Comparative Economic Research. Central and Eastern Europe
Volume 25, Number 1, 2022
https://doi.org/10.18778/1508-2008.25.07

The COVID–19 Pandemic's Impact on the Social Economy in European Countries

Nataliia Stukalo https://orcid.org/0000-0003-0517-1653
Professor, Doctor of Economic Sciences, Vice Head of the National Agency for Higher Education Quality Assurance, Kyiv, Ukraine, e-mail: nstukalo@ukr.net

Anastasiia Simakhova https://orcid.org/0000-0001-7553-4531
Associate Professor, Doctor of Economic Sciences, National Aviation University, Department of Business Analytics and Digital Economy, Kyiv, Ukraine, e-mail: anastasiia.simakhova@npp.nau.edu.ua (corresponding author)

Jurijs Baltgailis https://orcid.org/0000-0002-4163-1680
Doctor of Economic Sciences, docent, Institute of Transport and Communication Riga, Latvia, e-mail: Baltgailis.J@tsi.lv

Abstract

Since the outbreak of the COVID–19 pandemic, there have been 1 billion identified cases and more than 2 million deaths around the world. The current global problem of the pandemic, with the introduction of unpopular measures such as border closures and total quarantine, revealed a dilemma between economic growth and maintaining human health and intensifying traditional global problems such as hunger, poverty, and social inequality to new levels. Even countries with social economic models were confronted with the negative effects of the pandemic. The aim of the article is to examine the developmentof social economy model factors (Liberal, Continental, Scandinavian, Mediterranean, and Transitive) during a pandemic. The objects of study arecountries thatare centers of social economy models (Belarus, Slovakia, Ireland, Sweden, and Poland). The research method is factor modeling of global and national (local) social factors thathaddifferent consequences of the pandemic in the countries. Countries with different social economy models can use the results and recommendations to develop social policy to counter the pandemic.

Keywords: social economy models, health care, global and local social factors, pandemic, factor analysis, factor loading

JEL: A13, B55, C50

Introduction

The COVID–19 pandemic has become critically relevant to human civilization. It has intensified traditional social problems at a qualitatively new level. Non-traditional forms of employment, flexible working hours, and remote work and study have become increasingly important since the outbreak of the COVID–19 pandemic. They all have the following determinants:mobility (spatial, between activities, temporal); flexibility (schedule, workplace, etc.); informatization and technologization; virtual interaction with employers and colleagues; the lack of a stationary workplace; the possibility to work in another country. Although the closure of borders reduced migration and reoriented migration in the labor market, the share of people who are remotely employed is constantly growing.

In the first wave of the pandemic, each country responded to the epidemiological situation in its own way, and only the European Union proposed a number of consolidated initiatives and measures, such as public monetary support and targeted financial and economic support for small and medium-sized businesses. For transitive economies, the worst-case scenario was projected, which envisaged reduced salaries and company closures, staff dismissals, increases in accounts payable, and decreased-purchasing power (Halasiuk 2020).

At present, the latest trend of the post-pandemic development has increased both global opportunities and threats. On the one hand, quarantine measures have led to significant economic losses, bankruptcies, and rising private sector debt. On the other hand, there will be perspectives of a major redistribution of health budgets, medical science and, reducing the mobility of the labor market.

In 2020–2021, a significant economic recession was predicted for all countries of the world community, especially for the countries of the European Union with 8% decline of GDP. Only China's economy will grow, as the COVID–19 pandemic began there, and it remains ahead of the wave of the disease. The pandemic will affect regional social differentiation between countries. Although some world economists forecast economic growth in 2021, there are still pessimistic scenarios for the second, third wave of COVID–19 in 2021. Global GDP will reach its pre-pandemic levelno earlier than 2022 (The Economist Intelligence Unit 2020).

All the above pandemic trends will affect competitiveness at the national and global levels, small business development (Schmitz 1995), the functioning of the capital market, the quality of life, employment and its different forms, and health and education, socialization.

Literature review

The social economy models (Liberal, Continental, Scandinavian, Mediterranean, and Transitive) and thei countries, that present them, have been studied by Esping-Andersen (1990), Sapir (2005), Halushka (2009), Stukalo and Simakhova (2018), and Baltgailis (2019). They identified the main peculiarities, trends, and characteristics of the development of the social economy models.

Different aspects of the impact of the COVID–19 pandemic on the social economy and social sphere indifferent countries have been studied by Vanini (2020), Williams and Kayaoglu (2020), Abodunrin, Oloye, and Adesola (2020), Stukalo and Simakhova (2020), and Bai et al. (2020). They investigated the impacts of Coronavirus on national, regional, and global economies, social politics, and the protection of the population during apandemic. The pandemic has shown "how quickly we can make lifestyle changes" (Schwab and Malleret 2020). Under such conditions, it is important to describe what factors in the development of social economics led to different results in countries that present different social economy models during the pandemic and to formulate predictedtrajectories to mitigate the adverse effects of COVID–19. This determined the relevance of the chosen topic for research.

Aims

The aim of the article is to research the development factors of each social economy model (Liberal, Continental, Scandinavian, Mediterranean, and Transitive) during the pandemic.

Methods

The main research method is factor modeling of global and national factors. Factor analysis will increase the objectivity of the multi-criteria assessment and determine a set of factors that are different but that comprehensively characterize the state of socio-economic development.

According to previous research, we have countries that present social economy models determined by the distances to the cluster center (Stukalo and Simakhova 2018):

- Belarus (Transitive social economy model);
- Slovakia (Mediterranean social economy model);
- Ireland, Poland (Liberal and Continental social economy models);
- Sweden (Scandinavian social economy model).

