The Impact of the COVID-19 Outbreak on the Socio-Economic Issues of the Black Sea Region Countries

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Abstract. The COVID-19 appeared in Hubei Province (China) at the end of 2019 and it was assessed as a global pandemic in March 2020. Because of pandemic radically transformed the existing reality and created a completely new Pandeconomic (economic, social and political) challenges to the world. There were restricted international air, land and sea traffic, as well as domestic traffic, cultural and sports events, social events and economic activities as part of the activities taken by the states against the spread of the virus.

The aim of the research is to study the impact of the current pandemic situation on the socio-economic issues of the Black Sea Region countries. The paper systematically analyzes economic processes of the Black Sea Region countries in the domestic and international context. In addition, the analysis of the planned anti-crisis activities outlines future prospects and develops recommendations. It is likely that the crisis caused by the pandemic will last longer than COVID-19 itself. Consequently, the results presented in the study and the recommendations developed based on the research have a practical purpose in eliminating the Pandeconomic crisis.

Keywords: COVID-19 Outbreak · Crisis · Socio-economic issues · Pandeconomy · Black Sea Region

1 Introduction

The research concludes the analysis of 1940–2004 cases show that given the current social, economic, or ecological conditions under globalization, there is a much greater risk that the disease will acquire the potential for a pandemic at the present time[1]. For example, the increase in population density [1] and the increased contacts between humans and animals [2] the frequency of international flights and interstate traffic – are the small list of factors that increase the likelihood of transmitting the infection.

[1] According to the World Health Organization, a pandemic means a situation where the spread of the disease extends beyond a state and becomes international, involving the world, and infecting large numbers of people [48].

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Consequently, measures and restrictions taken by government to prevent pandemic call into question international or local economic relations, business entities and labor issues face many challenges.

Under the conditions of globalization, the world is evolving rapidly and the social, economic or political environment is undergoing constant transformation. Consequently, the discussion of historical experience highlights the difference factors of the economic impact compared to the modern world and it allows us to develop recommendations that are as close as possible to reality.

2 Research Methods

2.1 Analysis of Recent Research

The paper is based on both quantitative and qualitative methods of research. To answer the research question the study includes to analyze the scientific publications on the relevant topic. In particular, the global financial and economic crises and their impact on the socio-economic situation of individual countries [3–9], economic recessions caused by a pandemic [10–17], financial-economic policy (activities) against crisis and fragmentary approaches among them [18–26]. The results of the surveys conducted by the leading research organization, economic models and statistical data [27–49].

2.2 Research Methodology

The research methodology is based on the 2006 model developed by the Center for Applied Macroeconomic Analysis, Global Macroeconomic Consequences of pandemic influenza (2006), which describes how the epidemic is causing the global economic crisis and declining GDP [50]. The study also used a model presented by economists from the National Bureau of Economic Research in 2016. The calculation of the results is based on the analysis of all cases of epidemics from the 18th century to the present. The model is related to the scale of epidemic and the decline in income. It is noteworthy that this model also takes into account the specific factors due to which events in developing and developed countries face to different scenarios [51]. In conclusion, some practical recommendations have been developed on the theoretical and methodological research of the issue. Short and long-term recommendations based on the scientific analysis of the problem are important because it helps the states maintain stability during the economic crisis.

3 The Impact of Pandemics on the Economy – A Historical Review

From a historical perspective, once in every 10 years, the world economy is going through a certain process of renewal. Existing trends have led to intensive development of processes, such as market adjustment and more balanced economy and markets. It is noteworthy that throughout history, the population has been constantly struggling with global economic recessions or pandemics at different times of century (see Fig. 1).

