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HEALTH THREATS IN THE EUROPEAN REGION AND THEIR ECONOMIC IMPACT: LESSONS FOR UKRAINE

Nataliia Letunovska, PhD (Economics),
Anna Rosokhata, PhD (Economics),
Liudmyla Saher, PhD (Economics),
Valeriia Lazorenko, Master Student
Sumy State University (Ukraine)

* ORCID 0000-0001-8207-9178

** ORCID 0000-0001-6944-1515

*** ORCID 0000-0002-5628-5477

**** ORCID 0000-0001-5584-8074

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Introduction. In December 2019, the coronavirus pandemic began, which caused massive negative phenomena in the socio-economic life of society. As of May 2020, there were already 4.8 million confirmed cases, with 320,000 deaths worldwide. These are data from a total of 188 countries [1]. Europe became one of the epicenters of the COVID-19 spread. For Ukraine, which is the largest country in the European region and, therefore, more likely to spread SARS-CoV-2 geographically, the application of effective anti-epidemic measures is a crucial task. It is appropriate to take into account the possible negative economic consequences of the epidemic within the country, to prevent a crisis for the health of the population and the economy as a whole. From these positions, it is useful to consider the experience of developed countries in the European region. One should investigate social attitudes to the COVID-19, then develop preventive measures to exclude the deepening of the inequality of regions [2; 3].

Latest research papers and publications review. From the standpoint of the economic impact of the coronavirus pandemic on the economic sphere in the world in 2020, scientists wrote many significant works. In the article [4], the author points out that the epidemic is a kind of risk factor for the supply chain in the world, which causes long-term disruptions in supplies, has a so-called ripple effect, and high uncertainty. The authors of [5] present a statistical analysis of the impact of the coronavirus pandemic on the world stock market. The results of their calculations showed that the risks in the global financial market had increased significantly. Individual reactions in the stock market are strictly related to the severity of the pandemic situation in each country. Uncertainty about pandemic projections and related economic downturns has made markets volatile and unpredictable. Article [6] examines the reaction of financial markets in terms of volatility in the movement of the pandemic epicenter from China to Europe and the United States. The work [7] describes the occurrence of a new type of company and the approach to its management. Such models can adapt to different scenarios of pandemic development. The authors consider the situation in terms of short-term exit strategy and long-term. The authors' research has shown that almost all companies in all

selected European countries adapt their business models to changing environmental conditions throughout the pandemic. The authors of the work [8] analyze the works of many scientists covering research in various economic fields (tourism, retail, large and medium enterprises, etc.). They focus on changing consumer behavior and approaches to doing business, ethical issues, and various aspects of employment and personnel management. Many papers are devoted exclusively to specific economic areas. For example, work [9] analyzes the impact of the pandemic on management decisions and marketing of retailers. They gave examples of the actions of retailers in the conditions of work in an unstable and unpredictable environment. Previous research by the authors [10] focuses on certain aspects related to changes in tourism during a pandemic.

Problem statement. Despite the broad availability of foreign research in the impact of the pandemic on economic activity and various industries, domestic scientists studied it insufficiently. Ukraine belongs to the European region. So one should consider the situation in the country based on pandemic development in this part of the world. The authors emphasize that Ukraine should consider the peculiarities of the epidemic in neighboring countries and successfully adjust its own economic and non-pharmaceutical measures to effectively overcome and mitigate the possible negative consequences of the pandemic at the national level.

Basic material and results. Coronavirus infection has spread to the European region, has had many negative consequences, ranging from social, economical, and has taken the lives of many people in the European region. Statistics of the pandemic in the region of Europe show its active beginning in March 2020 with the intensification again in July 2020 to a greater extent (Fig. 1).

