

THE CORONAVIRUS PANDEMIC: ECONOMIC CONSEQUENCES AND GOVERNMENT REACTIONS

Goran Milovanović^{1*}, Aleksandra Andjelković¹, Gabrijela Popović²

¹University of Niš, Faculty of Economics, Niš, Serbia

²University Business Academy, Faculty of Applied Management,
Economics and Finance, Novi Sad, Serbia

Abstract

The key research objective is to analyze the global economic consequences of the COVID-19 pandemic based on the analysis of valid academic, statistical and Internet sources and to prove the assumption that these consequences are significantly greater than those caused by the 2008 Global Financial Crisis. The paper also presents possible recovery curves of the global economy, and assesses the measures taken by institutions in the EU, the USA and the Republic of Serbia in the fight against COVID-19.

Key words: pandemic, global crisis, recovery curve, “safety net”, helicopter money.

ПАНДЕМИЈА ВИРУСА КОРОНА: ЕКОНОМСКЕ ПОСЛЕДИЦЕ И РЕАКЦИЈЕ ВЛАДА

Апстракт

Кључни циљ овог истраживања јесте да се на бази анализе, за предмет истраживања валидних академских, статистичких и Интернет извора, сагледају глобалне економске последице пандемије болести COVID-19, и докаже претпоставка да су те последице знатно веће од оних које је изазвала Глобална финансијска криза 2008. године. У раду се, такође, презентују могуће криве опоравка глобалне економије, и оцењују мере које су предузеле институције у ЕУ, САД и Републици Србији у борби против болести COVID-19.

Кључне речи: пандемија, глобална криза, крива опоравка, “сигурносна мрежа”, “новац из хеликоптера”.

* Аутор за кореспонденцију: Горан Миловановић, Економски факултет, Трг краља Александра 11, 18000 Ниш, Србија, goran.milovanovic@eknfak.ni.ac.rs

INTRODUCTION

The contemporary world, thanks to the developed health care system and technological capacities, can cope with various diseases easier than before. However, technological progress itself has not only increased the interdependence of the modern world, but also its vulnerability due to the creation of conditions (population density growth, obesity epidemics, etc.) for the faster spread of the virus. The question remains whether the answer to pandemics in the 21st century should be to close borders or improve international cooperation in order to facilitate the monitoring of the disease and control its spreading. Economists provide a clear answer to this question: closing countries to prevent the spread of disease is causing companies to go bankrupt, increasing unemployment, declining budget revenues, enormous country borrowing and the global economic crisis.

The COVID-19 pandemic caused by the SARS-CoV-2 virus has paralyzed the global economy. The COVID-19 pandemic does not only affect the poor, large, but also rich countries. The number of deaths in Italy, Spain, France, Great Britain and the USA proves that best. However, countries in Asia, Africa and Latin America are at a greater risk because they have relatively underdeveloped health systems.

Almost all regions of the world will suffer a double-digit decline in trade in 2020, with exports from North America and Asia being hit hardest. The biggest drop in trade will be in the electronics and automotive industries, which are characterized by complex links in the value chain.

Forecasts by experts in the World Bank, the International Monetary Fund (IMF) and numerous institutes clearly indicate that the recovery of the global economy can be expected only in 2021 and 2022. It is logical that the curve of that recovery will be in the shape of the letter “U” rather than in the shape of the letter “V”. This means that, after a rapid decline, the global economy will only be able to recover over a long period of time. In addition, these experts warn that, due to the unpredictability of the COVID-19 pandemic, their forecasts will not be easy to achieve.

In 2020, the decline in gross domestic product (GDP) of the eurozone countries will be greater than the decline in EU GDP. A drop in health risk and the recovery of the eurozone can be expected if these countries gradually lift restrictive measures. In that case, the speed of their recovery can hardly be accurately predicted. The COVID-19 pandemic is not only a danger, but also a chance. The Netflix, Disney + and Amazon performance in the first quarter of 2020 clearly confirms this.

With a comprehensive and economically acceptable package of measures, worth 5.1 billion euros, the Government of the Republic of Serbia will significantly reduce the negative effects caused by the COVID-19 pandemic. It is certainly superfluous to ask whether the state should or should not provide support to workers in the form of salaries and companies through taxes and contributions. However, four questions

arise: Are delays in the payment of payroll taxes a sufficient measure? In addition to delaying the payment of payroll taxes and contributions and income taxes, should the tax burden on the economy be reduced? Instead of giving all adult citizens 100 euros (“helicopter money”), should that money be given to those who lost their jobs, the unemployed and the most socially endangered? Finally, with the linear character of certain measures, will the funds of the economic rescue fund, which were mainly collected through borrowing, give the best effects? (Milovanović, Radisavljević, Đukić; 2020: 56-65).

THEORETICAL BACKGROUND

The first written traces of pandemics are 25 centuries old. The oldest recorded pandemic occurred during the Peloponnesian War in the 5th century BC. The Greek physician Hippocrates was the first to define epidemics.

The movement of people due to the gathering of fruits, the creation of cities, the establishment of trade channels, but also wars, opened the space for various epidemics.

Infectious diseases appeared during the time of the original civilization and have taken several hundred million lives to this day. However, infectious diseases not only sowed death, but also affected military failures, as well as the fate of empires. For example, the plague of Thucydides destroyed the Athenians and greatly contributed to their defeat by Sparta, while the plague in the 6th century prevented the Byzantine emperor Justinian from annexing the remnants of the former Western Roman Empire, which disintegrated in 476. In addition, contagious diseases facilitated the spread of religions (e.g. Christianity) and stopped wars (e.g. the “Hundred Years” War between France and England from 1337 to 1453).

Despite the great achievements of medicine, infectious diseases still cause a more intense fear of the apocalyptic end of the world than “Armageddon” due to nuclear war or man’s fear of death. This fear has come to the fore in the last two decades, with the spread of SARS (2002-2003), “bird flu” also known as H5N1 (2003-2007), swine flu, a new type of H1N1 virus (during 2009), MERS (present since 2012), Ebola (the epidemic lasted from 2013 to 2016) and especially COVID-19.

The literature on the economic impacts of the COVID-19 pandemic is spreading rapidly. The number of studies on its economic consequences is also increasing (Barro et al., 2020). Governments can reduce the total number of deaths with various anti-epidemic measures, but at the same time push the economy into a greater recession caused by the pandemic. For example, severe anti-pandemic measures in the U.S., such as spending cuts and temporary closures of companies, have led to a rise in

recession, but have also saved approximately half a million lives in the U.S. (Eichenbaum et al., 2020).

Although the COVID-19 pandemic has been going on since 11 March 2020 and is attracting the attention of a growing number of scientists, research on its economic consequences is still in its infancy. A large number of papers appear, especially those on the macroeconomic consequences of this pandemic. Research centers and media are extremely interested in publishing comments, editorials and analyses. Baldwin and Beatrice have published a book illustrating the effects of the COVID-19 pandemic on politics, trade, supply chains, finance, banking, travel, and the vulnerability of individual regions (Baldwin, and Beatrice, 2020). There are also papers on simulation modeling based on previous experience, real-time data, as well as the IMF, the Bank for International Settlements, the World Bank, the OECD and UNCTAD sources.