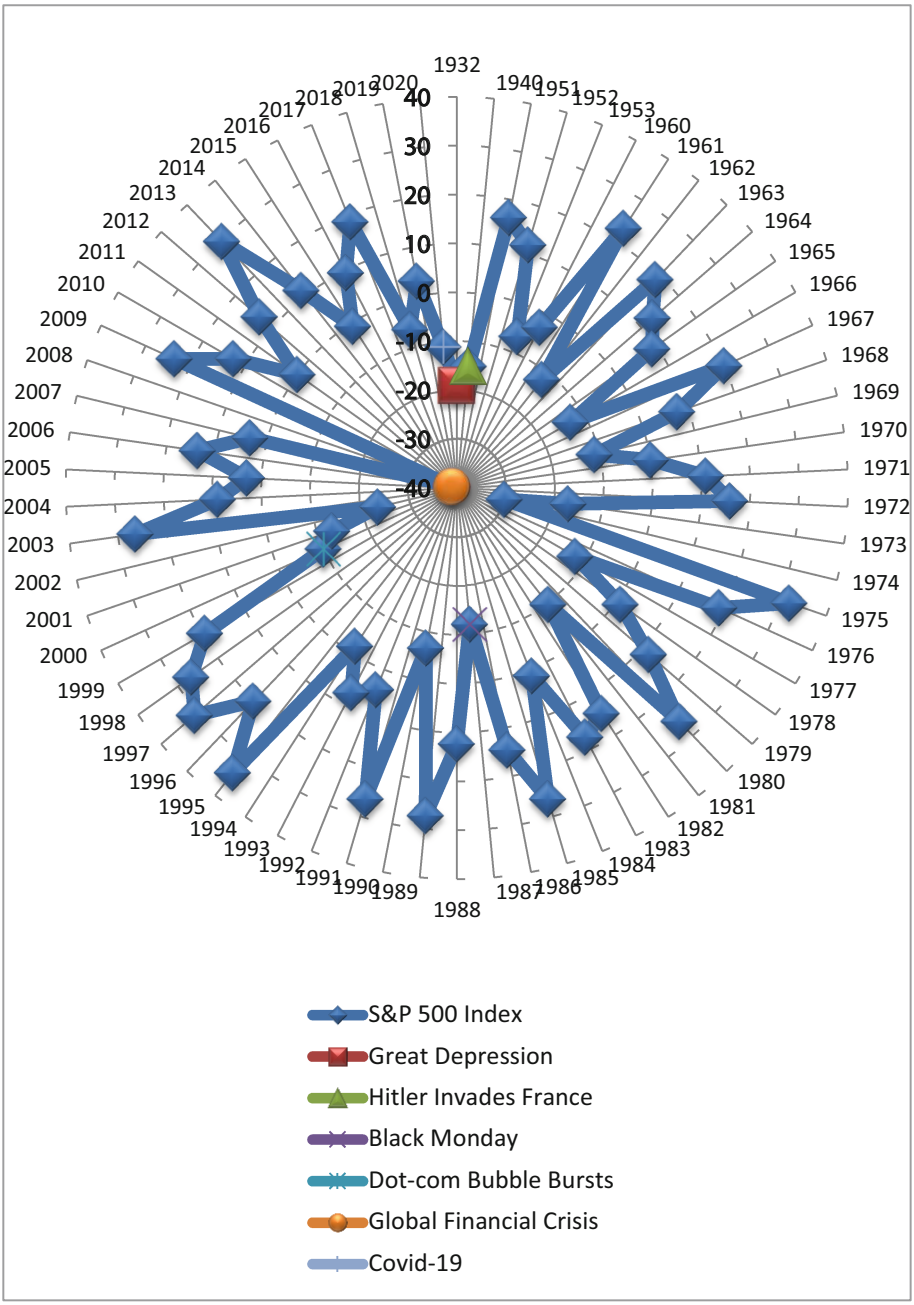

Fig. 1. How the covid-19 crash compares to historic market falls. Source: Created by the authors based on IMF World Economic Outlook data, Financial Times and papers [3, 10]

This section of the study discusses the pandemics of the last century and the factors that contributed to its spread. Also, this chapter analyzes the economic effects on the example of several states.

