021. Economic Performance of the Tax System of Serbia. *Proceedings of the Kopaonik School of Natural Law* 3: 189–203.

Article history:

Received: 20. 8. 2022.

Accepted: 1. 12. 2022.







UDC 378.147.091.32:004.738.5; 37.018.43:34(497.11)

CERIF: S 281, S 210

DOI: 10.51204/Anali\_PFBU\_22408A

**Valerija DABETIĆ, MA\***

## **ONLINE TEACHING – EDUCATION IN TIMES OF CRISIS OR EDUCATION OF THE FUTURE?**

*The paper analyzes different aspects of online teaching as the prevalent method of education at the Belgrade University Faculty of Law during the COVID-19 pandemic. The starting assumption is that the combination of online and traditional teaching better meets the modern requirements of the labor market and better trains law students for different career paths and modern professions. Since digital technology has become an indispensable part of all spheres of law, we advocate the idea that an adapted form of online teaching develops young lawyers' digital literacy. The paper draws on the results of a qualitative study, i.e., four focus group discussions with teachers at the Faculty of Law who conducted classes during the pandemic. Despite different personal affinities and experiences regarding online classes, the general opinion was that online teaching should become part of the teaching practice, with noticeable disparity regarding its intensity and implementation.*

**Key words:** COVID-19 pandemic. – Online education. – Digital literacy. – Teachers. – Faculty of Law.

---

\* Lecturer, University of Belgrade Faculty of Law, Serbia, [valerija.dabetic@ius.bg.ac.rs](mailto:valerija.dabetic@ius.bg.ac.rs).

## 1. INTRODUCTION

Some will say it is difficult to analyze the implications of an ongoing event and that it may be imprudent to make predictions at this time. The pandemic caused by the coronavirus disease, whether it has the characteristics of a “black swan” or a “gray rhino” (Hanić 2020, 10–12, 23–25),<sup>1</sup> certainly requires a detailed analysis of different aspects of social life, and especially of the higher education system, which inevitably had to adapt to the new reality. This change, which might have been gradual in a regular course of things, reduced the possibility of the traditional form of learning and face-to-face classes, which is why learning via digital platforms became the prevalent way of operation for most higher educational institutions. Although it is difficult to observe one segment of society separately from the others, in this paper we will critically analyze the current mode of formal educational preparations in order to determine whether it provides law students with the best training for their future professional engagement.

In line with the theoretical debate and obtained empirical results, the author asks the question whether the current form of teaching needs to be modified. The argument is in favor of online classes being retained, in a redesigned and adapted form. In addition to the basic advantages of distance learning – operational flexibility, time and space savings, availability of lecturers and teaching materials, lower costs, possibility of greater student involvement (Stojanović 2020, 138; Arkorful, Abaidoo 2017, 401–403) – it is the author’s belief that this form of teaching motivates (but also forces) students, as well as teachers, to use digital devices more significantly. The use of online tools and navigating one’s way through the digital environment encourages “confident, critical and responsible use of digital technologies for learning, at work and for participation in society,” i.e., develops digital literacy as one of the general competences that every individual in a modern society needs.<sup>2</sup>

---

<sup>1</sup> “Black swan” is defined as an event that happens rarely and exceptionally, one that is of great significance and is predictable, while “gray rhino” is a major high-threat event that is highly probable and likely to have wider implications, yet people neglect these threats. Hanić focuses on the difference between the two, while advocating the position that the COVID-19 pandemic meets the criteria for both, and that its defining depends on individual interpretation (Hanić 2020, 10–12, 23–25).

<sup>2</sup> For more on digital literacy as one of the eight key competencies see: Council Recommendation of 22 May 2018 on key competences for lifelong learning (Text with EEA relevance), *Official Journal of the European Union* (2018/C 189/01), 7, 9–10, [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604(01)&from=EN) (last visited on 25 November, 2021).

Relying on the results of exploratory empirical research, this paper will critically analyze the organization and implementation of distance learning,<sup>3</sup> with special emphasis on the experiences and perspectives of the teachers at the Faculty of Law in Belgrade. The social and educational implications of e-learning will be reviewed in the short term and in the long term, and proposals for improving the preparation, implementation and evaluation of online teaching will also be given. Due to the fact that only the Faculty of Law in Belgrade was analyzed as a case study, the paper mainly has practical significance – it was written with the desire to advance the current form of teaching in order to better train future lawyers and increase their visibility on the labor market, and therefore, also their chances of employment.

## **2. DEVELOPING DIGITAL LITERACY AS A FUNCTION OF ONLINE EDUCATION OF LAWYERS**

### **2.1. The Legal Framework for the Development of Digital Literacy**

The European framework for the development and digital transformation of education at the national, regional and local level is based on three basic strategic frameworks (Senić Ružić 2021, 13–15). The Framework for Developing and Understanding Digital Competence in Europe (DigComp)<sup>4</sup> recognizes digital literacy as one of the eight key competences that all people and students need for lifelong learning and personal development. Digital literacy includes 1) managing information, 2) communication skills in a digital environment, 3) creating digital content, 4) safety in a digital environment, and 5) problem solving (Brečko, Ferrari, Punie 2014). The Framework for the Digital Competence of Educators (DigCompEdu)<sup>5</sup> is

---

<sup>3</sup> Note on terminology: the terms *traditional*, *live* and *face-to-face* classes will be used in this paper as synonyms, while the terms *online learning*, *distance learning* and *e-learning*, which have the same meaning and denote “an interactive or two-way process between teachers and students, with the help of electronic media, with the emphasis being on the learning process, while the media are merely a tool supplementing the process” (Soleša 2007, 11, translated by author).

<sup>4</sup> The other key competencies for lifelong learning are: 1) literacy competence, 2) multilingual competence, 3) mathematical competence and competence in science, technology and engineering, 4) digital competence, 5) personal, social and learning to learn competence, 6) citizenship competence, 7) entrepreneurship competence, and 8) cultural awareness and expression competence. For more see: European Commission (2019).

<sup>5</sup> This framework includes a total of 22 competences of educators, divided into six areas. For more see: Redecker (2017).

aimed at empowering educators with the digital technologies that can be used to improve and innovate educational processes. Finally, the European Framework for Digital Competent Educational Organization (*DigCompOrg*)<sup>6</sup> promotes systemic integration of digital technologies through educational innovation in the pedagogical, technological and organizational sphere in educational institutions.<sup>7</sup>

This framework also impacted Serbia, which, in the process of accession to the European Union, is looking to align with and implement European values contained in important documents (Senić Ružić 2021, 13–15). The Digital Agenda for Serbia, modelled after the Digital Agenda for Europe (2010), was also adopted by adopting two strategies – the Strategy for the Development of the Information Society to 2020 and the Strategy for the Development of e-Communications in Serbia from 2010 to 2020, with the aim of developing information society and broadband Internet, the so-called “digital oxygen of European prosperity” (Bogojević, Gospić 2010, 96–97). It is also important to mention the Strategies for the Development of Education and Upbringing up to 2030 (SROVRS 2030),<sup>8</sup> which envisage an increase in the number of schools in which hybrid (mixed) and online education is implemented, as well as the Strategy for Digital Skills Development in the Republic of Serbia from 2020 to 2024, which aims to continuously develop digital competences by aligning curricula and learning programs with skills for the 21<sup>st</sup> century.<sup>9</sup> When we talk about digital competences programs that

<sup>6</sup> *European Commission website*. 2021. The European Framework for Digital Competent Educational Organization (DigCompOrg). <https://ec.europa.eu/jrc/en/digcomporg/framework> (last visited 19 December, 2021).

<sup>7</sup> This is the basic European framework, but it is important to also mention other European documents such as: the Lisbon Strategy for the period 2010–2020, in which the European Union launched the transition to information society; Europe 2020: Strategy for Smart, Sustainable and Inclusive Growth, which continues the process of transitioning to a knowledge economy; the European Skills Agenda, through which member states begin developing digital skills strategies; A common European response to shared goals: A concept for tackling the digital skills challenges in Europe (2017), which offers examples of good practices as possible solutions to specific digital challenges; the Digital Education Plan 2021–2027: Resetting education and training for the digital age, and many others (Matović 2021, 6–12).

<sup>8</sup> For more see: Strategije razvoja obrazovanja i vaspitanja u Republici Srbiji do 2030. godine (SROVRS 2030) [Strategies for the development of education and upbringing until 2030]. [https://www.mpn.gov.rs/wp-content/uploads/2021/02/1-SROVRS-2030\\_MASTER\\_0402\\_V1.pdf](https://www.mpn.gov.rs/wp-content/uploads/2021/02/1-SROVRS-2030_MASTER_0402_V1.pdf) (last visited 20 December, 2021).

<sup>9</sup> These are just some of the important documents, for others see: Strategija razvoja digitalnih veština u Republici Srbiji za period od 2020. do 2024. godine [Strategy for Digital Skills Development in the Republic of Serbia from 2020 to

are developed and initiated in the field of higher education in Serbia, there is a general trend of strengthening specializations in the field of information technologies, both in formal and in informal education. This trend is accompanied by an increase in the number of programs aimed at developing digital competences intended for teachers and other employees at preschool and school institutions (Matović 2021, 46).

## 2.2. Lawyers in the Digital Environment

The world of education and the world of the labor market perhaps only seemingly function separately, but they are connected and interdependent in many ways. The modern education systems should not, therefore, focus only on providing basic knowledge and skills, but rather help students discover their own potentials and abilities that can help them in their further career development and professional achievements (Shubina, Kulakli 2019, 95–96). Therefore, the “product” of higher education institutions would be competent experts who are of key importance for the survival and development of professional organizations, social institutions and society at large (Kallioinen 2010, 57). This primarily refers to the skills of applying knowledge, solving problems, adapting to social, economic and other changes in society, developing personal autonomy, responsibility and self-regulation (Shubina, Kulakli 2019, 95–96). However, when we talk about lawyers, in addition to these, the skills that also need to be developed are those of interpreting and applying legal norms in concrete cases, drafting legal acts, moral consciousness and responsibility, the ability to negotiate and make public appearances, etc. (Bećirović 2015, 12–13, 16).

Competitiveness in the world of education, in the sense that a large number of faculties in Serbia have accredited legal education programs, poses an additional challenge for the University of Belgrade Faculty of Law: how to organize, i.e., advance the teaching process in order to respond to the demands of the labor market? In analyzing whether the study programs in the field of law are quite conservative and standardized, and whether they pay sufficient attention to developing soft skills, Bećirović had some interesting findings: out of a total of 48,278 accredited study places in first cycle studies, 26,860 study places are in the fields of social studies and humanities, of which 5,830 study places are reserved for law students. This

---

2024], *Official Gazette of the RS* No. 21/18. <http://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/vlada/strategija/2020/21/2/reg/> (last visited 20 December, 2021).

means that *one in eight* at state and private faculties in Serbia offers the possibility of acquiring the academic title of Bachelor of Laws (Honors)<sup>10</sup>. The fact that almost every university in Serbia has a study program in the field of law, more precisely thirteen out of the total of eighteen universities, results in a trend of an increasing number of holders of Bachelors of Laws (Honors) degrees in the past decade (Bećirović 2015, 8–22). Thus, while in 2010 a total of 1,982 Bachelors of Laws (Honors)/Masters of Laws entered the labor market, by 2016 this figure had almost doubled (3,506), followed by a notable downward tendency by 2020 (2,898). These findings show that law studies are still quite attractive.

Table 1.  
Number of Bachelors of Laws (Honors) graduates in Serbia,  
from 2010 to 2020.<sup>11</sup>

Year of graduation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total number of Bachelors of Laws (Honors) (1 <sup>st</sup> and 2 <sup>nd</sup> degree of education)	<b>1982</b>	2593	2935	3039	3337	3223	<b>3506</b>	2603	3079	2618	<b>2898</b>

Source: Author

In the case of the University of Belgrade Faculty of Law, which offers the highest number of study places, at the end of 2019 Mila Đorđević conducted a quantitative study on a sample of fourth-year students in order to examine the potential of the current study program to train young lawyers for the practical application of acquired knowledge. The questionnaire was filled in by a total of 334 students, of whom almost half (46%) were of the opinion that the Faculty had only partly trained them for their future profession, while as many as 97.5% pointed out that they were overburdened by theoretical studies and that they lacked practical knowledge (Đorđević 2020). As Đorđević concluded, and the author agrees with this view, the global trend of

<sup>10</sup> Suad Bećirović based these statistics on the results from Commission for Accreditation and Quality Assurance. 2015. *Vodič kroz akreditovane studijske programe na visokoškolskim ustanovama u Republici Srbiji* [Guide through accredited study programs in higher education institutions in the Republic of Serbia]. (Bećirović 2015, 8–22).

<sup>11</sup> The data for the first four years, from 2010 to 2013, was taken from Bećirović (2015, 12), while the data for the period 2015 – 2020 was obtained from the Statistical Office of the Republic of Serbia, on 17 December 2021. The shown data refers to all students of undergraduate and Master's studies who completed the law educational program at state and private faculties in Serbia.

expanding practical training classes in law schools should also be applied in Serbia, but in a way that “practical work should be introduced for the sake of a better and easier mastering of the theoretical material” (Đorđević 2020).

Looking only at the case of the University of Belgrade Faculty of Law, the Legal Informatics course unit is taken only in the fourth year of undergraduate studies, and has the status of an elective course, i.e., skill.<sup>12</sup> If they choose this course, students have the opportunity to get acquainted with the general basics of legal informatics and with various forms of application of information and communication technology in the legal profession. The syllabus mainly focuses on covering practical knowledge for working in a digital environment, with the aim of training students to use new technologies, electronic databases and search engines for legal purposes.<sup>13</sup> Regardless of the fact that this elective course unit directly trains future lawyers for the practical use of digital contents, the question arises whether it would be purposeful to also opt for the so-called pervasive method and to additionally develop digital literacy also through other courses?

### 3. METHODOLOGICAL FRAMEWORK

#### 3.1. Analysis of the Existing Scientific Research

There is no doubt that the pandemic had strong impact on various aspects of education of young people around the globe. Speaking of *young people in Serbia*, empirical research shows that the pandemic quite negatively affected their education and that those who had online classes are mostly dissatisfied with their quality (Stojanović, Vukov 2020, 15–16, 28–33; UN Human Rights Unit in Serbia, Social Inclusion and Poverty Reduction Unit of the Government of the Republic of Serbia 2020, 18–26). Some young people did not have the necessary conditions to adequately participate in the online education system, while most respondents said the conducting of classes and grading during the state of emergency was unsatisfactory (SeConS 2020, 10, 42). A substantial number of young people experienced a decline in motivation to learn during the pandemic, while the fact that a substantial number of them either postponed or interrupted their education is something that specially calls for a societal reaction (SeConS 2020, 10, 42).

---

<sup>12</sup> University of Belgrade Faculty of Law. 2020. Syllabus for the course Legal Informatics (Skill) for 2017/2018. <https://ius.bg.ac.rs/wp-content/uploads/2020/09/02-2-SILABUS.pdf> (last visited 24 November, 2021).

<sup>13</sup> *Ibid.*

Regarding the experiences of *students in Serbia*, the respondents were, in general, partially satisfied with the implementation of online classes (Radojević, Drobac 2021, 211–217). What they singled out as the main benefits of online classes was that they save time, offer flexibility in following classes from different locations, enable easier taking of notes because they can record classes, and the financial aspect, i.e. not having to pay for accommodation and transportation (Radojević, Drobac 2021, 211–217), as well as the comfort of the space they are in during classes (Pejatović, Orlović Lovren, Čairović 2021, 171–176). What the students listed as the main downsides are reduced interaction,<sup>14</sup> decline in motivation, insufficient instructions from lecturers, not being able to attend practical sessions, and internet connection problems. Their main suggestions on how to improve online classes included asynchronous learning, i.e., recording classes and posting them online, which would enable them to repeatedly listen to lectures, as well as greater motivation, interest and training of teachers for this type of work (Radojević, Drobac 2021, 211–217).

A study conducted through an online questionnaire in 2021 on a sample of 548 students from all four years of undergraduate studies at the University of Belgrade Faculty of Law showed that the vast majority of students (41.6%) believe that online learning will not provide the same results as traditional learning, as well as that online classes should not in future be a standard form of work (50.4%).<sup>15</sup> Consequently more than half of the students (57.3%) prefer traditional learning, 29.6% of respondents believe that blended learning also suits them, and only 10.8% prefers online education.

---

<sup>14</sup> An example of good practice in overcoming these shortcomings and ensuring the greater student participation is the way classes are organized at the Legal Clinic for Environmental Law at the University of Belgrade Law Faculty, where online classes were standard practice even before the pandemic. Greater interaction and informal communication among students and lecturers were encouraged by enabling them to join the internet platform ahead of time and to stay on it after classes, which gave the students more opportunity to ask question. Student feedback was made possible by using the Kahoot! app in which the students could, at the same time, give answers while remaining anonymous to everyone except to the lecturers (Drenovak Ivanović 2021, 177–180).

<sup>15</sup> Led by Danilo Vuković and Valerija Dabetić, and as part of the activities of the Center for Socio-Legal Studies, first year students, members of the 2020/2021 expert group in the course Basics of Sociology of Law at the University of Belgrade Faculty of Law, conducted a quantitative study on the effects of the coronavirus pandemic. The analysis of the effects of the pandemic was quite extensive in the questionnaire, but due to the limited scope of this paper, only the results related to challenges in education will be presented here. We owe special thanks to the members of the expert group who participated in the making of this questionnaire.



Table 2.  
Opinions of students of the University of Belgrade Faculty of Law  
regarding online classes.

Questions	Online learning will result in the same knowledge as offline learning		Online learning will result in less knowledge than offline learning		All students can equally participate in online classes		Online classes should in future be a regular form of work	
Student opinion	Number of filled-in questionnaires	%	Number of filled-in questionnaires	%	Number of filled-in questionnaires	%	Number of filled-in questionnaires	%
I do not agree at all	228	<b>41.6</b>	66	12.0	119	<b>21.6</b>	276	<b>50.4</b>
I mostly do not agree	129	23.5	67	12.2	104	18.9	60	11.0
I neither agree nor disagree	73	13.3	68	12.4	101	18.3	74	13.4
I mostly agree	61	11.1	167	<b>30.4</b>	97	17.7	47	8.6
I fully agree	41	7.4	161	29.4	109	19.8	71	13.0
Incorrect answers	17	3.1	20	3.6	20	3.6	20	3.6
<b>TOTAL</b>	548	100%	548	100%	548	100%	548	100%

Source: Author

Speaking of *teachers*, as the bearers of the education process, the results of the poll of that around 15,000 teachers, expert associates and principals of primary and secondary schools in Serbia, showed that 58.4% of respondents have a positive attitude towards distance learning and believe that it should become an integral part of school practice after the pandemic. Half of respondents (52.6%) were of the opinion that distance learning should systematically become part of education, either by supplementing face-to-face classes or by being combined with them.<sup>16</sup>

<sup>16</sup> For more see: Zavod za unapređenje obrazovanja i vaspitanja (Institute for Advancement of Education and Upbringing) 2020. Teachers in other countries, such as Bulgaria, Canada and Norway, have similar experiences (Grozdić 2021, 33–35).

### 3.2. The Process of Conducting a Focus Group Discussion

As a specific type of interview, a focus group discussion<sup>17</sup> takes place simultaneously for a larger number of people, i.e., in a group of respondents who have certain common characteristics. This method of gathering data requires that approximately 6 to 12 people assemble at the same place and time to interactively discuss questions posed by a moderator. As Slađana Đurić concludes, “this is not a spontaneous conversation of randomly gathered people, but a guided discussion of carefully selected participants” (Đurić 2005, 21). The comparative advantage of this method is in the interaction, dynamics, i.e., in the “synergy effect of the group”, which is emphasized in the specific and rather relaxed environment (Bešić 2019, 316–317).

Due to a number of similar characteristics, taken as a suitable sample from the ranks of teachers were: a) demonstrators and junior teaching assistants (6 respondents, ages 24 to 25), b) teaching assistants (7 respondents, ages 26 to 34), c) assistant professors and associate professors (7 respondents, ages 35 to 45) and d) professors of the Faculty of Law (9 respondents, ages 46 to 66). Although it is often suggested in literature that the respondents should be so-called “homogenous strangers” (Bešić 2019, 321), the fact that our respondents know one another and collaborate actually reduced the likelihood of the answers being “contaminated” and enabled them to speak freely (Mirković 2014, 834). Diversity, in the sense that the respondents being from different Departments, paved the way for a potential comparison between the application of online teaching in different areas of law.

The main topic – the educational process through distance learning in the function of developing digital literacy – was further achieved through three basic issues: a) the preparation of online classes, b) the advantages and disadvantages in the implementation of distance learning, and c) valorization, i.e., testing knowledge in the sense of achieved educational goals and outcomes. During the discussion, the respondents also spoke about the tools that they most often used in communication with students, how they overcame the challenges they encountered while conducting online classes, about the potential training needed for teachers, and about

---

<sup>17</sup> In literature there is sometimes insistence on the methodological and terminological differences between a group interview and a focus group. While in a group interview, participants mostly answer, in an order, a larger number of questions/topics asked by a moderator, in the case of a focus group the entire group deliberates one question/topic. As there is no essential discrepancy regarding the preparation, realization and analysis of group discussions, we will from this point on use the conciliatory term “focused group discussion” (Đurić 2005, 5; Bešić 2019, 316–317).

what classes should be like following the pandemic. The first three focus group discussions were conducted in December 2021, and the latest was conducted in June 2022, at the Faculty.

## 4. ANALYSIS AND DISCUSSION

### 4.1. Online Classes as Inevitable Future Teaching Practice

The participants in the first focus group were the youngest teachers – *demonstrators and junior teaching associates*. Comparing their student and educator experiences, the respondents were of the general opinion that it is necessary to diverge from the traditional, *ex cathedra* model and embrace the interactive model of teaching, in order to encourage students to participate more actively in classes. A teaching system oriented towards reproduction of knowledge leaves little room for additional research and fails to develop critical thinking aimed at problem solving, which is one of the general competences in the modern labor market, and some teaching activities should be created with the aim of acquiring practical knowledge. The younger teachers are categorical in their view that such activities should not be elective but compulsory.

*“When you ask a [Faculty of Law] graduate if they would recommend the Faculty of Law and when they reply, well, no, because you do nothing creative over there, then you know that it’s a lost case. What is law if not creative? Law breeds creativity. Indeed, only a creative person can truly practice law. Those who do not perceive that in this way, they do not understand the task... that is, that task is a priori not properly established at the faculty.”<sup>18</sup>*

The respondents’ general opinion is that the implementation of the distance learning educational process will no longer be a matter of personal affinities, but, just as the pandemic changed some things irreversibly and forever, this form of digital classes will also be present in general. The respondents see it as an inevitability that will not be discussed much, only the way in which they will be implemented will vary from one chair to another. They point out that the need for comfort is an inevitable part of human nature, and that the students’ desire to follow practical sessions from a comfortable armchair in their home instead of having to go to the Faculty will often prevail. The respondents caution that such behavior, i.e., this

---

<sup>18</sup> All focus group transcripts translated by the author.

advantage of distance learning, can be a double-edged sword, but if these classes are held properly, once per week, they can be a great advantage of the faculty as an institution.

*“...it is wrong for online classes to serve to imitate face-to-face classes. And I am glad we made the Chair aware of this early on, that this is not how it should be and that, if there is that online model of holding practical sessions, it should be a special model that makes use of all the advantages of that model while also trying to eliminate certain weaknesses. The existing live approach should not be imitated through Webex because it simply physically cannot be identical and of the same quality. The only way for it to be equal in quality is for it to take its own course, following some rules of its own.”*

What the respondents listed as one of the major advantages of the online model is greater participation of the students who, in their impression, were much more open to speak up and ask questions while for them, as teachers, the online model provided more flexibility in terms of time management. What they singled out as the greatest downside is the lack of social contact and the limited pedagogical role of the professorial profession. What the respondents cited as reasons for their sometimes lower personal motivation in conducting online classes is the absence of direct (non) verbal communication, the exchange of “energy” with the group, which the traditional model of teaching enables.