The COVID-19 pandemic significantly increases financial and banking risks. It causes deep disturbances both on the supply side (due to disruption of processes and activities in international supply chains) and on the demand side (due to the slowdown of world trade flows). Using a very simplified “circular flow diagram”, Baldwin proves that measures to limit the spread of the COVID-19 pandemic directly and greatly reduce the flow of workers from their place of residence to the company, leading to a rapid and large reduction in production (supply) of goods and services (Baldwin, 2020). Also, the uncertainty caused by this disease, regulatory restrictions imposed by governments, and the global decline in the level of economic activity negatively affect most components of aggregate demand.

Based on experience in modeling the economic effects of an influenza pandemic, Wren-Lewis suggests that the COVID-19 pandemic is slowing economic growth as a result of declining work hours, rising production costs, rising inflation rates and declining social spending (Wren-Lewis, 2020). Also, the pandemic affects the value of shares. Gormsen, Joachim and Kojen study the impact of the pandemic on stock price fluctuations and dividend levels to encourage positive expectations among investors and reduce the risk of recession (Gormsen, and Kojen, 2020).

Studies on the macroeconomic consequences of infectious diseases such as AIDS (Cuddington, and Hancock, 1994: 363-368; Cuddington, and Hancock, 1995: 1-28; Haacker, 2020; Freire, 2004) and SARS (Lee, and McKibbin, 2004: 113-131; Shannon, and Willoughby, 2004: 359-381) have revealed their effects on households, companies and governments. Also, these studies provide valuable information for assessing the degree of susceptibility of individual countries to COVID-19 and taking measures to successfully eliminate the economic consequences of this disease.

COVID-19 is a persistent and unpredictable disease. It is accompanied by great human sacrifices and devastating economic consequences. International financial institutions, monetary authorities and central banks are trying to mitigate the negative effects of the COVID-19 pandemic on the real economy by implementing special fiscal, monetary and macro-financial measures. Nevertheless, the duration of this disease, as well as the extent of its consequences, cannot be precisely determined.

METHODOLOGICAL RESEARCH FRAMEWORK

The main research objective is a comparative analysis of the Global Financial Crisis of 2008 and the COVID-19 crisis, based on the generated uncertainties and turbulence in the world's leading countries, in order to see the spectrum and depth of impact of these crises on the global economy. The second research objective is to present the possible recovery curves of the world economy and evaluate the measures taken by the bodies of the European Union, the USA and the Republic of Serbia in the fight against this disease, based on the identified economic consequences of the COVID-19 pandemic.

The research is mostly based on information collected via the Internet in the first quarter of 2020. The research relies on information on the economic consequences of COVID-19, taken from relevant textbooks and scientific papers. The research methods (analysis, synthesis, generalization, analogy, abstraction and concretization) allow the use of data and information collected for the purpose of consistent, logical and true conclusion. Systematized knowledge about the research subject (economic consequences of the COVID-19 pandemic) and experience are the basis for predicting the shape of the recovery curve of the world economy, but also the reason for further research in this area.

The authors are aware that the availability of empirical data would result in mathematical and statistical formulations that provide a more realistic picture of the studied phenomena and more valid conclusions. However, based on lessons learned from the Global Financial Crisis and those resulting from comparing this crisis to the COVID-19 crisis, economists can provide governments and managers with a wide range of information relevant to making rational decisions.

The authors try to test the following hypothesis:

H: The global economic consequences of the COVID-19 pandemic go beyond, in terms of spectrum and depth, the economic consequences of the 2008 Global Financial Crisis.

RESULTS AND DISCUSSION

Comparison of the 2008 Global Financial Crisis and the COVID-19 Crisis by their key economic characteristics

The COVID-19 pandemic halted the long-term growth of global trade and production volume and real GDP (Milovanović, Milanović, Radisavljević; 2020: 153). The COVID-19 pandemic has forced governments and the largest world economies to demand from their citizens to stay at home, to close shops, factories and other facilities to suppress the spread of coronavirus. The entire world could be said to testify to a unique health and economic crisis, which generations of people have not seen. The breakdown of global production and logistics networks followed. There has been a global shortage of very important medical equipment (clinical and transport respirators, protective masks and gloves), anti-disinfectants and drugs (plaquenil, azithromycin, etc.), almost a complete cessation of international air transport and the destruction of tourism (Milovanović, 2020: 376). That is why Kristalina Georgieva, the IMF director, states that the global economy is already in recession, which is “much worse than the global financial crisis.”

The spread of the SARS-CoV-2 virus in the first quarter of 2020 has fueled suspicions that it will do more damage to the global economy than that caused to the global economy by the 2008 Global Financial Crisis. Regardless of the different causes of these crises, they are similar in certain economic characteristics and, therefore, suitable for comparison.

In this part of the paper, we want to compare the mentioned crises according to their common economic characteristics, such as: 1) the uncertainty they generate, and 2) the turbulence they cause on the stock exchange. With this analysis, we want to show that the COVID-19 crisis, in the first quarter of 2020, hit the global economy harder than the 2008 global financial crisis. Due to the nature and scope of the paper, the ecological, psychological and political aspects of these crises, although very significant, have not been analyzed.

Uncertainty caused by the “subprime” virus and SARS-CoV-2 virus. Both crises are characterized by uncertainty after their appearance in one of the two leading economies (bankruptcy of the American financial corporation Lehman Brothers and the appearance of the “subprime” virus in 2008 and the appearance of COVID-19 in China in December 2019), as well as rapid global expansion. This uncertainty can be defined as a risk whose probability of occurrence and impacts are difficult to predict.

Until 2007, Americans were granted subprime loans. This risk was hidden through the seemingly sound securitization of receivables and receivables owners. In such conditions, no one knew where and how much risk there was. This was followed by a freeze on international financial flows and an increase in uncertainty. And the crisis caused by the

COVID-19 pandemic freezes a large part of global trade. The World Pandemic Uncertainty Index (WUP index), developed by the International Monetary Fund, and the Global Economic Policy Uncertainty Index (GEPU index, calculated according to PPP rates), had significantly higher values in the first quarter of 2020 than during the 2002 epidemics and during the 2008 Global Financial Crisis. For example, the value of the WUP index during the five epidemics (SARS, bird flu H5N1, swine flu H1N1, bird flu A/H7N9, Ebola, and MERS), which broke out since 2002, was lower than in the first quarter of 2020, when there was a sudden spread of COVID-19 disease (see Figure 1).

