

The Economic Changes In The Global Economy During The Covid-19 Pandemic*

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Abstract

The aim of the article is to show the changes among global economic indicators as a result of the global Covid-19 pandemic. The analysis of economic changes allows the discovery of trends in world economies and the creation of practical recommendations as to the principles of crisis management during global perturbations. The subject of the work is current and allows you to draw conclusions for the optimal management of the economies of countries during various crises with the use of available methods and information technologies.

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JEL classification: A13, D91, E32, F23, H4, K1.

Introduction

Cyclically in the history of the world, we deal with events that have a huge impact on all aspects of socio-economic life. The global pandemic of the infectious COVID-19 disease, which is caused by the SARS-CoV-2 coronavirus, is currently underway. It began as an epidemic in the city of Wuhan (Hubei province) in central China on November 17, 2019. On January 30, 2020, the World Health Organization (WHO) announces the outbreak as a public health emergency of international concern (PHEIC) with confirmed cases of more than 8,000 people in 19 countries around the world. On March 7, 2020, the number of confirmed cases exceeded 100,000 people. On March 11, 2020, the World Health Organization (WHO) announces the outbreak of the global COVID-19 pandemic. In the same month, the death toll will exceed 10,000 and Europe will become the center of the pandemic (WHO, 2021). Since then, there has been a sharp increase in the number of new cases around the world. There were successive waves of increases and decreases in the number of cases in various regions of the world. As of June 2, 2021, the number of confirmed infections exceeded 171 million in 192 countries and the number of deaths was 3,686,142 (WHO, 2021). At least taking into account the countries where the statistics are calculated, because it is known that this should be added to the cases in countries that do not keep

such statistics or they are falsified. That is why the world took action on an international scale to prevent the spread of the pandemic. Travel was limited, quarantines and curfews were introduced. At the same time, a number of economic and social events: business, sports, religious and cultural events were postponed or canceled (UNWTO, 2021). Also in the periods of the greatest incidence, many countries closed their borders or introduced restrictions on border traffic and restrictions on people crossing the borders (IOC, 2021). Temperature controls for people in many places of activity and movement have been introduced as a symptom of possible illness and transmission of the coronavirus. Due to the outbreak of the pandemic, schools and universities were closed in 192 countries at national or local level, which at the global peak affected nearly 1.27 billion pupils and students (72.4%) (UNESCO, 2021). The pandemic caused global social and economic disruption, including the worst world recession since the Great Depression in the early 20th century.

Economic changes in the global economy during the pandemic

The emergence of disease outbreaks with thousands of patients outside of China, covering the global economy in a short time, including Europe, from February 24, 2020, contributed to significant drops in stock markets around the world. It should be noted that in the first quarter of 2020, we had to deal with record declines over several years. The Warsaw Stock Exchange also recorded the strongest decline in four years, including the WIG20 index (19 companies fell) (Bieszk-Stolorz and Dmytrow, 2021). In addition, concerns about the impact of the COVID-19 pandemic on the global economy were compounded by the conflict between OPEC and Russia, resulting on March 9th the largest one-day drop in oil prices in 30 years, which in turn resulted in further strong drops in global stock exchanges (Aschraf, 2020). Trading on the New York Stock Exchange was suspended and the stock lost 7% of its value (He et.al., 2021). During the first 9 days of March 2020, stocks listed on stock exchanges around the world lost 9 trillion US dollars (Espinosa-Méndez and Arias, 2021). For the first time in many years, there were shortages in supplying stores with basic food products. This showed the dependence of certain regions of the world on external supplies, which may be disrupted in a short time, e.g. as a result of a pandemic, but also in the event of other environmental or political events (ECDC, 2021). There were 3 main reasons why the global pandemic broke out in the shortage of essential supplies:

1. There has been a global increase in the use of all resources and equipment to fight disease outbreaks,
2. Panic when shopping, which could lead to the cleaning of stores from basic food products, such as food or bottled water,
3. Disruptions to production facilities and logistic operations that made it impossible to deliver basic products to humans, including water and food.

