

## ECONOMIC IMPLICATIONS OF COVID-19 ON THE INSURANCE SECTOR

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### Abstract

The proclamation of the COVID-19 pandemic resulted in the world economy shutdown, which ultimately caused a global recession. Although the consequences of the pandemic were not the same in all national economies and economic sectors, the governments of most countries, in order to mitigate the negative effects of the crisis, adopted fiscal packages to support the citizens and subsequently business entities in their countries, which ranged from 1% to 7% of gross national product. However, these measures do not guarantee the possibility of rapid economic recovery in the long run. During the crisis, a large number of economic entities expected that a part of the loss caused by the negative effects of the pandemic will be covered. However, insurers have encountered not only an increased number of requests, but also an intensification of operational risks, threatened solvency and profitability. Reorganization of business activities of insurance companies has become mandatory, whereas ensuring fair treatment of policyholders and the stability of the insurance sector has become an ultimate condition.

**Key words:** risk, pandemic, crisis, decline in economic activity, demand, solvency, insurance, risk management models.

## ЕКОНОМСКЕ ИМПЛИКАЦИЈЕ КОВИДА-19 НА СЕКТОР ОСИГУРАЊА

### Апстракт

Резултат проглашавања пандемије ковид-19 је затварање економија многих земаља, што је у коначном проузроковало глобалну рецесију. Иако последице пандемије нису биле исте у свим националним економијама и привредним секторима, владе највећег броја земаља су у циљу ублажавања негативних ефеката кризе усвојиле фискалне пакете као подршку грађанима, а потом и пословним субјектима у њиховим земљама, чија вредност се кретала од 1% до 7% бруто друштвеног производа. Међутим, ове мере нису гарант могућности брзог опоравка привреде дугорочно посматрано. У условима кризе велики број привредних субјеката очекивао је покриће дела губитка проузрокованог нега-

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тивним ефектима пандемије од стране осигураваача. С обзиром на повећани обим одштетних захтева, али и интензивно деловање оперативних ризика озбиљно је могла бити угрожена солвентност и профитабилност осигураваача. Реорганизација пословних активности осигуравајућих компанија постала је неопходна, а обезбеђење фер односа према осигураницима и стабилност сектора осигурања услов свих услова.

**Кључне речи:** ризик, пандемија, криза, пад привредних активности, тражња, солвентност, осигурање, модели управљања ризиком.

### *INTRODUCTION*

The crises that occurred during the evolution of human civilization often devastated the economy of smaller or larger numbers of countries and affected different segments of human society. According to the World Economic Forum study, conducted in more than 130 countries, the group of “top five risks” that have the greatest impact on the world economy are: fiscal crises, cyber-attacks, unemployment, shocks caused by energy prices and failure of national governance. Frequently, we can find in the literature that socially derived risks and dangers are absolutely dominant in the 21<sup>st</sup> century, i.e. that the industrial society has created new, previously unknown dangers and risks (Ulrih, 2011, p.18). In this respect, it is quite logical to claim that the pandemic caused by the COVID-19 virus led to a crisis that halted the whole world and did not miss any segment of human existence, disproving the effects and ranking of the “top five risks”. The virus has become a key global threat to human life, the economy and society as a whole (World Economic Forum, 2020). Uncertainties about the duration of the virus, as well as the intensity of its consequences, support the previous statement. Also, the pandemic revealed numerous weaknesses and failures in the “development strategy” of modern societies, and opened space for the re-examination of value systems in human civilization. Based on the previous statements, a quite logical question arises: where is human society going to?

The validity of the answer can be related to the warning of Teodor Momzen, which he sent to his contemporaries, while describing the collapse of the Roman Empire through five historical epochs (Janković, 2013, p. 752), as well as to the basic idea of Elena Bavacka that the history of human civilization is not a continuous progress. In that sense, it is quite comprehensible that theorists and practitioners share the same attitude concerning the life after the COVID-19 pandemic, it will change in general, as well as the work in companies, the functioning of states and society as a whole.

In an effort to elaborate on the consequences of the spread of COVID-19 virus on the insurance sector, the impact of the pandemic risk on the first-affected branches of economy which have an interest in insurance will be emphasized before all. The direct and indirect effects of the

pandemic on the insurance sector in the short and long term will be explained afterwards. After explaining the characteristics by which this risk differs from usual risks that insurers take for their own coverage, a pandemic risk management model will be proposed in order to minimize its harmful consequences on the community and insurance companies.