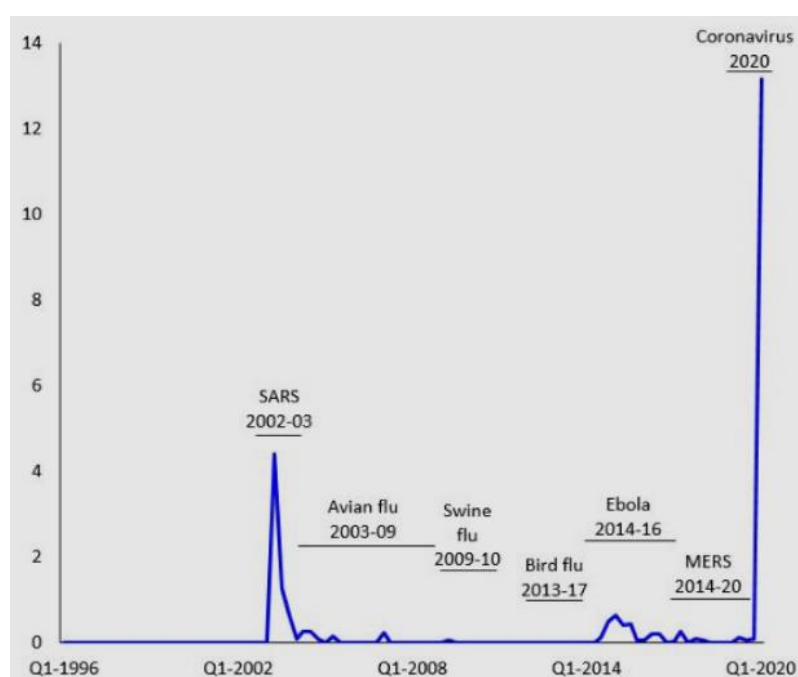


Figure 1. Pandemic and Uncertainty 1996Q1 to 2020Q1

Source: Ahir, H., Bloom N., and Furceri D. (2020, April 04). World Uncertainty Index. Available at: <https://worlduncertaintyindex.com/data/>

The value of the GEPU index was 341 in March 2020 and as much as 423.84 in May, which is significantly above the jump in its value during the Global Financial Crisis (202 in October 2008) (Figure 2).

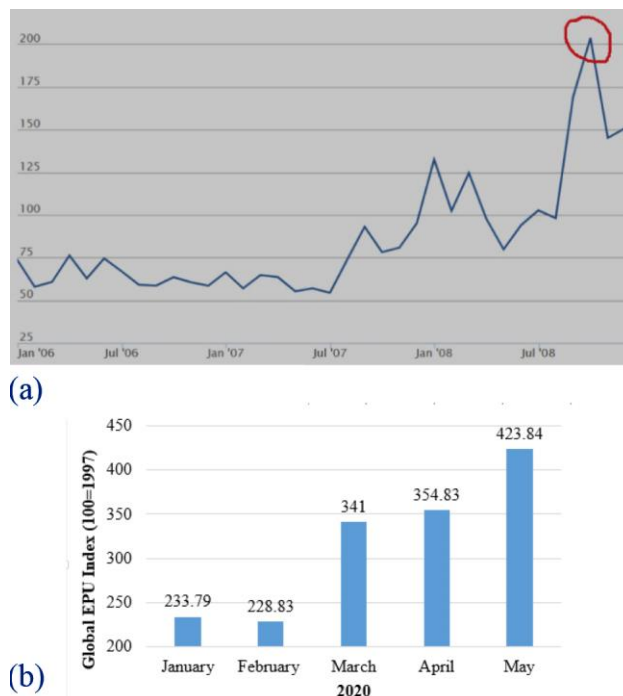


Figure 2. The World Pandemic Uncertainty Index (a) and Global Economic Policy Uncertainty Index (b)

Source: Marc-Olivier Strauss-Kahn (May 2020), *Can we compare the COVID-19 and 2008 crises?* SUERF Policy Note, Issue No 164. Available at: <https://www.suerf.org/policynotes/13389/can-we-compare-the-covid-19-and-2008-crises>.

The expectation that a sharp and deep recession will be offset by a sharp and abrupt recovery (that the global economic recovery curve will be V-shaped) is unrealistic, as long as global uncertainty remains high.

Turbulence on major world stock markets. At the beginning, both the World Financial Crisis (2008) and the COVID-19 Crisis (first quarter of 2020) saw declines on the major world stock exchanges. The recessions caused by these crises are qualified as the biggest since the Great Depression.

Immediately after the bankruptcy of Lehman Brothers, the value of the *Dow Jones* stock index fell by an incredible 504.48 points (-4.42%), the most since the terrorist attacks of 11 September 2001, while the value of the *S&P 500* stock index fell by 2.5 %. The largest one-day decline in the value of the *Dow Jones* stock index (777.68 points or 3.3%) was recorded on 29 September 2008 (Figure 3).

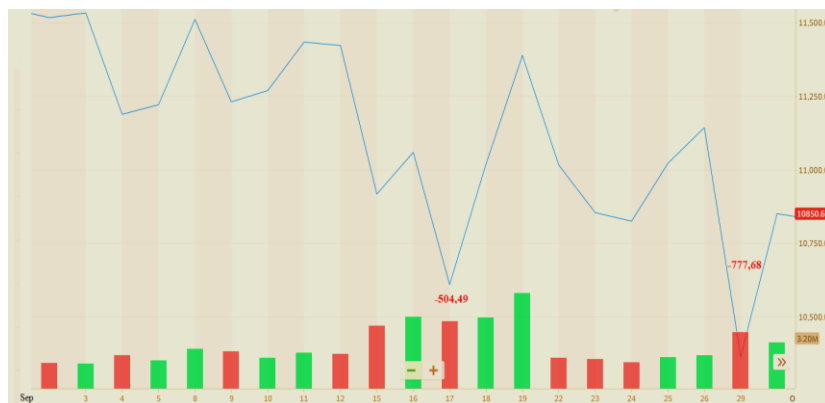


Figure 3. Two characteristic declines in the value of the Dow Jones stock index in September 2008

Source: Top 10 Dow Jones Drops. Available at: http://content.time.com/time/specials/packages/article/0,28804,1845523_1845619,00.html.

The total decline in the value of the S&P 500 stock exchange index in 2008 was 38.49%, which is its largest annual decline. In the era of the Global Financial Crisis, there was a drop: the price of oil dropped from 138 to 95 dollars per barrel, the value of the main Brazilian stock index *Ibovespa* dropped by 10% and the London stock index *FTSE* dropped by 5.3% (<https://www.adigitalblogger.com>). On 9 March 2009, the S&P 500 stock index had the lowest value (676.53 points) since the outbreak of the Global Financial Crisis and the bankruptcy of Lehman Brothers (<https://www.reuters.com>) (Figure 4).

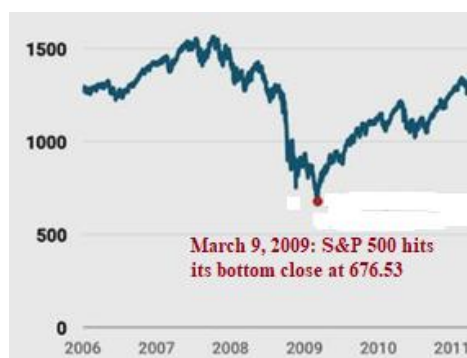


Figure 4. Lowest recorded value of the S&P 500 stock index since the outbreak of the Global Financial Crisis and the bankruptcy of Lehman Brothers

Source: Yahoo Finance, 2020.