*“The advantages of online practical sessions are not insignificant, especially for students who are not from Belgrade and who could not attend because student dormitories were closed and they are from the interior. If at least one period remained as an online period...that period would not steal anything from anyone’s knowledge, and it would be of help to those who cannot follow... In addition to this, people who do not want to miss practical sessions for any reason – they are sick, or working, or they are away, they can make up for that this way... a possibility for connecting that is far cheaper, more practical and will be increasingly present, which I personally don’t think is a bad thing, especially in an academic community in which there is constant insistence on critical thinking and improvement of knowledge.”*

## **4.2. “We Are Older Than We Think”**

Comparing experiences from their studies, the second group of respondents – teaching assistants – noted that the use of computers was not compulsory but was also not needed for most of them at undergraduate studies classes while they were students (it is interesting that some even studied for their

legal informatics course exam by learning only the theoretical part from a textbook). Those who opted for the moot court competition started using computers more seriously only in the fourth year of studies. Others did this in their Master's degree studies, where they had the practical skills course, which, among other things, taught them to search literature and write papers and, they also gained knowledge on different software tools.

*"And that is something lawyers need the most – Word, for those who work in commerce they need Excel, we also need Power Point, and most of these bases are intuitive, easy to search and you don't need that... but I think that perhaps starting in the first year, but that's a recommendation, we should literally go to soft skills, because our students don't have soft skills nor are they aware of how important soft skills are, and I learnt that along the way and then also in the organizations that I was in, the non-governmental, student, and I realized the importance of that."*

At one point a lively discussion developed among respondents, regarding whether it is at all necessary to organize education aimed at developing digital literacy at the university. The position of one part of the respondents was that developing digital literacy should be reserved for the informal education segment, while others were of the opinion that digital literacy is prior knowledge that students should acquire in primary and secondary schools. The general conclusion was that students should be trained, but that equal support should be provided to teachers in terms of finding a systemic solution, because digital literacy of the teachers is not just a matter of personal aspiration to develop a skill, but the responsibility of the university and of the entire educational system.

*"We are now in a situation, as the pandemic has shown us, that we cannot do without that. Not to go into what someone likes or what they are better at, we would not have been able to function for a while – and not just us but any university – without online platforms.... Equipping, first pupils and then also students, to be digitally competent and capable of using all those tools – I don't think that should be a matter of a person's enthusiasm, but something that is normal at the level of an institution"*

The respondents' general position is that an additional form of education, aimed at increasing the level of digital literacy, should be provided at the Faculty of Law, because this can be a comparative advantage over other faculties. This kind of training would certainly not be a substitute for professional, legal knowledge, but would facilitate competent presentation and application of acquired knowledge (Bećirović 2015, 14). It is the respondents' general opinion that it is unquestionable that at the present the

Faculty of Law cannot only train students for classical legal vocations such as judge, prosecutor, enforcement agent, notary public (possibly attorney), because there is a limited number of these jobs.

*“Law faculties function on the principle of mass. We don’t get the best, we get the most. But ever since the beginnings of the Faculty of Law, the emphasis has been on numbers and that is what keeps us going. However, in general, this is a problem. You have so many lawyers who don’t want to practice law... I think the point here is that we are abandoning the pattern of education that perhaps existed until some thirty years ago, when we had a narrow specialist for a single area. And that may have been sufficient at the time, although I think these soft skills, or whatever we call them, were always needed. I think that now, in the modern world, this is an essential need and that one needs to be complete. And not just ‘I have great grades and I graduated on time, and I have no other knowledge’... by introducing such forms of classes or by inserting those elements into our traditional classes, we can additionally arouse their interest.”*

#### **4.3. Openness to New Ideas and Readiness to Adopt New Educational Practices**

The participants in the third focus group were *assistant professors* and *associate professors*, who taught classes online, in addition to online practical sessions. Apart from the initial teacher concerns about whether they would be able to hold classes using digital tools with which they had no prior experience, the teachers invested additional effort in teaching classes online. Communication with the help of digital tools created an artificial atmosphere in which the teachers were unable to see the students’ reactions, to assess their interest or possible fatigue, or determine to what extent they understood the topic being discussed. Because of the constant feeling that they were being recorded while speaking, they felt a certain uneasiness due to which they were unable to conduct themselves more freely when holding classes, which was not the case with face-to-face classes. Even though students most often recorded the classes without their permission, i.e., despite their requests not to do so, respondents reported the results of asynchronous learning – repeatedly listening to what they had recorded, some students used their sentence structures in class, which they noted as a positive consequence of this practice.

*“I noticed that I invest a lot more energy because I have to follow my train of thought, there is no room for digressions or simply for some jokes, because they can record that and, finally, in order for it all to make some sense, the*

*presentation needs to be concise. I also noticed that, after these online classes I am as tired as if I'd been run over by a tank..." "They almost never turn their cameras on, because then I could assess their reaction by looking at them, and not like this, where I just see my face and the rest are just rectangles with names and surnames, or nicknames."*

The teachers are of the general opinion that, although the teaching online classes was sometimes more mentally strenuous for them as lecturers – the quality did not decrease. They see a major downside of online learning in the sphere of learning outcomes and valorization of knowledge, because some respondents point to a lower quality of knowledge which, in turn, resulted in a lower pass rate. What the examiners see as the possible causes of poorer grades are a) lack of direct contact, which impacts the formation and maintenance of work habits, b) medicalized social reality that affected the students' motivation, and c) deficiencies within the primary and secondary educational practices. The teachers especially had problems with the valorization of knowledge, because preliminary exams and elimination tests were mainly in written form, resulting in an increased abuse of digital technologies, use of unpermitted means and a higher degree of non-academic behavior.

*"I don't think online teaching was the only thing that contributed to the drop in the quality of the students' knowledge: we don't have a clear insight from the university, we work with a finished product from secondary school. The situation was catastrophic long before covid... we are yet to experience the decline, but I don't think it is directly related to this situation with the pandemic; it just deepened the existing decline that originates from lower levels of education."*

The teachers were in agreement regarding the advantages that online classes have for different categories of students: for those who do not have the financial means to live in Belgrade but want to attend classes, those who are employed or whose work involves a place of residence outside Belgrade, for students with disabilities or those with mobility difficulties, those with family obligations, etc. In the opinion of some respondents, following the pandemic these advantages could be retained through the practice of a "hybrid" form. The respondents note that, to this end, significant financial investments should be planned to improve technical conditions, as well as to engage additional administrative staff who would serve as support in conducting classes. Still, the respondents' general impression was that they as teachers, just like the students, also have higher affinity for the traditional form of education, which is confirmed by the many appeals of students for face-to-face classes.

*"In teaching I am mostly guided by direct contact, because the spoken word is the spoken word. I don't use presentations during lectures but direct and live contact with the students... The impression is the same, the students want to return to lecture halls, especially where there are smaller groups. The experience that they have – they understand that it is better to be face-to-face and how many more new opportunities this offers compared to online classes... I think the enthusiasm waned a lot this year... as if they have had enough of this model and that they look forward to and share my hopes that the epidemic of this contagious COVID disease will end next year."*

#### **4.4. "The Future Is in Digitalization, But We Can't Do Without the Spoken word"**

Following the initial concerns regarding the use of new digital tools, which was common for all groups of respondents, professors stressed the importance of interaction and direct contact with students, which is made possible by the traditional form of teaching. The exchange of "energy" with the group, smiles, hand gestures, are the main advantages of face-to-face classes that, among other things, also enable the teacher to move around the room and look students in the eyes. This is why for most of the respondents talking into "the black box" was a specific mental and psychological challenge, because it often boiled down to talking to one's own reflection. The fact that most students were unwilling to turn on their cameras on and, by doing so, to join in the communication, drained the teachers of more energy, which is why they sometimes felt emotionally empty and exhausted.

*"They have to see you, they have to look at you, they have to see all your habits and tics... to see what you wore that day... Meaning that, when I walk into the lecture hall, I precisely feel the students, when I speak I feel them, they don't even have to ask me – I will repeat what I felt was murmuring, or them looking at me strangely, yet here the situation was impossible... you see, we can do all that through Power Point, and those slides, and camera showing a video, all of that can be done, but I think, that spoken word, truth to tell, I am that generation, how can I put it, that's the way my synapses have fused, that communication is much better at least for me, and I think that every lecture, really every single lecture, is a unique piece of authorship, and my every lecture is different..."*

Even though age significantly affects the level of digital literacy and receptiveness to technologies in general (McCrindle 2014, 15, 53–56), most respondents showed a positive attitude towards using digital practices in



teaching. The teachers pointed out that all the advantages of every model of teaching – traditional, hybrid and online – should be used in further work. The respondents' general stance perhaps correlates best with Marc Prensky's idea that professors should not "change" but that they should "adapt" to the new context and environment we all find ourselves in" (Prensky 2011, 3–4). Some respondents shared the positive experiences that they had at other faculties domestically and abroad, as suggestions of good practice that could also be followed.

*"It's about a new form of studying, which emerges as fully equal with this kind of studying. After two years of online classes, today I think that is the impression of us all, as well as of the young people who attended. This is a phenomenon that will come to life in its own way ... The future is in digitalization. This is a completely done deal, people in the future won't ever see one another. No more networking... It'll be difficult, once you experience that everything can unfold without any physical movement, without getting out of your pajamas, and giving a lecture, but there, we've all agreed that it's almost irreplaceable... We cannot do without the spoken word."*

When we talk about young lawyers, specifically those who are finishing the University of Belgrade Faculty of Law, during the discussion, the question that arises is in what direction should the admission policy for new students be conceived. Should the large number of students be retained, and then leave it to the labor market to distribute them and perhaps retrain them, in line with market demand? Should the number of enrolled students be reduced in a situation where the labor market cannot absorb such a large number of Bachelors of Laws (Honors)? Perhaps young lawyers should be taught new skills, at a time when the lack of digital literacy causes "new poverty" (Grozdić 2021, 30).

*"...it depends on what the aim is. So, if we were now to single out only the quality of conveying knowledge, which is the faculty's main mission, of course it is best that you see a person, for them to come, interaction, personal, however, this is one of the priorities. We also have other priorities... for example, maintaining the number of students... by expanding the circle of people who can study, without having to pay for apartments here and everything else, we would definitely expand the base with that... Now, the third thing, when we look into the distant future... the world is going in the direction where you don't have to move from one place to another to perform the act of communication, you do it from there. So, in my opinion, that is the future."*

#### 4.5. “Anything Is Possible When Teachers Are in Agreement”

What all respondents have in common are the *tools* that they most often used for communication with the students, and this includes email, Zoom, Webex, Moodle, and less often Facebook, Socrative, Draw.io, and Kahoot!. The advantage of these tools is that they are not used only for the teachers’ one-way communication, but also enable two-way communication and interaction. The downside of this method is the quantity of innovations. For example, on the UNICEF website alone there is a list of a total of 91 open digital educational tools for interactive online teaching and learning, which are available to teachers (UNICEF website 2021). As for the *training of teachers*, the respondents showed openness and willingness to undergo training for new digital teaching practices, which could be organized by the faculty and IT sector, while some respondents were of the opinion that they should be part of the faculty requirement (for example, as part of a faculty project, where, in addition to writing papers, teachers would also have to undergo one training course per year).

Speaking about *teachers’ concerns* as a set of emotions and attitudes in facing a certain challenge, and possible anxiety and insecurity when implementing innovations, there is a notable general trend regarding concerns at the informational and personal stage (Radulović, Sekulić 2021, 97, 99–100). In other words, teachers are generally worried about whether they have had sufficient information about the features and methods of implementing digital innovations and on how developed their knowledge and skills in the field of information technologies are. Some teachers also expressed concern at the refocusing stage, meaning that they are aware of the advantages of innovations and wish to find something better, to further advance their professional skills.<sup>19</sup> Participants reported that these concerns dominated the first wave of the virus pandemic, following which the teachers’ confidence regarding the use and management of digital devices increased with the number of classes they had taught, while the intensity of their concerns decreased. When they had *doubt* about conducting online

---

<sup>19</sup> Teacher concerns can be explored by applying different scientific methods, and a Stages of Concern Questionnaire is one that is often used. According to this questionnaire, concern is divided into seven stages – 1) awareness stage, 2) informational stage, 3) personal stage, 4) management stage, 5) consequence stage, 6) collaboration stage and 7) refocusing stage. This finding also correlates with the results of other domestic and foreign research, in which most teachers demonstrate a high intensity of concern at the informational and personal stage (Radulović, Sekulić 2021, 97, 99–100).

classes, most respondents turned for help to the Faculty's IT department, which, they say, professionally and promptly answered their questions, while some respondents solved these problems on their own and attended training courses.

Regarding the *preparation of online classes*, respondents invested the most time during the first period, when the state of emergency was in effect, following which the time required for preparing online and traditional classes was the same. The method of *knowledge valorization* differed in the sense that examination was oral, written, and written with the help of digital tools, with the majority of respondents examining their students in person, orally, and less often in written form.<sup>20</sup> Regarding the level of acquired knowledge, there is a disparity in the respondents' experiences, but the predominant view being that the level of students' knowledge has decreased. The reason for this may be the fact that the grading was mainly summative, i.e., the students' work was mostly evaluated at the end of a semester, which was the predominant practice of traditional teaching. What should be taken into account is that the imperative of the new, online method is an fundamental transformation of the "teaching process", i.e., of the methods and means of teaching, ways of presenting study material, forms of interaction between teachers and students and among students (Nikolić, Antonijević 2021, 103). In other words, traditional forms of evaluation cannot simply be copied to the digital environment while expecting the same effects. Preference should be given to formative assessment, which will continuously analyze the whole process of the students' achievements and progress.<sup>21</sup> This would help overcome the lack of direct contact and maintain a higher level of student motivation and participation.

---

<sup>20</sup> Even though the teachers mostly opted to hold the preliminary exams in person and in written form, as was the case before the pandemic, the results of a questionnaire conducted at the University of Kragujevac Faculty of Philology and Arts, on a sample of 63 students from all four years, show that it is possible to hold an online preliminary test with screen recording. The possibility of implementation and grading was explored, and the results showed that an online preliminary test, in the form of writing essays, can be a substitute for a classroom-held preliminary test, and that, as such, they are an adequate means and appropriately reflect the students' knowledge (Dragović 2021, 199–203).

<sup>21</sup> Nikolić and Antonijević provide a list of more than 30 digital tools that can be used in formative assessment (Nikolić, Antonijević 2021, 104–105).

#### 4.6. What After the Pandemic?

All the teachers point out that traditional, direct teaching is an indispensable method of conveying knowledge, which should remain the predominant form of education. Despite different personal affinities and experiences in the implementation of online teaching, the respondents' general opinion is that it *should become an integral part of the educational practice after the pandemic* – however, there is disparity regarding the intensity and manner of organizing it. Older teachers manifested what Prensky called “digital wisdom” (Prensky 2011), i.e., a positive attitude towards the use of digital tools and readiness to adapt to the new form of communication, as needed. Even though they are closer to the opinion that the effect of direct teaching is the greatest, they also believe that other models of teaching should also be retained in certain segments of education. Younger teachers maintain that, in addition to the traditional form of teaching, there should be at least one online class per week, as a supplement to face-to-face classes. They note that this practice perhaps should not be an option during the initial years of studies, while it should definitely be retained in senior years and postgraduate studies.

Also voiced was the opinion that the option of fully online studies should be made possible, which would be an additional source of income for the Faculty as an institution. Another thing that is mentioned is that one consultation session should be held online, as well as that meetings of faculty bodies should be held in this form, since this would ensure greater attendance. Teachers see the online model as indispensable when it comes to department meetings, seminars, conferences, additional lectures and different types of regional courses, which can provide additional income for the Faculty.

#### 5. CONCLUSION

This might sound incredible to the readers, but the assumption that studies at the Faculty of Law can be completed without a computer is confirmed by the situation in which, at his first job in a law office, a law graduate rotated the screen, i.e., the whole device, so he could read a PDF document that had been sent in PDF format, rotated 180 degrees, because he did not know how to do this with a click of the mouse. This anecdote – a true story from the life of a young legal trainee whom the author of this paper knows personally – might best reflect the importance, utility and necessity of digital literacy as a

set of knowledge, skills and attitudes required for communication and work in the digital environment, but also in professional, personal and public life (Grozdić 2021, 29).

In a situation when the activities for preventing the spread of the virus reduced social reality to medical issues, and social segments were mostly neglected or had to satisfy the requirements of the epidemiological adequacy test (Vuković 2021), the University of Belgrade Faculty of Law demonstrated readiness to respond to the newly created challenges. Through a series of activities and adopted measures, teachers and students relatively quickly adapted to a new mode of work and classes proceeded smoothly, in the sense that they were all held according to the predefined program. Initially online classes were asynchronous: students could access the necessary materials at any time, via Internet platforms, and then synchronous online learning took over, which was implemented in real time through the interaction of teachers and students (Arkorful, Abaidoo 2017, 400).

The teachers initially invested additional efforts to prepare and conduct classes online, and it took some time for them to adapt to the new method of work but also living circumstances. Without diminishing the advantages of online teaching – the most frequently mentioned being time saving and flexibility – the teachers' general opinion is that the traditional, direct transfer of knowledge is, among other things, a social moment, a specific social interaction, which is lost when a medium exists between them. It is their opinion that students recognize this and that after the pandemic, face-to-face classes should remain the predominant method, with differing answers regarding how online classes should be used as a supplement. Evaluation of the students' work was a great challenge for the teachers, especially in the context of the use of prohibited means and non-academic behavior, which was on the rise during the pandemic.

Due to the current pandemic, most educational systems around the world started online teaching without any prior training for teachers and students, without them getting acquainted with the appropriate digital tools and with minimum or no prior experience in conducting and attending online classes (Knežević 2021, 13). On the other hand, in order for online classes to provide quality and meet the needs of the "digital generation", which was born and has lived most of its life in a digital environment,<sup>22</sup> they need to be

---

<sup>22</sup> Mark McCrindle classifies generations according to attitudes towards and the use of technologies. Because they grew up in a digital environment, members of the digital generation, i.e., Generation Z or "the digital natives", born between 1995 and 2009, have a different, multidimensional way of thinking (McCrindle 2014). In extracurricular activities they are used to quickly receiving and providing

technologically, pedagogically and didactically adequately structured (Soleša 2007, 10). Creatively conceived, online classes based on digital content, containing images, sound and videos, implemented through various Internet platforms for distance learning, and with adequate IT support, can awaken all the senses required for learning and support the new generations' multidimensional way of thinking. In this way, technology can be an equal educational participant in the interaction between teachers and students (Katić, Stanišić 2021, 124).

The focus group discussion, as the main method for data gathering, played an explorative role in this particular study. This has been the first step in examining the positions and experiences of a part of the teachers, it is the author's suggestion is for a more comprehensive study to be conducted, in the form of a questionnaire of all the teachers and full-time students. The obtained results would enable the Faculty of Law, as an autonomous scientific and educational institution, to organize classes after the pandemic, in accordance with the preferences of the majority of their participants, to achieve maximum efficiency, and to competitively respond to the global trends in the field of higher education. With a modern form of teaching, the University of Belgrade Faculty of Law can gain a market advantage and be an equal partner to prestigious academic centers across the globe (Górska 2016, 35–43).

## REFERENCES

- [1] Arkorful, Valentina, Nelly Abaidoo. 2/2014. The Role of E-Learning, the Advantages and Disadvantages of Its Adoption in Higher Education. *International Journal of Education and Research* 12: 397–410.
- [2] Bećirović, Suad. 6/2015. Obrazovanje pravnika u republici Srbiji – trenutno stanje i perspektive, pravne teme. *Pravne teme – Legal Issues* 3: 8–24.
- [3] Bešić, Miloš. 2019. *Metodologija društvenih nauka*. Novi Sad: Akademska knjiga.

---

information, while the intensity of their ability to memorize increases if a picture precedes a text, and every interaction implies frequent feedback, rewards and an equal relationship in the exchange of messages. These are just some of the reasons why the traditional way of teaching is unable to fully meet the needs of the digital generation (Katić, Stanišić 2021, 122–123).

- [4] Bogojević, Dragan, Nataša Gospić. 2010. Digitalna agenda: Evropa i Srbija. 95–106 in *XXVIII Simpozijum o novim tehnologijama u poštanskom i telekomunikacionom saobraćaju – PosTel 2010*. Belgrade: University of Belgrade Faculty of Transportation and Traffic Engineering.
- [5] Brečko, Barbara Neža, Anusca Ferrari, Yves Punie. 2014. DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe. *eLearning Papers* 38: 3–17.
- [6] Đorđević, Mila. 1/2020. Studije prava između teorije i prakse – pravničko obrazovanje iz ugla studenata. *Branik* CXXXIII: 169–189.
- [7] Dragović, Georgina V. 2021. E-kolokvijum uz snimanje ekrana na platformi moodle: mišljenje studenata o pilot-testiranju. 199–204 in *Vaspitanje i obrazovanje u digitalnom okruženju*, edited by Ivana Jeremić, Nataša Nikolić, Nikola Koruga. Belgrade: University of Belgrade Faculty of Philosophy – Institute of Pedagogy and Andragogy – Pedagogic Society of Serbia.
- [8] Drenovak Ivanović, Mirjana M. 2021. Metodi izvođenja nastave u digitalnom okruženju u vreme Covid-19 krize: primer pravne klinike za ekološko pravo. 177–180 in *Vaspitanje i obrazovanje u digitalnom okruženju*, edited by Ivana Jeremić, Nataša Nikolić, Nikola Koruga. Belgrade: University of Belgrade Faculty of Philosophy – Institute of Pedagogy and Andragogy – Pedagogic Society of Serbia.
- [9] Đurić, Slađana. 1/2005. Metodologija fokusgrupnog istraživanja. *Sociologija* XLVII: 1–26.
- [10] European Commission. 2019. *Key Competences for Lifelong Learning*. Luxembourg: Publications Office of the European Union. <https://op.europa.eu/en/publication-detail/-/publication/297a33c8-a1f3-11e9-9d01-01aa75ed71a1/language-en> (last visited 19 December, 2021).
- [11] Górska, Dorota. 2/2016. E-learning in Higher Education. *The Person and the Challenges* 2: 35–43.
- [12] Grozdić, Vukašin. 2021. Digitalna pismenost – potencijalni odgovor na izazove kriza. 27–41 in *Život u vremenu krize – andragoški pogledi*, edited by Šefika Alibabić. Belgrade: University of Belgrade Faculty of Philosophy.
- [13] Hanić, Aida. 2020. Crni labud u svetskoj ekonomiji. 9–28 in *Black swan in the world economy*, edited by Petar Mitić, Darko Marjanović. Belgrade: Institute of Economic Sciences.