### *COVID-19 AND BUSINESS ACTIVITY OF THE COMPANY*

The history of the evolution of human society shows that infectious diseases accompanied the development of human civilization. The “Antonine plague” ravaged the Roman Empire, and the plague pandemics were devastating Europe for a long time; the “Spanish flu” had an extremely high death toll; the “swine flu” was characterized by high infectivity, and so on. The COVID-19 pandemic represents the first global crisis since World War II, which may be the reason for the lack of a clear definition. The available reports and scientific papers have stirred controversy whether the coronavirus disease is a pandemic, an epidemic or a syndemic. Many scientists view the pandemic as an epidemic of a contagious disease that is spreading through the population in a larger geographical area. Similar to this one is the definition according to which a pandemic is an outbreak of an infectious disease that affects a significant part of the world's population within a few months (Rogers, 2020). In the Law on Protection of the Population from Contagious Diseases of the Republic of Serbia, a pandemic is defined as an infectious disease that crosses state borders and spreads to most of the world or the world as a whole, endangering people in the affected areas. From the above definitions, the preconditions for the emergence of a pandemic can be derived (World Health Organization, 2009):

- the first precondition is the appearance of a hitherto unknown disease that is the result of a new viral strain emerging in a population to which people have little or no immunity;
- then, the onset of infection and severe consequences for human health as an impact of the disease causative agent; and finally,
- extremely rapid spread of disease-causing infectious agents and their retention among people.

Misapprehension of the concept of the pandemic causes fear and suffering in people (Ghebreyesus, 2020, p.129). At the moment the World Health Organization declared the virus COVID-19 a global pandemic (March 11, 2020), the virus was present in more than 110 countries around the world. The number of cases of the illness in these countries exceeded 118 million, with the potential for further spread. According to the data of Johns Hopkins University, as of the end of June 2020, 217.2 million people were infected in the world, while more than 4.5 million died. Data from the Ministry of Health of the Republic of Serbia and “Dr.

Milan Jovanović Batut” Institute of Public Health show that in Serbia 779,723 people or 15.28% of those tested fell ill with COVID-19, and 7,379 people or 0.95% died by September 5, 2021. A simulation made by professors from Humboldt University shows that a pandemic can today spread to all the continents in only a few hours, because passenger air transport, with its infrastructure of 4,000 airports and 25,000 flights, allows it. According to Taleb, the pandemic changed the economic, political and social aspects of human civilization in a short time, and the course of events showed that human history does not follow any sole pattern (Taleb, 2007, p.28).

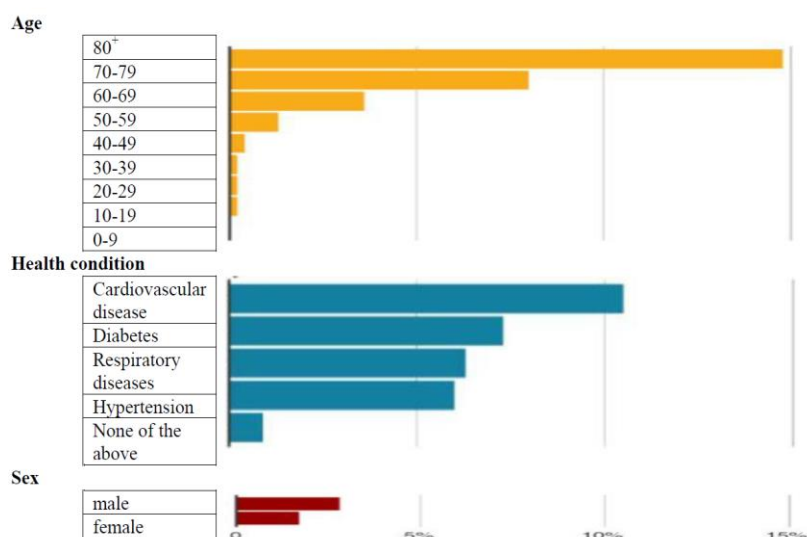
The rule is evidently confirmed (Kočović, Rakonjac-Antić, Koprivica, 2020, p.15) that pandemic cycles involve shifts of:

- underestimating the risk, because in the period preceding the pandemic, preventive activities are not taken and early warnings are ignored,
- as well as panic, given that with the onset of a pandemic reactions are usually delayed and uncontrolled.