Thus, countries of Western, Eastern, Northern, and Central Europe, with different social economy models, have been investigated.

To present the key factors that influence the development of the social economy models, factor modeling was conducted using global and local indicators (Stukalo, Simakhova, and Baltgailis 2020): HDI (Human DevelopmentIndex); SPI (Social Progress Index); IEF (Index of Economic Freedom); GAWI (Global Age Watch Index); HPI (Happy Planet Index); Average monthly wages, USD; GDP per capita, USD; Inflation rate, %; Unemployment rate, %; Population growth, %; Migrants of the total population, %; Fertility rate per woman; Life expectancy at birth; Health care expenditures in GDP, %; Numberof doctors per 1, 000 population; State expenditures for education, % GDP; Population self-employment, % of employed population; Terrestrial and marine protected areas, % of the total territorial area.

Thus, to assess the social economy models in a pandemic, the whole range of indicators is used, which reflect not only the development of health care, but also the incomes of the population, employment, migration, demographics, etc., because the pandemic affects all aspects of life.

The use of factor analysis will increase the objectivity of multi-criteria assessment and determine a set of factors that are different but that comprehensively characterize the state of socio-economic development. The use of factor analysis in the study is necessary to scientifically substantiate the local indicators of social and economic development, which were formed in a purely informational phase of diagnosis, and to establish the existence of links between them. Suppose that the function of changing the performance indicator from the factors is given:

$$y = f(x_1, x_2, ..., x_m), \tag{1}$$

where x_j are factors (j=1, 2, …, m) and y is the performance indicator.

The values of the x_j factors are known at every n moment of time. Thus, the available values can be presented in the form of a matrix:

$$\begin{pmatrix} x_1^1, x_2^1, ..., x_m^1 \\ x_1^2, x_2^2, ..., x_m^2 \\ ..., ..., ..., ... \\ x_1^n, x_2^n, ..., x_m^n \end{pmatrix} \tag{2}$$

where x_j^i is the mean for the j-th factor at the moment of i(j=1, 2, …,m; i=1, 2, …,n).

Each row of the matrix corresponds to a vector in m-dimensional space, and the first and last rows are the initial and final reporting periods. The main purpose of factor analysis is to reduce the number of indicators (data reduction) and determine the relationships between the factors. The reduction in the number of factors occurs by identifying hidden common factors that explain the relationships between the traits or var-

iables inherent in a particular object of study. So, we will have fewerthan 18 factors. For factor modeling, the factors of Belarus will be accepted as X from X_1 to X_{18}, the factors of Slovakia – as У from $У_1$ to $У_{18}$, Ireland – as I from I_1 to I_{18}, Poland – as J from J_1 to J_{18}, and Sweden – as G from G_1 to G_{18}.

Results

The factor analysis was conducted using the Statistica 7. 0 package. Analyzing the correlation matrices made it possible to state that the correlation coefficients for Belarus's social indicators such as X2 and X3, and X2 and X5 are high (more than 0. 85 in value), X3 and X5, X2 and X9, X3 and X9, X2 and X12, X2 and X15, X2 and X18, X3 and X15, X3 and X18, X4 and X11, X4 and X13, X4 and X14, X5 and X9, X5 and X15, X5 and X18, X6 and X7, X6 and X8, X6 and X11, X6 and X13, X6 and X14, X7 and X8, X7 and X11, X7 and X14, X8 and X11, X8 and X14, X9 and X15, X9 and X18, X11 and X13, X11 and X14, X8 and X13, X13 and X14, and X15 and X18. However, high correlation coefficients have both positive and negative values. Factors such as X1, X10, X16, and X17 do not have a high correlation with other social indicators of Belarus' development. Most correlated with other indicators – i. e., X2, X11, X14 (6 pairs of high correlation indicators).

For Slovakia, the pair correlation coefficients for the following social indicators are high in value: U1 and U4, U1 and U5, U1 and U7, U1 and U8, U1 and U9, U1 and U11, U1 and U14, U1 and U16, U1 and U18, U2 and U10, U3 and U6, U3 and U10, U3 and U15, U4 and U5, U4 and U7, U4 and U8, U4 and U11, U4 and U12, U4 and U14, U4 and U16, U4 and U18, U5 and U7, U5 and U9, U5 and U11, U5 and U11, U5 and U14, U5 and U16, U5 and U18, U6 and U10, U6 and U15, U7 and U9, U7 and U10, U7 and U11, U7 and U14, U7 and U15, U7 and U16, U7 and U18, U8 and U12, U9 and U10, U9 and U11, U9 and U14, U9 and U15, U9 and U16, U9 and U18, U10 and U15, U11 and U14, U11 and U16, U11 and U18, U14 and U16, U14 and U18, and U16 and U18. As with Belarus, the value of the pairwise correlation between the social development indicators in Slovakia was both positive and negative. Only two indicators – U13 and U17 – do not have a high pair correlation with other indicators.

For Ireland, all social indicators are closely correlated with each other. There is no indicator that is not closely related to another indicator. The highest pairwise correlation coefficients in terms of value, both positive and negative, are for indicators: I1 and I4, I1 and I8, I1 and I10, I1 and I12, I1 and I13, I1 and I16, I2 and I5, I2 and I6, I2 and I7, I2 and I9, I2 and I10, I2 and I15, I2 and I17, I3 and I17, I4 and I7, I4 and I8, I4 and I9, I4 and I10, I4 and I12, I4 and I13, I4 and I16, I5 and I6, I5 and I9, I5 and I10, I5 and I15, I5 and I17, I6 and I7, I6 and I8, I6 and I9, I6 and I10, I6 and I11, I6 and I13, I6 and I14, I6 and I15, I6 and I17, I6 and I18, I7 and I8, I7 and I9, I7 and I10, I7 and I11, I7 and I13, I7 and I14, I7 and I18, I8 and I9, I8 and I10, I8 and I11, I8 and I13, I8 and I14, I8 and I18, I9 and I10, I9 and I11, I9 and I13, I9 and I14, I9 and I15,

I9 and I17, I9 and I18, I10 and I11, I10 and I13, I10 and I14, I10 and I15, I10 and I17, I10 and I18, I11 and I13, I11 and I14, I11 and I18, I12 and I13, I12 and I16, I13 and I14, I13 and I16, I13 and I18, I14 and I18, and I15 and I17.