- [14] Kallioinen, Outi. 1/2010. Defining and Comparing Generic Competences in Higher Education. *European Educational Research Journal* 9: 56–68.
- [15] Katić, Jovana N., Marija G. Stanišić. 2021. Digitalne generacije – nove sposobnosti?. 121–126 in *Vaspitanje i obrazovanje u digitalnom okruženju*, edited by Ivana Jeremić, Nataša Nikolić, Nikola Koruga. Belgrade: University of Belgrade Faculty of Philosophy – Institute of Pedagogy and Andragogy – Pedagogic Society of Serbia.
- [16] Knežević, Saša. 2020. Upotreba digitalnih alata u izvođenju online nastave. Research paper. Sarajevo: Školegijum. [http://skolegijum.ba/static/files/biblioteka/pdf/5f3e44190a121\\_SasaKnezevic-Upotrebadiigitalnihalatauizvodjenjuonlinenastave.pdf](http://skolegijum.ba/static/files/biblioteka/pdf/5f3e44190a121_SasaKnezevic-Upotrebadiigitalnihalatauizvodjenjuonlinenastave.pdf) (last visited 13 December, 2021).
- [17] Matović, Marijana. 2021. *Programi digitalnih kompetencija u Republici Srbiji*. Belgrade: OSCE Mission in Serbia – USAID. <https://www.osce.org/files/f/documents/d/7/495181.pdf> (last visited 1 December, 2021).
- [18] McCrindle, Mark. 2014. *The ABC to XYZ – Understanding the Global Generation*. Sydney – Perth: McCrindle Research Pty Ltd.
- [19] Mirković, Bogdan. 2014. Metoda fokus grupe u istraživanjima iz oblasti informacionih sistema. 831–835 in *Infoteh-Jahorina 13*, edited by Slobodan Milojković. East Sarajevo: University of East Sarajevo Faculty of Electrical Engineering.
- [20] Nikolić, Nataša T., Radovan M. Antonijević. 2021. Formativno ocenjivanje i onlajn nastava. 103–108 in *Vaspitanje i obrazovanje u digitalnom okruženju*, edited by Ivana Jeremić, Nataša Nikolić, Nikola Koruga. Belgrade: University of Belgrade Faculty of Philosophy – Institute of Pedagogy and Andragogy – Pedagogic Society of Serbia.
- [21] Pejatović, Aleksandra P., Violeta R. Orlović Lovren, Neda M. Čairović. 2021. Direktna i onlajn nastava – sličnosti i različitosti perspektiva studenata. 171–176 in *Vaspitanje i obrazovanje u digitalnom okruženju*, edited by Ivana Jeremić, Nataša Nikolić, Nikola Koruga. Belgrade: University of Belgrade Faculty of Philosophy – Institute of Pedagogy and Andragogy – Pedagogic Society of Serbia.
- [22] Prensky, Marc. 2012. *From Digital Natives to Digital Wisdom: Hopeful Essays for 21st Century Education*. Thousand Oaks: Corwin.
- [23] Radojević, Tamara Ž., Ana G. Drobac. 2021. Zadovoljstvo studenata realizacijom i kvalitetom onlajn nastave tokom pandemije covid-19. 211–218 in *Vaspitanje i obrazovanje u digitalnom okruženju*, edited by



- Ivana Jeremić, Nataša Nikolić, Nikola Koruga. Belgrade: University of Belgrade Faculty of Philosophy – Institute of Pedagogy and Andragogy – Pedagogic Society of Serbia.
- [24] Radulović, Lidija R., Jelena D. Sekulić. 2021. Nastavničke brige o digitalnim tehnologijama u nastavi: istraživanja. 97–102 in *Vaspitanje i obrazovanje u digitalnom okruženju*, edited by Ivana Jeremić, Nataša Nikolić, Nikola Koruga. Belgrade: University of Belgrade Faculty of Philosophy – Institute of Pedagogy and Andragogy – Pedagogic Society of Serbia.
- [25] Redecker Christine. 2017. *The European Framework for the Digital Competence of Educators: DigCompEdu*. Luxembourg: Publications Office of the European Union <https://ec.europa.eu/jrc/en/digcompedu> (last visited 19 December, 2021).
- [26] SeConS, Women Support Center. 2020. *Uticaj pandemije korona virusa na populaciju mladih u Srbiji*. Beograd: SeConS [https://cpz.rs/wp-content/uploads/2020/12/SeConS\\_CPŽ\\_-Uticaj-pandemije-korona-virusa-na-populaciju-mladih-u-Srbiji-FINAL.pdf](https://cpz.rs/wp-content/uploads/2020/12/SeConS_CPŽ_-Uticaj-pandemije-korona-virusa-na-populaciju-mladih-u-Srbiji-FINAL.pdf) (last visited 28 September, 2021).
- [27] Senić Ružić, Mirjana M. 2021. Digitalna transformacija obrazovanja u Srbiji – pitanje digitalne pismenosti ili digitalne kompetencije. 11–24 in *Vaspitanje i obrazovanje u digitalnom okruženju*, edited by Ivana Jeremić, Nataša Nikolić, Nikola Koruga. Belgrade: University of Belgrade Faculty of Philosophy – Institute of Pedagogy and Andragogy – Pedagogic Society of Serbia.
- [28] Shubina, Ivanna, Atik Kulakli. 2019/1. Pervasive Learning and Technology Usage for Creativity Development in Education. *International Journal of Emerging Technologies in Learning* 14: 95–108.
- [29] Soleša, Dragan. 2007/1. E-learning perspektive i budućnost. *Norma XII*: 9–22.
- [30] Stojanović, Boban, Tamara Vukov. 2020. *Život mladih u Srbiji: Uticaj covid-19 pandemije*. Belgrade: OSCE Mission in Serbia – National Youth Council of Serbia. <https://koms.rs/wp-content/uploads/2020/12/Zivot-mladih-u-Srbiji-uticaj-kovid-19-pandemije.pdf> (last visited 24 September, 2021).
- [31] Stojanović, Danijela. 2020. Analiza realizacije učenja na daljinu u Srbiji za vreme pandemije virusa Covid 19. 121–140 in *Black swan in the world economy*, edited by Petar Mitić, Darko Marjanović. Belgrade: Institute of Economic Sciences.

- [32] UN Human Rights Unit in Serbia, Social Inclusion and Poverty Reduction Unit of the Government of the Republic of Serbia. 2020. *Posledice kovid-19 na položaj osetljivih grupa i grupa u riziku – uzroci, ishodi i preporuke*. Belgrade: UN Human Rights Unit in Serbia. [http://socijalnoukljucivanje.gov.rs/wp-content/uploads/2020/12/Posledice\\_Kovid-19\\_na\\_položaj\\_osetljivih\\_grupa\\_i\\_grupa\\_u\\_riziku.pdf](http://socijalnoukljucivanje.gov.rs/wp-content/uploads/2020/12/Posledice_Kovid-19_na_položaj_osetljivih_grupa_i_grupa_u_riziku.pdf) (last visited 24 September, 2021).
- [33] UNICEF website. 2021. Otvoreni obrazovni digitalni alati za interaktivnu nastavu i učenje preko interneta. <https://www.unicef.org/serbia/otvoreni-obrazovni-digitalni-alati-za-interaktivnu-nastavu-i-ucenje-preko-interneta> (last visited 18 December, 2021).
- [34] Vuković, Danilo. 2020. Reč struke, ali druge: Kako smo dospeli u prvi globalni karantin u istoriji?. *Monitoring social situation in Serbia (MONS)*. 7 May. <https://mons.rs/rec-struke-ali-druge> (last visited 28 September, 2021).
- [35] Zavod za unapređenje obrazovanja i vaspitanja (Institute for Advancement of Education and Upbringing). 2020. Rezultati ankete: šta 15.000 prosvetnih radnika misli o ostvarivanju obrazovno vaspitnog procesa putem učenja na daljinu. 29 July. <https://zuov.gov.rs/rezultati-ankete-sta-15-000-prosvetnih-radnika-misli-o-ostvarivanju-obrazovno-vaspitnog-procesa-putem-ucenja-na-daljinu/> (last visited 25 November, 2021).

Article history:

Received: 1. 9. 2022.

Accepted: 1. 12. 2022.





UDC 616.98-036.22:579.844(497.11)"18"

CERIF: H 300, S 140

DOI: 10.51204/Anali\_PFBU\_22409A

**Zoran S. MIRKOVIĆ, PhD\***

**MEASURES AGAINST THE PLAGUE AND OTHER  
CONTAGIOUS DISEASES IN SERBIA IN THE FIRST HALF OF  
THE 19<sup>th</sup> CENTURY**

*The paper provides an introduction covering the absence of measures against the plague and other contagious diseases in the Ottoman Empire, the measures practiced in the Austrian Empire, the terminology used for measures against the spreading of the disease in the Serbian language, etc. This is followed by a section that covers the plague during the First Serbian Uprising and the remembrance of its disastrous consequences. The central part of the paper focuses on the measures against cholera and the plague taken by the Principality of Serbia, starting the 1830s. Regulations modeled after the Austrian counterparts passed in 1839 and 1841, establishing a cordon sanitaire toward the Ottoman Empire.*

**Key words:** *Principality of Serbia. – Plague. – Cordon sanitaire. – Ottoman Empire. – Austrian regulations.*

---

\* Professor, University of Belgrade Faculty of Law, Serbia, [zoranm@ius.bg.ac.rs](mailto:zoranm@ius.bg.ac.rs).

## 1. INTRODUCTION

In the 18<sup>th</sup> century the Austrian Empire set up a cordon sanitaire on its border with the Ottoman Empire in order to protect itself from contagious diseases, primarily the plague.<sup>1</sup> No traveler from the Ottoman Empire could cross into the Austrian Empire without being detained in the cordon sanitaire or at a quarantine station (*kontumac*). A person would spend a certain number of days (42 during an infection outbreak, otherwise 21 days) and only then, if not infected, would they be permitted to enter the territory of the Austrian Empire.

There were no regulations or measures against contagious diseases in the Ottoman Empire up until the early 1830s, when the first quarantine station was established, in Constantinople.

The portion of the Serb people who lived under Venetian and Habsburg rule applied the measures for containing the spread of contagious diseases that were prescribed by these authorities. The terms used in the Serbian language also express this duality – Romance and Germanic. They came from Latin by way of German. The word *quarantine* found its way into the Serbian language from the German word *Karantin*, which comes from the Italian word *quaranta*, meaning forty. Forty days was length of the protective measure of isolation and confinement of persons, animals and goods from regions affected by a contagious disease, who were either infected, or who could transmit the disease. The word *kontumac* came from the German word *Kontumaz*, which is derived from the Latin word *contumax*, meaning stubborn, disobedient (Klajn, Šipka 2006, 583, 653).

## 2. THE PLAGUE DURING THE FIRST SERBIAN UPRISING

During the First Serbian Uprising (1804–1813) decrees were passed for fighting contagious diseases. This is apparent from decrees passed by Grand Vožd Karađorđe Petrović in 1812 and 1813, banning contacts with Ottoman subjects because of the plague in the Ottoman Empire. Thus, Archpriest Mateja Nenadović and his uncle Jefrem Nenanović who “held the border with the Turks” were ordered “to close the border with Turkey and not to allow any meetings because the great plague disease has appeared in Turkey”. In

---

<sup>1</sup> Regarding other contagious diseases, this paper will only focus on cholera due to limited space available. On smallpox see Kršljanin 2021, on typhus see Čukić 2011.

addition, there are also Karađorđe's decrees issued to Aleksa Đukić, who had been posted in Paraćin, "for our people not to voluntarily speak with and not to mingle [...] with Turkish merchants" (Stojanović 1848, Nos. 979–980, 67–68; Katić 1965, 138).<sup>2</sup>

At the beginning of 1814, "to make things worse, the plague spread all across Serbia and Belgrade, where 3–4 people per day died from the disease" (Ivić 1917, 78–79, n. 16).

This great plague spread throughout the European part of the Ottoman Empire, especially from 1814 to 1816, reaching Šumadija, Bosnia, and Herzegovina. Its dire consequences are preserved in historical monuments, and it was long remembered by the population.

In Karadžić (1818) the plague is described by stating "Serbs say that the plague is as lively as a woman (this is especially evidenced by those who contracted it). Many claim to have seen it walking veiled with a white scarf; some say that they carried her, that is, that she finds a man in a field or encounters a man on a road (even comes to one's house), and then says to him: I am the plague, come on, carry me there (wherever she wants to go). He puts her on his back, gladly (because then she will do no harm to him and his household) and carries her without any difficulty (because she is not heavy in the least) wherever she tells him to go. The plagues have their own land across the sea (where only they live), so God sends them over here (when people do evil and sin much) and tells them how many people to kill; but many succumbed to dogs [...] When the plague is killing, they do not often call her the plague but rather *ćuma* (in an attempt to appease it); nor can they leave dirty dishes at night, because she comes to the house at night to see whether the dishes have been washed, and then poisons and scratches all the spoons and dishes (sometimes the plague also takes people's bacon from the attic). – To collect like the plague collects children. – To linger like the plague in Sarajevo. – The plague has killed in the past, but never has it struck in the ass" (Karadžić 1818, 348–349).

The plague is a contagious disease that was also called *buba*, *ćuma*, or *morija*.<sup>3</sup> The word *ćuma* comes from the Turkish *çuma*, from the Greek *κύμα*, meaning plague (Klajn, Šipka 2006, 1457).<sup>4</sup>

<sup>2</sup> All translations in this paper are by the author.

<sup>3</sup> There was also the forms *kuža* and *kužica*. "In the Balkans it is replaced with Gr.-Lat. κύμα>ćuma" (Skok 1973, 223).

<sup>4</sup> For *ćuma* see Skok (1971, 341).

### 3. CHOLERA AND THE PLAGUE IN 1836 AND 1837

Care for the public health and the prevention of the plague and other contagious diseases was prescribed by Article 131 of the 1835 Constitution, which stipulated the right of municipalities to request that the Government (*Praviteljstvo*) build hospitals and quarantines stations at the state's expense (Mitrović 2004, 20, 59).

#### 3.1. Cholera

A cholera outbreak occurred in 1836 in Bosnia and Herzegovina. The disease also spread to the western regions of the Principality of Serbia, primarily in Podrinje region. In fighting against this horrendous contagious disease, people resorted to superstitious practices. Records show that twins were sought out to make a furrow around the village using twin oxen, which this disease allegedly could not cross. Frontiersmen (*Krajišnici*) who lived in abandoned Turkish houses feared that the curse of “sitting in Turkish houses” had caught up with them. There was mass exodus from populated areas to the hills, to secluded and “clean” places. If tradition is to be believed, Prince Miloš shared the prejudices of his subjects. In order to protect himself, his family and his retinue, he allegedly ordered for nine old women, completely naked, to secretly spin wool and weave a shirt in one night, through which he then passed, followed by his family, his retinue, and his armed escort (Đorđević 1922, 228–229).

In addition to and despite prejudices, the Serbian public authorities seriously came to grips with cholera. Serbian authorities had learned from the 1831 cholera epidemic that the disease is rarely spread from one person to another and that quarantine measures yielded no results.<sup>5</sup> For this reason, the fight against cholera mainly focused on suppressing panic,

---

<sup>5</sup> In a letter to Police Minister Cvetko Rajović, dated 10 August 1831, Prince Miloš Obrenović tells him that, since “quarantines have been established in Zemun and in Hungary, because cholera is not transmitted by touch and person-to-person contact, but by air”, he should act, as best he can, with the goods and traders coming from there (State Archives of Serbia (SAS), Prince's Chancery (PC), V, 103b).

In a letter to Minister Rajović (which is undated but undoubtedly is from this period), Prince Miloš approved “of them giving up on the quarantine, because cholera is transmitted by air and humidity” and ordered that custodians should no longer announce the deceased by ringing bells, for there to be no funeral ceremonies but rather a single priest performing a burial service, to prevent the further spreading of cholera (SAS, PC V, 104b).



preventing people from fleeing their homes and populated areas, finding a cure, and seeking professional medical assistance. It is probably difficult for the contemporary reader to even imagine such scarce conditions, lack of medication and doctors.

A cure for cholera was sought everywhere. Even Prince Miloš set out in search of it. He sent back to the Government the "Rule on how to protect oneself from cholera" because "it does not correspond with our people's views", and sent a strong medicine against cholera that "had cured so many people."<sup>6</sup> Captain Miloš Bogićević had mentioned a certain Predić who treated persons with cholera "with some medicaments."<sup>7</sup> In August 1836 the Government issued the Podrinje-Sava Command instructions for treating cholera.<sup>8</sup> Pavle Jovičić, a medical doctor and surgeon, wrote a manuscript entitled *Kolera, azijatičeska, kako se od nje lečiti i čuvati treba* (Cholera, Asian, how it should be treated and how to protect oneself from it) and forwarded it to Prince Miloš on 17 September 1836.<sup>9</sup>

The first news on the spread of cholera arrived in early July 1836. Pavle Jovanović, the head of the Posavina County, notified the Prince's Office on July 8 about the people who had died of cholera.<sup>10</sup> On July 12, Miloš Bogićević reported that a woman had died of cholera in Loznica, and that several frontiersmen had fallen sick.<sup>11</sup> These were frontiersmen who had come from Bosnia and settled in the Podrinje region. As quite a few of them had cholera, it was suspected that they had brought it with them.<sup>12</sup>

On July 26 Dr. Maksim Nikolić informed Prince Miloš about the spread of cholera in the village of Ražanj and the surrounding area. Dr. Nikolić sent a skilled man to the village where the disease had appeared to treat the infected people in a way that he did, as a doctor.<sup>13</sup>

<sup>6</sup> Document dated 27 July 1836 (SAS, PC XVIII, 90).

<sup>7</sup> Document dated 13 July 1836 (SAS, PC XXXVII, 1428).

<sup>8</sup> SAS, PC XXXVII, 1451

<sup>9</sup> SAS, PC XVIII, 15.

<sup>10</sup> SAS, PC IV, 876.

<sup>11</sup> SAS, PC XXXVII, 1426.

<sup>12</sup> See the Administrative Council (*Upraviteljni sovjet*) document, dated 8 August 1836, on dissolving the Committee for the distribution of land in the Podrinje region to frontiersmen, following its submission of a report on the number of frontiersmen wishing to return to Bosnia (SAS, PC XXXVII, 850). See the letter of the Prince's Committee from Lešnica, dated 13 August 1836, addressed to military commander Laza Teodorović in which it is recommended that a doctor be dispatched, because cholera was spreading among the frontiersmen (SAS, PC XXXVII, 1468).

<sup>13</sup> SAS, PC XVIII, 79.

The Prince's Office documents from 1833 reveal that Dr. Maksim Nikolić had received a scholarship from Prince Miloš, to study medicine in Pest. He had encountered financial difficulties due the costs of treatment for his leg. With Prince Miloš's financial support he completed his studies and was to move to Serbia in December 1833.<sup>14</sup>

On 28 and 30 July 1836, Dr. Maksim Nikolić informed Prince Miloš about the condition of people sick with cholera, and on 31 July 1836 he said that there were four newly infected persons. Of the total of 95 people suffering from cholera, 21 died, ten were on the road to recovery, and 64 had been cured. He had noticed that the disease relapsed easily.<sup>15</sup>

The ban on spreading "terrifying news" about the cholera outbreak in the Čačak region speaks to the nature and the speed at which the news on the cholera spread.<sup>16</sup> The Podrinje–Sava military command informed Prince Miloš on 29 July 1836 that cholera had appeared in Loznica and Lešnica and that the schools have been closed. On August 1 the same command notified Prince Miloš that cholera was spreading in towns, that many people were dying, especially the frontiersmen, and that guards had been posted.<sup>17</sup>

On 7 August 1836 Valjevo district physician Grigorije Ribakov notified Prince Miloš of the spread of cholera in the town of Valjevo and the surrounding area. He informed him that the population was not abiding by his circular letter or the medical advice, that they were buying medicaments in shops whose owners were making good money off of them.<sup>18</sup> The

---

<sup>14</sup> See Aleksa Simić's letters to Prince Miloš, dated 29 July 1833, and Maksim Nikolić's letters to Prince Miloš, dated 30 August and 6 December 1833 (SAS, PC XVIII, 226–228).

<sup>15</sup> SAS, PC XVIII, 80–82.

<sup>16</sup> The Čačak Justice Authority (*Ispravničenstvo*) wrote to Jovan Obrenović on 27 July 1836 (SAS, PC XIV, 1223). The letter from Arsenije Andrejević, Commander of the Central Military Command, to Princ Miloš, dated 29 July 1836 testifies to the misinformation, as well as the authorities' attempt to present the situation as normal and regular. The letter reads that he had received a report from Jovan Obrenović stating that he had returned to Čačak from his trip, having heard that the residents of Čačak had fled in fear of cholera. However, this is by no means true. Only five people had died in his absence, while things calmed down with his return and the cholera was practically forgotten (SAS, PC XV, 1817).

<sup>17</sup> SAS, PC XXXVII, 1450, 1452.

<sup>18</sup> SAS, PC XVIII, 113. Two days earlier, the same doctor, Ribakov, wrote to Commander Laza Teodorović that he needs to tour all the villages in the Valjevo county and to explain to the people how to protect themselves from cholera (SAS, PC XXXVII, 1458).

Administrative Council (*Upraviteljni sovjet*) recommended that the population refrain from fleeing into the woods but to instead use medication against cholera.<sup>19</sup>

Reports from early August, i.e., dated 6, 10 (three reports) and 11 August 1836, from Loznica, Lešnica and Radalj state that “cholera is stopping”, “cholera is disappearing”.<sup>20</sup> However, in late August, cases of cholera appeared in Šabac and Kragujevac. According to a report dated August 17, three people had abruptly died of cholera, while a report from 18 August 1836 said that cholera was beginning to spread.<sup>21</sup> Reports from Kragujevac, dated 17 and 31 August and 1 September 1836, speak of the appearance of cholera, deaths and the spreading of the disease. A report from Kragujevac, dated 9 September 1836, reads that there were no more cases of cholera infection.<sup>22</sup>

There are three more reports from October 1836. On October 2 the commander of the Central Military Command, Arsenije Andrejević, informed Prince Miloš, among other things, that two women and one girl had died of cholera.<sup>23</sup> On 4 October 1836, Boško Tadić, Captain of Azbukovica, notified Commander Laza Teodorović that there were several people suffering from cholera in the village of Čitluk, in the Rađevina region, and that several people had died from it.<sup>24</sup> Finally, on 18 October 1836, Commander Andrejević informed Prince Miloš that three people had died in the same house within 48 hours in the Belica county, in the village of Glavinci, and that 24 people had died of cholera in the Resava county, in the village of Bigrenica.<sup>25</sup>

From that point on, documents, at least the ones preserved in the Prince's Chancery, are silent on cholera. Apparently, with the onset of winter this terrible infectious disease disappeared.

However, new trouble was already knocking on the door. Reports of the appearance of the plague in the Ottoman Empire started arriving already in the spring of 1836. That year, the plague reached Constantinople, from Egypt, and began to spread throughout the European part of the Ottoman Empire, in the direction of the southern borders of the Principality of Serbia.

---

<sup>19</sup> SAS, PC XXXVII, 850.

<sup>20</sup> SAS, PC XXXVII, 1459, 1461, 1464, 1466–1467.

<sup>21</sup> SAS, PC XXXVII, 1470–1471.

<sup>22</sup> SAS, PC XV, 1843, 1851–1852, 1857.

<sup>23</sup> SAS, PC XV, 1877.

<sup>24</sup> SAS, PC XXXVII, 1505.

<sup>25</sup> SAS, PC XV, 1883.

Unlike in the case of cholera, the fight against the plague involved strict measures of quarantine and isolation, in order to prevent the plague from making its way into the country, and to isolate the infected from the others to prevent contagion.

### 3.2. The Quarantine Station in Aleksinac

On 9 August 1836 Prince Miloš received news from the vizier that the plague was ravaging Rumelia, i.e., the European part of the Empire, and that a quarantine station should be set up.<sup>26</sup> From that day on, all possible measures were vigorously undertaken to prevent the introduction of the plague into Serbia, primarily the construction of quarantine stations.

A decision was taken on 21 August 1836 to establish quarantine stations<sup>27</sup> at all major border crossings and, at the same time, to set up a cordon sanitaire at the border. Quarantine stations were set up in Aleksinac, at the mouth of the Drina River, in Mokra Gora, Bregovo, and meetings were held in Vrška Čuka and Pazarski Drum. It was decided to immediately start construction of quarantine stations, for which 10,000 market groschen was allocated (Mihajlović 1937, 40).

The most important quarantine station was in Aleksinac, on the main Constantinople road, which ran from the city of Constantinople via Niš to Belgrade and was a lifeline of traffic and trade. The construction began immediately, while Prince Miloš appointed Avram Petronijević, one of the most respectable Council members, as the supervisor of these works and sanitary commissioner for all quarantine stations, which only goes to show how much importance he attached to the job.