According to available literature, an epidemic is a contagious or viral disease that has infected a large number of people in a specific geographical region. Its characteristics are: speed of spread and mass infection occurrence, resistance of microorganisms, possibility of importing diseases from distant parts of the world, constant potential danger posed by natural-focal infections, as well as the risk of worsening the epidemiological situation in emergencies (Đurić, Ilić, Petrović, Ćosić, Ristić, 2007, p. 8). An epidemic is declared when the number of patients exceeds the number expected as a result of the infection.

Syndemic is a combination of the words “synergy” and “pandemic”, according to its creator, the American medical anthropologist Meryl Singer. The use of this term was intended to explain the interaction between two or more diseases that results in devastating social, economic and political consequences that are much greater than the sum of the effects of individually observed diseases (Plit, 2020). The logic of this goal is understandable because the prefix “syn” in translation designates “with”, “joined” or “together”. The results of research conducted in communities whose members used various drugs have confirmed previously cited assertions. Namely, most members had associated diseases (tuberculosis or some other disease). It is increasingly acknowledged today that COVID-19 interacts with diabetes, cancer, heart issues and other problems.

Regardless of the definitions, similarities and differences between the terms, the consequences of COVID-19 are evidently felt not only in the short term, but also in the long term. The manifestations of the consequences can be sublimated as significant human casualties and enormous economic damages. The first to be affected were the sectors and industrial



Graph 1. Mortality rate depending on age, health condition and sex

branches in which social contacts cannot be avoided. In this respect, the number of infected and sick people in need of health care has shown the (un)preparedness and insufficient capacity of national health systems. The indicators of the development of health systems are the existing hospital capacities and the number of experts for medical care and nursing of sick persons. The health systems of highly developed countries have an average of 30 doctors, 81 nurses and 55 hospital beds per 10,000 inhabitants, whereas the countries belonging to the list of the least developed countries have 2.5 doctors, 6 nurses and 7 hospital beds per 10,000 inhabitants (United Nations Development Program, 2020). Variations also exist among the Western Balkan countries. Serbia has more doctors and hospital beds compared to neighboring countries, and slightly less investment in health care compared to some of them. Although the conditions of the infected are different, the costs of treatment are high. Thus, at the very beginning, the price of the mask was 1 euro, millions of euros were allocated from the budget for medicaments and vaccines, a COVID-19 rapid antigen test costed about 17 euros, and the analysis of nasal swab samples averaged 30 Eur. If a patient was treated at home, the bill in the pharmacy was from 30 to 100 euros. One hospital day of general care in Serbia is 15 euros, while a day in intensive care is 35 euros (Rulebook on Prices of Secondary and Tertiary Health Care Services). In private clinics, a hospital day on a respirator, depending on the ward where the patient is, costs between 250 and 300 EUR. The data showed that the health care sector is not the only one in trouble.

As stated in the available data in the EU, the number of tourist reservations decreased by 90% in 2020 compared to 2019, hotels and tour operators recorded a drop in guests of 85%, while travel by plane and cruise ships declined by 90% as well. According to the estimates of the International Air Transport Association, the losses in air traffic amounted to 113 billion dollars at the beginning of March 2020. The net debt of 124 companies monitored by Bloomberg amounted to 402 billion dollars from the end of 2019 to the end of 2020. In the world, the average number of total air flights during 7 days in 2020 was 73, where 28 of them were commercial flights. The International Labor Organization estimates that economic constraints in the fight against the coronavirus have resulted in the loss of 300 million jobs around the world. However, according to the “COVID-19 and the World of Work” report presented by the ILO in Geneva in the second quarter of 2021, almost 11% of working hours were lost worldwide, representing 305 million full-time jobs. The predicted unemployment rate for 2021 is 7.9%. The number of underemployed workers who are formally employed has also increased, because they work shorter hours or remotely. Demand has been reduced at the global level because households spend only on basic needs – food, medicaments, and possibly protective equipment. Investments in the economy have been reduced. Most states have increased expenditures, mainly on health care for residents. In view of supply, there is an evident reduction or even cessation of production by many economic entities, primarily due to quarantine restrictions or even “lockdown” of many parts of the world, in order to comply with the requirement to maintain social distance and reduce contacts. Protectionism and border closures are not a valid response to the pandemic, as economies around the world that rely on global supply chains are being penalized this way. There are also opinions that the first indicator of the impact of the Coronavirus on economic activity was the decline in known indices. The value of the Dow Jones index fell by 9.99% in just one day (March 12, 2020). The Standard & Poor’s Index fell by 9.5%, whereas the Nasdaq Composite Index fell by 9.4%. Also, the massive growth of public debts cannot be ignored. The Institute of International Finance published that the total global indebtedness, with 255 thousand billion in 2019, exceeded 277 thousand billion dollars at the end of 2020. The logical question is how the global economy will get rid of its debt without major negative consequences for economic activity? Viewed from this aspect, the only thing that is certain is that the responsibility is passed on to future generations, and people today make themselves vulnerable to many other risks.