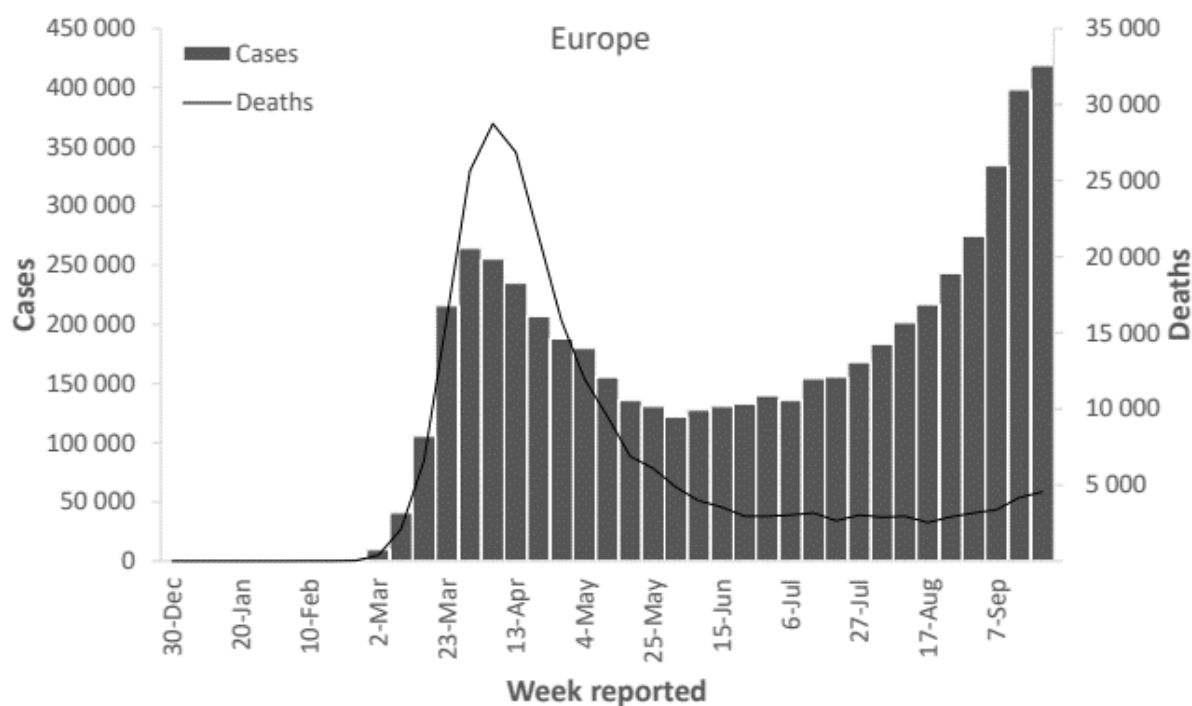


Fig. 1. Number of recorded cases of COVID-19 in the European region [11]

While industries such as pharmaceuticals are experiencing increased demand and profits from the coronavirus crisis, many other industries suffer. Government restrictions in some countries have forced restaurants and hotels to close. There is a significant loss of revenue for the hospitality and tourism industry. The same happens in entertainment, where sports facilities, cinemas, theaters, museums, etc. are closed. Significant losses are incurred by the passenger transportation industry, in particular the most affected air transport operators. It is a direct link between health threats and economic impact on countries as a whole. Unfortunately, in the autumn of 2020, there is a new intensification of the virus, and in this situation, it is essential to make thoughtful decisions by the leadership of the countries. The economy can not stand the new strict restrictions.

To understand the attitude of the European population to measures to prevent the spread of COVID-19, as well as the general socio-economic situation in the region, scientists conducted marketing researches on public opinion. The authors of [12] interviewed seven countries in the European region. Researchers have shown that the epidemic is a stressor that poses a threat not only to health but also to the economy, affecting

industries and households that have not been affected by the virus. According to research, the largest number of people concerned about the economic consequences of the pandemic live in Portugal and Italy. About 68% of Portuguese and 56% of Italians are concerned about losing their jobs. In the Netherlands and Denmark, the percentage of such respondents is 27% and 16%. Such differences among the population may be related to people's perceptions of government economic and financial measures. After all, during the epidemic, European countries took many fiscal measures to mitigate the negative economic impact of the coronavirus outbreak. However, there are significant differences in the timing and fullness of activities in different countries. To demonstrate the scale of the response to the pandemic in several countries in the European region, the authors constructed Table 1, which shows the generalized values of the support index of the countries of the European region. The scale of this indicator is from 0 to 100: the higher the value, the higher the government's response. The table shows the dynamics of change of this indicator from April 2020 to September 2020. All countries in Table 1 reduced the strength of response to the SARS-CoV-2 epidemic to September 2020. It is, on the one hand, due to the inability of European economies to remain closed for a long time, increasing crisis in business, and on the other hand, negative social feedback and public reaction for extended restrictions.