Far greater turbulence on world stock markets was caused by the spread of COVID-19 in the first quarter of 2020.

At the beginning of February 2020, COVID-19 was mostly limited to China. The US *S&P 500* reached its all-time high on 19 February 2020. However, just a few days later, when news of the spread of this disease outside China appeared, stock market indices began to fall.

On 12 March 2020, the value of shares on the American stock exchange dropped by about ten percent. Then, the biggest losses in one day from October 1987, that is, from the so-called “Black Monday”, occurred. This ended the longest phase of growth in history (bull market), which began after the World Financial Crisis in 2008. The “bear market” phase followed, when investors suddenly sold off shares.

The dramatic decline in the value of shares on stock exchange around the world on 12 March 2020 caused not only the rapid spread of COVID-19 outside China, but also the fear of investors that the spread of this disease will slow down global economic growth. On 12 March 2020, the value of the *S&P 500* index fell by 9.51%. As early as 20 March, its value decreased by 31.9% compared to the value (peak) of 12 February (Figure 5).



Figure 5. *S&P 500 Bear Market*

Source: FactSet, 2020.

Due to the spread of COVID-19, after 12 March 2020, there was a large decline in the value of the *Dow Jones* (-9.99%) and *Nasdaq Composite* (-9.43%) stock indices (<https://www.cnbc.com>). U.S. stock markets sank further after the decision of the President Donald Trump administration to suspend flights from European countries due to the spread of COVID-19. Trump’s decision led to a drop in the value of the airlines’ shares by 19.6%, as well as to an additional drop in the price of Brent crude oil by 8.6%. On 12 March 2020, stock markets in other parts

of the world were shaken. Thus, the pan-European *STOXX 600* index dropped by 11.48%.

The COVID-19 crisis in the first quarter of 2020 caused a high average decline in key US stock indexes, compared to their value on 31 December 2019. The *Dow Jones* and *S&P 500* stock indices had the worst performance ever recorded in the first quarter of 2020. The *Dow Jones* dropped by 23.1% and the *S&P 500* by 20% (Figure 6).



Figure 6. U.S. Stock Plunge in the First Quarter 2020

Source: FactSet, 2020.

In the first quarter of 2020, the *Dow Jones* stock index had the lowest quarterly value since 1987. In the same quarter, the *S&P 500* stock exchange index had the largest quarterly drop since 2008.

Economists of one of the oldest financial institutions in the USA, JPMorgan Chase & Co., estimate that by the end of 2021, the COVID-19 pandemic will cost the world around 5.5 billion USD, which will lead to a reduction in global GDP by almost 8% (<https://www.archyworldys.com>).

Hopes for Recovery According to the “U” and/or “V” Form

The V-shaped economic recovery curve is mainly due to the sharp decline of a particular economy, which quickly follows the continuous recovery of that economy. Such a curve in the last five decades has more mimicked changes in company growth and profits than changes on financial markets. The U-shaped economic recovery curve shows that the economy is failing for a long period of time and then recovering quickly. Such a recovery implies a gradual revival of economic activity, with the entry into the crisis being faster than the exit from the crisis.

Jürgen Stackmann, the VW head, assesses that the demand recovery curve for its passenger cars in China will have the shape of the letter "V", but not in Europe, which is realistic. The sales of their passenger cars in China in the last week of April 2020 was higher than in the same period in 2019. The accelerated recovery of demand in China is largely the result of the desire of customers to use their own vehicles instead of public transport. In contrast, in April, VW sales in Europe decreased by 85% compared to sales in the same period in 2019, because some large markets (e.g. Italy and Spain) completely closed. In addition, the company's car sales decreased by 50% in North America and by as much as 81% in South America (<https://www.thisismoney.co.uk>). Without the recovery of the EU, North and South American markets, the EU car industry, which employs about 9% (2.6 million) of EU factory workers (<https://www.nytimes.com>), will primarily be able to rely on the growth of demand on the Chinese market.

Most CEOs predict a "U" recovery, which means they expect a long period between recession and recovery. No one can precisely determine the duration of the health crisis, whether there would be a second wave, nor what the second wave would look like, which indicates a recovery in the form of the letter "W". It is only clear that the recovery of the economy will begin when the health crisis ends to a certain extent.

The Ernst & Young survey shows that 54% of top company executives expect a recovery in the form of the letter "U" – a period of reduced economic activity that will take place in 2021 (<https://www.ey.com>). As a reason for such an expectation, they cite the necessity of a relatively long-time interval for the full opening of national economies and the return of consumers to their old way of life.

The "U" recovery significantly reflects the presence of fear among customers even after the removal of measures and the opening of economies. For example, even after the lifting of measures by governments in some Asian countries, there has been no rapid recovery in tourism and an increase in restaurant guests.

Alexandre de Juniak, director general of the International Air Transport Association (IATA), an organization that includes 290 airlines from 120 countries (<https://www.iata.org>), estimates that the crisis in the global aviation industry will take the form of the letter "U". Also, the recovery of domestic air traffic will be faster than international.

Due to the COVID-19 pandemic, the airlines, as well as those operating in the hotel and tourism sector, were left virtually without any income overnight, as the governments of many countries took strict measures of social distancing. Most airlines landed their planes. The losses of airlines for commercial passenger transport in 2020 could reach 314 billion USD (<https://www.theguardian.com>), which makes about 37% of their total revenues in 2019. Despite the fact that several governments have introduced

new or expanded the range of existing financial assistance measures, some airlines will find it difficult to survive until the start of economic recovery.

Hotels closed their doors as restaurants turned to customers who come for food on their own and take it home. Global revenues generated from travel and tourism in 2020, instead of the planned 711.944 billion USD, will amount to 568.583 billion USD, which is a decrease of about 17% compared to the previous year (Figure 7) (<https://www.statista.com>). However, many countries hope that, after putting the epidemic under control or using vaccines, their recovery will be as fast as the decline itself.

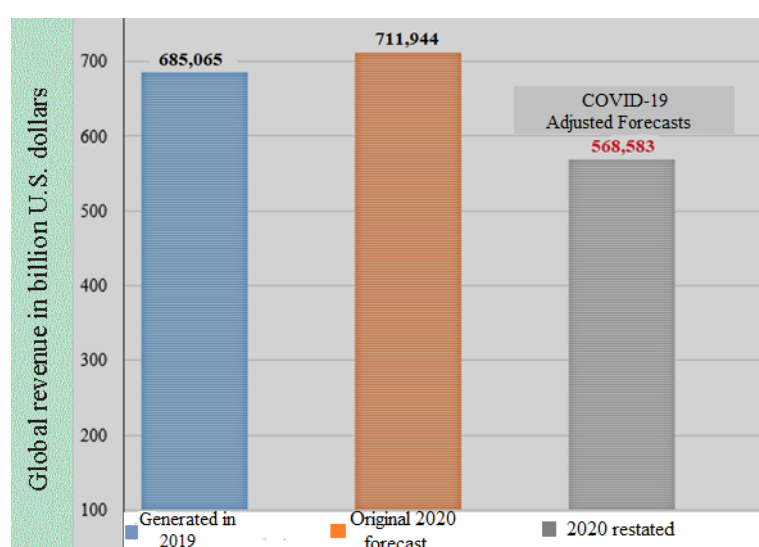


Figure 7. Change in travel and tourism revenues in the period from 2019 to 2020 in billions of USD

Such hopes were supported by the IMF in its first (April) edition of the World Economic Review for 2020, which will be re-published six months later. Assuming that the COVID-19 pandemic would end in the second half of 2020, that measures to curb the spread of the pandemic would be phased out, and that effective measures would be taken to limit the economic damage caused by isolation measures, the IMF predicted a global economic recovery in the form of the letter “V”. This means that the decline of the global economy in 2020 will be large, but that its rapid recovery will follow in 2021 (Figure 8).