A survey conducted by the Serbian Association of Employers (SAE) and the International Labor Organization (ILO) showed that the crisis caused by the COVID-19 pandemic exerted a moderately negative effect on the activities of companies in Serbia. According to the same

source, about 17% of companies completely suspended their activities during the crisis, 42% maintained a certain level of activity, and 17% switched to remote work. Almost 70% of companies reported a decline in revenue in 2020 by an average of 25% as compared to the same period in 2019. However, there are big differences in the decline depending on the size of the company. The highest revenue decline was in micro-enterprises, averaging out to 31%, while the lowest loss of 20% on the average appeared in large companies. According to the same source, no large company reported a drop in productivity, and 20% of companies even declared to have increased it.

Unemployment is not the best indicator of the immediate impact of the crisis on the labor market, although it cannot be ignored that over 700,000 workers in wholesale and retail trade, accommodation, transport, services, forestry and logging, crop and livestock production are at immediate risk during the health crisis. In micro and small enterprises, every fourth worker stopped working completely. That is why the joint assessment report of the European Bank for Reconstruction and Development and the International Labor Organization states that the coronavirus costed Serbia 510,000 full-time jobs due to the decline in working hours during the second quarter of 2020.

In the first five months of 2020, the total number of tourists in Serbia decreased by 52.8% compared to the same period in 2019 (Ministry of Trade, Tourism and Telecommunications of the Republic of Serbia). Increased interest of tourists was recorded only for rural tourism accommodation in individual farms. As a result, companies in this branch had to lay off a large part of the workforce compared to the average of all sectors. The inflow of foreign direct investment has dropped significantly. In 2020, foreign direct investment figured out at 6.2% of GDP, while in 2018, as the year preceding the COVID-19 pandemic, it amounted to 7.4% of GDP (Bulletin Public Finances 205/2021). The average salary in Serbia, regardless of the problems with the coronavirus, increased from 420 EUR in 2018 to 511 EUR in 2020. Public debt increased from 53.7% to 57.4% of GDP. The escalation of the pandemic consequences also urged the Serbian government to adopt four sets of economic measures that were supposed to ensure the economic stability of the state and help small and medium enterprises to cope with the recession. It is an indisputable fact that the short-term effects of the adopted measures are positive. However, the source of their financing is the state budget, and the uncertainty whether the “unlocking” of the economy and the population might cause new infections is very real (Prašćević, 2020, p.11). Accordingly, a new question arises: how long can the effects of the adopted measures last? For that reason, long-term effects on the labor market must also be considered. They refer to the possibility of rising unemployment over a longer period of time, but also to the deterioration of the state of human capital, competencies and skills of workers who do not go to work.

### *VULNERABILITY IN THE INSURANCE SECTOR*

Taking risks that do not arise from regular economic activity, growing demand for capital in financial markets, the increasing capital budgets of insurance companies, the problem of adverse selection and moral hazard have, above all, contributed to the attractiveness of institutional investors. The key role of insurance, although these companies belong to institutional investors, has always been to minimize the risk by forming risk communities of individuals at risk of same danger, in an organized and institutionalized way, and to protect individuals and business entities from risks that cause harm to their property and lives.