It is noteworthy that the reaction of Sweden and Belarus is the lowest during the entire analyzed period. As of September 2020, there is no reason to predict that the government's response in Belarus to COVID-19 will be more significant. At the same time, Sweden explains its actions because the majority of the population must be re-infected with the coronavirus so that collective immunity can take shape. Until March 2020, the same strategy was followed by the United Kingdom (as early as mid-March, the value of the Government Response Stringency Index in this country was 12.96) with a quick introduction of restrictions in late March.

Table 1

Government Response Stringency Index in some European countries (built on data from [13])

Country	April 20, 2020	May 20, 2020	June 20, 2020	July 20, 2020	August 20, 2020	September 20, 2020	Relative change (April/October)	Expected change in the indicator
Italy	93.52	63.89	55.56	58.33	54.63	47.22	-50%	↑
Portugal	82.41	71.30	69.91	71.76	66.20	58.80	-29%	↑
Netherlands	79.63	68.52	59.26	39.81	47.22	44.44	-44%	↑
Denmark	68.52	65.74	57.41	54.63	50.93	50.93	-26%	↓
France	87.96	74.07	65.28	38.43	40.28	45.83	-48%	↑
Spain	85.19	79.17	57.41	64.35	62.50	60.65	-29%	↑
Sweden	46.30	46.30	38.89	38.89	37.04	37.04	-20%	↑
Poland	83.33	83.33	50.93	39.81	39.81	19.44	-77%	↑
The United Kingdom	79.63	71.30	71.30	64.35	66.20	65.74	-17%	↓
Belarus	13.89	13.89	13.89	11.11	11.11	11.11	-20%	→
Bulgaria	73.15	62.96	36.11	36.11	38.89	35.19	-52%	↑
Czech Republic	63.89	57.41	41.67	37.50	36.11	38.89	-39%	↑
Ukraine	88.89	88.89	64.35	37.96	54.17	64.35	-28%	↑

According to the Swedish approach, only people at risk (the elderly and people with chronic diseases) should isolate themselves. Thus, they tried to save Sweden's export-dependent economy. In the second quarter of 2020, the Swedish economy shrank by 8.6% compared to the first quarter of 2020. It is the largest decline in the country's economy since 1980, but lower than in other European countries. In general, the country's central bank presented several scenarios for the development of the national economy. In all scenarios, the country's GDP is shrinking. Under the optimistic scenario, the decline in 2020 will be 6.9%, and in 2021 the economy will recover by 4.6%. Unemployment will be at 8.8%. According to the pessimistic scenario, GDP in Sweden will decrease by 9.7% in 2020 and increase by only 1.7% in 2021 [14]. Under this scenario, the unemployment rate will be 10.1%. According to the forecast of the International Monetary

Fund, the GDP of European countries will fall by 7.5% in 2020. The most affected will be Italy and Spain. Their economies will fall by 9.2% and 8%, respectively. France's GDP will shrink by 7.2%, Denmark's – by 6.5% [15].

In Belarus, the most significant concern is the economic consequences of quarantine for its announcement. The protracted oil crisis in relations with Russia complicates the situation in Belarus. In January 2020, the country's GDP fell by 1.9% compared to the same period in 2019. President O. Lukashenko refers to US President D. Trump said that if the population does not return to business and start working, unemployment will kill many more people than coronavirus [16].

Table 2 shows the Index of the economic influence of European governments. The authors divided all countries into four groups: the undisputed permanent leader (Great Britain), countries with the firm and stable economic support of the government, "middle" such as Poland and Ukraine, and the last group (Belarus), which did not implement any economic measures. In the European region, the same none reaction is from Bosnia and Herzegovina. Other countries in the region did economic stimulation and support to a greater or lesser extent during the analysis period.