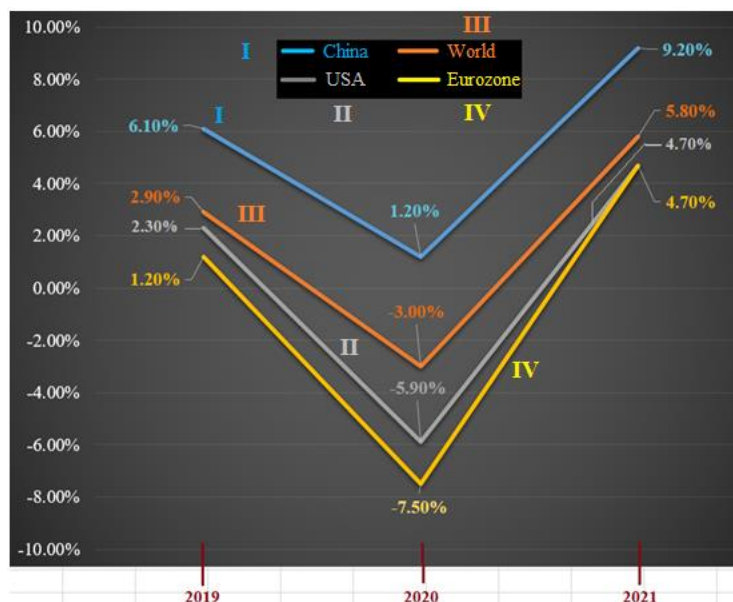


Figure 8. Projected GDP growth for selected economies and the world (by April 2020)

Source: World Economic Outlook, April 2020: The Great Lockdown. Available at: <https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020>

Experts of this financial institution estimate that, in 2020, the COVID-19 pandemic will lead to a negative growth of the global economy of three percent (<https://www.bloomberg.com>). Such a decline has not been recorded since the Great Depression in the 1930s. The COVID-19 pandemic will hit the eurozone countries, the United States and China the hardest. Due to the unpredictability of the course and duration of the pandemic, it is realistic to expect that the IMF will significantly revise its forecasts by the end of 2020.

European Union and US Reactions to the COVID-19 Pandemic

The COVID-19 pandemic has strongly affected the economies of all EU member states. To a certain extent, the member states have started to close their national borders, so that the principle of solidarity, on which the EU is built, was violated.

A clear indicator of the economic crisis in the EU, caused by COVID-19, is the decline in its GDP. In the first quarter of 2020, the decline in GDP of this economic integration, compared to the previous quarter, was 3.5% (Figure 9) (<https://ec.europa.eu>). The decline in GDP of France in the first quarter of 2020, compared to the last quarter of the

previous year, was 5.8% and Italy 4.7%. The crisis will be especially devastating for the economies of the Eurozone. According to the estimates of the experts of the European Central Bank (ECB), by the end of 2020, the fall in the GDP of the Eurozone will be between 5 and 12% (<https://www.theguardian.com>).

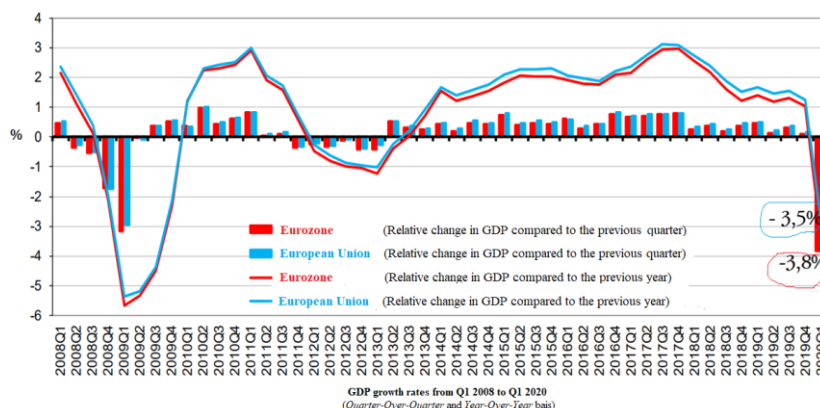


Figure 9. Relative change in GDP compared to the previous quarter (columns) and the previous year (lines)

The COVID-19 pandemic will have a very negative impact on the largest economy in Europe – the economy of Germany. The pandemic will negatively affect the labor market and public finances. Unemployment in Germany will increase to 5.9% in 2020. The recession in that country in 2020 will reach 4.2%. However, thanks to fiscal aid, economists expect a strong recovery of production in Germany in 2021 of 5.8%.

On 18 March 2020, the ECB activated a 750 billion euros Pandemic Emergency Purchase Program (PEPP) to support the euro during the pandemic (<https://www.ecb.europa.eu>). The program, if accompanied by fiscal actions by governments, will boost the eurozone economy and the credit market. The Program is also an addition to the 120 billion euros set by the ECB on 12 March 2020 (<https://www.euractiv.com>), in order to support economic activity, protect jobs and maintain price stability in the euro area. Since 2015, the ECB has bought bonds worth around 2.7 trillion euros. By the end of 2020, this bank will buy bonds (debts) of countries and companies within the Eurozone, in order to show its commitment to the euro. It will also ease some restrictions on bond purchases, as well as some of its collateral standards to make it easier for banks to raise funds. Greece expects its inclusion in the ECB's bond-buying program for the first time will help reduce borrowing costs. The ECB's monetary stimulus will help both Italy and Spain reduce borrowing costs, especially after the outbreak of the coronavirus epidemic.

On 9 April 2020, EU finance ministers reached an agreement on a comprehensive economic response to the COVID-19 pandemic. The EU has mobilized about 540 billion euros to protect and rebuild member states' economies after the pandemic, but has also set conditions for the use of joint credit lines (<https://www.euractiv.com>). The implementation of the adopted aid package, as a sign of solidarity, began in the last week of April.

To deal with the effects of the economic crisis caused by the COVID-19 pandemic, EU members have reached an agreement on three "safety nets". The first "safety net" called "SURE" is intended for workers of all EU member states. "Sure" is a temporary EU instrument that will support national 'safety nets' for workers. "Sure" will channel up to 100 billion euros to national services that support part-time work or pay unemployment benefits and other programs for workers. EU member states will provide guarantees to raise money for their workers.