At the beginning of the pandemic the circumstances required that insurance companies should preserve business continuity and do not cause harm to the health and safety of employees and clients. Also, current and potential clients, suppliers and all those who in any way interact with the insurance company, had the right to be informed in a transparent manner about the way of their business activities and plans to preserve business continuity. Since most employees worked and still work from home, the functioning and success of this kind of work requires that IT sector provides uninterrupted, but secure access to computers and files from alternative locations, to solve technical problems in case of audio-video business meetings, to ensure insurance sales, reporting a damage electronically. In addition, CISO managers had to ensure the secure exchange of confidential information among employees, connecting outside the business premises, i.e. to enable the smooth functioning of a communication system in general (Shaw, 2020). That is why insurance companies operating in the insurance market in Serbia increased in the year 2020 the investments in software packages only by 39.92% compared to 2018, the year before the pandemic. The application of software solutions has enabled efficiency and flexibility in accepting information, reduced routine operations and claims management expenses, provided actual damage assessment, but also created new threats and risks, and intensified some of them, such as cybercrime, through its numerous forms (viruses (Trojans), spyware (adware), ransomware, scareware, identity theft, phishing). Although the costs of cybercrime range between 445 billion and two trillion dollars globally, there are many issues and reasons why this segment of insurance is accessed slowly (lack of data needed for actuarial calculation of the adequate amount of insurance premium, lack of internal knowledge needed to take risks in this segment, fear of the so-called tsunami effect where indemnities for cyber risks can have catastrophic consequences for insurance). However, it must be admitted that many insurance companies, immediately before the pandemic, published their contact information on websites, social media accounts, etc. all with a purpose to reduce reputational risk to an acceptable level.



The key types of insurance affected by the coronavirus are: work interruption insurance, health and life insurance, to a certain extent insurance against travel cancellation, insurance against cancellation of concerts and other events, insurance of supply chains, wedding insurance for the weddings that cannot be held, as well as travel health insurance. As a rule, the business interruption insurance of legal entities compensates for the lost profits that could not be realized due to occurrence of a harmful event. Since this insurance is concluded as a supplemental insurance, the obligation to cover the damage from insurance against danger of interruption of work exists only if there is an obligation of the insurer to compensate for material damage due to the occurrence of the insured event from fire and some other events (example: machinery break insurance). The huge losses caused by the work interruption of business entities, which in the short term can exceed technical reserves and capital within the insurance sector, cannot be covered by insurance companies without the government aid, i.e. provide protection under favorable conditions.

*Table 1. Damages based on insurance against the work interruption due to fire danger (in 000 RSD)*

| No Elements                                | 2018    | 2019    | 2020    |
|--|---------|---------|---------|
| Amount of reserved reported, but not       | 91,227  | 90,400  | 27,729  |
| 1 settled claims from previous year        |         |         |         |
| 2 Value of calculated settled claims       | 37,532  | 155,754 | 69,460  |
| The value of calculated reserved reported  | 90,400  | 27,729  | 37,680  |
| 3 not settled claims from the current year |         |         |         |
| 4 Total claims value                       | 219,159 | 273,883 | 134,869 |

*Source: National Bank of Serbia for the specified years*

In other types of non-life insurance, a number of new insurance contracts decreased. According to the data of the National Bank of Serbia, in 2020 there was a decrease in the number of accident insurance contracts, insurance of property against fire and other risks, but the value of the premium increased. According to the insurance companies' data, the largest decline in the number of insurance contracts was with the largest insurers: Dunav, DDOR, Generali, UNIQA non-life insurance and Wiener from 10% to 23%. The value of the premium dropped only with Generali and UNIQA non-life insurance. Voluntary health insurance, based on the number of contracts, decreased in 2020, compared to 2018 and 2019, but the value of the premium has been increasing from year to year. With these types of insurance, the number of claims increased, but also their value covering all the bases (reserved reported, but not settled reported claims in the current year, calculated claims and reserved reported, but not settled claims).

The decline in economic activity and the job losses reduced the purchasing power of the insured, which, in the short term, led to a decline in life insurance purchases in terms of the number of contracts and the number of insured. However, in the long run, the fear of a new pandemic may stimulate the increased demand for life insurance. In Serbia, during the year 2020, the number of insurance policies slightly decreased compared to the previous two years, but the number of insured persons and the value of premiums increased. The dynamics of the increase in the number and value of claims within this type of insurance is slightly higher than the dynamics of the increase in insurance premiums.