The correlation coefficients for Poland's social indicators such as J1 and J4, J2 and J5, J11, J12, J17, J7 and J9, J13 and J15, J3 and J17, J5 and J11, J5 and J13, J8 and J11, J13 and J18, and J15 and J18 are high (more than 0. 94 in value). However, high correlation coefficients have both positive and negative values. Factors such as J6, J10, and J16 do not have a high correlation with Poland's social development indicators. Indicators J2 and J11correlated most with other indicators (4 and 3 pairs of high correlation indicators, respectively).

In Sweden, twosocial indicators do not have a high pair correlation with other indicators – G7 and G12. The highest pairwise correlation coefficients in terms of value, both positive and negative, are for the following: G1 and G2, G1 and G4, G1 and G6, G1 and G9, G1 and G11, G1 and G14, G1 and G16, G1 and G17, G2 and G13, G3 and G5, G3 and G8, G3 and G10, G3 and G15, G3 and G18, G4 and G6, G4 and G9, G4 and G11, G4 and G14, G4 and G16, G4 and G17, G5 and G8, G5 and G9, G5 and G10, G5 and G15, G5 and G17, G5 and G18, G6 and G9, G6 and G10, G6 and G11, G6 and G14, G6 and G16, G6 and G17, G8 and G15, G8 and G18, G9 and G10, G9 and G11, G9 and G14, G9 and G15, G9 and G16, G9 and G17, G9 and G18, G10 and G15, G10 and G17, G10 and G18, G11 and G14, G11 and G16, G11 and G17, G14 and G16, G15 and G17, G15 and G18, and G17 and G18.

Looking atthe results of the correlation matrices for five countries, we can see that the unemployment rate for three out of the five is highly correlated with other indicators. All data obtained as a result of the pairwise correlation will be taken into account in further factor modeling of social indicators by cluster centers.

According to the rules of factor analysis, for further research, only those factors that explain at least 75% of the total variance are taken into account. Thus, these factors of social economy development have the greatest impact on the dynamics of social model development. To confirm this hypothesis, we used two methods to determine the number of necessary factors: the Kaiser criterion and the "stone shift"criterion.

According to the Kaiser criterion, only factors with eigenvalues that are more than 1 are selected, i. e., if the factor does not select a variance equivalent to at least the variance of one variable, it is omitted (Khalafian 2007). According to the calculations based on this criterion, three factors can be identified for the development of the social economy for Belarus, Slovakia, and Sweden, and two for Ireland and Poland. Other factors do not fall under the criterion applied to the eigenvalues.

The "stone shift" criterion is a graphical method first proposed by Kettell (Khalafian 2007). To apply this criterion, we need to display the eigenvalues presented in Table 1 in the form of a graph. Kettel suggested finding a place on the graph where the decline in eigenvalues from left to right is slowed down as much as possible. It is assumed that to the right of this point, there is only a "factorial shift". We will use the graphical cri-

terion of "stone shift" to determine the main components of social economy model development in Belarus, Slovakia, Sweden, Poland and Ireland (see Figs. 1–5).

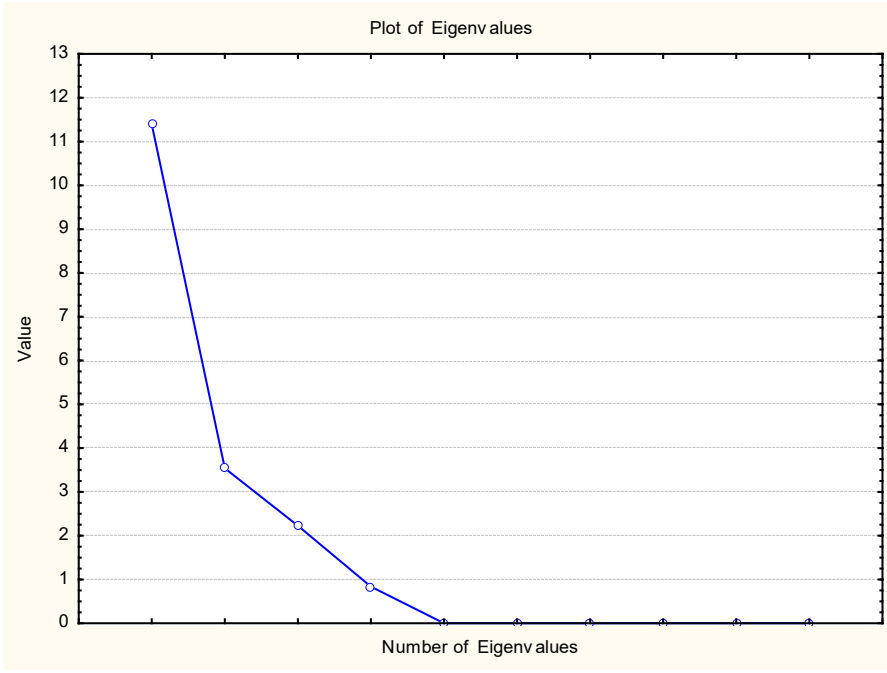

Figure 1. Eigenvalues of the main components for Belarus
Source: authors' calculation.