It is interesting to look at the experience of Great Britain, which adheres to firm measures of economic support for the nation with the highest score. In particular, the country has introduced significant tax and expenditure measures to support households and support businesses. The government provided property tax holidays, direct grants for small companies in the most affected sectors of the economy. It paid 80% of the earnings to self-employed workers and employees (maximum £ 2,500 per employee per month) between March and May. For the unemployed, this scheme works until the end of October 2020. Starting from July 2020, employers have the opportunity to transfer employees to part-time employment. The state covers up to 70% of wages in September and up to 60% in October. In July, the government approved a package of measures to preserve and create jobs and support economic recovery. The hospitality and entertainment industries obtained temporarily reduced VAT rates. The government increased spending on infrastructure, including green projects such as modernizing buildings and improving energy efficiency. Companies that have to close due to local restrictions receive up to £ 1,500 every three weeks. The government has launched a new program (JETS) that will make it easier to find employment for people who have been receiving unemployment benefits for at least 13 weeks and other macroeconomic measures [17].

Table 2

Index of Economic Support in the European Countries
(based on data from [15])

Country	April 20, 2020	May 20, 2020	June 20, 2020	July 20, 2020	August 20, 2020	September 20, 2020
The United Kingdom	100	100	100	100	100	100
Italy	50	50	75	75	75	75
Portugal	75	50	50	75	75	50
Netherlands	63	63	63	63	63	63
Denmark	88	88	88	88	88	88
France	100	100	75	75	75	75
Spain	88	88	88	88	88	88
Sweden	63	63	63	63	63	63
Bulgaria	88	88	63	63	63	63
Czech Republic	100	100	63	63	63	63
Poland	38	38	38	38	38	75
Ukraine	38	38	38	38	38	38
Belarus	0	0	0	0	0	0

Unemployment varies slightly in European countries, particularly from the point of view of informal and temporary employment. In 2019, the percentage of temporary workers in the total number of employed was 21.9% for Spain, 17.4% for Portugal, 17.1% for Poland, 13.6% for the Netherlands, 13.3% for France, and 13.1% for Italy. However, it is much lower, for example, in the UK (3.8%), the Czech Republic (6.3%), Denmark (8.3%) [18]. It may be why the levels of economic intervention of governments in the economies of individual countries differ. Unfortunately, in 2020 there is a deepening crisis in the labor market of the

European region. The authors analyzed the EU countries (27 countries) and eurozone countries (19 countries) (Fig. 2).