One of the worst pandemics in history was the Spanish flu, which has affected nearly a third of the world's population since 1918 and is characterized by high lethality. At the same time, the movement of the military has significantly contributed to the global spread of the flu in all parts of the world [37]. However, it was very difficult to separate the impact of the 1918 flu on the economy from the consequences of World War I [52]. According to the economists at the Central Bank of America [29] in cities where strict and urgent measures have been taken; the results of the economic crisis were less negative. Also, after the end of the pandemic, economic growth was faster in these cities too. Without restrictions, there is an epidemic and the economy is still stagnant, so in the post-epidemic era, more difficult economic consequences are emerging [53]. In 1918, after the Spanish flu pandemic, industrial production in the United States fell by about 18% [54]. Although there are no official estimates of BEA GDP until 1929 and there is NBER Macro History Database used to analyze the economic impact of the 1918 pandemic. Specifically, it is meant here goods trade data, retail sales, equity prices, currency demand and consumption of travel services. According to James and Sargent [55], monthly data on industrial production is an important to understand the impact of the pandemic. To translate this into GNP impacts is based on the annual growth of the Romer [72] real GNP series on annual growth of the NBER index of industrial production and trade. As a result is shown that a 1% change in this index was associated with a 0.26% change in GNP [55].

Decades later, in February 1957, a new type of virus H2N2 (Asian flu) spread in East Asia. The spread of the virus in September 1957 created a worldwide pandemic crisis that was hampered by the rapid development of the vaccine. However, the Asian flu claimed the lives of 1.1 million people worldwide [37]. According to the data of the U.S. Congressional Budget Office (CBO: 2006) is shown that a 1957-type pandemic would reduce GDP by 1.5% in USA and it was lower than a 1918 pandemic (5%). They argue that psychological impacts on consumer demand could be significant.

They also think that "Canada and the United States suffered a capital investment recession that began in the late summer of 1957 and ended in the spring of 1958" and was characterized by a sharp capital goods inventory cycle. Monetary tightening and equity market weakness were the main reasons for recession and it was predicted by leading indicators. At the beginning of the pandemic industrial production decreased. And as a final result, pandemic effect on industrial production was an annual impact of −0.15%. Based on the same data is shown that any pandemic impacts on economy should be clear in the pandemic quarter. For example, the savings rate decreased in the fourth quarter of 1957 and was flat in the fourth quarter of 1968 [55].

The 1968 flu pandemic (H3N2), also known as the Hong Kong pandemic, began in China. This was the third outbreak of the flu in the 20th century [37]. The total economic cost was estimated at $4.6 billion in 1968 or $34 billion today in USA. Because of the U.S. spent $225 million on Medicare (1968 dollars, $1.7 billion in 2020). The second wave of the pandemic in the U.S. considered a mild recession with GDP decreasing by only 0.6% and unemployment peaked right after the recovery began at 6.1% [56].

It should be noted that this period in the United States coincided with political tensions and public protests. In addition, the U.S. was involved in one of the largest-scale military confrontations - the Vietnam War. Given these factors, the period of recovery of the damage caused by the pandemic and the stabilization of the situation took much longer [57].

In April 2009, the H1N1 virus appeared in Europe. The case of "swine flu" has spread to almost all Western countries. In June 2009, members of the World Health Organization declared a new flu pandemic for the first time in 41 years [37]. From an economic perspective, based on research of The Economist, losses range from 0.5% to 1.5% of GDP in affected countries [41]. According to the same data, it took less than six months to spread the 2009 pandemic, while in 1918, 1957 and 1968 it took much more than six months, which was facilitated by the factors discussed above. During the 20th Century almost every countries experienced on the one hand a big wave of GDP per capita growth and on the other hand a huge decline in GDP per capita growth. It considers only a particular economic development measure [58]. Most papers analyze the impact of various factors on GDP. However, almost nothing is said about the impact of the global pandemic on the GDP. In summary, economic losses (reduced demand, delayed production, reduced supply, and unemployment) are caused by measures to prevent the spread of the virus. The threat was posed by the modern world in 2020, when the World Health Organization declared March 11 a new coronavirus infection pandemic.