Using the graphical method of "stone shift", we can visually estimate the number of required principal components on the graph, on the abscissa of which arethe numbers of eigenvalues of the correlation matrix, and on the y-axis – the corresponding eigenvalues. Thus, for Belarus, according to Figure 1., it is necessary to allocate threemain components (Factors) as, after three drops, the schedule slows down. Therefore, according to both the Kaiser and "stone shift" criteria, three main factors should be distinguished for Belarus.

For Slovakia, according to Figure 2, it is also necessary to distinguish three factors of social economy model development.

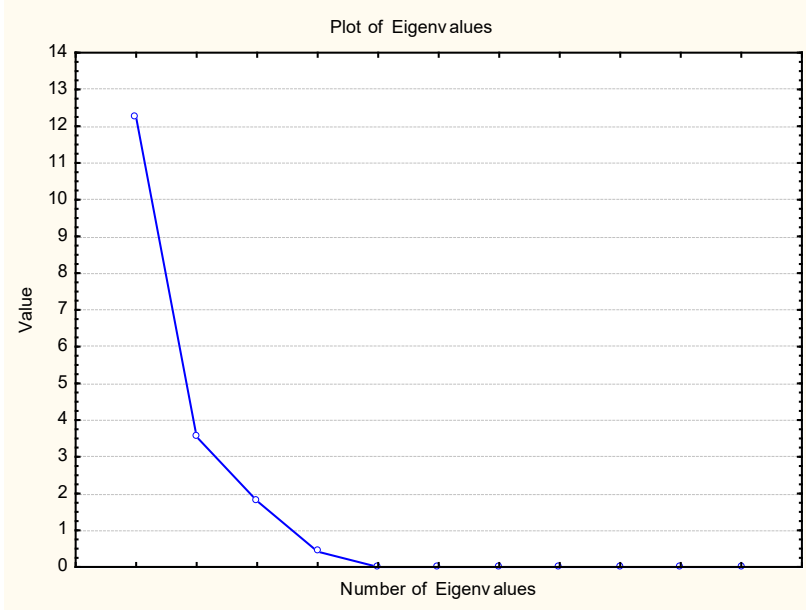

Figure 2. Eigenvalues of the main components for Slovakia
Source: authors' calculation.

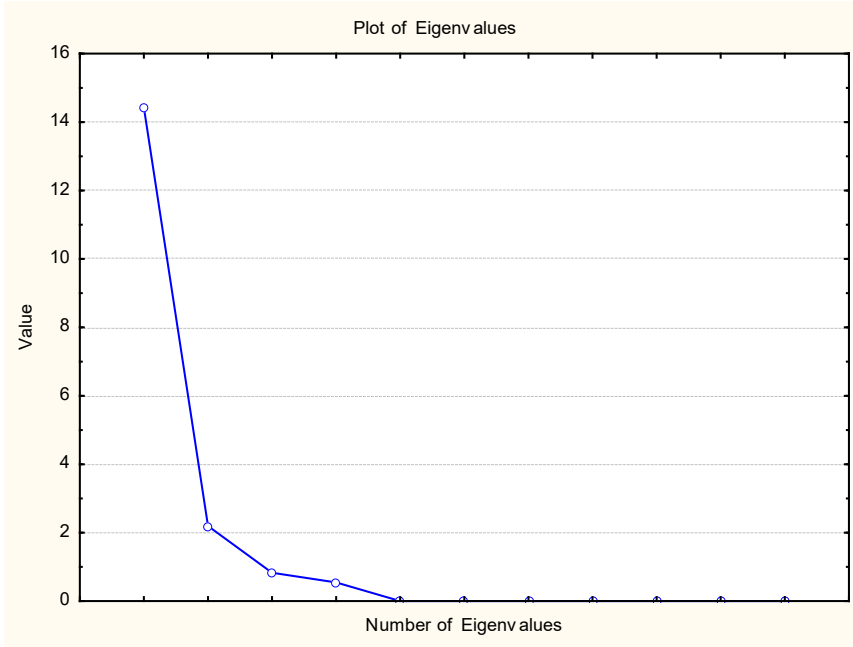

Figure 3. Eigenvalues of the main components for Ireland
Source: authors' calculation.

For Ireland, the graph of eigenvalues confirmed the need to identify two factors of social economy model development (Figure 3). The same is true for Poland (Fig. 4).