The second "safety net" is intended for companies in all EU member states. EU member states at national levels provide assistance within their borders to companies to maintain liquidity. Unfortunately, this assistance is uneven due to the different strengths of the economies of the member states. EU companies, primarily small and medium-sized ones, have 200 billion euros at their disposal, which they can get in the form of a loan through the European Investment Bank.

The third "safety net" is intended only for eurozone member states in times of crisis, under standardized conditions and with the assessment of EU institutions. It is about creating a fund for rescuing the Eurozone (European Stability Mechanism) of 240 billion euros by allocating 2% of GDP. The Netherlands is the last EU country to prevent an agreement on the formation of this fund, that is, opposed the easy conditions for obtaining cheap loans provided by that fund. Every member of the Eurozone that requests funds from this fund will be subjected to EU economic and fiscal coordination and monitoring, that is, will have to accept reforms. The only condition to access this loan is that the use of that money will be exclusively intended to finance direct or indirect health care, treatment and prevention of COVID-19.

Due to the unwillingness of the Netherlands and Germany to guarantee the borrowing of others, at the level of the Eurozone, for which the European Commission envisages a reduction of economic activity by 7.7% in 2020, no consensus has been reached on joint borrowing, i.e. issuing the so-called "corona bonds" without maturity, which Italy, Spain and France insisted on. According to the Commission's forecast, after the historic recession in 2020, the eurozone will grow by 6.25% in 2021 (<https://www.bignewsnetwork.com>).

With the agreed package of 540 billion euros, the EU will need at least another 500 billion euros for the next phase of the fight against

COVID-19. In addition, the EU must carefully consider new instruments, but also use existing institutions, including the European Commission and the EU budget.

In addition to the ECB, similar measures due to the COVID-19 pandemic have been taken by the central banks of England, Canada, China, Australia and Japan. Globally, such measures surpassed those taken by central banks during the 2008 financial crisis. For example, the US Federal Reserve System, or in common parlance the Fed, which plays the role of the US central bank, has decided to cut the interest rate to almost zero and inject about 4.7 trillion USD onto the financial markets in order to save the country from a possible recession. So, as direct support to the economy, the Fed received about 4.7 trillion USD of liquidity. In addition, the U.S. passed four laws in just two months in response to COVID-19, providing total federal aid to companies, individuals, and hospitals of about 3 trillion USD. This means that from the outbreak of COVID-19 in the United States until the end of April 2020, direct and credit assistance together amounted to about 7.7 billion dollars, which is the largest amount in the history of the United States. Despite this significant financial help, in just seven weeks in March and April 2020, about 26 million people lost their jobs in the United States.

*Rationality of Decisions of the Serbian Government
in the Era of the COVID-19 Pandemic*

Due to the very uncertain economic impacts of the COVID-19 pandemic by the end of 2020, the World Bank is very pessimistic. It predicts a fall in GDP in the Western Balkans region between 3.1 (baseline scenario) and 6% (pessimistic scenario). According to its basic scenario, the economies of the Western Balkan countries will face a fall in GDP between -1.4% and -5.6% by the end of 2020 (Figure 10) (<https://www.worldbank.org>).

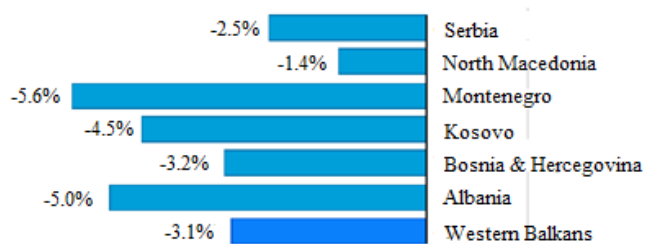


Figure 10. Real GDP growth of the Western Balkans and the region in 2020 according to the basic scenario of the World Bank

The fall in the GDP of the Republic of Serbia will be around -2.5%. In the region of the Western Balkans, only Northern Macedonia (-1.4%) will have a smaller decline than the Republic of Serbia.

In late March 2020, the Government of the Republic of Serbia presented a package of measures worth about 5.1 billion euros (about 11% of GDP) to help the economy affected by the coronavirus. In order to survive, entrepreneurs, micro, small and medium enterprises received the amount of three net minimum wages per employee, provided they did not fire more than 10% of employees since the introduction of the state of emergency. Large companies also received assistance – 50% of the minimum wage for employees with an official decision on employment termination. Tax relief for the private sector during the state of emergency, at least for three months, is also significant. In order to increase liquidity, the government allowed private sector entities to pay payroll taxes and contributions in 24 installments starting at the earliest from 2021. From April to June 2020, the Government allowed the postponement of the payment of income tax, as well as property tax for legal entities and entrepreneurs. Finally, every adult citizen received direct assistance of 100 euros from the state, in the dinar equivalent.

The Government of the Republic of Serbia did not want to use the three-billion-euro aid package from the EU Rapid Financing Instrument, which the EU provided to ten partners in the enlargement and neighborhood process to help them fight the economic consequences of the COVID-19 pandemic. The government estimated that the Republic of Serbia had no problem with the balance of payments and that is why it did not turn to the IMF for the use of the EU aid package for a period of one year.

The decision of the Government of the Republic of Serbia not to use the offered funds to solve the problem of macroeconomic stability is directly aimed at preventing the increase of the external debt. However, in the long run, such a decision is questionable, given that it is not possible to predict the duration and scale of the coronavirus crisis. Also, this decision of the Government can be a challenge for other economies of the Western Balkans. By using EU assistance in the form of favorable loans, the Republic of Serbia would to some extent strengthen the economic stability of other economies in the Western Balkans. The COVID-19 pandemic has hit the EU economies and even called into question the principle of solidarity. However, if it wants to develop faster, the EU will have to encourage wider integration processes between the countries that strive for it.

Is the sale of two-billion-euro government bonds on 11 May 2020 on the international financial market, instead of using an IMF loan, the most favorable borrowing of the Republic of Serbia? Is such a decision just entering a new phase of “debt slavery”? On the international financial

market, the Republic of Serbia borrowed twice in 2019 under favorable conditions – in June and November. In June, the state sold one billion euros in bonds with a yield of 1.6%, and in November another 550 million euros with a yield of 1.25% and a ten-year maturity, which significantly reduced interest costs in the budget, improved the currency structure and public debt. At that time, the great interest of investors clearly represented their high trust in the Republic of Serbia. However, borrowing two billion euros on the international capital market for a period of seven years, with a yield of 3.375%, was certainly a unique move of the Government of the Republic of Serbia in the region.