4 Pandemic and its Impact on the Black Sea Region

Given the scale of the pandemic, leading international organizations have conducted studies that predict the negative impact of Covid-19 on economic activity. In particular,

- According to the International Labor Organization (ILO), unemployment in the world will increase significantly as a result of the virus. Compared to 2019, when the number of unemployed was 188 million, it will increase by 5.3 million in the small range of the spread of a virus; Unemployment will rise by 13 million in the medium range of the virus and by 24.7 million in the high range of the virus [57].
- According to the study by the Organization for Economic Co-operation and Development (OECD), the following scenarios are presented: a) Economic growth in 2020 will be reduced by 0.5% to 2.4% if the economic effects of the virus peak in the first quarter. b) In another case, global economic growth in 2020 (2.9% according to the old forecast) could be reduced by half, or 1.5%. According to the report, China's economic growth will slow to 4.9%, the Eurozone's 0.8% and the US's 1.9% due to the spread of the coronavirus [59].
- According to Bloomberg, global economic growth slowed by 1.2% in the first quarter of 2020. According to the same study, the economic result could include recessions in the United States, the Eurozone, Japan, and China, totaling $ 2.7 trillion in losses [15].
- According to the latest analysis proposed by the UN, the growth of the global economy after COVID-19 will be reduced by at least 2.5% and the damage will reach about a trillion dollars. In the worst case, this number could be double. The biggest damage will be to oil and other exporting countries. At least a 1% reduction in the economic growth rate of such countries is expected [44].

- According to the OSCE report, due to the decrease in world trade, the growth of the world economy will be reduced to 2.4% from the previous forecast of 2.9% [59].

Statista.com publishes the sectors of the economy that have suffered the most from the pandemic. There are: 1) manufacturing, 2) travel and transportation 3) retail, 4) energy and resources, 5) high tech and telecommunications, 6) healthcare and life sciences, 7) non-profits, 8) media and entertainments, 9) universities and colleges, 10) banking, financial sectors and insurances and 11) public sector [60].

According to the study by small open economies [10], the economic downturn is expected to be as high as –5%. As for the countries of the Black Sea Region, according to the publication of George Wisan (Coordinator of the Black Sea Security Program of the Romanian Energy Center), "The region's resilience will be tested in a way it hasn't before and the political and economic impact will likely be felt long after the pandemic is over" [45] and in the present study, the case of each state in the Black Sea Region is discussed.

4.1 Georgia

In the case of Georgia, a large part of GDP is occupied by the tourism industry, which is also characterized by a high rate of employment and plays an important role in reducing the trade balance. Georgia ranks among the world's leading countries in the share of the tourism sector in GDP (approximately 11%). Therefore, it plays an important role in terms of foreign exchange inflows to Georgia [61] and, consequently, the stability of the GEL exchange rate. Revenue from tourism in January 2020 was 17% higher than the previous year. So, the negative impact of the pandemic was evident in the following month, and became more apparent in the following period [40].

According to 2019 data, in the most important 15 investors are the United States, China and Japan. The economic impact of the viral outbreak in existing countries can directly affect Georgia. In particular, there is a danger of a significant reduction in foreign direct investment [30].

The case of Georgia, as a developing country, international money transfers play an important role in terms of the significant share of GDP, as well as the inflow of foreign currency and the impact of the national currency on the exchange rate. The share of money transfers in Georgia's GDP is 13.5% (2019 Preliminary, Geostatic). In March 2020, the money transferred to Georgia decreased by 9% to $ 125.9 million. One of the factors contributing to the decline is the economic shock caused by COVID-19. The amount of remittances decreased from the countries where the pandemic was widespread - Russia (28.32%), Italy (8.66%), Greece (1.81%) and Spain (18.56%). Instead, in March 2020, $ 20.4 million (62.1 million GEL) was sent abroad from Georgia, which is 10.1% more than in March 2019 ($ 18.5 million). All this once again confirms the theoretical provisions of the direction of capital movement during crises. In addition, a significant portion of the population is self-employed. Also, employed in the sector of the economy whose activities have been restricted due to the threat of the spread of the pandemic (e.g., restaurants, aesthetic centers, non-food stores). Business entities left without income could not take responsibility for providing their employees with wages in a pandemic.