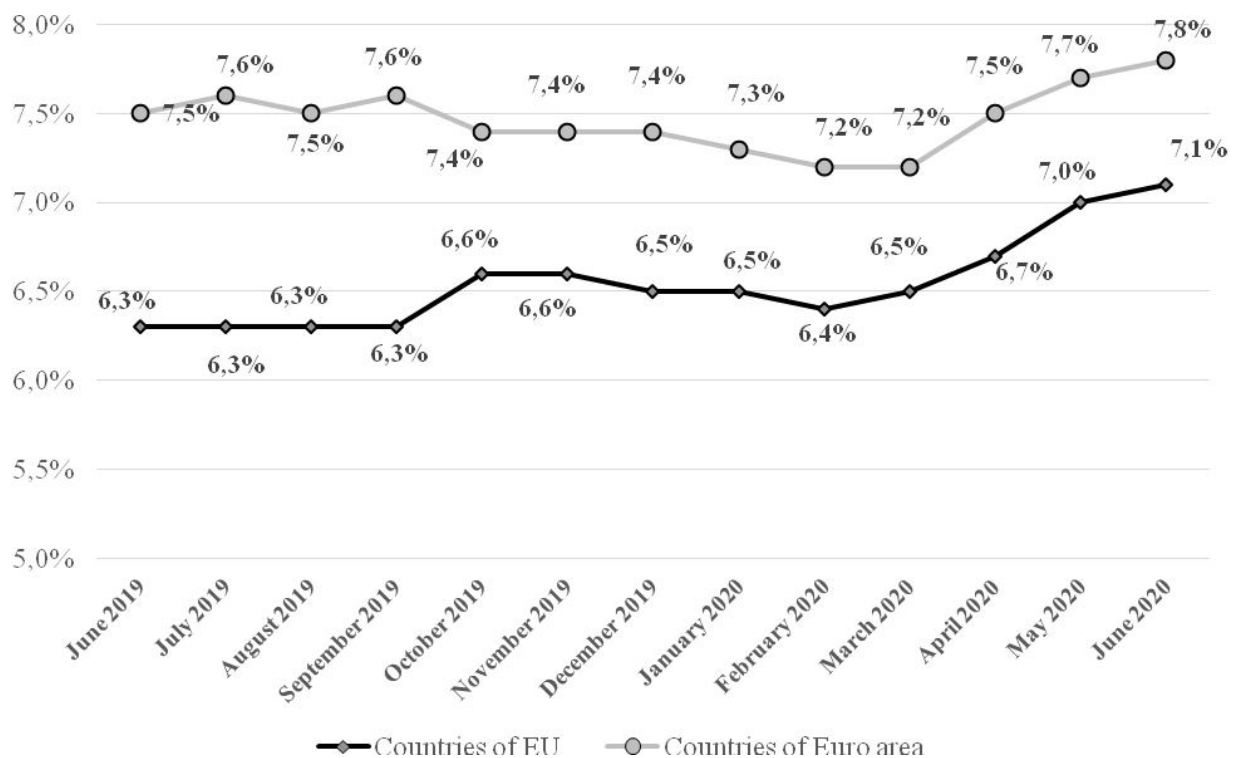


Fig. 2. The unemployment rate in the European region (based on [19])

Businesses in various industries face challenges as logistics suffer almost everywhere. The phenomenon of coronavirus spread is difficult to predict. In [20], the author in March 2020 describes three scenarios for the development of the world economy in the future:

- 1) Fast recovery. In this scenario, although consumer demand will fall, the nature of this fall will be localized in duration.
- 2) Global delay. The author predicts a recovery in China’s economy and the spread of the virus to decline due to seasonality. The economy will recover at the end of the second quarter, but world GDP growth will decline.
- 3) The global epidemic. In this scenario, the world economy will fill a severe shock lasting a year. There is a global economic downturn.

Depending on whether the economy can avoid a recession, the path to growth under COVID-19 depends on several factors. The author of [20] offers V-U-L Scenarios. The V-shaped scenario describes the classic shock of the real economy. The shift in production, but growth eventually resumes. In this scenario, the annual growth rate may completely absorb the shock. U-shaped scenario, when the shock persists, and although one observes the primary growth path restoration, there is some permanent loss of production. The L-shaped is the worst of the three scenarios. For this scenario, a coronavirus pandemic must cause significant structural damage, disrupting labor market areas, capital accumulation, or productivity.

The classic transfer of exogenous shocks to the real economy occurs through financial markets. As markets fall and household prosperity declines, household saving rates increase, and consumption should fall. This effect should be strong, especially in developed economies [21]. It requires a steep and steady decline. However, although financial market performance and consumer confidence are highly correlated, long-term data also show that consumer confidence may decline even as markets grow. COVID-19 hurts the confidence indicator, which is a pessimistic picture of the future.

Conclusions. As the virus shuts down production and critical components of supply chains, gaps become problems. Historical examples show that after major crises, the economy and the world change. That is, after overcoming the coronavirus pandemic, the world will be somewhat different. Such unexpected events stimulate the introduction of new technologies and business models. At one time, an outbreak of SARS in 2003 helped increase online shopping among Chinese consumers and strengthen the market position of the Alibaba Group, an e-commerce holding company. Contactless payments have become

popular due to COVID-19. Remote work is becoming widespread, which becomes possible with the use of modern communication technologies. To provide medical care, Telehealth technology with the assessment of essential indicators of the human condition is becoming widespread. Chatbots are already able to make initial diagnoses based on the symptoms described by patients. Online entertainment (sports, workshops, concerts, virtual tours, etc.) are also becoming widespread [22].

It is appropriate to take into account all world trends in Ukraine in order to be "on the wave" of significant changes taking place in society. The authors of [23] point to rethinking the fundamental values of life, the revival of discussions about the physical and mental well-being of the population. New approaches to improving the quality of life are being rethought during the global pandemic and are beginning to be implemented in different countries and at different levels, including regional [24]. The scientific world predicts that health prevention, proper nutrition, travel, and smart ecological real estate will be in high demand at the current stage of world development. Thus, in just six months of the pandemic, consumers demand for organic food in the EU increased by 6% [23].