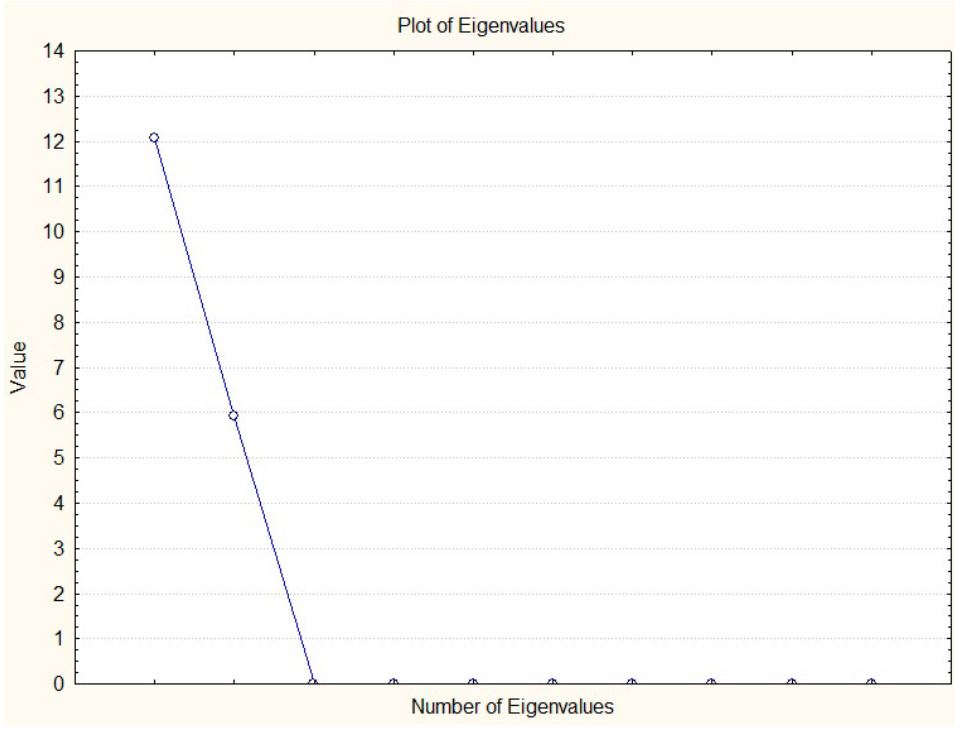

Figure 4. Eigenvalues of the main components for Poland
Source: authors' calculation.

Based on the data in Figure 5, it can be argued that the slowdown starts from 2 points, so according to the "stone shift" criterion, it is advisable to select two factors of social economy model development for Sweden.

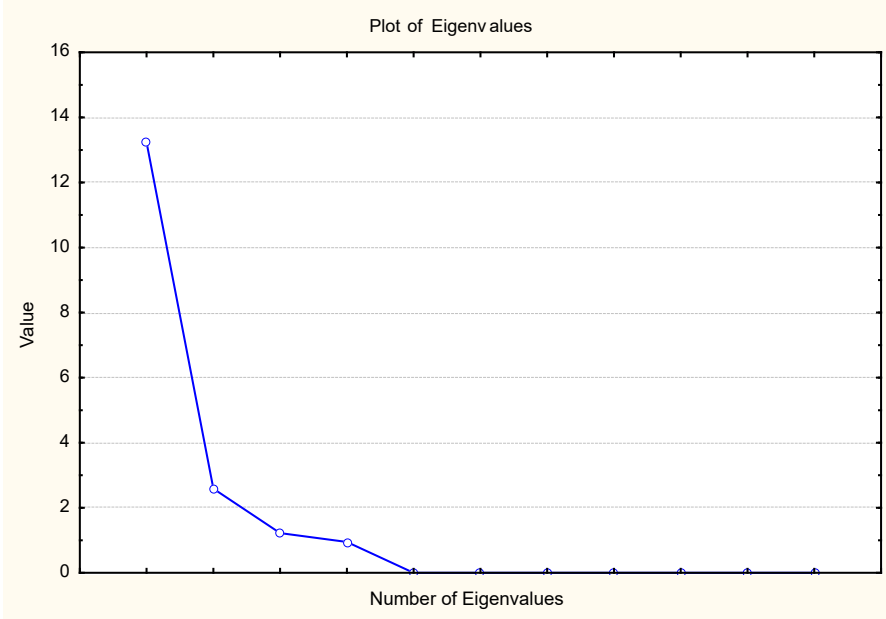

Figure 5. Eigenvalues of the main components for Sweden
Source: authors' calculation.

Now we will consider the graphical representations of the factor loadings of the primary features of the social economy model development factors, which are obtained by performing factor analysis with rotation, as well as the main components for Belarus, Slovakia, Ireland, Poland and Sweden (Figs. 6–10).

In Figure 6, for Belarus, the first factor characterizes the general state of social development, the second describes the base of economic socialization, whilethe third factor can be interpreted as the potential of the population for self-reliance and self-realization.

In Figure 7, for Slovakia, the first factor characterizes the general state of social development, the second shows the economic socialization potential, while the third describes the demographic situation.

In Figure 8, for Ireland, the first factor characterizes the general state of social development, while the second describes the demographic situation.

In Figure 9, for Poland, the first factor characterizes the general state of social development, while the second describes the potential of economic socialization.

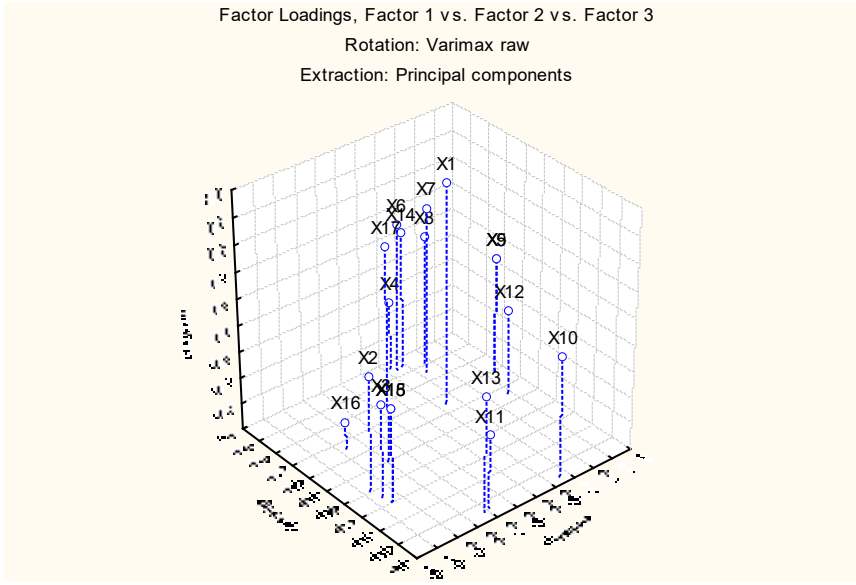

Figure 6. Factor loading for Belarus' social model development factors
Source: author's calculation from Barry, McGwire, and Porter (2015), NEF (2016), *Index of Economic Freedom* (2019), OECD (2019), *Social Progress Index* (2019), UNDP (2019), WHO (2019), World Bank (2019).