Consequently, being left without paying a large amount of the citizens further exacerbates the difficult economic background.

4.2 Russia

Russia is one of the world's leading producers of crude oil and natural gas. In 2019, 29.6% of Russia's total exports were crude oil, 18.3% was recycled oil, and 4.3% was natural gas. In total, the share of these three products exceeds 50% of total exports [62]. In the OSCE report on March, the growth rate of the Russian economy was revised and reduced. If the expected economic growth at the beginning of the year was 1.6%, which was reduced by four tenths [59]. The Russian economy is significantly affected by falling oil prices due to reduced demand and declining exports.

It should be noted that the issue of depreciation of the Russian ruble. If at the beginning of the year $ 1 was the equivalent of 66 Russian rubles, in March this figure was replaced by 80.9 Russian rubles [63].

According to the data from Russia's Center for Macroeconomic Analysis and Short-term Forecasting indicate negative 20% of GDP for Q1 2020 and up to 15 million unemployed. Consulting Company Finexpertiza's report estimates, that a full month of closures and self-isolation will cost private sector businesses Rs. 530 billion rubles. Business losses in terms of unrealized income are estimated at Rs. 917 billion a week and Rs. 5.5 trillion a month, which is 5% of GDP [38].

Millions of Russians are at risk of losing their jobs. Official unemployment rate could hit 15% by the end of the year, up from its current level of 4.6%. According to various estimates, between three and five million jobs across the country were at risk and on the other hand, unemployment rate of between 10 and 15% was possible—equivalent to 7–10 million out of work.

Economists of The Moscow Times note that the economic crisis could be worse than any Russia has experienced since Putin came to power 20 years ago [42].

4.3 Turkey

In the opinion of some experts (Erdemir, A., Lechner, J. A.) Ankara's finances were weak before the pandemic. In addition, combination of external debt and a public health crisis could spell disaster [64]. It should be noted that economic growth in Turkey last year was only 0.9%. Unemployment is high and inflation is low, also, foreign exchange reserves and foreign direct investment are declining. In addition, Turkey is involved in the hostilities in Syria and Libya [65].

The suspension of certain sectors of the economy due to the pandemic has affected Turkey in the following areas:

- Unemployment has risen as a result of the suspension of certain sectors of the economy. Turkey's unemployment rate was 13.7% in 2019, a 2.7% rise compared to the previous year [66]. In 2020 it increased to 13.8% in January compared to 13.7% again [67].
- Turkey's tourism industry has been growing at an unprecedented speed for the last three years [43]. Due to the suspension of international traffic, the tourism industry also faced problems, with revenues accounting for 12% of the Turkish economy and

employing more than a million people [65]. Turkey's income from tourism is expected to decline this year by 10–20 billion dollars [34].

- Turkey depended for its imports on East Asia, which accounted for 23% of total imports in 2019. Most of those imports were factory goods used by Turkey [34].

The country's foreign trade volume grew 3.6% year-on-year to $98.4 billion in the first quarter of 2020. The export was choked January–March after seeing a 4% rise in the first two months [28]. As a result of declining exports, production also declined.

According to the World Bank, 1) Turkey's economy will grow by 0.5% this year and it will be 3% points lower than planned. 2) Growth will pick up steam in 2021–22 to hit 4%. 3) 11% inflation is expected in 2020, caused by declining energy prices, exchange rate pressures and monetary easing. As for the longer-term forecast, 9% is expected in 2021 and 8.5% in 2022. 4) Fiscal deficit is estimated to expand to 4.5% of GDP in 2020 to 2.9% of GDP by 2022 [68].