On 20 August 1836, Jovan Veljković, the administrator (*ispravnik*) of the *Ispravništvo*<sup>28</sup> of Aleksinac conveyed to Prince Miloš Obrenović in Kragujevac that works on the reconstruction of an old quarantine station were under way as well as preparations for the construction of a new quarantine station in Aleksinac.<sup>29</sup> The testimony of Stefan “Stevča” Mihailović, who was appointed chief customs officer (*đumurdžija*) in

---

<sup>26</sup> SAS, PC VI, 746

<sup>27</sup> On quarantine stations at the time see Petković (2008, 33–36) and Milovanović (2011, 193–198).

<sup>28</sup> *Ispravništvo* was the term at the time for the administrative unit at the level of the *nahiya*, i.e., district).

<sup>29</sup> SAS, PC I, 100.

Aleksinac on 31 March 1834, shows that a quarantine station was yet to be built in Aleksinac (Mihailović 1928, 84–85, 110). It seems that there had not been an old quarantine station, prior to March 1834. Supporting the claim that there had been no quarantine station in Aleksinac beforehand, is the fact that this quarantine station was only twice mentioned in the documents belonging to the Prince's Office. The first time on 20 October 1834, when the newly-appointed director of the Aleksinac customs authority (*đumruk*) Emanuil Solar wrote to Prince Miloš Obrenović proposing the establishing of an office "for the erecting of a quarantine station in Aleksinac".<sup>30</sup> The second mention was a letter from Stefan Stojanović, the Danube–Timok military commander, to Prince Miloš, dated 18 June 1836, informing him that he had moved Captain Toma Katić, who was unable to find accommodations, into four rooms at the Aleksinac quarantine station.<sup>31</sup>

The quarantine station staff consisted of director Nikola Ćefala (Kefala), Dr. Rebrić, an overseer (*osmotritelj*), a clerk (*pisar*), a storehouse keeper (*ambardžija/magaziner*), customs officers (*latovi*) and guards (*gvardijani*). Director Kefala was of Greek origin.

Director Ćefala wrote to Prince Miloš on 21 August 1836 telling him that workers started building huts for incomers but that they were short of lime, and that they have dug a well. Prince Miloš replied to him on 23 August 1836, saying he had received his letter and instructed him in the future to address the Council<sup>32</sup> for all the quarantine station's needs. Prince Miloš also directed the Administrator of Aleksinac, Jovan Veljković, to the Council regarding the construction of quarantine station in Aleksinac.<sup>33</sup> Veljković informed Prince Miloš on August 24 about the progress of the construction of a new quarantine station.<sup>34</sup>

The quarantine station in Aleksinac began operation on 1 September 1836.

On 25 September 1836 Avram Petronijević informed Prince Miloš that, on his orders, he would immediately leave for Aleksinac to arrange matters regarding the quarantine station, and that the plague kept spreading in Rumelia. Four days later Prince Miloš issued him orders under which all traders coming into Serbia were to be held in quarantine, along with their merchandise, for a period of three days. In order to avoid postal service

---

<sup>30</sup> SAS, PC I, 21.

<sup>31</sup> SAS, PC I, 84.

<sup>32</sup> SAS, PC I, 101.

<sup>33</sup> SAS, PC I, 102.

<sup>34</sup> SAS, PC I, 103.

stoppages, postmen (*tatarī*) were to be held only overnight, during which time letters were to be disinfected without being opened or pierced.<sup>35</sup> On October 10 Prince Miloš ordered his advisor, Petronijević, to deploy bureaucrats to the Aleksinac quarantine station, and said that he would include several of his soldiers as a guard.<sup>36</sup>

The quarantine station director was in direct communication with the pasha of Niš and the Austrian consul, regarding the mail, primarily that from Constantinople.<sup>37</sup>

Prince Miloš was in continuous communication with Colonel Stefan Stojanović, commander of the Danube–Timok District (at the time the Principality of Serbia was divided into five military districts), with director Ćefalo, and with advisor Petronijević, the sanitary commissioner for all quarantine stations. He ordered that guards be deployed to the border, to prevent the plague from coming in, that crossing the border should be allowed only at the quarantine points, and that the orderly performance of duties by the quarantine station staff be overseen.<sup>38</sup> On 20 November 1836, Prince Miloš ordered advisor Avram Petronijević to settle the matter of posting stations (*menzulans*) with the pasha of Niš, as well as the matter of the land owned by the Turks and Serbs in the border area, to let no one through without quarantine, with no exceptions, and to ensure that the plague is not brought into the country.<sup>39</sup>

On 21 November 1836, Petronijević and Stojanović informed Prince Miloš that they had studied the matter of the Aleksinac quarantine station and decided that the quarantine station parlatory (*parlatorija*) in Aleksinac be shut down, and that one be set up on Mt. Gramada to which they reassigned the mountain camp (*katun*) customs officer. They proposed closing the Bregovo quarantine station and the prompt construction of a house for the disinfected, on the Danube. They also kindly asked that bureaucrats be appointed to the Bregovo and Radujevac quarantine stations.

There were also the appendices:

1. Plan of the duties of bureaucrats and attendants at the Aleksinac quarantine station and at the Supovac and Mt. Gramada parlatories.

---

<sup>35</sup> SAS, PC I, 109–110.

<sup>36</sup> SAS, PC I, 114.

<sup>37</sup> SAS, PC I, 117–118.

<sup>38</sup> These are two documents, one of 13 November and the other of 19 November 1836 (SAS, PC I, 122, 123; PC XXXVII–1545).

<sup>39</sup> SAS, PC I, 124.

2. The duties of customs officers at border meeting points.
3. List of Aleksinac quarantine station bureaucrats and attendants.
4. List of Bregovo quarantine station bureaucrats and attendants.

In his letter dated 28 November 1836, Prince Miloš approved their proposals regarding the duties of quarantine station bureaucrats and attendants at meeting points, and ordered that the Bregovo quarantine station commence operation. He appointed Council members Stojan Jovanović and Jeremija Zdravković as bureaucrats in Bregovo and Vrška Čuka, letting them choose the other staff members.<sup>40</sup> It is apparent that the instructions for the admission and further processing of persons who were either quarantined or suspected of having the plague was very similar to the Sanitary-Police Decree for Quarantines and Border Meeting Points, dated 19 June 1841. The reason for this should be sought in the fact that the Austrian Sanitary Norm of 1770 served as a model for both documents, which will be discussed in the following section.

From the exchange of letters between Prince Miloš and Colonel Stojanović, the Danube–Timok commander, the following is learned: that the Prince repeatedly issued strict orders for the border with the Ottoman Empire to be well guarded so as to keep the plague out of Serbia; that on the border toward the Niš nahiyah guard Marko Đorđević injured a villager from the Niš nahiyah because he had crossed the border. Prince Miloš approved of the guard's actions and rewarded him with a ducat. He ordered that information on this incident be shared with all the chiefs, to set an example to shoot at anything and anyone trying to cross the border where it is not allowed.<sup>41</sup>

On November 24 advisor Petronijević informed Prince Miloš that he had agreed with the pasha of Niš to immediately erect a pen (*košara*) on the mountain hut side so a posting station could be built in spring, on the very border and to announce to the people who own land on the Turkish or Serbian side, that they should sell it, in order to prevent the illegal and unwanted crossing of the border. Two days later, on 26 November 1836, Petronijević reported that the plague had appeared in the town of Dupnica (present-day Bulgaria), Vranje and in surrounding villages, in two villages

---

<sup>40</sup> SAS, PC I, 126 (1–10, 11–12).

<sup>41</sup> These are three documents: two dated 23 November and one dated 28 November 1836 (SAS, PC I, 129–130 (1–2, 3)).

around Pirot and one around Leskovac – all in the Ottoman Empire. He ordered the authorities in Aleksinac and Kruševac to stop issuing passports for Niš.<sup>42</sup>

Prince Miloš ordered Petronijević to extend the quarantine to five days and five nights because the plague was getting closer to Serbia's borders, to increase the number of staff in the quarantine station in Aleksinac, to negotiate correction of the border toward Pirot with the local agent (*ajan*), even if he is to receive something in return, so as to prevent uncontrolled crossing of the border. Prince Miloš repeatedly warned and threatened to apply stringent measures and use all available means to ensure that the plague was not brought into the country. Prince Miloš also informed him that waggoners (*kiridžije*) from the Ottoman Empire would be sent back from Aleksinac, and that goods and people would be taken over in Serbia by local waggoners with horses and oxen.<sup>43</sup>

Meanwhile, Ćefala, the director of the quarantine station in Aleksinac, complained to Prince Miloš about the severe actions and harsh orders issued by sanitary commissioner Petronijević and Colonel Stojanović at the Aleksinac quarantine station because, in his opinion, there was no need for such rigidity, and it had a negative effect on trade and traffic.<sup>44</sup>

Letters and other mail had to be disinfected both on the inside and on the outside, in the presence of the recipient. Avram Petronijević complained to Prince Miloš that a certain Anastas Guta repeatedly failed to send someone to fetch his mail from Thessaloniki, so the mail was disinfected only on the outside because it could not be opened without his witness.<sup>45</sup>

Advisor Petronijević wrote two letters to Prince Miloš on 2 December 1836, informing him that starting on December 3 Serbian waggoners<sup>46</sup> would be transporting goods by carts from the quarantine station in Aleksinac to Belgrade, and that, due to the increased volume, assistance from Belgrade would be necessary; that the pasha of Sofia had closed the road from Turkey to Sofia because of the plague outbreak between Constantinople to Philippopolis (present-day Plovdiv); that he had set up a parlatory in Supovac near Kruševac; that the posting station on the mountain hut side is

---

<sup>42</sup> SAS, PC I, 131, 133.

<sup>43</sup> Documents dated 28 November 1836 (SAS, PC I, 134, 136).

<sup>44</sup> Document dated 26 November 1836 (SAS, PC I, 135).

<sup>45</sup> Document dated 1 December 1836 (SAS, PC I, 137).

<sup>46</sup> *Kiridžija* is a person who transported other people's goods, any kind of load in general, usually in his own cart (Klajn, Šipka 2006, 611).



almost finished. He confirmed receiving orders on extending quarantine to seven days and explained ways in which this can be carried out, in light of the lack of space in the quarantine station.<sup>47</sup>

The director of the quarantine station in Aleksinac, Nikola Ćefala, submitted his resignation to Prince Miloš on 4 December 1836 because he was unable to carry out the orders issued by Avram Petronijević and Stefan Stojanović.<sup>48</sup> Three days later Prince Miloš accepted his resignation. He ordered Petronijević to hand all books and money over to Rista Romi, and a day later he informed Romi that he had been appointed director of the quarantine station in Aleksinac. He sent Herrmann Meinert, a medical doctor, to replace Rebrić as the quarantine station doctor.<sup>49</sup>

On 10 December 1836 Prince Miloš ordered Rista Romi, the director of the quarantine station in Aleksinac, to extend the quarantine period to 10 days and explained to him how to organize this in the relatively limited space. He further ordered him to strictly abide by the given instructions and to do everything in agreement with Pavle Stefanović, who was to organize the quarantine according to the Austrian model.<sup>50</sup>

In addition to the usual reports on the situation in the quarantine station, takeover of duties, dismissals and appointment of new quarantine station bureaucrats,<sup>51</sup> also important was the organizing of the waggoner service from Aleksinac to Belgrade, so Rumelian traders could leave their goods at the quarantine station in Aleksinac.<sup>52</sup>

Quarantine station director Romi informed Prince Miloš on 17 December 1836 that he was strictly following the 10-day quarantine rule and the quarantine instructions given to him by the Prince, as well as that Dr. Meinert had arrived at the quarantine to assume his duties.<sup>53</sup> On 23 December 1836, director Romi notified Prince Miloš that the plague had reappeared in Thessaloniki, and that it was still present in Philippopolis and Dubnica.<sup>54</sup> In his letter of 4 April 1837, Romi reported to Prince Miloš that there was plague in Pirot, Skopje, Dubnica, and Thessaloniki, and that it had

---

<sup>47</sup> SAS, PC I, 138, 140.

<sup>48</sup> SAS, PC I, 141.

<sup>49</sup> SAS, PC I, 143, 145–146.

<sup>50</sup> SAS, PC I, 148.

<sup>51</sup> SAS, PC I, 149–150.

<sup>52</sup> SAS, PC I, 151.

<sup>53</sup> SAS, PC I, 152–153.

<sup>54</sup> SAS, PC I, 157.

also appeared in Kumanovo; that 600 people and 1,600 loads of goods had passed through the quarantine in February, with another 800 people and 2,200 loads of goods in March.<sup>55</sup>

On 30 April 1837 Prince Miloš dismissed Rista Romi and appointed Stojan Veljković to the post of director of the quarantine station in Aleksinac. On May 4 he ordered Veljković to release English diplomat David Urquhart from quarantine after five days, but to do so in such a way that others did not notice.<sup>56</sup>

On 24 May 1837 Prince Miloš ordered advisor Petronijević to tighten the quarantine measures and extend the quarantine period to 15 days, because of the plague outbreak in Rumelia.<sup>57</sup>

### 3.3. The Plague in 1837

The first mention of the plague in the Prince's Office materials was on 1 March 1836: Prince Miloš Obrenović informed Osman Pasha that the plague had appeared in the immediate vicinity of the border. It was for this reason that he gave orders to the border authorities to strictly adhere to the instructions issued by the sanitary authorities. It was vital to undertake these measures, reads the letter, out of caution and in the interest of public health.<sup>58</sup> On 9 August 1836 Toma Vučić-Perišić informed Prince Miloš that the vizier had heard that the plague had appeared in Rumelia, which is why a quarantine station should be set up, as previously mentioned.<sup>59</sup> In his letter dated 3 October 1836, Hüseyin Pasha of Vidin informed Prince Miloš that he had ordered that a quarantine station be established for ships coming from areas affected by the plague. He asked for his understanding, because Serbian ships would also be quarantined.<sup>60</sup> Letters from November 1836 speak of the appearance of the plague in Dupnica, which was near the southern border of the Principality of Serbia.<sup>61</sup>

---

<sup>55</sup> SAS, PC I, 183.

<sup>56</sup> SAS, PC I, 189, 192.

<sup>57</sup> SAS, PC I, 206 (3–4).

<sup>58</sup> SAS, PC XXX, 1402.

<sup>59</sup> SAS, PC VI, 746.

<sup>60</sup> SAS, PC XXX, 1235.

<sup>61</sup> SAS, PC V, 131, VI, 807.

The news that Austria had prohibited traders from crossing into Serbia to buy cattle, because the plague had appeared in Vidin, Leskovac, and Vranje, reached Prince Miloš on 13 January 1837.<sup>62</sup> The Austrian authorities issued the same ban again in March, this time because of the outbreak of the plague in Bosnia.<sup>63</sup>

On 6 February 1837 *Novine Serbske* reported that “the cordon is strong, as strong as it can be, to the measure of the impending disease in Serbia, which is immanent, so strict that Serbian guards are shooting at people, and at cattle coming to the Serbian border, and there are cases of several heads of cattle being killed and people wounded.”

Prince Miloš sent numerous letters to the Morava-Podrinje military commander, the Užice region administration, to the head of the Rujan district (*srez*) and to the director of the quarantine station in Mokra Gora, in other words to all chiefs in the areas bordering Bosnia. He asked them to obtain precise information on whether there really was an outbreak of the plague in Bosnia, and to carefully guard the border so the disease would not spread to Serbia. The reports do not contain any confirmation of the plague occurring in Bosnia. A report dated 1 July 1837 speaks of the presence of the plague in Kumanovo, in the Skadar region. On 28 July 1837, Prince Miloš ordered the head of the Rujan district to erect a strong fence along the border and to have guards patrolling it, because “the plague is in Arnautluk”.<sup>64</sup>

Prince Miloš’s correspondence on the issue of the plague with Ottoman pashas in the region shows that some of them were distrustful. This was partly rooted in the fact that the Ottoman Empire neither knew of nor took any measures against the spread of infectious diseases. In part it also had to do with them believing that the whole issue was part of a conspiracy by the Serbs, who want to attack them. All this took place after the hatt-i humayuns of 1830 and 1833, whose provisions stipulated that the Ottoman population was to move out within a period of one or five years, and they believed it to be a way of pressuring them to depart as soon as possible. These fears are particularly noticeable in Prince Miloš’s correspondence with the Yusuf Pasha of Belgrade, between May and June 1837.<sup>65</sup>

---

<sup>62</sup> SAS, PC, KK XXI, 1851.

<sup>63</sup> SAS, PC XXXVII, 1636.

<sup>64</sup> Letters dated 18 and March, 1, 5 and 15 April, 1 May, and 1 and 28 July 1837 (SAS, PC XXXII, 549–550, 553–556, 558, 561, 576, 584).

<sup>65</sup> SAS, PC XXXVII, 1498, 1481–1483, 1427.

At the end of July 1837 *Novine Serbske* reported that “the health situation across Rumelia is very sad and pitiful. The plague has spread everywhere and it is ferocious.” It further said that the health situation in Serbia was positive and that the plague had not entered the country. The official newspaper credited Prince Miloš for this, somewhat flatteringly. Quarantines stations and cordons sanitaire were praised, as were the measure to double and triple the cordon sanitaire on the border with Rumelia. Unfortunately, things changed soon after that.

A key event for the plague entering Serbia happened at the quarantine station in Aleksinac. In July 1837, 53 Ottoman Nizam-ı Cedid soldiers were admitted into the quarantine station. While in quarantine, two of the soldiers died. Despite warnings, Dr. Majnert, who was inexperienced, failed to establish that the plague was the cause of death and he allowed the other soldiers to continue their journey to Belgrade. The Ottoman soldiers travelled on, only one died on the journey and was buried between the towns of Ćuprija and Jagodina. The others arrived in Belgrade in good health, however, judging by everything that was later established, they brought the plague to Ražanj and Jagodina.<sup>66</sup> In both places where the soldiers stayed overnight all those who happened to be staying at the same inns died soon after.

An Aromanian cattle trader from Bitola, who was quarantined together with the soldiers in Aleksinac, was released from quarantine as healthy by the inexperienced Dr. Meinert. The trader then went to the Valjevo district on business. He spent some time in the village of Brežde in the Kolubara area. There he fell ill with the plague and died soon after, having infected the local population. A woman from the village of Osečenica, who happened to attend his funeral in Brežde, brought the plague back to her village (Vujić 1967, 83–169).<sup>67</sup>

The initial spreading of the plague in Jagodina in mid-August 1837 and all the horrors were described by Stefan “Stevča” Mihailović in his memoirs. The general commotion and the anger of the residents of Jagodina was brought about by the evacuation of the families of advisor Avram Petronijević and Great Sardar Mileta Radojković from the town, after which it was completely

---

<sup>66</sup> See Prince Miloš’s correspondence of 16, 17 and 18 August 1837 on his findings that the plague had entered Serbia with the Ottoman Nizam-ı Cedid soldiers (SAS, PC I, 291, PC VI, 987, PC XIX, 537, PC XXVI, 875).

<sup>67</sup> See the local authorities’ letters, dated 15 and 22 August 1837, to Prince Miloš, regarding the breakout of the plague in these two villages (SAS, PC XXXVII, 1726, PC XXVI, 210).

sequestered when guards encircled it. Everyone “was alarmed and they all scattered, ran off to vineyards, corn fields, gardens, meadows.” They shouted: “Are they alone to stay alive and we are to die?” (Mihailović 1928, 106).

The main actors in this drama surrounding the outbreak of the plague in Jagodina were Prince Miloš, Avram Petronijević, Stefan “Stevča” Mihailović, and Mileta Radojković (albeit he only at the beginning) – the most eminent people in the Principality of Serbia at the time. Avram Petronijević, one of the most prominent members of the Council, went from being Prince Miloš’s supporter to being his bitter opponent. Following the expulsion of Prince Miloš in June 1839, and of his son Mihailo in the fall of 1842, Avram Petronijević, together with Toma Vučić Perišić, was practically the ruler of Serbia until his death in 1852. Stevča Mihailović had an incredible career, the pinnacle of which was his appointment to the position of regent. This happened at the famous Saint Andrew’s Day Assembly when Aleksandar Karađorđević was ousted and Miloš Obrenović was reinstated to the throne. In December 1858 and January 1859 Stevan Mihailović was regent until Miloš arrived in Serbia from his spahi’s estate in Wallachia. Mileta Radojković was the highest military official – the Great Sardar (there was a total of five great sardar commands). On 22 March 1834 he was appointed Great Sardar of the Rasina area, which, at the time, was comprised of the Kruševac, Jagodina, Paraćin and Resava districts. He gained fame and eternal remembrance by starting the rebellion against Prince Miloš in January 1835, which led to the adoption of the so-called Sretenje Constitution (Candlemas Constitution). Every time the Sretenje Constitution is mentioned, Mileta’s Rebellion and its leader, Mileta Radojković, are mentioned as well.

This is where their paths crossed and Miloš did what should not be done. He ordered that only of the families of people important to him be the evacuated from Jagodina.<sup>68</sup> He put the lives of some before the lives of others, and in plain sight. This angered the people of Jagodina and they attacked the guards. With the help of ten friends, a man named Đoko, a straw mat maker from Jagodina, dispersed the guards on the Jagodina road. Commander Andrejević ordered that he be caught and chained and, if this failed – that he be killed. And so he was killed. Prince Miloš approved this and issued a proclamation stating that anyone attacking guards would be fired upon and, if they were not hit, they would be executed when caught.<sup>69</sup> The threat of death calmed the situation.

<sup>68</sup> See the correspondence between Prince Miloš and Avram Petronijević, dated 18 and 22 August 1837 (SAS, PC XXXI, 967, 970).

<sup>69</sup> SAS, PC XII, 872, 873; Mihailović (1928, 106–107).

Since the plague was getting close to the borders of the Principality of Serbia (Prince Miloš did not know at the time that it had already entered Serbia with the Nizam-i Cedid soldiers), on 15 August 1837, in an effort to prevent the plague from spreading to the country, he asked the Austrian imperial and royal authorities for a capable civil servant. At the Prince's request, the Austrian authorities sent Dr. Nagy, the doctor from the quarantine station in Zemun. He was tasked with inspecting the quarantine stations and cordons.<sup>70</sup> On 29 August 1837 Prince Miloš appointed his advisor Avram Petronijević and Dr. Nagy as sanitary commissioners. Their assignment was to prevent the spread of the plague and everyone was to carry out their orders.<sup>71</sup> From that time until the beginning of November, an energetic and serious battle was fought against the plague, using all available means and strictly adhering to all measures adopted by the Serbian authorities, headed by Prince Miloš.

Just how strict the implementation of measures was is evident from the fact that Ibrahim Sarim Pasha, who was traveling to attend the coronation of Queen Victoria of the United Kingdom of Great Britain as the sultan's envoy in 1837, was ordered to quarantine. In spite of the envoy's strong protest, he and his entourage were detained at the Aleksinac quarantine station. Prince Miloš issued orders for Ibrahim Sarim Pasha's quarantine time to be reduced to 21 days because he had stated that he had not stopped in villages or towns and that he slept in "his tent in a field". The prince also ordered that "all comforts be prepared in the quarantine" for the sultan's envoy.<sup>72</sup> The epilogue of this episode was that the detained envoy succeeded in attending Queen Victoria's coronation after all.

On 8 November 1837 Dr. Nagy submitted a report on the plague epidemic for the period from July 25 to November 8 in for the towns of Ražanj, Paraćin and Jagodina and in the villages of Radoševac, Čičevac, Varoš and Pardik. Nagy reported that the first five places infected with the plague "are now completely free of it and open". There were still a few people quarantined in the villages of Varoš and Pardok, but these villages were to be liberated and opened in about ten days. The figures from Dr. Nagy's report are presented in Table 1.

---

<sup>70</sup> SAS, PC XXV, 270.

<sup>71</sup> SAS, PC XXXI, 985.

<sup>72</sup> Prince Miloš's letter to the Aleksinac quarantine station dated 6 September 1837 (SAS, PC I, 312).

Table 1.  
Plague cases and deaths according to location.