*Table 2. Some elements of business activities of insurers dealing with life insurance (in 000 RSD)*

| Elements   | 2018       | 2019       | 2020       |
|--|------------|------------|------------|
| Amount of reserved reported but not settled claims from previous year              | 414,414    | 472,938    | 663,235    |
| Value of calculated settled claims   | 10,293,331 | 12,255,135 | 13,351,317 |
| The value of calculated reserved reported not settled claims from the current year | 472,938    | 66,235     | 927,599    |
| Total claims value   | 11,180,683 | 12,794,308 | 14,942,151 |
| Insurance premium  | 21,616,651 | 22,584,062 | 23,481,706 |
| Technical insurance premium  | 18,059,185 | 18,797,875 | 19,556,184 |

*Source:* National Bank of Serbia for the specified years

Life insurance circumstances determine the investment activity of insurance companies. The deteriorating macroeconomic environment, unfavorable financial market fluctuation, deteriorating credit ratings of debt securities issuers and the increased credit risk for insurers investing in these instruments have had negative effects on the solvency and capital requirements of insurance companies.

*Table 3. The structure of working capital of insurance companies operating in the insurance market in the Republic of Serbia*

| No. Indicators                           | 2018   | 2019   | 2020   |
|--|--------|--------|--------|
| 1 Receivables / working capital          | 8.12%  | 9.03%  | 9.38%  |
| 2 Financial placement/working capital    | 66.95% | 71.58% | 72.39% |
| 3 Debt securities /working capital       | 57.18% | 60.10% | 62.57% |
| 4 Debt securities /financial placement   | 85.41% | 83.95% | 86.43% |
| 5 Equity securities / working capital    | 0.40%  | 0.55%  | 0.46%  |
| 6 Equity securities /financial placement | 0.60%  | 0.77%  | 0.64%  |
| 7 Other securities / working capital     | 0.28%  | 0.41%  | 0.54%  |
| 8 Other securities/ financial placement  | 0.42%  | 0.58%  | 0.75%  |

*Source:* calculated on the basis of the National Bank of Serbia data - insurance sector for the specified years

Although the literature on the impact of the pandemics on the insurance industry is limited, a parallel can be drawn with the impact of other extreme risks (e.g. natural disasters) on global financial system (Cummins et al. 2002). In this respect, the accumulated payments from the insurance in the event of a pandemic can be much greater than the financial and technical capacity of insurers to bear them. In addition, it is difficult to convince potential policyholders to buy insurance that covers low-probability risk (occurs once in several decades) and the intensity of action is extremely high and has multiplicative effects on the economy in general and the life of the individual. Thus, the development of pandemic insurance is limited by both supply and demand factors (Richer & Wilson, 2020, p.182).

### *SOME PANDEMIC RISK MANAGEMENT MODELS*

At first glance, All Risks insurance compared to other types of insurance limited to the named perils insurance solves insurance problems even from pandemic risks. However, this insurance is designed as a kind of combination of standard types of insurance in one policy or a document within an insurance (Klobučar, 2014, p. 199). In addition, the pandemic risk does not meet the basic requirements for insurance and the pandemic threatens sustainable economic and social development and is a huge burden for all countries in the world, regardless of the level of development.

In cases of mass damages resulting from extreme risks, as well as the pandemic risk, one of the solutions to get over the problem is the model of public-private partnership. For example, the governments of some countries have contributed to the development of the insurance market by establishing regulatory measures for microinsurance and supporting public-private partnerships. In the Philippines, insurance companies, governments, benefactors and other organizations work together for the common good of clients. India, Peru, South Africa, have created a legal basis for involving people in financial arrangements, removed barriers and launched incentives for microinsurance companies. Practice has shown that the private sector is suitable for introducing innovations in order to improve efficiency and meet customer needs.

In Serbia, the Law on Public-Private Partnerships and Concessions introduced the concept of public-private partnership into the legal system and created the opportunity for the state and local government bodies to meet the needs for infrastructure and public services by using this model, clearly respecting the established rules of conduct. The goal of introducing the private sector was to reduce fiscal pressure on the local budget, accelerate infrastructure investments, improve services and reduce their prices.