Compared to the cost of borrowing in 2019, the cost of borrowing during the crisis caused by the COVID-19 pandemic based on the sale of government bonds has increased. Instead of using the funds provided by the EU through the IMF in April (through the instrument of rapid financing), at very favorable interest rates (from 1.13 to 2.5%), the Government of the Republic of Serbia opted for those that are significantly more expensive. It is clear that in borrowing, the Government was aware of the fact that the use of IMF funds is subject to stricter control than the use of significantly more expensive funds raised through the issuance of bonds on the international financial market. The freedom to use the funds has been given priority over the total price of those funds. It is difficult to conclude that the Government of the Republic of Serbia reacted well and that it will overcome the consequences of the COVID-19 pandemic more successfully than the remaining ten EU partners in the enlargement and neighborhood process. It is realistic to expect that the funds of the crisis program of EU macro-financial assistance of three billion euros will enable EU partners in the enlargement and neighborhood process to, under more favorable conditions than the Republic of Serbia, ensure their macroeconomic stability and preserve their companies during the crisis.

CONCLUSION

In order to curb the spread of COVID-19, many countries have opted for greater or lesser isolation of the population (lockdowns), which has resulted in a sharp decline in their economic activity.

The COVID-19 pandemic will cause an annual drop in world GDP of about three percent. The depth and duration of this decline will largely depend on the duration of the pandemic, but also on the quality of the measures implemented by the governments of individual countries. Economic recovery is more likely when companies and consumers see the pandemic as a temporary, one-off shock.

The deep recession was also announced by a drastic drop in oil prices on the global market. Such a drop in oil prices indicates that even the largest producers of this raw material did not take seriously the impact

of the COVID-19 pandemic on stopping the global economy. Unfortunately, end consumers, especially in European countries, did not benefit much from the enormous drop in crude oil prices, because it was not accompanied by an equivalent drop in retail prices. In any case, the stabilization of crude oil prices should be expected, but the pace of that stabilization will largely depend on the level of recovery of the pandemic-stopped economies.

Due to the unpredictability of the health crisis caused by the coronavirus, as well as the nature of the spiral of expectations, it is hard to believe that the recovery of the global economy according to the “V” pattern, which would otherwise be the best, is possible. It is more realistic to expect that the recovery of the global economy from this crisis will be mostly in the shape of the letter “U”.

The analysis of the global economic consequences of the COVID-19 pandemic, using the classical methodology of theoretical research of relevant academic sources, statistics of financial institutions and governments, and Internet sources, yielded results that confirm the initial assumption that the consequences of this pandemic on the global economy are much greater than those caused by the 2008 Global Financial Crisis. However, the analysis itself showed vulnerability, because it covered a relatively short time interval and it is difficult to accurately see the spectrum of impact, depth of impact and duration of the pandemic. Given that there is very little research in the academic literature on the economic consequences of the COVID-19 pandemic, the originality and significance of the research is reflected in an attempt to anticipate these consequences and thus help governments and companies circumvent or at least minimize them.

In order to reduce the negative effects of the COVID-19 pandemic on the economy and citizens, in April 2020 the Government of the Republic of Serbia began implementing a program of economic measures (tax policy measures, providing direct assistance to the private sector, measures to preserve liquidity and direct assistance to all adult citizens), worth 5.1 billion euros. From the beginning of the implementation until the middle of May, the measures of the Government in terms of preserving the acquired level of employment and providing assistance to companies, although linear in nature, gave good results. Unfortunately, it is not possible to accurately predict the duration and overall consequences of the pandemic.

REFERENCES

- Ahir, H., Bloom N., and Furceri D. (2020, April 04). World Uncertainty Index. Available at: <https://worlduncertaintyindex.com/data/> (12/12/2020)

- Baldwin, R. (2020), "The supply side matters: Guns versus butter, COVID-style." VOXEU, March. Available at: <https://voxeu.org/article/supply-side-matters-guns-versus-butter-covid-style> (1/7/2020)
- Baldwin, R., and Beatrice, W.M. (2020), *Economics in the Time of COVID-19*. London: CEPR Press.
- Barro, R. J., Ursua, J. F., Weng, J. (2020), "The Coronavirus and the Great Influenza Epidemic-Lessons from the "Spanish Flu" for the Coronavirus's Potential Effects on Mortality and Economic Activity." CESifo, Working Paper No. 8166. Available at: https://www.cesifo.org/DocDL/cesifo1_wp8166.pdf (3/8/2020)
- Coronavirus outbreak could cost world's airlines up to \$314bn*. Available at: <https://www.theguardian.com/world/2020/apr/14/coronavirus-outbreak-could-cost-worlds-airlines-up-to-314bn> (19/4/2020)
- Cuddington, J. T., and Hancock, J. D. (1994), "Assessing the Impact of AIDS on the Growth Path of the Malawian Economy." *Journal of Developing Economics* 43:363-368.
- Cuddington, J. T., and Hancock, J. D. (1995), "The Macroeconomic Impact of AIDS in Malawi: A Dualistic, Labor Surplus Economy." *Journal of African Economies* 4:1-28.
- ECB announces €750 billion Pandemic Emergency Purchase Programme (PEPP)*. Available at: https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html (19/4/2020)
- ECB unveils €750 billion stimulus against coronavirus*. Available at: <https://www.euractiv.com/section/coronavirus/news/ecb-unveils-e750-billion-stimulus-against-coronavirus/> (21/4/2020)
- Eichenbaum, M., Rebelo, S., Trabandt, M. (2020), "The Macroeconomics of Epidemics." *Working Paper* 26882. Available at: <http://www.nber.org/papers/w26882> (3/8/2020)
- Eurogroup agrees on €540 billion corona-package*. Available at: <https://www.euractiv.com/section/economy-jobs/news/eurogroup-agrees-on-e540-billion-corona-package/> (22/4/2020)
- European Car Sales Fall the Most in Decades, Signaling Slump*. Available at: <https://www.nytimes.com/2020/04/17/business/europe-eu-car-sales.html> (7/5/2020)
- Eurostat, *Newsrelease, Euroindicators, 74/2020 - 30 April 2020*. Available at: <https://ec.europa.eu/eurostat/documents/2995521/10294708/2-30042020-BP-EN.pdf/526405c5-289c-30f5-068a-d907b7d663e6> (4/5/2020)
- FactSet, 2020.
- Freire, S. (2004), "Impact of HIV/AIDS on saving behaviour in South Africa." TIPS/DPRU/Cornell University Forum: African Development and Poverty Reduction.