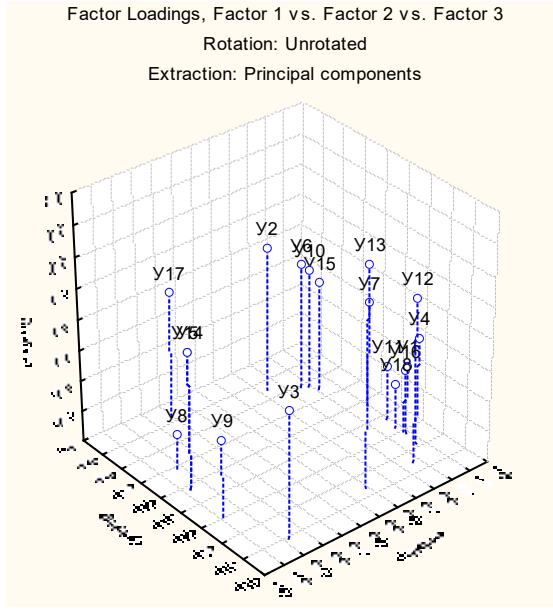

Figure 7. Factor loading for Slovakia's social model development factors
Source: author's calculation from Barry, McGwire, and Porter (2015), NEF (2016), *Index of Economic Freedom* (2019), OECD (2019), *Social Progress Index* (2019), UNDP (2019), WHO (2019), World Bank (2019).

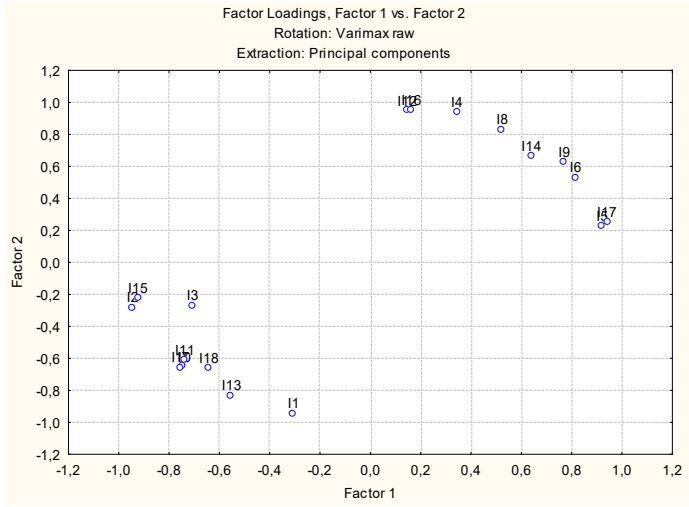

Figure 8. Factor loading for Ireland's social model development factors
Source: author's calculation from Barry, McGwire, and Porter (2015), NEF (2016), *Index of Economic Freedom* (2019), OECD (2019), *Social Progress Index* (2019), UNDP (2019), WHO (2019), World Bank (2019).

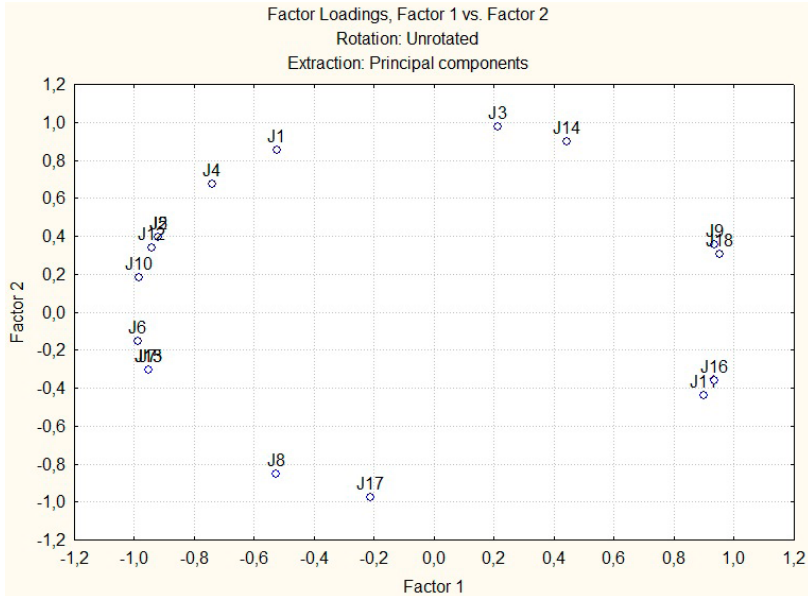

Figure 9. Factor loading for Poland's social model development factors
Source: author's calculation from Barry, McGwire, and Porter (2015), NEF (2016), *Index of Economic Freedom* (2019), OECD (2019), *Social Progress Index* (2019), UNDP (2019), WHO (2019), World Bank (2019).