The implementation of the PPP project is realized through several stages: assessment of justification of the PPP model application, preparation and approval of PPP project proposal, a public contract award or a tender which includes selection of private partner and conclusion of public PPP contract, project implementation which includes contract management and subsequent assessment. The main advantages of PPP are: 1. raising the quality of providing public services, 2. accelerating economic growth and development, 3. enabling public administration reform by transferring knowledge and skills in PPP project management, from private to public sector, 4. reducing fiscal pressure on budgets, 5. distribution of risks between public and private sectors, whereas the limitations of PPP are: a long period of time for partner selection, complexity of the procedure, lack of standard contract conditions.

Insurance pools or consortia of insurers with sufficiently high capital can also be one of the solutions to pandemic risk management. A consortium would operate on the coinsurance principle, and the excess risk would be reinsured. The state would cover only those damages that exceed the reinsurance coverage, and in that way the pressure on its funds to cover the huge damages would be reduced.

### CONCLUSION

The shock that the COVID-19 pandemic caused in the economy showed that non-economic and non-financial factors can cause huge economic and financial effects on a global level, which would result in an economic recession. The awareness of the pandemic risk has initiated a debate on possible ways to make the economy and population resilient to the inevitable future pandemics. One of the conditions to increase the resilience of the economy and the population is the need to change the paradigm of pandemic risk management from an ex-post to an ex-ante approach, with greater participation of the insurance sector in bearing the burden of the pandemic.

### REFERENCES

- Bek, U. (2011). Svetsko rizično društvo-u potrazi za izgubljenom sigurnošću [Weltrisikogesellschaft]. prevod Glišović Lj., Beograd: Akademska knjiga.
- Carlsson-Szlezak, P., Reeves, M., & Swartz, P. (2020). Understanding the Economic Shock of Coronavirus. *Harvard Business Review*, March 27. <https://hbr.org/2020/03/understanding-the-economic-shock-of-coronavirus>
- Carpenter, G. (2018). Affirmative vs. silent cyber: An overview, <https://guycard.com/content/dam/guycard/en/documents/library/2019/>
- Čelik, P., Komarčević, M., Dimić, M. (2020). Konvergencija pandemije kovid 19 i sajber kriminala: Kontekst i opseg [Convergence of the Kovid 19 Pandemic

- and Cybercrime: Context and Scope]. *Megatrend revija*, 17(4), 49-72. doi: 10.5937/MegRev2004049C
- Cummins, J., Doherty, N., Lo, A. (2002). Can insurers pay for the 'big one'? Measuring the capacity of an insurance market to respond to catastrophic losses. *Journal of Banking & Finance*, 26(2-3), 557-583. doi:10.1016/S0378-4266(01)00234-5
- Đurić, P., Ilić, S., Petrović V., Ćosić G., Ristić M. (2007). Zarazne bolesti u AP Vojvodina [Infectious diseases in AP Vojvodina]. urednik Šegulijev, Z., Novi Sad: Institut za javno zdravlje Vojvodine.
- Ghebreyesus, T.A. (2020). Addressing mental health needs: an integral part of COVID-19 response. *World Psychiatry*, 19(2), 129-130. doi:10.1002/wps.20768.
- Janković, A.M. (2013). Koncept romanizacije Teodora Momzena i njegova uloga u konstituisanju rimskih arheologija Zapadnog Balkana, [Theodore Momzen's concept of romanization and its role in the constitution of Roman archeology in the Western Balkans]. *Etnoantropološki problem*, n.s. 8(3), 747-762.
- Jovanović, S. (2021). Uticaj pandemije kovida 19 na osiguranje, [Impact of the Kovid 19 pandemic on insurance]. *Tokovi osiguranja*, 1, 41-54.
- Klobučar, D. (2017). Je Li All Risks Osiguranje-Stvarno All Risks, [Is All Risks Insurance-Really All Risks], Zbornik radova s međunarodne znanstveno-stručne konferencije: "Hrvatski dani osiguranja" (str. 456). Zagreb: Hrvatski ured za osiguranje.
- Kočović, J., Rakonjac-Antić, T., Koprivica, M. (2020). Rizik pandemije – pretnja ili šansa za delatnost osiguranja? [Pandemic risk – a threat or a chance for insurance business?]. *Evropska revija za pravo osiguranja*, XIX(2), 10-18.
- Peterson, K.O. & Thankom, A. (2020). Spillover of COVID-19: Impact on the Global Economy, Article in SSRN *Electronic Journal*, March 2020, doi:10.2139/ssrn.3562570, <https://www.researchgate.net/publication/3562570>
- Plit, L. (13.11.2020). Korona virus nije pandemija već sindemija, kažu naučnici - šta to znači [The corona virus is not a pandemic but a syndrome, scientists say - what does it mean]. BBC Njuz Mundo, <https://www.bbc.com/serbian/lat/svet-54918427>
- Praščević, A. (2020). Ekonomski šok pandemije covid 19-prekretnica u globalnim ekonomskim kretanjima [The covid pandemic economic shock is a 19-milestone in global economic developments]. *Ekonomске ideje i praksa*, 37, 7-21.
- Pravilnik o cenama zdravstvenih usluga na sekundarnom i tercijarnom nivou zdravstvene zaštite [Rulebook on prices of health services at the secondary and tertiary level of health care]. *Sl. glasnik RS*, br. 55/2019, 53/2021.
- Richer A., & Wilson, C.T. (2020). Covid-19: implications for insurer risk management and the insurability of pandemic risk, *The Geneva Risk and Insurance Review*, 45, 171–199, <https://link.springer.com/article/10.1057/s10713-020-00054-z>
- Rogers, K. (2020). 1968 flu pandemic. In: *Encyclopædia Britannica*. London: Encyclopædia Britannica, Inc. [online]. Available at: <https://www.britannica.com/event/Hong-Kong-flu-of-1968> [Accessed: 8 May 2020].
- Singer, M. (2009). Introduction to Syndemics: A Critical Systems Approach to Public and Community Health, John Wiley & Sons, Inc.
- Taleb, N. (2007). Crni labud: Uticaj krajnje neverovatnih zbivanja [The Black Swan-The Impact of Extremely Incredible Events]. prevod Imširović-Djordjević A., Beograd: Heliks.
- Ulrih B., (2011). Svetsko rizično društvo-u potrazi za izgubljenom sigurnošću [World Risk Society - in search of lost security]. Beograd: Akademska knjiga.