Place	Population	Cases	Deaths	Recoveries
Ražanj	434	86	68	18
Paraćin	3402	48	35	13
Jagodina	5220	46	36	10
Radoševac	102	26	22	4
Ćićevac	1068	3	3	0
Varoš	231	31	25	6
Pardik	30	3	3	0
TOTAL:	8,567	243	192	51

Source: *Српске новине*. 13 November 1837.

On the basis of a report from December 1837, the consequences of the plague in Brežđe and Osečnica are presented in Table 2.

Table 2. Plague cases and deaths in Brežđe and Osečnica.

Place	Population	Cases	Deaths	Recoveries
Brežđe	270	29	28	1
Osečnica	365	11	10	1
TOTAL:	635	40	38	2

Source: Vujić (1967, 145–148).

Great human casualties, suffering, personal and family dramas, fear and despair – in short, the people who lived through the 1837 plague in Serbia had a awful experience. Probably the only positive thing was that a lesson could be learnt: the fight against the plague and other contagious diseases had to be organized systemically. This meant prescribing and organizing institutions, procedures and measures while, at the same time, providing material resources and people capable of performing the tasks. The help

and experience of the quarantine in Zemun<sup>73</sup> and its staff, and Dr. Nagy's personal contribution proved valuable in the enactment of regulations and the organization of the quarantine stations in the Principality of Serbia.

The reemergence of the plague on Serbia's southern borders in the fall of 1838 accelerated this process.<sup>74</sup>

#### 4. REGULATIONS PASSED IN 1839, 1841 AND SUBSEQUENTLY

The Border Meeting Points Act (*Ustrojenje pograničnih sastanaka*) was passed on 31 October 1839. It had 84 articles divided into seven chapters. Article 1 prescribes that "[a] border meeting point is a place on the border, designated for the people of both neighboring foreign countries to meet, speak, trade between themselves, but only under strict supervision, so those from this side would not mix with those from the other side and bring the contagious disease into the country." The border meeting points could be separate or combined with quarantine stations. The place where people came to meet was called *parlatorija* (parlatory). This and many other terms related to this institution, as well as the institution itself, were adopted from the Austrian legislation (discussed below). The organizing and structure of the parlatory is described in detail: the area where the locals entered was to be separated by strong partitions from the area entered by outsiders, an official was to be present, items were to be checked. Listed in the second chapter are the duties of the meetings place attendants, supervisors, customs officers, such as the organization, administration and supervision of border meeting points, in general twice a week, the submission of briefings, quarterly reports and accounts, dealing with persons who mixed without permission, the quarantining procedure, handling fugitives and cordon violators, handover of items, and closing meeting points.

---

<sup>73</sup> The Zemun quarantine was set up in 1730 and all passengers coming "from Turkey" or going there had to spend a certain period in quarantine, depending on the epidemiological situation. The Zemun quarantine station was abolished in 1872.

<sup>74</sup> The governor of Niš, Mehmed Pasha, informed Prince Miloš on 15 September 1838 that the plague had appeared in the vicinity of Niš. He advised him to, in the light of this fact, increase the number of quarantine staff (SAS, PC XXX, 1586). Documents dated 26 September, 4 October and 15 November 1838 also speak of the appearance of the plague in the south, in the Niš and Pirot nahiyahs (SAS, PC XIV, 2649, 2671, 2681).



Listed in the third chapter are “non-contaminable belongings and goods“, i.e., goods that “do not retain the infectious disease“, such as beverages, mineral acids, vinegar, oil, fruit cooked in sugar and honey, shellfish and fish, dried meat, fresh and dried fruits, cereals and legumes, green vegetables, fresh and dried leaves, grass and flowers, trees, spices, ores, salts, minerals, melted ore, timber and wood.

Chapter four prescribes cleaning methods: water, fumigation and pouring through a funnel or turning soil with a shovel. Chapter five lays down the procedure with items and goods that cannot be infected. Chapter six prescribes what items are cleaned by washing, and the seventh the items cleansed by fumigation.<sup>75</sup>

In line with the above, decrees on opening border meeting points were passed. In order to establish trade relations between Serbia and Novi Pazar, a decree on opening a meeting point at the Raška border post was passed on 10 July 1839, even before the issuance of the act. Under the decree of 1 April 1840, a meeting point for relations with “the residents of border areas or remote Turkish areas“ was opened in Supovac, in the Kruševac district.<sup>76</sup>

On 19 June 1841 the legislators, Prince Mihailo and the Council passed the Sanitary–Police Decree on Quarantine Stations and Border Meeting Points.<sup>77</sup> The first part, Articles 1–10, is dedicated to quarantine stations. Article 1 stipulated that “the quarantine station or *kontumac* serves for the people coming from countries to which our homeland is closed off by a cordon guard due to the plague or *čuma*, to be held there, with their belongings that they usually wear or lie on, and undergoing a mandatory health check“. Goods were to be cleansed in the quarantine station, as well as animals, primarily domestic ones. The quarantine station was to be located in a healthy place and close to water. The quarantine stations was to consist of two spaces: the unexposed, unmixed or clean space, housing the offices and residence for quarantine administrative staff and buildings for effects and equipment. and the exposed, mixed or unclean space that had buildings for quarantined persons, their belongings, goods and livestock. These two spaces were to be separated by a strong fence. They each were to have a solid gate and a very hard door. Different parts of these two spaces were defined in detail.

---

<sup>75</sup> *Сборникъ закона и уредба, и уредбены указа, изданы у Княжеству Србскомъ, одъ времена обнародованогъ Устава земаљскогъ (13. Фебр. 1839 до Апр. мес. 1840)*, I, Belgrade 1840, 163–176.

<sup>76</sup> *Сборникъ закона и уредба, и уредбены указа, изданы у Княжеству Србскомъ*, I, 233, 250.

<sup>77</sup> *Сборникъ закона и уредба и уредбени указа издани у Књажеству Србији (Од Априла 1840. до конца Декаembra 1844. године)*, II, Belgrade 1845, 51–114.

The exposed space was to have two courtyards. One courtyard was to include a) a room for visiting, b) a parlatory or a building for meetings and talks between locals and foreigners, who were to be separated by a partition so they could not mix, c) a small room for cleansing letters by fumigation, and d) a residence for one quarantine attendant. Huts for quarantined persons were to be in the other courtyard. Each hut had to be well fenced, and there was to be one quarantined person per hut. In addition to this, there were also other facilities such as a storehouse, a room for hospitalization, etc.

Quarantine staff included a director, a doctor, an overseer, a clerk, a storehouse keeper, customs officers, and guards. The Decree laid out their duties in detail. The direct administration of the entire quarantine was in the hands of the director, who had to be “a fair, sensible, zealous and reasonable man”. He was ordered to “refrain from any trade and speculation” as well as to strive “that the other quarantine station staff also refrain from trade and speculation”. The doctor was second in charge in the quarantine station and was tasked with maintaining and examining people’s health. The overseer was the third in rank at the quarantine station, and it was his duty to methodically enter into the records the quarantined persons and their belongings, following their medical examination, to oversee that persons and belonging are orderly, etc. The clerk, as the name suggests, performed the duties of a clerk. The storehouse keeper took care of things related to the storehouse. Customs officers were especially tasked with preventing the mixing of people in the quarantine, and with inspecting items and goods in the quarantine. The guards were the youngest of the quarantine attendants and the most exposed, because they had to take every single belonging that entered the quarantine station into their hands and to put it away. This is why it was necessary for them to be very strong and healthy.

The first part of the Sanitary–Police Decree was modeled after the Police Decree in the event of plague for imperial and royal Austrian lands (*Pest-Polizei-Ordnung für die k.k. österreichischen Staaten*) of 30 June 1837. Article 1 of the Serbian Decree was modelled after Article 39, and Article 2 after Articles 40, 41, 42, 43 and 44 of the Austrian Decree. Articles 3 and 4, governing the issue of the quarantine director, are an abbreviated version of the translation of Article 47 of the Austrian Decree. There was one modification: Article 47 of the Austrian Decree stipulates that the director must always be a medical doctor (“*stets Medicinae Doctor sein*”), while Article 3 of the Serbian Decree reads “he must also have knowledge of medical science” (“*nužno mu je i znanje lekarstvene nauke*”). Article 5 of the Serbian Decree was created by translating and shortening Article 48 of the Austrian Decree, and the same parallel exists between Article 6 and

Article 50, Article 7 and Article 52, Article 9 and Article 54, and Article 10 and Article 55.<sup>78</sup> As opposed to the Austrian Decree, the Serbian ordinance did not envisage a quarantine station chaplain (*Geistlicher*) or an interpreter.

The second part, Articles 11–42, is dedicated to the quarantine procedure for people. It is prescribed that individuals who come from abroad must undergo a quarantine interview. They were asked their name, vocation, where they are coming from, whether they had heard about any illnesses or diseases on their journey, whether they were carrying any belongings, merchandise, letters, whether any of their friends, fellow-passengers were sick or had died on the journey. In the event that it was reliably established that a contagious disease was in question, the quarantine official would report this to higher authorities, the person's passport would be confiscated and information on their admission into quarantine would be entered in the protocol. If the person's replies indicted that there was nothing dangerous and suspicious about them, then they would not be placed in quarantine and they were free to go on their way once their belongings had been listed and cleansed.

Persons who wished to enter the Principality of Serbia at suspicious or dangerous times were treated somewhat differently. Suspicious times were the times when there were reports of an outbreak of the plague or some other infectious disease in a remote location in the European part of the Ottoman Empire. However, dangerous times were those when the plague or some other infectious disease appeared in the vicinity of Serbia's border. During suspicious and dangerous times the border was to be strictly guarded so no one could cross it. The group of people going into quarantine was to be escorted by a sufficient number of border guards, who were forbidden from mingling with the people being escorted, in order to prevent contagion.

Foreigners who came just for a meeting or to arrange business with locals were taken to the parlatory, in the area for foreigners, and locals in a separate area, without the possibility of the two groups mixing. A quarantine officer would act as a middleman, without contact with the foreigners. If signs of the plague were visible on the foreigners, they would not be allowed inside the quarantine station and would be sent back to where they came from, with their possessions and goods. If the foreigners happened to object to this, they were to be pushed back and removed by force of arms.

---

<sup>78</sup> *Politische Gesetze und Verordnungen für sämtliche Provinzen des österreichischen Kaiserstaates, mit Ausnahme von Ungarn und Siebenbürgen*, Fünf und Sechzigster Band, Wien 1839, 243, 244–248, 252–257, 257–259, 261, 262, 263–264, 264–267; *Сборник закона и уредба и уредбени указа*, II, 51–52, 53–57, 57–58, 59, 59–60, 61–62, 62–64.

Those who were questioned and were not allowed to leave were subject to examination (*vizitiranje*). The doctor examined their naked body in the examination room. He did so from a distance, behind a barrier so as not to come into contact with them, but in a way that enabled him to establish with certainty whether they had the plague. If during the course of examination, it was determined that there were signs of a contagious disease, that person would be sent back to where he had come from, with utmost precaution, together with their belongings, goods and the travelers with whom they came. If the doctor established that there were no signs of the plague, the person would be quarantined. A quarantine official would take down their personal information, information on their belongings and goods, letters would be unsealed and fumigated, and money would be washed using vinegar. Following examination, the person would be taken to a hut, making sure that they did not interact with others. In suspicious times this person would be quarantined for 10 days, in dangerous times for 20 days, as stipulated in Article 23 of the Decree. This Article further reads that, if experience showed that the Decree on Measures Against Infectious Diseases, which was passed by the Ottoman Empire only in 1840, yielded results, and that the health situation in the European part of the Ottoman Empire was generally better, then the Principality of Serbia would reduce this former period from 10 to seven days.

One or more quarantined persons were accommodated in a hut. It was the duty of a hut-attendant (*služitelj-kolibaš*) to tend to them. They were not allowed to interact with people from other huts or from the outside. A inscribed on the hut was its number, the date of the beginning of the quarantine, the name of the person and the date of their release.

Once a quarantined person was accommodated in the hut, the hut-attendant was to see to it that that person and their belongings are cleansed according to the rules, which were very detailed. The hut-attendant provided the quarantined person with food and drinks, and the quarantine station director and doctor saw to it that the food and drinks were of adequate quality and quantity and that they came at a reasonable price.

The quarantined persons were to be checked on at least twice a day to see how they were and what they were doing. Every morning the doctor would determine the health of the quarantined persons and order the huts to be fumigated.

If a person fell ill with a disease other than the plague, they would stay in their hut. If a person was taken ill with the plague, they would be placed in a special hut and their quarantine period and that of their roommates would be extended.

If a quarantined person caught the plague, they were to be quarantined alone in a hut. Persons who had contracted the plague were treated by the quarantine station doctor according to the rules of the medical profession and the doctor's experience. At the end of the year the doctor submitted to the director a report on the patients with the plague and with other diseases, and the director forwarded this report to the relevant higher authorities.

Convalescents "or those who had recovered from the plague" were to undergo a new quarantine period of no less than 20 days.

If a person who had the plague happened to die, that person's body would be buried with special care. Using pincers or gaffs, four guards would place the body in a coffin that was placed "on a cart built for plague corpses". This is also how the body was removed from the coffin and, together with the ashes of incinerated clothes, placed in a grave six feet deep and covered with earth. "This entire procedure, during which one must be careful not to make any mix-ups, should be carried out with the greatest care for the corpse and with all decency."

According to sanitary rules, a body that had no signs of the plague was buried 48 hours from the time of death. Exceptionally, this deadline could be shorter if the body that had started to decay. Quarantine station staff looked after the belongings of the deceased and handed them over to the relevant higher authority for the initiation of the inheritance procedure.

After the expiry of the quarantine period – 10 or 20 days, depending on the degree of danger at a given time – the quarantined person was released after a check-up by the doctor and the doctor's opinion that there were no signs of contagious disease. The released person was issued a sanitary document containing information regarding them and their possessions. The quarantine station director would inspect the hut in which the released person was accommodated, and in the event that any damage was done, collect and to see to it that the damage was repaired. The director was also required to ensure that none of the quarantine station staff received any gifts or bribes, either in money or in valuables.

A quarantined person could ask to be released from quarantine even before the expiry of the deadline, but he could only return to where he had come from.

Locals who wanted to cross the border just for a meeting were required to go to the quarantine station where their passport would be signed and a sanitary escort assigned. The sanitary escort would see to it that they did not interact with other people. If they did, they would be quarantined upon their return.

These provisions of the Serbian decree were modelled after the provision of the *Pest-Polizei-Ordnung für die k.k. österreichischen Staaten* of 1837, largely by simple translation. Article 11 of the Serbian decree was a translation and abbreviation of Article 58, Article 12 the translation and abbreviation of Article 59, Article 13 of Article 18, Article 14 of Article 60, Articles 15 and 16 of Article 61, Articles 17 and 18 of Article 62, Article 19 of Article 63, Article 20 of Article 64, Articles 21 and 22 of Article 65, Article 23 of Article 66, Articles 24 and 25 of Article 67, Article 28 of Article 68, Article 26 of Article 69, paragraph 1, Article 29 of Article 70, Articles 30–34 of Article 70, Articles 35–39 of Article 72, Article 40 of Article 73, Article 41 of Article 74, and Article 42 of the Serbian Decree was a translated and abbreviated version of Article 75 of the Austrian Decree.<sup>79</sup>

Described in the third part is the “quarantine procedure for goods”. Items and merchandise were not subject to quarantine procedures when brought into the country from European Turkey “in healthy and harmless times”. Still, belongings and goods coming from Asia and Africa were to be “be quarantine-cleansed always, even in the healthiest of times”. However, letters, unclean clothes, old and shabby gowns (clothing items) always underwent quarantine cleansing.

In suspicious and dangerous times “close supervision and care” was to be carried out to ensure that the belonging and goods brought into the quarantine station were not mixed with other items, and to make sure that nothing is brought in fraudulently by ignoring the prescribed procedure. The process of cleansing and storing items in storehouse for a certain period of time was described in detail: when things were done, who did them and how, the necessary measures of control and supervision, etc. Anyone allowing goods and items to enter the country “before a quarantine cleansing is completed and before the expiration of the prescribed period” would be committing the gravest violation of the quarantine Decree and would deserve the harshest punishment.

Under the provisions of this Decree, regarding the contracting and spreading of the plague, belonging and goods were classified as very suspicious, suspicious, and not suspicious.

---

<sup>79</sup> *Politische Gesetze und Verordnungen für sämtliche Provinzen des österreichischen Kaiserstaates*, Fünf und Sechzigster Band, 269–270, 270–271, 218–219, 271–272, 272–273, 273–275, 275–277, 277, 277–278, 278–279, 279–281, 283–285, 285–290, 291–294, 294–295, 295–296, 297; *Сборник закона и уредба и уредбени указа*, II, 61–65, 65, 65–66, 66–67, 67–68, 68, 69, 69–70, 70, 70–71, 73–74, 71–72, 74–285, 75–78, 78–80, 80–81, 81, 82.

Very suspicious (*“odveć podozriteljne”*) were the items that people use to cover and wipe themselves, items they had on them or with them, those that were in the rooms and buildings they lived in. Therefore, these were items that were most often and most likely “watered with the contagious poison” and which could spread it to other people. Listed in this category were items made of leather, wool, hair, cotton, silk, cloth for the head, neck, chest, legs, arms. They also included: towels, scarves, sheets, shaving items, jewelry, tobacco and money pouches, pipes, wrist watches, rifles, swords, knives, umbrellas, furniture covers, cushions, rugs, kilims, household items, maps, books, utensils, writing implements, especially items used when caring for sick people, etc.

Suspicious (*“podozriteljne”*) were the belongings and goods that are kept outside rooms and houses, either out in the open or in sheds, cellars, barns, i.e., in places that are separate and which a person with the plague could not easily and often come into contact with. However, during production, stacking, transportation and other activities, these belongings and goods could come into contact with “the plague poison” and so become a means of transmitting the disease. These included numerous natural raw products or artisanal and industrial products, which are only listed by class: made of wood, bone and in general solid animal parts and handicrafts made from them, earthenware, food utensils made of glass, stone, metal, jewelry and haberdashery, unprocessed flax, tow and oakum and items made from them, greige cotton and wool and products made from them, silk goods and items, poultry and domestic animals – live or parts of their bodies (feathers, skin), glovemaking and furrier handicrafts, lard, suet and cheese, all kinds of paper, crates and other containers for goods.

Not suspicious (*“nepodozriteljne”*) were items that were not directly touched but rather procured, processed and produced by means of machines or tools, items that were directly touched but then left to dry in the air and, finally, items that experience had shown could not transmit the plague. These included: all liquids, cooked fruits, fruit preserves, jam, sea and freshwater dried and salted fish, salt-cured dried meat, dry and fresh fruits, food in stew and grain form, flour, greens and leaf vegetables, green and dry grass, leaves and flowers, trees, bark and roots for medicaments and dyeing, dyes, spices, precious stones, salt, earth and mining products, timber and firewood.

Goods and items could best and most reliably be cleansed by washing, fumigating, heating, wiping, airing and by a combination of these methods.

Goods and items that were not suspicious could be brought into the country without being quarantined even in dangerous and suspicious times while abiding by certain procedures that eliminated the possibility of plague

transmission. So, for example, fruits and greens were washed in water and, once drained, they would be put into clean containers. Lumber and firewood could be brought into the country only after having been aired for 48 hours.

Article 62 prescribes how suspicious items and goods could be brought into the country once they are cleansed. Article 63 defined which items were to be cleansed by fumigation in an enclosed space designated for this purpose (letters, banknotes, promissory notes, securities, and other papers). Article 64 also describes the procedure of handling letters sent from “Turkey” to the Prince, the Council, or to ministries. Article 66 explains how to cleanse items and goods that could not be cleansed by airing. It also defined which items and goods were to be aired 7 days, 10 days and which needed to be aired for 20 days. Article 67 stipulates that clothes, shirts and bedding belonging to the people who had fallen ill with the plague or died from it must not be brought into the quarantine station but rather should sent back.

Provisions of the third part of the Serbian Decree, Articles 43–68, were modeled after Articles 76–94 of the *Pest-Polizei-Ordnung für die k.k. österreichischen Staaten* from 1837, mostly by translating the provisions. The complete correlation of the articles of the two documents is presented in Table 3.

Part four is title ‘The Meeting Point’. The meeting point is a designated location on the border where people from neighboring countries can meet and speak, mostly for the purpose of trade, under strict sanitary rules so as to prevent the plague from entering the Principality of Serbia.

There were three types of meeting points: main meeting points (which was independent), quarantine meeting points (connected to a quarantine station), and branch meeting points (dependent on a quarantine station). The primary place for meetings was the parlatory, which was usually roofed and had two strong, physically separated chambers and a space between them. Foreigners entered the far chamber, while locals entered the compartment on the near side. Sanitary attendants were located in the middle. Every meeting point was attended by the head supervisor (*starešina nadziratelj*) and two attendants or customs officers, with very precisely defined responsibilities. Meetings were usually held twice a week, publicly announced in advance, and attended by those “from this and that side” for the purpose of trade, work and discussion. It was also prescribed how which goods were to enter the country.



Table 3.

Correlation of the between articles of the Sanitary–Police Decree for Quarantine Stations and Border Meeting Points of the Principality of Serbia.

<i>Pest-Polizei-Ordnung für die k.k. österreichischen Staaten</i> of 1837		Sanitary–Police Decree for Quarantine Stations and Border Meeting Points of the Principality of Serbia of 19 June 1841
Article 76	=	Articles 43 and 44
Article 77	=	Articles 45–49
Article 78	=	Articles 50–53
Article 80	=	Article 55
Article 81	=	Article 56
Article 82	=	Article 57
Article 83	=	Article 58
Article 84	=	Article 59
Article 85	=	Article 60
Article 86	=	Article 61
Article 87	=	Article 62
Article 88	=	Article 63
Article 89	=	Article 64
Article 90	=	Article 65
Article 91	=	Article 66
Article 93	=	Article 67
Article 94	=	Article 68

Source: *Politische Gesetze und Verordnungen für sämtliche Provinzen des österreichischen Kaiserstaates*, Fünf und Sechzigster Band, 297–340; *Сборник закона и уредба и уредбени указа*, II, 82–107.

Provisions of the fourth part of the Serbian Decree, Articles 69–76, were modelled after Articles 96–100 of the *Pest-Polizei-Ordnung für die k.k. österreichischen Staaten* from 1837.<sup>80</sup>

The appendix contains an extensive 12-point “Description of the Plague”. Point 1 prescribed the following: “The plague or *čuma* can be recognized by its communicable or contagious nature; its sudden and short course that is accompanied by various and grave difficulties; a great many deaths among those who fall ill to it, and by particular signs on the patient’s body.” It stresses the gravity of the disease and the fact that those who have contracted the plague “usually die more than they recover, and usually on the second, third or fourth day of illness”. As described by the legislator, those who have contracted the plague first get “chills or as if cold wind has caught up with them, or as if cold water is being poured on them, and often such that their bones penetrate to their brain, and they cannot calm the strong shivers until, completely exhausted, they let go of their soul”. Further listed, *exempli causa*, are other signs of the plague: headache, unconsciousness, heavy “and dizzy head, like after many drinks”, “a swollen and changed, pale, yellowish or dark red face”, blurry, stiff and bloodshot eyes, dry mouth, heavy tongue, pounding heart, heavy breathing, swollen stomach, heaviness in the stomach, nausea and severe vomiting, limp limbs, despondency and despair... It is said that patients often experienced improvement, which was then followed by bleeding from the nose, mouth and rectum, and then death. Point 6 described in detail the types of pain caused by the plague and the patients’ reactions. Points 7–13 describe in great detail and professionally all the manifestations of the plague on the patient’s body: swelling, suppuration, boils, the way that they heal when people are stronger and how they result in a total collapse of those who have no chance of survival. The impression is that this was written so that as many people as possible could recognize the plague. Finally, point 14 describes what the bodies of those who died from the plague, i.e. “plague corpses”, look like: the areas around their mouth, nose, ears and under their nails are blackened, “their faces are changed, ugly, as if they are defiant or menacing, usually black and blue in color”, as if they were “suffocated or struck by lightning”, with subsided swellings. The description of the plague, in Articles 1–14, was modeled on the description of the plague in German, in Articles 2–17 of the *Pest-Polizei-Ordnung für die k.k. österreichischen Staaten* of 1837.<sup>81</sup>

---

<sup>80</sup> *Politische Gesetze und Verordnungen für sämtliche Provinzen des österreichischen Kaiserstaates*, Fünf und Sechzigster Band, 341–347; *Сборник закона и уредба и уредбени указа*, II, 107–114.