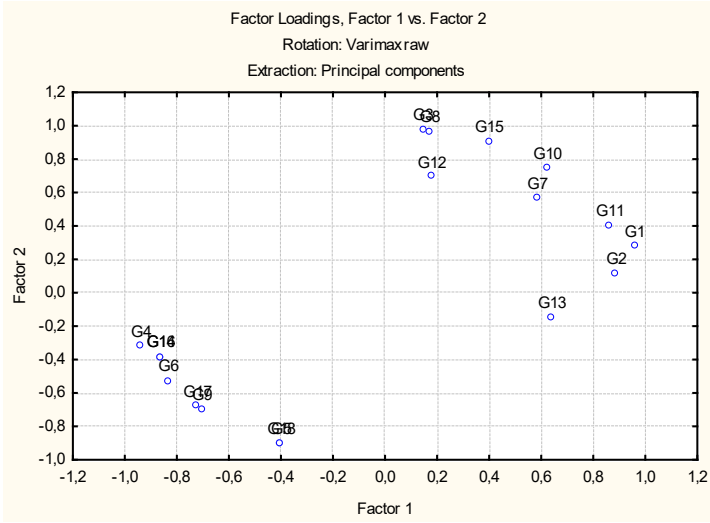

Figure 10. Factor loading for Sweden's social model development factors
Source: author's calculation from Barry, McGwire, and Porter (2015), NEF (2016), *Index of Economic Freedom* (2019), OECD (2019), *Social Progress Index* (2019), UNDP (2019), WHO (2019), World Bank (2019).

As can be seen from Figure 10, for Sweden, the first factor shows the general state of social development, while the second describes the base of economic socialization.

The study showed that all the social economy models had factors that characterize the state of health care. In Ireland, the indicator for health care spending in GDP was not part of any of the factors, indicating that the country was not ready for the challenges of the pandemic.

The calculations of coronavirus cases given in Table 1 show that the lowest mortality rate of 0. 77% was recorded in Belarus, a country with a transitive social economy model. In general, all countries with social economic models have low mortality from Coronavirus – up to 2. 7% (for Central European countries). The highest recovery rate (96. 5%) is in Sweden, with the Scandinavian social economy model. In Slovakia, 85. 1% of coronavirus patients have recovered, confirming the need to increase funding for medicine in this Central European country with a Mediterranean social economy model.

Table 1. Coronavirus cases

	Total Cases	Total Deaths	% of cases	Total Recovered	% of cases
Belarus	573,943	4,417	0.77	546,415	95.2
Slovakia	473,938	12,854	2.7	403,414	85.1
Ireland	416,690	5,306	1.27	368,837	88.5

	Total Cases	Total Deaths	% of cases	Total Recovered	% of cases
Poland	2,941,126	76,115	2.6	2,677,537	91.0
Sweden	1,161,933	14,916	1.3	1,120,852	96.5

Source: by the author from Worldometer, 2021.

Conclusion

In a pandemic, the health system must fully mobilize and transform public funding for the sector. It is important to coordinate the country's socio-economic policies along with the post-pandemic development because the restrictive quarantine measures in 2021 are expected to significantly reduce GDP, increase inflation, increase unemployment, curtail social programs not directly related to the pandemic, drop exchange rates, reduce output, and bankrupt businesses. According to Klaus Schwab, founder and Executive Chairman of the World Economic Forum, the post-pandemic world will be marked, "Global corporate citizenship means that companies must not only work with stakeholders, but be stakeholders themselves, alongside governments and civil society. Since corporations depend on global development, which inturndepends on stability and increased prosperity, it is in their direct interest to help improve the state of the world" (Schwab and Malleret 2020). Global corporate citizenship extends the concepts of corporate social responsibility and corporate governance in the context of a globalized economy and global markets.

The post-pandemic development for European countries is likely to be characterized by the following features:

- the major redistribution of markets for goods, services, intellectual property, and capital between companies in favor of those who are less creditworthy, have free capital for the profitable acquisition of new assets;
- deepening social inequality between and within the country;
- increasing the role and extent of government intervention in socio-economic processes;
- deepening the impact of the negative consequences of global problems and challenges for countries with transition economies and developing countries.

Given the significant future negative consequences of the pandemic for the social sphere of countries, it is vital to choose an anti-pandemic behavior that combines strict control over COVID–19 and the conditions for possible socioeconomic stability while strengthening the potential of the country's health system.

Thus, the projected trajectories of the development of the social-economic models that take into account the COVID–19 pandemic:

- focus on ensuring the socialization of the economy and creating conditions for self-employment and human capital development;
- encourage the development of non-traditional forms of employment.

For countries of Central Europe, the main propositions in the post-pandemic period are:

- health care reform;
- increasing spending on medicine;
- diversifying sources of financing for the social sector (medicine, etc.).

Among the directions for further scientific research is the study of mechanisms for the additional financing of the health care system for social-economic models.

References

Abodunrin, O., Oloye, G., Adesola, B. (2020), *Coronavirus pandemic and its implication on global economy*, "International Journal of Arts, Languages and Business Studies", 4, pp. 13–23.

Bai, J., Du, S., Jin, W., Wan, C. (2020), *The Impact of Social Capital on Individual Responses to COVID–19 Pandemic: Evidence from Social Distancin*g, http://doi.org/10.2139/ssrn.3609001 (accessed: 28. 06. 2020).

Baltgailis, J. (2019), *The issues of increasing the effectiveness of teaching comparative economics*, "Insights into Regional Development", 1 (3), pp. 190–199, https://doi.org/10.9770/ird.2019.1.3(1)

Barry, A., McGwire, S., Porter, K. (2015), *Global AgeWatch Index. Insight report*, HelpAge International, London.

Esping-Andersen, G. (1990), *The Three Worlds of Welfare Capitalism*, Princeton University Press, Princeton, https://doi.org/10.1177/095892879100100108

Halasiuk, V. (2020), *Great deleveraging. What will happen to the economy after the Coronavirus*, https://nv.ua/ukr/biz/experts/globalna-ekonomika-pislya-pandemiji-koronavirusu-shcho-bude-i-chim-vse-zakinchitsya-viktor-galasyuk-50080230.html (accessed: 8. 04. 2020) [in Ukr.].