4.4 Ukraine

The COVID-19 epidemic reached Ukraine when the country has a poor national economic landscape. The slowed or stopped production and a decline in trade caused by pandemic can only worsen the situation. Ukraine's economy had started slowing down at the end of 2019. The effects of the pandemic on the economy will also be influenced by oil prices on and the ensuing panic affecting the financial indexes, which pushed devaluation of the national currency [47].

Ukraine is also an exporter of primary commodities (for example, metals) and the price for them is going to fall significantly due to falling demand in world markets [46]. The reasons were a global drop in prices of and demand for iron ore and steel, which are important parts of Ukraine's GDP. At the beginning of 2020 industrial production fell 5.1% [47].

According to the gravitational model of international trade developed by the Foreign Trade Analytical Center Trade, there is expected a 15–25% drop in exports and imports, which means a decrease in exports by $ 7.5–12.5 billion and imports by $ 9–15 billion in 2020 [46].

4.5 Bulgaria

According to the World Bank (2009) industry accounts for 23.8% of the GDP, and 30% of the workforce is employed in the industrial sector. The agricultural sector represents 3.6% of GDP and employs 7% of the workforce. Also, tourism sector accounting for 11.7% of GDP and 11% of total employment [69]. Measures against the spread of the pandemic in Bulgaria, as well as in other states, include partial or complete cessation of the above sectors, which has a negative impact on the overall economic picture.

According to the IMF, unemployment rate was estimated at 4.2% in 2019, down from 5.2% the previous year. IMF experts note that the rate being currently estimated to increase to 8% in 2020 and decrease to 4.5% in 2021 [69]. Bulgaria's real GDP growth could reach 5% next year. According to the financial group KBC's optimistic scenario, Bulgaria's economy could shrink by 4% this year, while the pessimistic scenario forecasts

a 12% decline [39]. Raiffeisen Bank International's economic experts forecast a 3.9% economic downturn in Bulgaria in 2020 [33]. IMF report (April, 2020) estimates due to the outbreak of the pandemic, GDP growth is expected to fall to –4% in 2020 and pick up to 6% in 2021 [69].

Finance Minister Vladislav Goranov said a press conference was held in March 2020 that "If the period of isolation continues for three months in total, our economy will recover by the end of 2021" [70].

4.6 Romania

Romania had starts 2020 in bad economic conditions, namely, huge twin deficits, high financing needs, crippled infrastructure, a workforce crisis, and political turmoil [71]. The beginning of the pandemic in China played an important role to effect of the textile industry in Romania. Because of China was the main supplier for material. After that when Italy was affected, Romanian factories that have business relations with Italy were highly affected [35].

In early March, more than a million people lost their jobs in Romania. To this were added hundreds of thousands of Romanians who returned to Romania after losing their jobs in Italy, Spain, and the United Kingdom [31]. The Romanian economy is expected to unemployment narrow 10.1% in 2020. According to the data from IMF, growth should rebound to 3.9% in 2021 [32].

5 Overall Findings and Recommendations

The overall conclusion of this study showed that coronavirus has a negative impact on almost every sector of the economy. However, following the example of the Black Sea Region countries will be particularly affected: tourism, manufacturing, finance, retail, entertainment, leisure and the oil industry too in the case of Russia (see Fig. 2).

It should be noted that the prevalence rate and increased probability of the spread of the pandemic from the last century to the present day is confirmed by studies supported by practical examples [49]. Therefore, it is necessary to develop recommendations on the one hand, to minimize the economic damage caused by the pandemic and, on the other hand, to restore the economy.

In many developed countries, there is a strategy that describes the rules of behavior during a large-scale epidemic. (For example, Pandemic Influenza Plan developed by U.S. Department of Health and Human Service). The strategy should include:

- Developing the factors influencing the country's economic sectors;
- Establish practical methods of solving the problem based on scientific research;
- Determine real activities by the government to avoid potential threats to the crisis;
- The use of additional political and economic instruments to solve current crisis caused by pandemic.