- Warwick J.M. & Roshen, F. (2020). The Global Macroeconomic Impacts of COVID-19: Seven Scenarios. CAMA Working Paper No. 19/2020. Available at SSRN: <https://ssrn.com/abstract=3547729>
- World Bank Group (2020). COVID-19 Outbreak: Insurance Implications and Response, Washington, dostupno na: <http://pubdocs.worldbank.org/en/687971586471330943/COVID-19Outbreak-Global-Policy-Actions-on-Insurance.pdf> (25. 5. 2020).
- Zakon o zaštiti stanovništva od zaraznih bolesti [Law on Protection of the Population from Infectious Diseases] Sl. Glasnik RS br. 15/2016, 68/2020, 36/2020

## **ЕКОНОМСКЕ ИМПЛИКАЦИЈЕ КОВИДА 19 НА СЕКТОР ОСИГУРАЊА**

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### **Резиме**

Објава пандемије нове болести КОВИД-19 марта 2020. године наговестила је значајан утицај и на економска дешавања и кретања. Деловање пандемије као негативног егзогеног шока шири се кроз економски систем, изазивајући економски пад и рецесију. Међутим, говорити о њеним коначним ефектима није могуће јер пандемија вируса ковид-19 још увек делује, без апсолутно јасних знакова колико ће дуго у будућности овај витус бити присутан.

Оперативно пословање донело је читав низ практичне и етичке дилеме, као што су да ли целокупни продајно-промотивни процес пребацити на друге канале продаје, како организовати рад, треба ли у новонасталим условима да запослени имају непосредне контакте итд. Очекивало се да осигуравајуће компаније покрију највећи део губитка настао прекидом пословања. Међутим, осигуравачи и њихова удружења широм света указали су да већина осигураника није стекла осигуравајуће покриће које ће одговорити на губитке у прекиду пословања настали као последица ковид-19. Структура инвестиционог и портфеља осигурања, рочна усклађеност имовине и обавеза, степен зависности од реосигуравача и степен интегрисаности дигиталних технологија у пословање су кључне детерминанте утицаја пандемије на индивидуалне осигураваче.

Пробуђена свест о ризику пандемије је подстакла дебату о могућим начинима да се економија и становништво учине отпорним на пандемије које неизбежно следе.