- Forecasted change in revenue from the travel and tourism industry due to the coronavirus (COVID-19) pandemic worldwide from 2019 to 2020.* Available at: <https://www.statista.com/forecasts/1103426/covid-19-revenue-travel-tourism-industry-forecast> (18/4/2020)
- Gormsen, J. N., and Kojien, R. S. (2020), "Coronavirus: Impact on Stock Prices and Growth Expectations." University of Chicago, Becker Friedman Institute for Economics Working Paper No. 2020-22. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3555917 (15/5/2020)
- Haacker, M. (2020), The economic consequences of HIV/AIDS in Southern Africa. International Monetary Fund, 2.
- Here's what happened to the stock market on Thursday.* Available at: <https://www.cnbc.com/2020/03/12/what-happened-to-the-stock-market-thursday-sp-500-joins-dow-in-bear-market.html> (22/12/2020)
- IATA Members.* Available at: <https://www.iata.org/en/about/members/> (19/4/2020)
- Key dates and milestones in the S&P 500's history.* Available at: <https://www.reuters.com/article/us-usa-stocks-sp-timeline-idUSBRE9450WL20130506> (12/5/2020)
- Lagarde: eurozone faces unprecedented peacetime slump.* Available at: <https://www.theguardian.com/business/live/2020/apr/30/france-recession-covid-19-lockdown-economy-eurozone-ecb-us-job-losses-business-live?page=with:block-5eaac6f38f08b27d8fdd740c#block-5eaac6f38f08b27d8fdd740c> (2/5/2020)
- Lee J-W., and McKibbin, W. (2004), "Globalization and Disease: The Case of SARS." *Asian Economic Papers* 3 (1): 113-131.
- Marc-Olivier Strauss-Kahn (May 2020), Can we compare the COVID-19 and 2008 crises? *SUERF Policy Note*, Issue No. 164. Available at: <https://www.suerf.org/policynotes/13389/can-we-compare-the-covid-19-and-2008-crises> (12/12/2020)
- Milovanović, G., Radisavljević, G., Đukić, G. (2020). The impact of COVID-19 pandemic on the Serbian economy. 23rd DQM International Conference ICDQM-2020 „DEPENDABILITY AND QUALITY MANAGEMENT”. Proceedings. Prijedor: 25-26 June.
- Milovanović, G., Milanović, S., Radisavljević, G. (2020). "Structural Changes in Foreign Trade as a Factor of Competitiveness of the Republic of Serbia." *Economic Themes*, 58(2): 149-170. DOI 10.2478/ethemes-2020-0009.
- Milovanović, G. (2020). Globalno snabdevanje u eri pandemije bolesti KOVID-19. "Digitalna transformacija u funkciji privrednog razvoja Republike Srbije." Niš: Ekonomski fakultet Univerziteta u Nišu.
- Next: navigating a downturn and positioning for recovery.* Available at: https://www.ey.com/en_glccb/how-do-you-find-clarity-in-the-midst-of-covid-19-crisis#next (7/5/2020)
- Shannon, G. W., and Willoughby, J. (2004), "Severe Acute Respiratory Syndrome (SARS) in Asia: A Medical Geographic Perspective." *Eurasian Geography and Economics*, 45(5): 359-381.
- Stock Market Crash 2008.* Available at: <https://www.adigitalblogger.com/share-market/stock-market-crash-2008/> (27/12/2020)
- The latest: European Commission forecasts historic recession for 2020.* Available at: <https://www.bignewsnetwork.com/news/264968630/the-latest-european-commission-forecasts-historic-recession-for-2020> (12/5/2020)
- Top 10 Dow Jones Drops.* Available at: http://content.time.com/time/specials/packages/article/0,28804,1845523_1845619,00.html (27/12/2020)
- Trade Woes Push IMF Global Growth Outlook to Decade-Low of 3%.* Available at: https://www.bloomberg.com/news/articles/2019-10-15/trade-woes-push-imf-global-growth-outlook-to-decade-low-of-3?utm_source=google&utm_medium=

- cpc&utm_campaign=dsa&utm_term=&gclid=CjwKCAjwp-XOBRAFEiwAheRui8m6QZiJ6TyUNbS-If8HPwCmV2tLnjF3PBBNSc3W2x5H9TPI_TcszxoC934QAvD_BwE
- VW sees multi-speed coronavirus rebound led by China. Available at: <https://www.thisismoney.co.uk/wires/reuters/article-8291957/VW-sees-multi-speed-coronavirus-rebound-led-China.html> (27/5/2020)
- Western Balkans Regular Economic Report: Spring 2020. Available at: <https://www.worldbank.org/en/region/eca/publication/western-balkans-regular-economic-report> (5/5/2020)
- World Economic Outlook, April 2020: The Great Lockdown. Available at: <https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020> (28/5/2020)
- Wren-Lewis, S. (2020), The economic effects of a pandemic. U Baldwin, R., and Beatrice, W.M. (eds). Economics in the Time of COVID-19. A VoxEU.org Book, Centre for Economic Policy Research, London. Available at: <https://voxeu.org/system/files/epublication/COVID-19.pdf> (1/5/2020)
- Yahoo Finance, 2020.

ПАНДЕМИЈА ВИРУСА КОРОНА: ЕКОНОМСКЕ ПОСЛЕДИЦЕ И РЕАКЦИЈЕ ВЛАДА

Горан Миловановић¹, Александра Анђелковић¹, Габријела Поповић²

¹Универзитет у Нишу, Економски факултет, Ниш, Србија

²Универзитет Привредна академија у Новом Саду, Факултет за примењени менаџмент, економију и финансије, Београд, Република Србија

Резиме

Иако су, са једне стране, развој здравственог система и повећање технолошког капацитета допринели томе да се савремено друштво лакше носи са различитим врстама болести, са друге стране је дошло и до повећања рањивости савременог друштва, јер су створени услови за лакше преношење вируса, као што је случај са вирусом SARS-CoV-2. Питање је да ли је у постојећим условима пандемије вируса корона прави одговор затварање граница, или је ипак пожељнији и примеренији рад на јачању међудржавне сарадње. Са аспекта економије, затварање земаља ради спречавања ширења вируса води ка банкротирању компанија, расту незапослености и, коначно, глобалној економској кризи што, свакако, није нити добар, нити пожељан исход. Хоће ли последице пандемије вирусом корона бити далекосежније од оних изазваних Глобалном финансијском кризом из 2008. године? Из овог питања и проистиче главни циљ овог истраживања који се односи на реализацију компаративне анализе Глобалне економске кризе из 2008. године и кризе узроковане пандемијом вируса корона. Такође, циљ истраживања је и дефинисање могућих крива опоравка светске економије, те евалуација мера предузетих од стране Европске уније (ЕУ), Сједињених Америчких Држава (САД) и Републике Србије као одговора на насталу ситуацију узроковану пандемијом. Спроведено истраживање се заснива на коришћењу релевантних Интернет, академских и статистичких извора који су омогућили извлачење одговарајућих научних закључака. Резултати истраживања показали су да ће пандемија вирусом корона евидентно узроковати пад светског

БДП-а на годишњем нивоу за око три процента. Сама дубина и дужина трајања овог пада условљена је дужином трајања пандемије, али и квалитетом мера које су предузеле и које ће предузети владе земаља. Поред тога, резултати су указали и на то да је нереално очекивати да ће се опоравак економије одвијати према “В” (V) обрасцу, те да је опоравак у форми латиничног слова “У” (U) вероватнији. Коначно, потврђена је почетна претпоставка да су последице узроковане пандемијом вируса корона са аспекта глобалне економије веће од оних насталих услед Глобалне финансијске кризе из 2008. године. Међутим, мора бити констатовано да сама анализа поседује одређене недостатке због тога што обухвата релативно кратак период, те је било тешко прецизно сагледати спектар и дубину утицаја, као и проценити трајање саме пандемије.