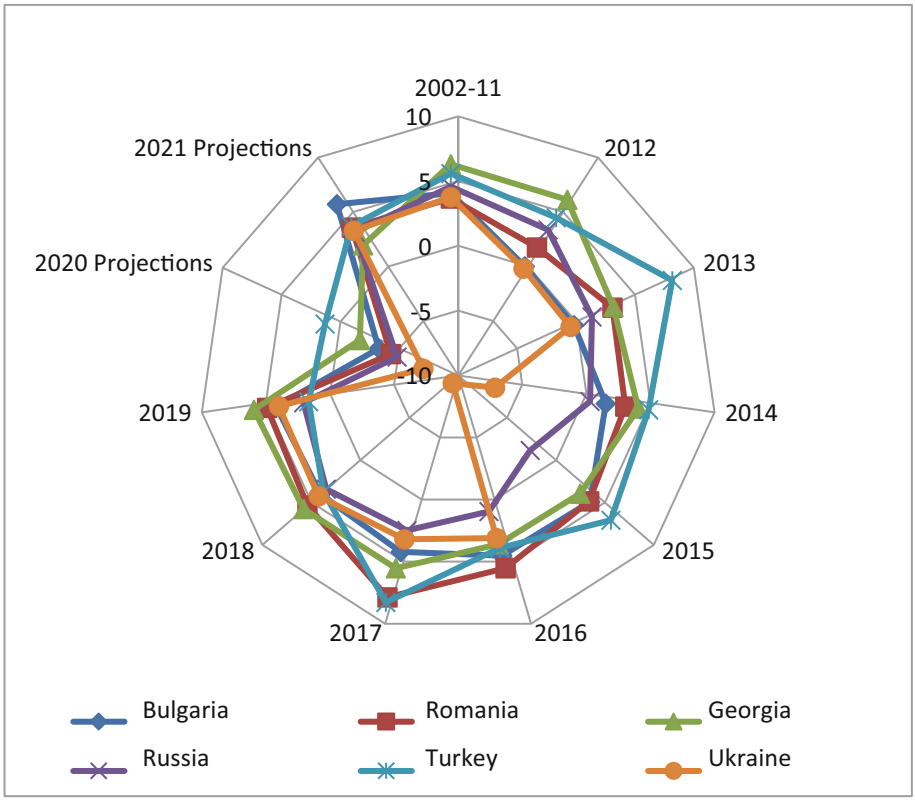

Fig. 2. Emerging market and developing economies: real GDP. Source: Created by the authors based on IMF World Economic Outlook data and papers [3, 10]

6 Conclusions

The paper discusses the changing reality caused by the global pandemic in the economic, political and social spheres. Restrictions on economic activity as a result of the coronavirus spread have posed new challenges to countries around the world, including the Black Sea Region. The aim of the research was to analyze the impact of the COVID-19 Outbreak on the Black Sea Region countries' socio-economic conditions. To better understand the situation, we discussed the pandemics that have taken place over the last hundred years and their economic effects on several states. Accordingly, the study was based on an analysis of domestic and international economic processes in each state described above.

In this research is used a model in which growth of GDP is the dependent variable. So, this study analyzed GDP changes on the example of each state in the Black Sea Region. Accordingly, the study compared data on the impact of the current pandemic on the socio-economic situation in the Black Sea Region - before and during the pandemic. Also, the leading industry in GDP by share was analyzed. Conclusions developed in this paper will also play a major role in post-pandemic and future pandemics.

The current situation can be called a Pandeconomic [10]. Because in the future, scientists will further expand the scope of recommendations to avoid and/or alleviate crises caused by global pandemics. Therefore, the results presented in the study and the recommendations developed based on it have both theoretical and practical purposes in order to alleviate the economic crises arising from the global pandemic in the future.

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