<sup>81</sup> *Politische Gesetze und Verordnungen für sämtliche Provinzen des österreichischen Kaiserstaates*, Fünf und Sechzigster Band, 398–409; *Сборник закона и уредба и уредбени указа*, II, 115–120.

The large number of provisions and prohibitions testify to the fact that the observance of quarantine measures and of the complex cordon sanitaire system was faced with many examples of disobedience and violations of these provisions. In order to successfully prevent the spread of contagious diseases, stringency in implementing the measures was key. In order for these measures to be implemented, strict criminal liability of those who violated the measures was necessary, whether it be those who entered the country illegally, or those who violated their obligation to guard the cordon (border). This was prescribed by the Rules for Guards at the Border Cordon, passed on 21 July 1841. Article 2 stipulates that cordon guards stand at the border line “by which a necessary blockade is drawn between our fatherland and all the neighboring countries from which the plague menace and other similar as well as different evils threaten.” For the cordon guards on the border line there were border posts and watchtowers, which were in a clearing and, if possible, on higher ground. If someone wanted to cross the cordon line and enter the country by force, after being warned by the guard, the guards were required to kill them. Anyone who entered the country in “plague” times, secretly or by force, would be court-martialed, sentenced and executed. Guards were authorized to kill on the spot, using rifles, all those who secretly or forcefully wanted to enter the country and refused to obey their orders. A dog or a cat spotted at the border was also to be killed by rifle fire. In times of the plague even domestic animals that happened to be at the border without a shepherd and could not be driven back to where they had come from – were to be killed.

Article 19 stipulated as follows: “On the cordon line it was by no means permissible for people from this and that side to meet, arrange things and amuse themselves.” The guards were prohibited from crossing over “to the other side” in suspicious times and, if they violated the cordon, they would be dismissed from service and sentenced to flogging or prison. If a guard violated the cordon in the dangerous time of the plague, that guard would be court-martialed and sentenced to death. Guards who, because of a bribe or friendship, allowed someone to cross the cordon and enter the country would be punished more severely “than if they had personally violated the cordon; in the times of the plague they will certainly lose their life over this”.<sup>82</sup>

The provisions of the Rules for Guards at the Border Cordon were an extract from Articles 18 to 38 (*Zweiter Abschnitt. Abspernung der Gränze gegen das von der Pestergriffene oder Pestverdächtige Land*) of the *Pest-Polizei-*

---

<sup>82</sup> *Сборник закона и уредба и уредбени указа*, II, 121–132.

*Ordnung für die k.k. österreichischen Staaten* from 1837.<sup>83</sup> Provisions of the *Pest-Polizei-Ordnung* were largely taken from the Austrian *Kontumaz Patent* of 25 August 1766, which prescribed criminal responsibility related to the implementation of epidemic protection measures at quarantine stations and punishments for those who violated these measures.<sup>84</sup> Testifying to the importance of the *Kontumaz Patent* is the fact that the Vienna court had it printed in all vernaculars of the Habsburg Monarchy. The General Sanitary Normative (*Das Generalsanitätsnormativum*)<sup>85</sup> of 2 January 1770 went a step further with the provision that, “for the sake of better understanding”, this criminal law was to be read in the vernacular during each guard change at the cordon. Punishments were made more lenient in 1771 by a provision stipulating that the death penalty was prescribed only at times when a contagious disease was in the vicinity and when the maximum number of quarantine days was prescribed; in all other situation more lenient punishments were passed down.<sup>86</sup>

The Serbian authorities regulated the complex system by means of regulations issued in 1839 and 1841, just as the Austrian Empire did, starting 1770, with the General Sanitary Normative. A cordon sanitaire was established toward the Ottoman Empire, which, following the Austrian model, included three elements. The first element was the cordon guard at the border, which primarily relied on the military. The second element was collecting of information on the health situation in the Ottoman Empire, i.e., intelligence information from all available sources and structures. Finally, the most important cordon sanitaire element were the quarantine stations. The main activity of the quarantine stations was, as defined in the *Pest-Polizei-Ordnung* of 1837 based on decades of accumulated experience, the acceptance and accommodation of persons and goods from the Ottoman Empire, the examination and control of travelers’ health, and the disinfection of travelers, their belongings and goods.

Following the regulations from 1839 and 1841, the Serbian legislator also passed subsequent regulations. A decree was passed on 16 March 1842, under which only the prince could shorten the quarantine period prescribed

<sup>83</sup> *Politische Gesetze und Verordnungen für sämtliche Provinzen des österreichischen Kaiserstaates*, Fünf und Sechzigster Band, 218–243.

<sup>84</sup> *Sammlung aller k. k. Verordnungen und Gesetze vom Jahre 1740. bis 1780, in einer chronologischen Ordnung*, Sechster Band, Wien 1786, 113–121.

<sup>85</sup> See *Sammlung aller k. k. Verordnungen und Gesetze vom Jahre 1740. bis 1780*, VI, 3–112.

<sup>86</sup> *Sammlung aller k. k. Verordnungen und Gesetze vom Jahre 1740. bis 1780*, VI, 332–333.

in Article 23 of the Sanitary–Police Decree for “important persons from Turkish regions”, while taking into account the health situation of the region they were coming from.<sup>87</sup> The Rules for Guards at the Border Cordon of 21 July 1841 were supplemented on 11 October 1843 with the guards’ obligation to personally carry reports and official letters from one border post to another, in an orderly fashion and without delay.<sup>88</sup> A quarantine tariff was established under the Act of 21 October 1843. Listed first were the items that were not considered suspicious and which could not transmit the plague. The second category were suspicious items or items that could transmit the plague. The Act also prescribed a tax for cleansing these items.<sup>89</sup>

At the request of the residents from the Zaglav and Svrlijig counties and merchants from “the Filib region”, on 7 July 1846 Prince Aleksandar Karađorđević issued a Decree on the opening of a semi-quarantine station at Pandiralo, “at which crossing will be allowed only at peaceful and healthy times, while in the event that any danger should arise on either of the two sides, it is to be abolished immediately”. The same decree was issued for the opening of a semi-quarantine station at Jabuka, near Loznica, “where it will be possible to cross from the Turkish side to Serbia during peaceful and healthy times”.<sup>90</sup>

## 5. EPILOGUE

An article on measures for preventing the spread of infectious diseases in the first half of the 19<sup>th</sup> century in Serbia should end with the Decree on the Reorganization of Quarantine Stations and Meeting Points (*Uredba o preustroјstvu karantina i sastanaka*) of 16 May 1861. The Decree starts with the statement that there is no danger of infectious diseases, except for rinderpest in Wallachia and Bulgaria, which is why some changes needed to be made to the sanitary-police and financial regulations. Article 1 authorized the Ministry of Internal Affairs to suspend and reinstate these regulations, as required. Taxes for cleansing and assessing persons and goods would be charged only if relevant sanitary regulations are in effect. Deposits on goods and wages for attendants would be paid continuously. The procedure

<sup>87</sup> *Сборник закона и уредба и уредбени указа*, II, 164.

<sup>88</sup> *Сборник закона и уредба и уредбени указа*, II, 257–258.

<sup>89</sup> *Сборник закона и уредба и уредбени указа*, II, 277–286.

<sup>90</sup> *Сборник закона и уредба и уредбени указа издани у Књажеству Србском од 1 јануара 1845 до конца декембра 1846 (с прибављењем неки старици)*, III, Belgrade 1847, 120–121.

for cordon offenders and fugitives was prescribed. For the entry of people, goods and livestock into the country along the Sava and Danube rivers, from Rača to Radujevac, the following ferries were designated: Rača, Mitrovica, Šabac, Zatrežje, Belgrade, Grocka, Smederevo, Dubravica, Ram, Gradište, Milanovac, Ada Kaleh, Tekija, Kladovo, Kusjak, and Radujevac. Assigned to each of them were one attendant-infantry customs officer private, and, at Radujevac, also a cavalry customs officer and guard.

In order to maintain the sanitary measures “at our border toward Turkey“, quarantine stations were set up in Aleksinac, Radujevac, Rača, Mokra Gora, Raška, and a semi-quarantine station at Pandiralo. The staff comprised a director, an overseer or apprentice, one or two customs officers and several guards at each of these places.<sup>91</sup>

## 6. CONCLUSION

In the first half of the 19<sup>th</sup> century, medical science had not yet discovered that the cause of the plague was in the human body. Without knowledge of the cause, it was impossible to find a treatment and the plague was incurable. In the absence of a treatment, the approach to fighting the plague was to isolate infected people, their houses and settlements, by cleansing and burning infected items and buildings. Quarantine stations played a special role. Modeled after the Austrian cordon sanitaire, the Serbian authorities set up one toward the Ottoman Empire and instated measures against the plague and other infectious diseases: isolation of infected persons and everyone who had come or could have come into contact with them, as well as preventive detention of persons and goods at border crossings. Despite all their shortcomings and resistance, these measures achieved their purpose – the spread of epidemics, especially that of the plague, was prevented and the number of casualties was reduced.

---

<sup>91</sup> *Сборник закона и уредба и уредбени указа издани у Княжеству Србији (Од почетка до конца 1861. године)*, XIV, Belgrade 1862, 88–91.

## SOURCES

### Unpublished

- [1] State Archives of Serbia (SAS), Prince's Chancery (PC).

### Published

- [1] Mihailović, Stefan Stevča. 1928. *Memoari (u dva dela-od 1813 do 1842 i od 1858 do 1867)*, ed. Živan Živanović. Belgrade: Makarije.
- [2] Mitrović, Vjera (ed.). 2004. *Ustav Knjažestva Srbije*, phototype edition. Belgrade: Arhiva Srbije.
- [3] *Сборникъ закона и уредба, и уредбены указа, изданы у Княжеству Србскомъ, одъ времена обнародованогъ Устава земаљскогъ (13. Фебр. 1839 до Apr. мес. 1840)*, I, Belgrade 1840. [*Sbornik zakona i uredba, i uredbeny ukaza, izdany u Knjazhestvu Srbskom, od vremena obnarodovanog Ustava zemaskog (13. Febr. 1839 do Apr. mes. 1840)*, I, Belgrade 1840].
- [4] *Сборникъ закона и уредба и уредбени указа издани у Књажеству Србији (Од Априла 1840. до конца Децемвра 1844. године)*, II, Belgrade 1845. [*Sbornik zakona i uredba i uredbeni ukaza izdani u Knjazhestvu Srbii (Od Aprila 1840. do konca Dekemvra 1844. godine)*, II, Belgrade 1845].
- [5] *Сборникъ закона и уредба и уредбени указа издани у Књажеству Србском од 1 јануара 1845 до конца децембра 1846 (с прибавленијем неки старији)*, III, Belgrade 1847. [*Sbornik zakona i uredba i uredbeni ukaza izdani u Knjazhestvu Srbskom od 1 januara 1845 do konca dekembra 1846 (s pribavlenijem neki starij)*, III, Belgrade 1847].
- [6] *Сборникъ закона и уредба и уредбени указа издани у Књажеству Србији (Од почетка до конца 1861. године)*, XIV, Belgrade 1862. [*Sbornik zakona i uredba i uredbeni ukaza izdani u Knjazhestvu Srbii (Od početka do konca 1861. godine)*, XIV, Belgrade 1862].
- [7] Stojanović, Isidor (ed.). 1848. *Дѣловодный протоколъ одъ 1812. Маія 21. до 1813. Августа 5. Кара-Ђорђа Петровића*. Belgrade: Друштво српске словености. [Stojanovic, Isidor (ed.). 1848. *D"lovodnyj protokol' od' 1812. Maija 21. do 1813. Avgusta 5. Kara-Đorđa Petrovića*. Belgrade: Друштво српске словености].

## REFERENCES

- [1] Čukić, Goran. 1/2011 Typhus exanthematicus 1836. godine: u Kragujevcu (Srbija) i Filadelfiji (SAD). *Acta Medica Medianae* 50: 67–72.
- [2] Đorđević, Tihomir R. 1922. *Iz Srbije kneza Miloša-kulturne prilike od 1815 do 1839 godine*. Belgrade: Geca Kon.
- [3] Ivić, Aleksa. 1917. *Između Prvog i Drugog srpskog ustanka (od septembra 1813. do aprila 1815. godine)*. Zagreb: Štampa Kr. zemaljske tiskare.
- [4] Karadžić, Vuk Stefanović. 1818. *Srpski rječnik istumačen njemačkim i latinskijem riječima*, Vienna: P. P. Armeniern.
- [5] Katić, Relja. 1965. *O pojavama i suzbijanju zaraznih bolesti kod Srba od 1202. do 1813. godine*. Belgrade: Serbian Academy of Sciences and Arts.
- [6] Klajn, Ivan, Milan Šipka. 2006. *Veliki rečnik stranih reči i izraza*. Novi Sad: Prometej.
- [7] Kršljanin, Nina. 4/2021. Legal measures on vaccination against smallpox in the Principality of Serbia in the 1830s–1840s. *Annals of the Faculty of Law in Belgrade – Belgrade Law Review* 69: 877–925.
- [8] Mihajlović, Vojislav. 1937. *Borba protiv kuge u Srbiji pre sto godina*. Belgrade: Štamparija Živka Madarevića.
- [9] Milovanović, Aleksandra. 2011. Uloga i značaj karantina u očuvanju narodnog zdravlja Istočne Srbije tokom prve polovine XIX veka, *Baštinik: godišnjak Istorijskog arhiva u Negotinu* 14: 193–198.
- [10] Petković, Sava. 2/2008. Karantini u Srbiji za doba kneza Miloša. *Zdravstvena zaštita: časopis za socijalnu medicinu i društveno-ekonomske odnose u zdravstvu* 37: 33–36.
- [11] Skok, Petar. 1971. *Etimologijski rječnik hrvatskoga ili srpskoga jezika*, Vol 1 (A–J). Zagreb: JAZU.
- [12] Skok, Petar. 1973. *Etimologijski rječnik hrvatskoga ili srpskoga jezika*, Vol. 2 (K–poni<sup>1</sup>). Zagreb: JAZU.
- [13] Vujić, Jerotije N. 2–3/1967. Epidemija kuge u Breždu i Oseženici 1837. godine. *Glasnik Istorijskog arhiva u Valjevu* 2: 83–169.

Article history:

Received: 6. 2. 2022.

Accepted: 27. 5. 2022.







# /BOOK REVIEWS

**Ana ODOROVIĆ, LL.M.\***

**Belleflamme, Paul, Martin Peitz. 2021. *The Economics of Platforms: Concepts and Strategy*. Cambridge: Cambridge University Press, 256.**

In today's economy, there are only a few industries which digital platforms have not yet penetrated or even become a dominant business model for making and managing markets. Young generations tend to think of platforms as part of the natural order of things, those entering working life often see them as an exciting career opportunity, while older people grudgingly learn how to use them.<sup>1</sup> Their ever-increasing presence in our daily lives coupled with the economic power of some of the most well-known examples (Alibaba, Google, Amazon, Facebook, Uber, etc.) makes them a hot topic of many public policy and political debates in developed countries. It is a widespread opinion that the platforms' economic power translates into a strong political influence, whereas some people even get drawn into conspiracy theories that surround them.

---

\* Lecturer, University of Belgrade Faculty of Law, Serbia, [ana.odorovic@ius.bg.ac.rs](mailto:ana.odorovic@ius.bg.ac.rs).

1 Inspiration was taken from Douglas Adams' explanation of how people react to technologies (Adams 2003, 95).

While in the past two decades academic research has tried to keep up with platforms' rapid development, there is still little coherent knowledge about how they operate and their economic incentives under different market or regulatory constraints.<sup>2</sup> Two very well-known authors in the field, Paul Belleflamme and Martin Peitz endeavor to fill this gap with their latest book. They emphasize the need to reexamine the fundamentals of economics of platforms, which are essential for any further discussions on how to reform competition, tax, or sector-specific regulatory policy. How do we define a platform and what types of platforms exist? How do platforms manage network effects and how do they internalize them in their pricing decisions? What does it take to establish and grow a platform? How do platforms' design choices affect how different groups of users interact? These are some of the questions the authors propose to cover through a combination of economic theory expressed in words, accessible formal models, and real-life cases.

For those readers who are newcomers to the field of economics of platforms, the authors begin the book with an overview of network effects. Network effects essentially means that one user's utility from using a platform depends on the number and identity of other users on that platform. The role of platforms, therefore, consists of enabling user interactions, through their ability to internalize network effects. In other words, platforms step in where coordination and asymmetric information problems would otherwise prevent users from interacting in nonorganized marketplaces.

It is common to distinguish between positive and negative network effects, depending on whether the participation or activity of an additional user increases or decreases the value, i.e., utility for others. To illustrate this, the authors mention social norms, languages, and communication devices as examples of the former, and road congestion and traffic jams as examples of the latter. Positive network effects that exist among the same group of users (within group network effects) lead to an *attraction loop*. Higher activity of some group members, increases the activity of others, feeding back into the group's overall activity level. Most platforms, however, operate a more complex model where two or more distinguishable groups interact – typically sellers and buyers, or users and advertisers (two-sided or multisided platforms). The authors explain how mutually positive cross-group network effects lead to an *attraction spiral*. Nevertheless, it is also common to observe what they denote as an *attraction/repulsion pendulum*, i.e., a situation in which cross-group network effects are positive in one direction but negative in the other. This is typically the case with advertisement-financed content

---

<sup>2</sup> Evans and Schmalensee made one of the first important contributions (Evans, Schmalensee 2016). For a book review, see Begović (2018).

platforms (e.g., Youtube). A bit less common are examples of platforms with an *attraction spillover*, “when one group positively affects, but is unaffected by, the other group” (p. 17). In the authors’ view, the existence of network effects among users is a necessary but not a sufficient condition to define a platform. Platforms are entities that actively manage network effects by reducing the transaction costs that arise concerning, for instance, search, matching, screening, contracting, trust, dispute resolution, etc. The authors then proceed to develop a typology of platforms depending on the type of network effects they leverage (value creation) and different means to charge users (value capture).

The second chapter is devoted to common methods of managing network effects – the rating and recommender system and the use of big data, which platforms use to reduce the asymmetric information problem, typically between sellers and buyers. Within-group network effects on the buyer side arise since the more buyers rate and review the product, the better informed other buyers are before making a purchase, self-reinforcing their participation on the platform. Moreover, with more information about product quality, adverse selection on the seller side tends to decline (cross-side network effects). Yet, the authors acknowledge that “separating the wheat from the chaff” can be difficult because of the noise in ratings and reviews, buyers’ herding behavior, and strategic distortions by sellers (e.g., fake reviews). It has been shown that platforms have limited capacity to curtail such behavior, either because it is costly for them or because they want to encourage buyers’ experimentation with less popular products. The authors further explain how recommendations provided by platforms generate network effects in a similar manner as reviews. The more users join the platform, the more information feeds into the recommender system. Moreover, it is common for platforms to collect and combine data from various sources (Big Data), again self-reinforcing the platform’s attractiveness for new users, owing to its ability to provide better matches. This is, in the authors’ view, one of the sources of market power.

Building on previous analysis, the authors introduce the concept of network goods. The idea is that users are willing to pay a price for using a platform, which depends on the benefit they derive from other users’ presence or activity, and is separate from the intrinsic valuation of goods and services offered. For instance, those who use Dropbox for storage derive benefits from sharing their folder with other users. Similarly, Spotify users are better off if they can access each other’s playlists. As the authors explain, user demand for network goods is specific as there may be several demand levels for the same fee charged by a platform. This is because the users’ purchasing decisions are interdependent: the same fee may be perceived as

too high or too low, depending on users' expectations about the number of other users on the platform. In a dynamic context, it has been shown that both the "null network" and large network" equilibria are stable. While the pricing decision may be key to attracting a critical mass of users, the authors explain that both a monopoly and a perfectly competitive industry fail to achieve an efficient outcome. The network is smaller than socially optimal as users do not internalize the positive consumption externality that they exert on other users. In addition to pricing, another important decision of a platform is whether or not to be compatible with other networks that its potential users can join. The authors explain that, when network effects are strong enough, competition between incompatible networks may lead to market tipping (a single platform attracts all users).

In the next chapters, the authors primarily focus on two-sided platforms, whose value creation process primarily consists of coordinating the presence of two groups of users. In Chapter 4, they explore four interrelated questions on how to grow a platform. Firstly, they consider economic trade-offs between operating a two-sided platform and a vertically integrated firm. In the former case, the platform neither owns its means of production nor hires service providers. It merely enables transactions, as opposed to controlling them as a vertically integrated firm. Building on the Grossman-Hart-Moore property rights approach (Grossman, Hart 1986; Hart, Moore 1990), the authors explain that residual control rights over the provision of the service stay with independent professionals when running a platform. As a consequence, independent professionals have stronger motivation to exert effort and they can more easily adapt, in line with their private information. In contrast, vertical integration fares better when there are high coordination costs that arise because of externalities among different professionals, goods, or services. To reconcile these conflicting incentives, it is not rare for firms to combine the two modes of operation for different goods and services. For instance, Amazon is both a reseller of books and a marketplace for electronics. Next, Belleflamme and Peitz proceed to revisit one of the most well-known questions in the platform economics literature, the so-called chicken-and-egg problem (Caillaud, Jullien 2003). The question is which group of users should be attracted first to generate optimistic expectations of the other group and spur the attraction spiral. Findings in the literature suggest that platforms typically subsidize the group that exerts a larger positive cross-side network effect and monetize the other group. The authors describe this behavior as a divide-and-conquer strategy. In addition to the size of the network effects, platforms also care about the costs that are incurred to attract a particular group. However, it turns out that merely enticing users to join does not amount to a successful platform. Belleflamme and Peitz briefly introduce platform design decisions that increase the

level of trust among users and, consequently, increase their activity levels. Interestingly, some of these design decisions have a positive impact on both groups (e.g., matching algorithms, a minimum quality standard, insurance against certain risks, payment systems), while others reduce the risk for one group, typically buyers, at the sellers' expense (e.g., return policies, seller rating systems, liability rules). Lastly, Chapter 4 looks into strategies that platforms may use to expand the range of services offered, which are either substitutes or complements to those offered by third-party providers.

Chapter 5 offers an overview of another set of issues that have spurred much attention in the literature – platform pricing. Belleflamme and Peitz first introduce the reader to some basic findings only to later address several advanced issues. Before even deciding which side of the market to charge and how much, platform operators should decide between two types of fees. Membership fees determine access to the platform, whereas transaction fees determine users' activity levels. Both types feature some disadvantages. While membership fees may discourage participation in the early stage when users are not confident of finding counterparts, transaction fees may prove inefficient if users can bypass the platform when concluding a transaction. As to the price structure, the platform typically sets a low price on one side (the “subsidy side”) and a high price on the other (the “money side”) (p. 144).

As a general principle, the group of users that is more sensitive to price changes and/or exerts a stronger cross-group network effect pays a lower price, often below cost. The authors elaborate on why cross-group network effects, in addition to market power, may induce a monopoly platform to introduce a socially inefficient fee structure. Moving to more advanced topics, Belleflamme and Peitz first look into platform behavior when pricing is constrained. This is either due to platforms' inability to resort to negative or below-cost pricing on one side, or when a platform is forced to set the same fee on both sides. Next, the authors consider an interesting case where both within-group and cross-group network effects are present, for instance, on ride-hailing platforms such as Uber. To conclude their examination of pricing instruments, the authors explore the question of platforms that can price discriminate among sub-groups of users that have different stand-alone or different network benefits. Readers are likely to appreciate their analysis of the widely used freemium strategy, i.e., when users of the “free” version pay for the platform services with their exposure to advertising.