Halushka, Z. I. (2009), *Socialization of transformation economy: characteristics, problems and priorities*, Chernivtsi National University, Chernivtsi [in Ukr.].

Index of Economic Freedom (2019), https://www.heritage.org/index/pdf/2019/book/index_2019.pdf (accessed: 8. 06. 2020).

Khalafian, A. A. (2007), *STATISTICA 6. Statistical data analysis*, OOO"Binom-Press", Moscow [in Rus.].

NEF (2016), *The Happy Planet Index 2016*, https://static1.squarespace.com/static/5735c421e321402778ee0ce9/t/57e0052d440243730fdf03f3/1474299185121/Briefing+paper+-+HPI+2016.pdf (accessed: 8. 04. 2020).

OECD (2019), *Average wages*, https://data.oecd.org/earnwage/average-wages.htm#indicator-chart (accessed: 18. 12. 2019).

Sapir, A. (2005), *Globalization and the Reform of European Social Models (Background document for the presentation at ECOFIN informal Meeting in Manchester*, 9 Sept. 2005, https://graspe.eu/SapirPaper.pdf (accessed: 6. 04. 2020).

Schmitz, H. (1995), *Collective efficiency: growth path for small-scale industry*, „Journal of Development Studies", 31 (4), pp. 529–566, https://doi.org/10.1080/00220389508422377
Schwab, K., Malleret, T. (2020), *COVID–19: The Great Reset*, http://reparti.free.fr/schwab2020.pdf (accessed: 16. 01. 2021).
Social Progress Index (2019), https://www2.deloitte.com/content/dam/Deloitte/at/Documents/presse/at-social-progress-index-2019-global.pdf (accessed: 6. 04. 2020).
Stukalo, N., Simakhova, A. (2018), *Global parameters of social economy clustering*, "Problems and Perspectives in Management", 16 (1), pp. 36–47, https://doi.org/10.21511/ppm.16(1).2018.04
Stukalo, N., Simakhova, A. (2020), *COVID–19 Impact on Ukrainian Higher Education*, "Universal Journal of Educational Research", 8 (8), pp. 3673–3678, https://doi.org/10.13189/ujer.2020.080846
Stukalo, N., Simakhova, A., Baltgailis, J. (2020), *Global and Local Determinants of Social Economy Models in Pandemic Times*, "International Journal of Management", 11 (10), pp. 828–840.
The Economist Intelligence Unit (2020), *COVID–19 to send almost al lG20 countries into a recession*, https://www.eiu.com/n/covid-19-to-send-almost-all-g20-countries-into-a-recession/ (accessed: 8. 04. 2020).
UNDP (2019), *Human Development Data Center*, http://hdr.undp.org/en/data# (accessed: 18. 12. 2019).
Vanini, P. (2020), *Protection of the Population and the Economy in a Pandemic*, pp. 1–22. https://www.researchgate.net/publication/340266910_Protection_of_the_Population_and_the_Economy_in_a_Pandemic (accessed: 16. 01. 2021).
WHO (2019), *World health statistics 2019*, https://apps.who.int/iris/bitstream/handle/10665/324835/9789241565707-eng.pdf?ua=1 (accessed: 2. 05. 2020).
Williams, C. C., Kayaoglu, A. (2020), *The coronavirus pandemic and Europe's undeclared economy: impacts and a policy proposal*, "South East European Journal of Economics and Business", 15 (1), pp. 80–92, https://doi.org/10.2478/jeb-2020-0007
World Bank (2019), *The world bank indicators*, https://data.worldbank.org/indicator?tab=all (accessed: 18. 12. 2019).
Worldometer (2021), *Coronavirus Cases*, https://www.worldometers.info/coronavirus/ (accessed: 18. 10. 2021).

Wpływ pandemii COVID–19 na gospodarkę społeczną w krajach europejskich

Od wybuchu pandemii COVID–19 na całym świecie odnotowano 1 miliard zidentyfikowanych przypadków i ponad 2 miliony zgonów. Obecny globalny problem pandemii, wraz z wprowadzeniem niepopularnych środków, takich jak zamknięcie granic i całkowita kwarantanna, ujawnił konflikt istniejący między wzrostem gospodarczym, utrzymaniem zdrowia ludzi oraz nasileniem tradycyjnych problemów globalnych, takich jak głód, ubóstwo i nierówności społeczne. Z negatywnymi skutkami pandemii zderzyły się nawet kraje oparte o model gospodarki społecznej. Celem artykułu jest

zbadanie czynników rozwoju modelu gospodarki społecznej (liberalnego, kontynentalnego, skandynawskiego, śródziemnomorskiego i przejściowego) w czasie pandemii. Przedmiotem badań są kraje wykorzystujące model ekonomii społecznej (Białoruś, Słowacja, Irlandia, Szwecja i Polska). Zastosowana metoda badawcza to modelowanie czynnikowe globalnych i krajowych (lokalnych) czynników społecznych, które wywołały różne konsekwencje pandemii w poszczególnych krajach. Kraje o różnych modelach ekonomii społecznej mogą wykorzystać prezentowane wyniki i zalecenia do opracowania polityki społecznej służącej przeciwdziałaniu pandemii.

Słowa kluczowe: modele ekonomii społecznej, ochrona zdrowia, globalne i lokalne czynniki społeczne, pandemia, analiza czynnikowa, ładunek czynnikowy

Received: 16. 03. 2021; verified: 18. 10. 2021. Accepted: 24. 11. 2021