REFERENCES:

1. John Hopkins University. COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE). <https://bit.ly/2PpTa7F>. Accessed May 2, 2020.
2. Medani, P. Bh. & Shvindina, A. (2020). Reducing inequalities towards sustainable development goals: multilevel approach. River Publishers.
3. Liulov, O., Chortok, Yu., Pimonenko, T., & Borovik, O. (2015). Ecological and economic evaluation of transport system functioning according to the territory sustainable development. *International Journal of Ecology and Development*, 30(3), 1-10.
4. Ivanov, D. (2020). Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case. *Transportation Research Part E*, 136. <https://doi.org/10.1016/j.tre.2020.101922>.
5. Zhanga, D., Hua, M., & Jib, Q. (2020). Financial markets under the global pandemic of COVID-19. *Finance Research Letters*, 36. <https://doi.org/10.1016/j.frl.2020.101528>.
6. Ali, M., Alam, N., & Rizvi, S.A.R. (2020). Coronavirus (COVID-19) – An epidemic or pandemic for financial markets. *Journal of Behavioral and Experimental Finance*, 27. <https://doi.org/10.1016/j.jbef.2020.100341>.
7. Kraus, S., Clauss, Th., Gast, J., Zardini, A., & Tiberius, V. (2020). The economics of COVID-19: initial empirical evidence on how family firms in five European countries cope with the corona crisis. *International Journal of Entrepreneurial Behavior & Research*, 26(5), 1067-1092. <https://doi.org/10.1108/IJEBR-04-2020-0214>.
8. Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of Business Research*, 117, 284-289. <https://doi.org/10.1016/j.jbusres.2020.06.008>.
9. Pantano, E., Pizzi, G., Scarpi, D., & Dennis, Ch. (2020). Competing during a pandemic? Retailers' ups and downs during the COVID19 outbreak. *Journal of Business Research*, 116, 209-213. <https://doi.org/10.1016/j.jbusres.2020.05.036>.
10. Letunovska, N., Kwilinski, A., & Kaminska, B. (2020). Scientific research in the health tourism market: a systematic literature review. *Health Economics and Management Review*, 1, 8-19. <https://doi.org/10.21272/hem.2020.1-01>.
11. WHO. Coronavirus disease (2020). URL: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200928-weekly-epi-update.pdf?sfvrsn=9e354665_6.
12. Sabat, I., Neuman-Böhme, S., Varghes, N.E., Barros, P.P., Brouwer, W., Exel, J., & Schreyögg, J. (2020). United but divided: Policy responses and people's perceptions in the EU during the COVID-19 outbreak. *Health Policy*, 124(9), 909-918.
13. Coronavirus government response tracker. (2020). URL: <https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker#data>.
14. Sweden unlikely to feel economic benefit of no-lockdown approach (2020). URL: <https://www.ft.com/content/93105160-dcb4-4721-9e58-a7b262cd4b6e>.
15. 9.2% drop in GDP: Spain updated its economic forecasts against the backdrop of a pandemic (2020). URL: <https://www.ukrinform.ua/rubric-world/3017410-padinna-vvp-na-92-ispansia-onovila-ekonomichni-prognozi-na-tli-pandemii.html>.
16. Why Belarus does not take tough measures to combat the coronavirus (2020). URL: <https://cutt.ly/5gAvCZ2>.

17. Policy responses to COVID-19. (2020). URL: <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#U>.
18. Eurostat. Temporary employees as percentage of the total number of employees. (2020). URL: <https://ec.europa.eu/eurostat/databrowser/view/tesem110/default/table?lang=en>.
19. Unemployment rate in the European Union and the Euro area from June 2019 to June 2020. (2020). URL: <https://www.statista.com/statistics/264887/monthly-unemployment-rate-in-the-eu-and-euro-area/>.
20. Esin, P.A. (2020). World market development scenario in the context of the coronavirus crisis. *Izvestiya Vysshikh Uchebnykh Zavedeniy. Prikladnaya Nelineynaya Dinamika*, 28(2), 158-167. DOI: 10.18500/0869-6632-2020-28-2-158-167.
21. Letunovska, N.Ye. (2013). Foreign and domestic experience of enterprise participating in regional social infrastructure development. *Bulletin of Zaporizhzhia National University*, 3(19), 43-49.
22. 10 technology trends to watch in the COVID-19 pandemic. (2020). URL: <https://www.weforum.org/agenda/2020/04/10-technology-trends-coronavirus-covid19-pandemic-robotics-telehealth/>.
23. Foresight of Covid-19: transformation of the world after the Covid-19 pandemic, European context (2020). URL: <http://wdc.org.ua/uk/covid19-transformation-after-pandemic-europe>.
24. Baula, O.V., Halaziuk, N.M., & Zelinska, O.M. (2017). Conceptual framework for organizational and economic mechanism formation to increase the region competitiveness with the globalization of the world economic relations. *Marketing and Management of Innovations*, 2, 76-84.