The last chapter of the book, entitled “Platform Design”, looks into various price and non-price strategies that “the platform can use to determine, endogenously, the network benefits that users will get from their interaction” (p. 185). This is perhaps the most interesting part of the book,

with several fruitful avenues for future research. The first segment looks into the incentives of platforms to constrain the number of participating sellers with the view of loosening the competition among them. The authors find that a platform's decision to discriminate sellers will critically depend on a platform's ability to charge one or both sides of the market. Next, they look into platforms that specialize as price comparison engines. By their very definition, such platforms should aim to make sellers' pricing transparent and protect buyers from being exploited by hidden fees. Yet, as the authors show, under certain conditions, their incentives to do so may not be strong enough. A related question is when and to what extent platforms may want to degrade the quality of their recommender system or provide biased recommendations, as their profits may first increase and then decrease with the level of accuracy they provide. Finally, the authors examine platforms' incentives to collect and process buyers' data to improve sellers' ability to price discriminate, as this increases the total value of transactions.

Overall, this is a much-needed book. It is rather successful at portraying some of the key questions in the literature, which can be very helpful to researchers in the field and policymakers, but also entrepreneurs considering establishing and growing platform businesses. However, the authors should have, perhaps, made a better balance between long introductory topics, which are probably already familiar to most of its potential readers, and more advanced issues, which are sometimes presented in a rather summary way. The authors should also be praised for introducing a wide array of new terms that define platform-specific phenomena. In addition, they made a considerable effort to link formal economic models with real-life cases, which makes their discussions relevant and engaging for the reader.

Nevertheless, an impressive body of research has developed in response to the development of markets with multi-sided platforms. This has created a challenge for the authors to choose the most appropriate structure. They sometimes examine similar questions under different chapters without offering a linking thread. Moreover, as Belleflamme and Peitz acknowledge in the preface and concluding remarks, they had to make compromises regarding the scope of the book. The most important missing piece, which the authors intend to cover in the new upcoming book, is platform competition. High market concentration in some well-known markets may suggest that, in the long run, only a single platform is viable. Yet, this does not lead to the conclusion that such a platform does not face competitive pressure. On the contrary, as the authors mention, many of the old concepts, such as market contestability or competition *for* as opposed to competition *in* the market, need to be revised in the platform context. Moreover, the idea that there may be substitutes for platform services offered to only one side of the market, or that certain groups of users can multihome, would



certainly bring an interesting twist to many of the findings. Another issue that is discussed only briefly in this book, but is also unjustifiably neglected in a broader academic literature to date, is non-price platform design decisions. As the authors mentioned in Chapter 4, platform design decisions can increase trust among users and be key to platform expansion in many markets with pronounced asymmetric information. Sometimes these trust-building mechanisms are beneficial to both sides, sometimes they have a countervailing impact on different groups of users, or they may create considerable costs for the platform. Not only do they affect the size of the network effects, as the authors point out, but they may also interfere with the pricing decisions of platforms on one or both sides, or even subgroups of users. A related question is to what extent platforms compete in non-price design dimensions, which also depends on their salience to the users. Furthermore, one can also question whether design decisions may lead to vertical differentiation among platforms, creating space for more than a single platform to operate despite strong network effects. The analysis may get even more complex once one takes into consideration different government regulations that constrain platforms' choices, for instance, data protection rules.

It is quite likely that another reader would come up with a completely distinctive set of questions that are of particular interest for further research as the platform economy continues to flourish. This book is a reminder that researchers in the field still have a lot on their plate, while every policy intervention is a demanding and delicate undertaking.

## REFERENCES

- [1] Adams, Douglas. 2003. *The Salmon of Doubt: Hitchhiking the Galaxy One Last Time*. London: Pan Books.
- [2] Begović, Boris. 2018. David S. Evans, Richard Schmalensee, Matchmakers: The New Economics of Multisided Platforms, Harvard Business Review Press, Boston, Massachusetts 2016. *Annals of Faculty of Law in Belgrade* 66: 368–381.
- [3] Caillaud, Bernard, Bruno Jullien. 2003. Chicken & egg: Competition among intermediation service providers. *RAND Journal of Economics*: 309–328.
- [4] Evans, David S., Richard Schmalensee. 2016. *Matchmakers: The new economics of multisided platforms*. Boston, Massachusetts: Harvard Business Review Press.

- [5] Grossman, Sanford J., Oliver D. Hart. 4/1986. The costs and benefits of ownership: A theory of vertical and lateral integration. *Journal of Political Economy* 94: 691–719.
- [6] Hart, Oliver, John Moore. 6/1990. Property Rights and the Nature of the Firm. *Journal of Political Economy* 98: 1119–1158.

**Đorđe STEPIĆ, LL.M.\***

**Löhnig Martin, Masheva Ivelina (eds.). 2022. *Commercial Law in Southeastern Europe – Legislation and Jurisdiction from Tanzimat Times until the Eve of the Great War*. Vienna – Cologne: Böhlau Verlag, 135.**

Before succumbing to its various external and internal afflictions, the ‘sick man of Europe’ had several attempts to remedy his state. One of the most notable ones was the reform heralded by a new generation of modernist politicians, such as Mustafa Reshid Pasha, who sought to reinvent the Ottoman Empire as an equal partner to the concert of European powers, rather than a mere object of their political interests. Their success, however, remained limited, due to various factors. One of the issues these reforms tackled was the old system of trade law, based on Sharia principles and religious inequality, which hindered the Empire’s economic growth. In order to modernize its commercial law, a series of acts was adopted, the most important of which was the Commercial Code of 1850, which remodeled this legal branch into a more open system of legal certainty, with special courts to ensure more equal access to justice. Such tunes of change reverberated throughout the country, leaving a lasting effect on commercial law in Southeastern Europe.

This book is a collection of three papers with a common bibliography and a short foreword by the editors, detailing the impact reforms of commercial law in three significant territories tied to the Ottoman Empire: its province

---

\* Assistant Lecturer, University of Belgrade Faculty of Law, Serbia, [djordje.stepic@ius.bg.ac.rs](mailto:djordje.stepic@ius.bg.ac.rs).

of Bosnia and Herzegovina (prior to and after the Austrian<sup>1</sup> occupation), and the autonomous principalities of Bulgaria (prior to and after gaining autonomy) and Serbia.

Each of these, as the editors pointed out, bore distinct signs of the presence of Ottoman law in their legal systems. From those that had only been under nominal suzerainty – such as Serbia – which decisively rejected most of the Ottoman influence in such matters, opting to adapt to Western legal tradition relatively early, to those that were deeply rooted in both the Sharia and the Tanzimat<sup>2</sup> norms, like Bosnia and Herzegovina, which even a drastic change in governance could not completely ignore.

Aside from the abovementioned, the foreword focuses on the basic issues of the broader topic, giving useful insight in the dynamics of the Reorganization in regards to commercial law and its pivotal moments, such as the foundation of commercial courts and the adoption of the Ottoman Commercial Law of 1850, and its Appendix in 1860. Furthermore, this segment also summarizes the evolution of this branch of law in the legal systems in the entirety of Rumelia (the Empire's Balkan/European territories), as well as the key questions this publication seeks to answer, presented as a full page of short inquiries (pp. 15–16)! Importantly, here is where one can also find a short summary of the evolution of commercial law in other Balkan nations (Romania and Greece) whose details were not covered by the authors in this book. Ergo, it serves its purpose as an introduction for both well-versed and lay readers alike, providing the information most necessary in order to proceed with further reading.

The first of the papers included in this volume is *Commercial Disputes and Application of Ottoman Commercial Law in Bosnia and Herzegovina*, by Mehmed Bečić, from the University of Sarajevo Faculty of Law.

The author sets an ambitious task for his contribution: to ascertain which commercial law system were in effect in the province at this time and in what manner, what were the legal sources (material, as well as procedural), and how the commercial court proceedings played out in accordance with these sources. The timeframe set for this analysis is from

---

<sup>1</sup> Although occupied in 1878 and annexed into Austria-Hungary in 1908, Bosnia and Herzegovina was only ever under direct control of provincial officials and the central government in Vienna, having no part to play in the general dichotomy of the country's administration, thus prompting the consideration of the occupation as an Austrian affair in the broader sense.

<sup>2</sup> The Tanzimat is a period of legal, cultural and social metamorphosis that are still echoes in modern-day Turkish culture. For more on it and the Empire's "longest century", see Ortaylı (2004).

1878 (the Austrian occupation of Bosnia and Herzegovina, according to the provisions of the Treaty of Berlin) until 1883 (the adoption of a Commercial Code for Bosnia and Herzegovina). In that period, before a more thorough transition to Austrian law could be achieved, the governing authorities chose to principally maintain the Tanzimat court structure, with significant changes entailing only types of courts responsible for commercial cases. The commercial courts were abolished, with adjudication of these matters falling to regular courts, which were stripped from their lay elements. The supreme jurisdiction belonged to the Supreme Court for Bosnia and Herzegovina.

The continuity of Ottoman material law was also ensured through the special translations of their law sources into German, in order to accommodate to a newly-found language barrier between the positive law and the officials tasked with applying it. A more nuanced way of introducing Austrian law, the author notes, was still found in the methods used to fill the legal gaps. If it came to resolving them with new acts being passed, they would without a fault be modeled on Austrian solutions (legal transplants);<sup>3</sup> and if the question at hand arose in court, the judges were instructed to address them only by using analogy with the provisions of the Austrian civil code (*Allgemeines bürgerliches Gesetzbuch* – ABGB).

Segueing into the issues encountered in the courtroom, Bečić explores the archives and court records to convey some of the most common reasons traders went to court. Among these “apples of discord” one can mostly find disputes stemming from the sale on credit – *veresija*, as well as from trader loans. The value of the author’s research of these materials is even more significant given that most of the sources have yet to be published.

Following a brief overview of several cases, from lawsuit to verdict, the author discusses the commercial law sources that were in force during the early years of Austrian rule. In the legal landscape where pluralism was the norm, the old Sharia and new customary Tanzimat norms, which at times had a very tense coexistence, were forced to accept different Germanic influences in their midst. In spite of that, even after the new commercial code was promulgated in 1883, a small part of the Ottoman system still remained in use in some significant issues, such as statutory interest and damages, based on the Appendix to the Ottoman code of 1860.

In conclusion, Bečić recaps the broader answers to some of the questions raised in the introductory chapter of his study, depicting the functioning of a divergent system of rules in a post-Ottoman Bosnia and Herzegovina.

---

<sup>3</sup> For more about the concept of legal transplants see Watson (2010).

The paper is thoroughly thought out and researched, however, it does at times almost teeter on the balance between its views on the general, e.g. jurisdiction and law sources, and special issues, e.g. court cases.

This piece is followed by *Legal and Judicial Reforms in an Imperial and Post-Imperial Setting: Commercial Law in (Ottoman) Bulgaria 1840s-1890s*, an article by this tome's editor Ivelina Masheva, from the Central European University in Vienna.

Similarly to the previous paper, the first part outlines the relevant sources for the chosen topic, as well as the state of the previous research. The two big periods analyzed are the late Ottoman rule in Bulgaria: the formation of first Ottoman commercial courts in 1840 until Bulgaria's autonomy in 1878, and from said autonomy until 1898, when the new Commercial Code was passed. This second period is also what ties the first two works: in both cases the territories in question stopped being under Ottoman suzerainty, slowly departing from its legal influences, before receiving their own commercial law codifications under the influence of Western European traditions.

In Ottoman Bulgaria, the author states, there was an evident evolution of commercial law, one that paralleled that of the rest of the Empire. From traditional sources, through the Commercial Code of 1850, which merged novelties and traditions, to the 1861 Law on Commercial Procedure, a relatively coherent system of material and procedural norms was formed. Each of these was considered in relation to their predecessor and successor. Masheva, for instance, details the regulation of some fields of company law, such as the types of trade partnerships according to the Code of 1850 and court proceedings according to the Law of 1861.

The following segment is dedicated to the reforms and changes to the judiciary during this period. Starting from the very emergence of commercial courts in Ottoman Bulgaria until the end of Ottoman rule, its regulation, jurisdiction and practices changed with the procedural law. Several cases are used, as is the case in Bečić's paper, to illustrate these shifts. A matter also discussed is the regional distribution of these courts. Since the archives are incomplete, some issues about their work, founding and jurisdiction still remain open. The information available, however, is presented in a respectable manner.

Finally, the author analyzes the changes autonomous Bulgaria brought to its commercial law. She offers insight on the changes that arose mostly due to the evolution of the legislature, with the new laws on civil procedure, contracts and obligations, as well as a new commercial code – all adopted by 1898. After analyzing some of their provisions, in relation to the previous Ottoman law, Masheva concludes with just a recapitulation of developments in this legal branch.

This volume is closed by Zoran Mirković, from the University of Belgrade Faculty of Law, and his contribution titled *The Beginnings of Commercial Law in Serbia 1840–1860*. From the onset, the readers get a sense of the different approach and peculiarities of the topic, compared to the previous two pieces. This paper is a chronicle of evolution of commercial law in the Principality of Serbia, from the Serbian Civil Code of 1844, to the adoption of the Serbian Commercial Code (SCC) of 1860.

Unlike Bosnia and Herzegovina and Bulgaria, Serbia started its journey into modern commercial law pretty much with a blank slate. Since its autonomy, which was guaranteed in 1830, the state sought to independently arrange its legal system, free from the constraints of most of the Ottoman influences. Even though the practices of traders remained tied to those of their Ottoman counterparts, the totality of their position was yet to be regulated. Mirković notes that the general state of Serbian trade and legal systems – two vital indicators for commerce, in a country with the literacy rate of less than 4%, where many judges could only sign their name<sup>4</sup> – the picture looked bleak for the modern solutions of the SCC of 1844, modeled on the Austrian ABGB of 1811.

The most important institution that heard commercial disputes was the Court for the district of Belgrade. An analysis of its formation, jurisdiction and judges takes a sizeable part of this work. Returning to fragmented archival data (for the years 1844, 1845, 1858, and 1859), the author then focuses on the case law on commercial matters, similarly to his precursors, showing that, like today, it encompassed cases ranging from genuinely disconcerting to downright farcical – such as a trader's attempt to sue the state over an alleged private deal by the previous prince, which had been struck 20 years earlier.

Still, the need for a commercial law codification was dire. The traders made several attempts to raise this issue, mostly appealing for the need for legal certainty and the difference between civil and commercial matters that ought to have been in place. Most serious instances when the separate regulation was considered occurred in 1852 and 1856, when this matter was brought before the highest state authority – the Prince and the State Council. Both of these attempts resulted in a new draft of the Commercial Code, whose structure and some provisions are mentioned by Mirković, as is the arduous process of trying to pass them into law.

---

<sup>4</sup> This information is mentioned and contextualized in Jovanović ([1912; 1933] 1990, 38).

However, on both occasions the epilogue was the same, with the Prince supporting the traders, and the councilors dismissing the notion, stating that Serbia's economy was not developed enough to warrant such a codification. In reality, this issue is one of the many used in the power struggle between the highest powers in the state at this time. It would only be after the change of princely dynasties that the new code would be finally passed – which is the point where the author choose to end his contribution.

After reading all of the papers, the reader can be satisfied with having gained a glimpse of the shifting legal landscapes and paradigms of several Balkan polities. With many parallels that can be drawn, it does not take a lot of effort to follow the similarities between any two of the three “states” in question. The only common denominator for all is their shedding of Ottoman power, which itself varied drastically, leaving them open to the reform of commercial law in a more Western fashion.

Ultimately, although being a well-thought-out and quality read, this volume falls short of its goals for one simple reason: they are simply far too great for a volume of this length and type. The title marks out a far greater field than the publication covered. Geographically, it aims to encompass (Ottoman) Southeastern Europe, but it lacks contributions on Greece, Romania and Montenegro's commercial law, although briefing the readers on them in the foreword. Similarly, it seeks to include the evolution of said legal branch over more than seven decades, from the beginning of the Tanzimat reforms in Turkey (1839) to the First World War (1914). In reality, only two of the texts find their chronological *point du depart* around that time, while Bečić's work covers an undoubtedly significant, yet shorter period of just six years. If the editors wanted to give us a look at some of the interesting motifs from these turbulent times, which revolutionized commercial law in part of the Balkans, they have very much succeeded. The transitions between the pieces looks seamless, given the previously mentioned commonalities of their topics, similarity of the methods used (archival research, case studies, etc.), as well as their broad results. This consistency is thwarted by the choice of order of these works.

All things considered, each of the published contributions has its fortes in painting a compelling picture of the different ways that the former Ottoman-held entities transitioned to Western European legal tradition. Its further value, however, lies beyond its 135 pages – perhaps in the possibilities for subsequent research opened by the editor's choice of topic, as well as the authors' approaches to it. For that reason, this book does not feel as a complete, standalone issue, but rather as a tome in a series of publications to be.



## REFERENCES

- [1] Watson, Alan. 2010. *Pravni transplanti – Pristup uporednom pravu* [*Legal Transplants: An Approach to Comparative Law*], translated by Silva Mitrović. Belgrade: University of Belgrade Faculty of Law.
- [2] Jovanović, Slobodan. [1912; 1933] 1990. *Ustavobranitelji i njihova vlada (1838–1858). Druga vlada Miloša i Mihaila*. Belgrade: BIGZ.
- [3] Löhnig Martin, Masheva Ivelina (eds.). 2022. *Commercial Law in Southeastern Europe – Legislation and Jurisdiction from Tanzimat Times until the Eve of the Great War*. Vienna – Cologne: Böhlau Verlag.
- [4] Ortaylı, İlber. 2004. *Najduži vek imperije* [*The Empire's Longest Century*], translated by Mirjana Marinković. Belgrade: Srpska književna zadruga.

**Nina KRŠLJANIN, PhD\***

**Rubin, Miri. 2020. *Cities of Strangers: Making Lives in Medieval Europe*. Cambridge: Cambridge University Press, XV + 189.**

The works of historians are often also important for lawyers and the study of legal history. This is not only the case when a scholar who is a historian by education focuses on the study of legal history *stricto sensu*, but also when important research in the fields of political, social and economic history is conducted, since the results of such research can provide both new data and new points of view for the study of legal history. In that respect, both empirical research (particularly the studying of sources that are new, at least in the sense of being given scholarly attention) and new syntheses can be valuable and inspiring. By way of the latter, I would like to recommend to the attention of legal historians the book *Cities of Strangers: Making Lives in Medieval Europe* by Miri Rubin, Professor of Medieval and Early Modern History at Queen Mary University of London.

The book is part of the Cambridge University Press's *Wiles Lectures* series – dedicated to the publication of lectures held annually at Queen's University Belfast, since their foundation in 1953/54 by Janet Boyd (2022a). Some of the books in the series have left a considerable mark in modern historiography in their fields (e.g. Runciman 1970), and sometimes the findings and concepts of one author were later seriously opposed by another (e.g. Hobsbawm 1990 and Hastings 1997).<sup>1</sup>

---

\* Assistant Professor, University of Belgrade Faculty of Law, Serbia, [nina.krsljanin@ius.bg.ac.rs](mailto:nina.krsljanin@ius.bg.ac.rs).

<sup>1</sup> The full list of lectures and publications that have resulted from them (most have been published, though not all) is available on the Queen's University website (2022b).

Being based on four spoken lectures, as most books in the series, it is not of great length, but rather offers a brief but poignant overview of its chosen subject. The first, introductory, chapter, *Cities and Their Strangers*, focuses on the meaning of the word *stranger* (*forinsecus*, *forensis*) in medieval Europe, on the life and culture of medieval cities, their manners of governance and the concept of citizenship. While Rubin focuses on the economic and social life of cities, their role in public administration and their significance as centres of religion and education is not neglected either. She underlines the significance of owning a plot of land in a city (a necessary, but frequently not sufficient condition for citizenship) and the personal (not familial) nature of citizenship, noting the common characteristics and varieties of urban architecture and the relative cosmopolitanism of cities compared to urban areas.

Continuing the same line of thought, the second chapter, *Strangers into Neighbours*, speaks of the movement of people in the Middle Ages (particularly in the period after the year 1000) and the attitudes of urban communities towards newcomers. Here, Rubin gives an overview of the status of foreign merchants and other travellers and temporary visitors, as well as of resident strangers and, naturally, the conditions of acquiring citizenship. Through a series of examples, ranging from England to Italy, the author shows how attitudes towards foreigners fluctuated depending on various factors. Sometimes, measures were taken to encourage the influx of foreigners (including direct invitations to desired groups, especially experts in crafts in high demand), and acquiring citizenship was a relatively simple process. In other circumstances – be those economic hardship or religious conflicts – migration was discouraged, acquiring citizenship was made harder, either *de iure* or *de facto*, and ethnically or religiously distinct groups of resident foreigners were sometimes physically assaulted or expelled from cities they had inhabited for generations.

The second pair of chapters focuses on two distinct groups that had special and largely unfavourable social and legal status in most, if not all, European cities. Chapter 3, *Jews: Familiar Strangers*, speaks of the ebbs and flows of the status of Jews in urban communities, from their early settlement in expanding and flourishing cities, to the later discrimination, persecution and expulsion from many of them. Rubin explores the ambivalent attitude towards Jews both on the grounds of their religion and the Christian views towards moneylending as their frequent occupation – indeed, this was frequently the reason they were allowed or even invited to settle in many communities. Still, even where their status was relatively good, they remained a group apart, marked by their difference and mostly excluded from any positions of government and formal civic authority.

The last chapter, *Women: Sometimes Strangers in Their Cities*, focuses on a somewhat different subject: the exclusion of women from (full) rights of citizenship, “underpinned by science, law, and religion, supported by custom, and naturalised in the public sphere through rituals and representations” (p. 71), thus underlining the similarity of their status to that of resident strangers.<sup>2</sup> Here, Rubin underlines the significance of women’s work and social roles in urban environments, yet showcases the gendered order that reigned nonetheless. This order was sometimes questioned in theory by intellectuals such as Christine de Pizan, yet numerous women, known and unknown, had to accept or fight for their place within it in practice. The chapter shows women’s social and religious roles and place before the law, focusing on the sexual peculiarities of a woman’s position – from the risks of sexual violence, particularly when travelling, to the moral stigma attached to any women who did not occupy a traditional family role, often suspected as a matter of course of being prostitutes. Rubin briefly mentions other groups “that lived in some strangerhood” – beggars, homosexuals, food hawkers and Gypsies (p. 90) – but doesn’t dwell on their position.

In the Conclusion, the author sums up the conditions of urban development in medieval Europe, underlining that “[m]ost people never became citizens, nor was it expected that they would” (p. 92), and that the status “desirable” and unwanted strangers differed drastically. She ends the book on a quote from Shakespeare’s *The Book of Sir Thomas More*, showing how in the London riots against foreigners of 1517 “you had taught / How insolence and strong hand should prevail”, underlining the long-term consequences of the ill-treatment of strangers.

On the pages of this book, a legal historian might find plenty of familiar matter: mention of city statutes and formal rules for gaining citizenship, trials and verdicts, legal measures adopted against undesired behaviours or groups of population, the opinions of Bartolus of Sassoferrato and Baldus de Ubaldis. This in itself might warrant it attention. However, what makes the book particularly valuable is the fact that legal matter is presented alongside other information, not strictly legal in nature, but highly relevant for the understanding of the legal measures and the circumstances in which they arose. In other words, the social, economic, political and religious context in which the legal norms existed is richly provided. Naturally, it is not always analysed in relation to law – but that is precisely where a legal historian could step in, inspired by this book, and continue the in-depth research in the field of their own expertise. We are reminded, in clear and illustrative

---

<sup>2</sup> Such parallels were drawn previously for other societies, perhaps most notably for ancient Athens (Kennedy 2014; Divac 2021).

ways, by both general abstractions and concrete examples, not to view the population in medieval cities through a dichotomy of citizens and foreign visitors, but to apply to both categories many additional, intersectional filters of social status, religion, gender, ethnicity, etc. Merely analysing which of them explicitly found their place in the law, and which influenced citizens' (and strangers') lives only *de facto*, and why, might comprise an entire new book.