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Летуновська Наталія Євгенівна, кандидат економічних наук, старший викладач. **Росохата Анна Сергіївна**, кандидат економічних наук, старший викладач. **Сагер Людмила Юріївна**, кандидат економічних наук, доцент. Сумський державний університет. **Лазоренко Валерія Євгенівна**, магістрантка. ННІ ФЕМ ім. О. Балацького Сумського державного університету. **Загрози здоров'ю в європейському регіоні та їх економічний вплив: уроки для України**. Розглянуто різноспрямовані аспекти впливу пандемії COVID-19 на економічну сферу країн європейського регіону. Обґрунтовано необхідність урахування досвіду інших європейських країн щодо подолання наслідків епідемії в соціально-економічній сфері. Проаналізовано існуючі наукові праці, що стосуються дослідження впливу COVID-19 на різні галузі економіки. Для наочності представлення результатів аналізу побудовано таблиці динаміки змін показників підтримки урядів різних країн та економічного індексу впливу для певних країн європейського регіону. Розкрито деякі специфічні підходи до впливу уряду на нівелювання негативних наслідків поширення пандемії всередині країн – від найбільш активних діячів до пасивної поведінки. Розгалужено проаналізовано досвід Великої Британії у сфері макроекономічного стимулювання країни до виходу з кризи, спричиненої поширенням коронавірусу. Розглянуто різні сценарії розвитку пандемії – від найбільш оптимістичного до більш песимістичного. Зроблено висновок стосовно того, що COVID-19 негативно впливає на рівень довіри всередині суспільства та на міру впевненості в настроях споживачів. Оскільки такого роду епідемії призводять до закриття великої кількості виробництв та фактично до відключення критично важливих компонентів ланцюгів поставок, то виникають реальні розриви у функціонуванні проблеми, які результують у проблеми в середньостроковій перспективі. Разом з тим такі непередбачувані події, як COVID-19 стимулюють виникнення та прискорене впровадження нових технологій. Наведено приклади таких технологій, що набули поширення за світової коронавірусної пандемії. Узагальнено, що Україна має враховувати всі світові тенденції у впровадження заходів економічного характеру, а також слідкувати за мейнстримом розвитку технологій, які дедалі більше поширюються в суспільстві, зокрема окремої уваги потребує концепція економіки благополуччя, у якій якість життя розглядається з неочікуваних сторін, і набувають популярності профілактика захворювань, бажання проживати в здоровому регіоні, здорові подорожі тощо.

Ключові слова: здоровий регіон, дослідження впливу COVID-19, нові технології в умовах пандемій, європейська економіка, заходи протидії коронавірусній пандемії.

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Letunovska Nataliia, PhD in Economics, Senior Lecturer. **Rosokhata Anna**, PhD in Economics, Senior Lecturer. **Saher Liudmyla**, PhD in Economics, Associate Professor. Sumy State University. **Lazorenko Valeriia**, Master Student. Oleh Balatskyi Academic and Research Institute of Finance, Economics and Management. **Health Threats in the European Region and Their Economic Impact: Lessons for Ukraine.** The article considers various aspects of the impact of the COVID-19 pandemic on the economic sphere of the countries of the European region. They write about some specific approaches to the government's influence on leveling the negative consequences of the spread of the pandemic within countries. The authors conclude that COVID-19 hurts the level of trust in society and the degree of confidence in consumer sentiment. Simultaneously, unforeseen events such as COVID-19 stimulate the emergence and accelerated introduction of new technologies. It is further generalized that Ukraine must take into account all global trends in the implementation of economic measures, as well as follow the mainstream of technologies that are increasingly widespread in society, in particular the concept of welfare economics.

Keywords: healthy region, the study of COVID-19 impact, new technologies in pandemic conditions, European economy, measures to counteract coronavirus pandemic.