It must be said that, while *Cities of Strangers* is primarily focused on Western Europe – understandable given the author's primary research focus – it does also provide a number of examples from Eastern, or at least Central Europe (e.g. Poland, Hungary, Dubrovnik/Ragusa), not ignoring Scandinavia or Muslim Spain. However, there is one notable absence: the city of cities of medieval Europe, Constantinople, is not even mentioned in the entire book,<sup>3</sup> and the same goes for the country whose capital it was – by whichever name (Byzantium, Rhomaian Empire, Eastern Roman Empire...). Naturally, one could give a number of reasons that would justify the exclusion of Constantinople (or Rhomaian cities in general), from the scope of such a book: it has already received scholarly attention in recent decades (Magdalino 1996; Matheou, Kampianaki, Bondioli 2016<sup>4</sup>), and its ancient roots and position as the capital of an (old and still vital) empire make its position distinctly different from that of most, if not all, medieval cities. However, it should be at least mentioned and those reasons stated. Instead, the Rhomaian Empire is completely overlooked, as if it were not part of Europe – indeed, the dominant state in its entire eastern half for the better part of the Middle Ages – and the Holy Roman Empire is even sometimes referred to merely as “the Empire”, as if it were the one and only. Omissions such as this one, unfortunately, contribute to the specific form of orientalism the Eastern Roman Empire has been subjected to by later Western researchers (see e.g. Angelov 2003; Marciniak 2018; Neville 2019, 5–21), as much as it might not have been the author's intention.

Being a brief overview, of course, the book cannot cover all topics related to its main subject. The aforementioned legal historian might wish for a more in-depth legal analysis<sup>5</sup> – and the same would likely be true for experts in any other narrow discipline. One might regret not finding much on the classical roots of the city (and not the state as we know it now) as the primary political organism (see, e.g. the texts in Rapp, Drake 2014), and a fatherland

---

<sup>3</sup> Not counting the mention of Margaret of Constantinople, countess of Flanders (p. 54).

<sup>4</sup> A notable addition younger than the book reviewed here is Basset 2022.

<sup>5</sup> On this topic, though focused on medieval England, see Kim 2001.

to be loved and protected at any cost (Kantorowicz 1951). Interesting non-standard cases that the book does not mention could be raised – for example, the political acceptance into citizenship of obvious foreigners who did not live in the city, such as foreign nobles and even rulers. For example, Emperor Stefan Dušan of Serbia was awarded Venetian citizenship in 1350, along with his wife and son (Ferjančić, Ćirković 2005, 192), and the phenomenon was all the more frequent for ordinary nobles, although not all (political) rights were usually granted with such citizenship (Olard 2007, 162).

One could also elaborate on the issue of relationships between cities, particularly maritime republics, and the countries in the hinterland, and the difference between those that could be said to have sovereign city-state status and those that had a high degree of autonomy, but were nevertheless subjects of kings and emperors on whose territory the city was located. Rubin makes a brief attempt to touch upon the issue when speaking of the mutual influence of urban statutes and legal transplants between them: “The statutes of Ragusa/Dubrovnik of 1227 borrowed a great deal from the laws of Venice – its most important commercial partner – even though it formed part of the kingdom of Hungary” (p. 35), referring to Lonza (2012). Unfortunately, this reasoning contains an error: not only was the Statute passed in 1272 (this is obviously a simple typographical error), but Ragusa was *not* a part of the kingdom of Hungary at the time. It was, in fact, subjected to Venice – making the transplant much more logical than it would otherwise seem – and only came under Hungarian rule in 1358, which is clearly indicated in Lonza’s quoted article.

To summarise, *Cities of Strangers* is a book well worth reading for anyone interested in medieval history, and I would particularly recommend it to legal historians. Some factual omissions that have occurred outside the author’s main field of expertise do not reduce its overall value. In this book, the reader will find a well-written overview of a massive and complex subject, mature in thought and accessible in style. For a beginner, it will be a wonderful introduction to the world of medieval cities in general, and to the problem of the (legal) treatment of strangers and other specific groups in particular. For an expert, it will be a rich trove of inspiration for further research.

## REFERENCES

- [1] Angelov, Dimiter. 2003. Byzantinism: The Imaginary and Real Heritage of Byzantium in Southeastern Europe. 3–23 in *New Approaches to Balkan studies*, edited by Dimitris Keridis, Ellen Elias-Bursac, and Nicholas Yatromanolakis. Herndon, VA: Brassey's.
- [2] Bassett, Sarah (ed.). 2022. *The Cambridge Companion to Constantinople*. Cambridge: Cambridge University Press.
- [3] Divac, Una. 2021. On the Margins of the Society: Metic Women in Ancient Athens. *Harmonius: Journal of Legal and Social Studies in South East Europe* 2021, 36–61.
- [4] Ferjančić, Božidar, Sima Ćirković. 2005. *Stefan Dušan, kralj i car 1331–1355* [*Stefan Dušan, king and emperor 1331–1355*]. Belgrade: Zavod za udžbenike i nastavna sredstva.
- [5] Hastings, Adrian. 1997. *The Construction of Nationhood: Ethnicity, Religion and Nationalism*. Cambridge: Cambridge University Press.
- [6] Hobsbawm, Eric. 1990. *Nations and Nationalism since 1780: Programme, Myth, Reality*. Cambridge: Cambridge University Press.
- [7] Kantorowicz, Eric H. 3/1951. *Pro Patria Mori* in Medieval Political Thought. *The American Historical Review* 56: 472–492.
- [8] Kennedy, Rebecca Futo. 2014. *Immigrant Women in Athens: Gender, Ethnicity, and Citizenship in the Classical City*. New York and London: Routledge.
- [9] Kim, Keechang. 2001. *Aliens in Medieval Law: The Origins of Modern Citizenship*. Cambridge: Cambridge University Press.
- [10] Lonza, Nella. 2012. The Statute of Dubrovnik of 1272: Between Legal Code and Political Symbol. 7–25 in *The Statute of Dubrovnik of 1272 / Liber statutorum civitatis Ragusii compositus anno MCCLXXII*, edited by Nella Lonza. Dubrovnik: Državni arhiv u Dubrovniku.
- [11] Magdalino, Paul. 1996. *Constantinople médiévale: Études sur l'évolution des structures urbaines*. Paris: De Boccard.
- [12] Marciniak, Przemysław. 2018. Oriental like Byzantium. Some Remarks on Similarities Between Byzantinism and Orientalism. 47–54 in *Imagining Byzantium: Perceptions, Patterns, Problems*, edited by Alena Alshanskaya, Andreas Gietzen, and Christina Hadjiafxenti. Mainz: Verlag des Römisch-Germanischen Zentralmuseums.

- [13] Matheou, Nicholas S.M., Theofili Kampianaki, Lorenzo M. Bondioli (eds.). 2016. *From Constantinople to the Frontier: The City and the Cities*. Leiden – Boston: Brill.
- [14] Neville, Leonora. 2019. *Byzantine Gender*. Leeds: ARC Humanities Press.
- [15] Olard, Ludivine-Julie. 2007. Venice-Babylon: Foreigners and Citizens in the Renaissance Period (14th–16th Centuries). 155–174 in *Imagining frontiers, contesting identities*, edited by Steven G. Ellis and Lud'a Klusáková. Pisa: Edizioni Plus – Pisa University Press.
- [16] Queen's University Belfast. 2022a. Janet Boyd and the Wiles Lectures. <https://www.qub.ac.uk/schools/happ/Events/annual-lectures/wiles-lecture-series/JanetBoydandtheWilesLectures/> (last visited 30 October, 2022).
- [17] Queen's University Belfast. 2022b. Wiles Lectures Series: Past Lectures. <https://www.qub.ac.uk/schools/happ/Events/annual-lectures/wiles-lecture-series/PastLectures/> (last visited 30 October, 2022).
- [18] Rapp, Claudia, H. A. Drake (eds.). 2014. *The City in the Classical and Post-Classical World: Changing Contexts of Power and Identity*. Cambridge: Cambridge University Press.
- [19] Runciman, Steven. 1970. *The Last Byzantine Renaissance*. Cambridge: Cambridge University Press.



## **GUIDELINES FOR AUTHORS**

The *BLR* languages are English and Serbian.

*BLR* publishes articles, critical analyses, case law and legislation comments, book reviews and other contributions to the fields of law and social sciences. Only analytical reviews of scientific and professional books are accepted for publishing, not purely descriptive ones.

For papers in English, either British English or American English spelling and terminology should be used, but the one should be followed consistently throughout the paper.

Spelling in references should follow the original source material.

If English is not your first language, before submitting your manuscript you may wish to have it proofread, to ensure that reviewers fully understand your writing. Authors are liable for the costs of such proofreading.

By submitting the paper, the authors declare that the paper has not been published; that the paper has not been accepted for publication nor is under consideration for publication elsewhere; and that the authors are the copyright holders and are informed of, and have fulfilled, any requirements regarding the rights of third parties.

The receipt of all papers will be acknowledged by email. All papers will be screened by the Editorial Board for their suitability for entering the peer review process. Suitable contributions will be subject to a double-blind external peer review.

For further information on the *BLR* Editorial Policies, please consult <https://anali.rs/eticki-kodeks/?lang=en>

Please abide by the following instructions when submitting a paper to *BLR*.

The manuscript should be arranged in the following order:

1. Cover page
2. Abstract and keywords
3. Manuscript and reference list
4. Appendices, tables and figures

## **1. COVER PAGE**

**The cover page of the submission should include the following information:**

- Title of the paper.
- Name, date of birth and affiliation of all contributing authors.
- Full address for correspondence and email address. If the paper is co-authored, please provide the requested information for each of the authors.

## **2. ABSTRACT AND KEYWORDS**

Please provide an abstract that is not longer than 150 words. The abstract should not contain undefined abbreviations or unspecified references.

Please provide five keywords, in alphabetical order, suitable for indexing.

Papers in Serbian should contain an abstract and keywords both in English and in Serbian language, with the abstract and keywords in English positioned following the reference list.

## **3. MANUSCRIPT AND REFERENCE LIST**

As our peer-review process is blind, the names of authors or their affiliations should NOT appear anywhere on the pages of the manuscript.

Papers should be word processed in the following format:

Page format: A4

Margins: 2.5 cm

Font: Times New Roman

Line spacing main text: 1.5

Line spacing Footnotes: Easy

Font size main text: 12 pt

Font size footnotes: 10 pt

Page numbering: Plain number, bottom of the page, right indent

Refer to persons by first and last name at first mention (John Smith) and only by last name thereafter (Smith). Do not use “Professor”, “Mr.”, or other titles.

Figures and tables should be mentioned in the text in order of appearance. All figures and tables should be mentioned in the text.

All acronyms and abbreviations should be spelled out in the first reference, with capitals used thereafter.

European Union – EU,

The United Nations Commission on International Trade Law – UNCITRAL

Numbers from one to nine should be written as words; higher numbers should be written as numerals. Dates should be written as follows: 1 January 2012; 2011–2012; or the 1990s.

Footnotes should be substantive and cannot contain purely bibliographic material. Simple citations should be in the text, with the exception of statutes and cases.

**BLR uses the following section headings, all centered:**

1. FULL CAPS

1.1. Caps and Lowercase

1.1.1. *Italic Caps and Lowercase*

## Citations

All citations, in text and footnotes, should be in **author/year/page(s)** style.

The preferred form of in-text citation is the citation **with locating information**:

Following Hovenkamp (1994, 366–69);

According to Craswell (2003, 255 n. 13) – *where note 13 is on page 255*;

As suggested by Craswell (2003, 254 and n. 11) – *where note 11 is **not** on page 254*.

However, when appropriate and by way of exception, the authors may use in-text citation **without locating information**, with or without a simple signal (*see, see especially, see for example*, etc.)

(see, for example, Corcoran 2004; Mullen 2000)

(see especially Demsetz 1967)

(Scott and Coustalin 1995)

## One author

**T(ext)**: Following Ely (1980, page), we argue that

**R(eference list)**: Ely, John Hart. 1980. *Democracy and Distrust: A Theory of Judicial Review*. Cambridge, Mass.: Harvard University Press.

## Two authors

**T**: As demonstrated elsewhere (Daniels, Martin 1995, page),

**R**: Daniels, Stephen, Joanne Martin. 1995. *Civil Injuries and the Politics of Reform*. Evanston, Ill.: Northwestern University Press.

## Three authors

**T**: As suggested by Cecil, Lind, Bermant (1987, page),

**R**: Cecil, Joe S., E. Allan Lind, Gordon Bermant. 1987. *Jury Service in Lengthy Civil Trials*. Washington, D.C.: Federal Judicial Center.

### More than three authors

*T:* Following the research design in Turner *et al.* (2002, page),

*R:* Turner, Charles F., Susan M. Rogers, Heather G. Miller, William C. Miller, James N. Gribble, James R. Chromy, Peter A. Leone, Phillip C. Cooley, Thomas C. Quinn, Jonathan M. Zenilman. 2002. Untreated Gonococcal and Chlamydial Infection in a Probability Sample of Adults. *Journal of the American Medical Association* 287: 726–733.

### Institutional author

*T:* (U.S. Department of Justice 1992, page)

*R:* U.S. Department of Justice. Office of Justice Programs. Bureau of Justice Statistics. 1992. *Civil Justice Survey of State Courts*. Washington, D.C.: U.S. Government Printing Office.

### No author

*T:* (*Journal of the Assembly* 1822, page).

*R:* *Journal of the Assembly of the State of New York at Their Forty-Fifth Session, Begun and Held at the Capitol, in the City of Albany, the First Day of January, 1822.* 1822. Albany: Cantine & Leake.

### More than one work

Clermont, Eisenberg (1992, page; 1998, page)

### More than one work in a year

*T:* (White 1991a, page)

*R:* White, James A. 1991a. Shareholder-Rights Movement Sways a Number of Big Companies. *Wall Street Journal*, April 4.

### Multiple authors and works

(Grogger 1991, page; Witte 1980, page; Levitt 1997, page)

## Chapter in a book

*T:* Holmes (1988 page) argues that

*R:* Holmes, Stephen. 1988. Precommitment and the Paradox of Democracy. 195–240 in *Constitutionalism and Democracy*, edited by John Elster and Rune Slagstad. Cambridge: Cambridge University Press.

## Chapter in a multivolume work

*T:* Schwartz, Sykes (1998) differ from this view

*R:* Schwartz, Warren F., Alan O. Sykes. 1998. Most-Favoured-Nation Obligations in International Trade. 660–64 in vol. 2 of *The New Palgrave Dictionary of Economics and the Law*, edited by Peter Newman. London: MacMillan.

## Edition

*T:* Using the method of Greene (1997), we constructed a model to show

*R:* Greene, William H. 1997. *Econometric Analysis*. 3d ed. Upper Saddle River, N.J.: Prentice Hall.

## Reprint

*T:* (Angell, Ames [1832] 1972, 24)

*R:* Angell, Joseph Kinniaut, Samuel Ames. [1832] 1972. *A Treatise on the Law of Private Corporations Aggregate*. Reprint, New York: Arno Press.

## Journal article

In the list of references, journal articles should be cited in the following manner: surname and name of the author, number and year of the issue, title of the article, title of the journal, volume number, pages.

*T:* The model used in Levine *et al.* (1999, page)

*R:* Levine, Phillip B., Douglas Staiger, Thomas J. Kane, David J. Zimmerman. 2/1999. *Roe v. Wade* and American Fertility. *American Journal of Public Health* 89: 199–203.

*T:* According to Podlipnik (2018, page)

R: Podlipnik, Jernej. 4/2018. The Legal Nature of the Slovenian Special Tax on Undeclared Income. *Annals of the Faculty of Law in Belgrade* 66: 103–113.

### **Entire issue of a journal**

T: The fairness or efficiency benefits of bad-faith laws are discussed at length in *Texas Law Review* (1994)

R: *Texas Law Review*. 1994. *Symposium: Law of Bad Faith in Contrast and Insurance*, special issue. 72: 1203–1702.

### **Commentary**

T: Smith (1983, page) argues that

R: Smith, John. 1983. Article 175. Unjust Enrichment. 195–240 in *Commentary to the Law on Obligations*, edited by Jane Foster. Cambridge: Cambridge University Press.

T: Schmalenbach (2018, page) argues that

R: Schmalenbach, Kirsten. 2018. Article 2. Use of Terms. 29–55 in *Vienna Convention on the Law of Treaties: A Commentary*, edited by Oliver Dörr, Kirsten Schmalenbach. Berlin: Springer-Verlag GmbH Germany.

### **Magazine or newspaper article with no author**

T: had appeared in *Newsweek* (2000).

R: *Newsweek*. 2000. MP3.com Gets Ripped. 18 September.

### **Magazine or newspaper article with author(s)**

T: (Mathews, DeBaise 2000)

R: Mathews, Anna Wilde, Colleen DeBaise. 2000. MP3.com Deal Ends Lawsuit on Copyrights. *Wall Street Journal*, 11 November.

### **Unpublished manuscript**

T: (Daughety, Reinganum 2002)

*R:* Daughety, Andrew F., and Jennifer F. Reinganum. 2002. Exploiting Future Settlements: A Signaling Model of Most-Favored-Nation Clauses in Settlement Bargaining. Unpublished manuscript. Vanderbilt University, Department of Economics, August.

### **Working paper**

*T:* (Eisenberg, Wells 2002)

*R:* Eisenberg, Theodore, Martin T. Wells. 2002. Trial Outcomes and Demographics: Is There a Bronx Effect? Working paper. Cornell University Law School, Ithaca, NY.

### **Numbered working paper**

*T:* (Glaeser, Sacerdote 2000)

*R:* Glaeser, Edward L., Bruce Sacerdote. 2000. The Determinants of Punishment: Deterrence, Incapacitation and Vengeance. Working Paper No. 7676. National Bureau of Economic Research, Cambridge, Mass.

### **Personal correspondence/communication**

*T:* as asserted by Welch (1998)

*R:* Welch, Thomas. 1998. Letter to author, 15 January.

### **Stable URL**

*T:* According to the Intellectual Property Office (2018),

*R:* R.S. Intellectual Property Office. 2018. Annual Report for 2017. <http://www.zis.gov.rs/about-us/annual-report.106.html> (last visited 28 February, 2019).

### **In press**

*T:* (Spier 2003, page)

*R:* Spier, Kathryn E. 2003. The Use of Most-Favored-Nations Clauses in Settlement of Litigation. *RAND Journal of Economics*, vol. 34, in press.



## Forthcoming

*T:* One study (Joyce, forthcoming) includes the District of Columbia

*R:* Joyce, Ted. Forthcoming. Did Legalized Abortion Lower Crime? *Journal of Human Resources*.

## Cases

***F(ootnote):*** CJEU, case C-20/12, Giersch and Others, ECLI:EU:C:2013:411, para. 16; Opinion of AG Mengozzi to CJEU, case C-20/12, Giersch and Others, ECLI:EU:C:2013:411, para. 16; Supreme Court of Serbia, Rev. 1354/06, 6. September 2006., Paragraf Lex; Supreme Court of Serbia, Rev. 2331/96, 3. July 1996., *Bulletin of the Supreme Court of Serbia* 4/96, 27.

*T:* Use abbreviated reference for in-text citations of cases (CJEU C-20/12, or Giersch and Others; Opinion of AG Mengozzi; VSS Rev. 1354/06) consistently throughout the paper.

*R:* Do not include cases in the reference list.

## Legislation

*F:* Regulation (EU) No. 1052/2013 establishing the European Border Surveillance System (Eurosur), OJ L 295 of 6/11/2013, Art. 2 (3); Directive 2013/32/EU on common procedures for granting and withdrawing international protection (recast), OJ L 180 of 29/6/2013, Art. 6 (3); Zakonik o krivičnom postupku [Code of Criminal Procedure], *Official Gazette of the RS*, 72/2011, 101/2011, 121/2012, 32/2013, 45/2013, and 55/2014, Art. 2, para. 1, it. 3.

*T:* Use abbreviated reference for in-text citations of pieces of legislation (Regulation No. 1052/2013; Directive 2013/32; ZKP, or ZKP of Serbia) consistently throughout the paper.

*R:* Do not include legislation in the reference list.

## 4. APPENDIXES, TABLES AND FIGURES

Footnotes in appendixes should be numbered consecutively with those in the rest of the text.

Numbering of equations, tables, and figures in appendixes should begin again with 1 (Equation A1, Table A1, Figure A1, etc., for Appendix A; Equation B1, Table B1, Figure B1, etc., for Appendix B).

No more than one table should appear on a page. Tables may run more than one page.

**Tables** should have brief captions. All explanatory material should be provided in notes at the bottom of the table.

Identify all quantities, units of measurement, and abbreviations for all entries.

Sources should be identified in full at the bottom of each table. Do not give cross-references to footnotes elsewhere in the article.

**Figures** should be provided in files separate from the text and should be clearly labeled.

Do not use shading or color in graphs. If distinctions need to be made visually, please use hatching and cross hatching or another means of display. Grays are difficult to reproduce and often appear blotchy in the printed journal.

Do not use figure boxes or rules around the figures.

Please use the Times Roman font if there is any lettering or text in your figure. Type should be 7 points or larger.

Graphics files should be black and white.

Figure captions should be placed together on a separate double-spaced page, labeled Figure Legends.

Figures may be no greater than 10 cm x 18 cm. To avoid substantial figure reduction, keys to identifying items in the figure should be set within or beneath the figure.

CIP – Каталогизација у публикацији  
Народна библиотека Србије, Београд

34(497.11)

**АНАЛИ Правног факултета у Београду** : часопис за правне и друштвене науке = The Annals of the Faculty of Law in Belgrade : Belgrade law review / главни и одговорни уредник Марија Караникић Мирић. – [Српско изд.]. – Год. 1, бр. 1 (1953)–. – Београд : Правни факултет Универзитета у Београду, 1953– (Нови Сад : Сајнос). – 24 cm

Тромесечно. – Преузео је: Annals of the Faculty of Law in Belgrade.  
– Друго издање на другом медијуму: Анали Правног факултета у Београду (Online) = ISSN 2406-2693.

ISSN 0003-2565 = Анали Правног факултета у Београду

COBISS.SR-ID 6016514

*The Annals of the Faculty of Law in Belgrade (Belgrade Law Review)* has been published continuously since 1953 (ISSN: 0003-2565) as a successor of the *Archive for Legal and Social Sciences (Arhiv za pravne i društvene nauke)*, founded in 1906.

The editors-in-chief of the *Archive for Legal and Social Sciences* were: Kosta Kumanudi and Dragoljub Arandjelović (1906–1911), Kosta Kumanudi (1911–1912), Čedomilj Mitrović (1920–1933), Mihailo Ilić (1933–1940), Đorđe Tasić (1940–1941) and Jovan Đorđević (1945).

The editors-in-chief of the *Annals of the Faculty of Law in Belgrade* were: Mihajlo Konstantinović (1953–1960), Milan Bartoš (1960–1966), Vojislav Bakić (1966–1978), Vojislav Simović (1978–1982), Obren Stanković (1982–1985), Dejan Popović (1996), Miodrag Orlić (1997–2004), Danilo Basta (2004–2006), Sima Avramović (2006–2012), Miroljub Labus (2013–2015) and Mirko Vasiljević (2016–2018).

The journal solicits scientific articles, critical analyses, case law and legislation comments, contributions and book reviews. The journal is also published in electronic form (eISSN: 2406-2693).

Papers published in the journal are subject to anonymous review by two reviewers, determined by the editorial board.

The views expressed in the journal are those of the authors and do not necessarily reflect the views of the editorial board. The editorial board is not responsible for these views.

The journal is published quarterly.

---

ISSN 0003-2565



BULEVAR KRALJA ALEKSANDRA 67  
11000 BELGRADE  
SERBIA  
011 30 27 600  
anali@jus.bg.ac.rs  
anali.rs