The simultaneous overlapping of these factors led to widespread shortages of supply in a short time. Undoubtedly, this was directly influenced by the pandemic, which led to the delay or cancellation of all economic and social events: business, sports, religious, political or cultural, and above all natural work performance. Therefore, there has been a huge and rapid increase in the amount of purchases of various goods (including groceries) in online stores. However, the number of orders has become so large that it has often led to the blockage of online stores due to insufficient technical efficiency of systems that were not prepared for such a large increase, or an extension of the service time due to logistical limitations of e-stores. So far, in many industries, they only supplemented sales in stationary stores. The spread of COVID-19 around the world has prompted many countries to partially or completely close their borders. As a result, there was a significant reduction in cross-border passenger traffic, which directly translates into the size of the economy as measured by the GDP (Gross Domestic Product). According to data from the World Tourism Organization (UNWTO), in 2020 the number of international tourists decreased by 74% compared to 2019. The largest decrease in the number of people going abroad was recorded in the second quarter of 2020, where in April - by as much as 97% compared to the same month a year earlier. 95 countries have decided to close their borders completely or partially. Additionally, 47 countries introduced large restrictions on people who came to selected regions. As part of the cyclical surveys of the World Tourism Organization, out of 217 surveyed regions, 156 had completely closed borders with the exception of citizens and residents, and additionally 26 of them were completely banned from international flights. In the various periods studied, the most popular restriction was the closure of borders, which occurred in 85 percent of the places studied. Subsequent reports by the World Tourism Organization showed changes in the restrictions, and so from the beginning of September and the beginning of November indicated the progressive opening of the borders. On November 1, 2020, only 27% of countries had them fully closed, and the second as many partially closed. Other popular restrictions were the requirement of a negative PCR test result shortly before arrival (34% of the countries surveyed) and the requirement to undergo quarantine (31%) (IMF, 2021).

At the same time, the pandemic resulted in the inability to organize sports events, causing them to be canceled, rescheduled or had to be played without the participation of the public. The Ski Jumping World Cup competitions and the 2020 European Athletics Championships were canceled. The games of national leagues and European cups were suspended. Meanwhile, the 2020 Summer Olympics and the European Football Championship have been moved to 2021 (ICO, 2021). Also, the political systems of many countries could not function due to the pandemic and it was necessary to suspend legislative activity as well as reschedule the elections due to fear of the spread of the virus. In turn, arts and culture organizations have tried to maintain their mission, which is often financed from public funds. In addition, public funding was organized for private organizations in some countries. However, this was often only possible in the short term. Until

March 2020, around the world and to varying degrees, museums, libraries, theaters and other cultural institutions have been closed indefinitely and their exhibitions, events and performances have been canceled or postponed.

The COVID-19 pandemic has affected all socio-economic activities, including educational systems around the world, leading to the closure of schools and universities. Most countries around the world have closed educational institutions for various periods in an attempt to contain the spread of the coronavirus. Following the first wave of the pandemic in the second quarter of 2020, around 1.725 billion students were affected by school closures in response to the pandemic. According to UNICEF monitoring, 153 countries were implementing school closings nationwide then, and 24 were implementing school closings at local level, affecting approximately 98.6% of the world's student population (UNWTO, 2021). On the other hand, for comparison, data can be shown that in May 2020 only schools were opened in 10 countries.

All these restrictions have direct and far-reaching economic and social consequences. Additionally, these events revealed many socio-economic problems that were not so noticeable under normal conditions. These include the lack of access to food, health care, childcare, housing, the Internet and services for people with disabilities. The effects of the pandemic have undoubtedly been more severe on economically disadvantaged families and their children, causing school breaks, eating disorders and childcare problems. Of course, economic costs hit any economic organizations and households that were unable to work due to the pandemic. This applies to specific industries in the economy that require socio-economic contact with customers in their activities. All these events resulted in corporate bankruptcies, job losses and system-wide financial stress. The cumulative losses of global GDP in 2020 and 2021 due to the pandemic crisis could amount to around \$ 9 trillion, more than the combined economies of Japan and Germany. It is a crisis like no other since the Great Depression of 1929-1933, and there is considerable uncertainty about its impact on people's lives and economic livelihoods. Much depends on the effectiveness of restrictive measures and the development of drugs and vaccines, all of which are difficult to predict. In addition, many countries are currently facing multiple crises: health, financial and a collapse in commodity prices, all of which interact in complex ways. Policy makers are providing unprecedented support to households, businesses and financial markets, and while critical to a strong recovery, there is still considerable uncertainty about what the economic landscape will look like once the pandemic is over. First of all, what will be the socio-economic consequences. In order to save the socio-economic situation, the states started introducing intervention programs, including pumping public funds into the economic circulation and lowering interest rates for economic recovery. However, interest rates in many countries are already at such low levels that even economists are no longer surprised by the possibility of introducing negative interest rates. These activities result in high inflation (a decrease in the purchasing power of money) and an outflow of cash from financial institutions to other investment areas, for example the purchase of real estate.

The coronavirus pandemic has resulted in a tragically high death toll. As countries implement the necessary quarantines and social distancing practices to contain the pandemic, the world has been placed in a great socioeconomic blockade. The scale and speed of the collapse of activity that has occurred is unlike anything we have experienced in the 100-year economic period. The global decline in GDP in 2020 was minus 4.9 percent compared to 2019 (Fernandes, 2020). However, from January 2020 it is a decrease of 6.3 percentage points, which is a huge correction in a very short period. This makes the global lockdown related to the COVID-19 pandemic the largest recession since the Great Depression and much worse than the global financial crisis, where, by comparison, GDP fell by 0.2 percent year on year.

The International Monetary Fund forecasts that, for example, Polish public debt will increase by PLN 451 billion (43.1%) in the three pandemic years (IMF, 2021). In most countries, aid instruments for the economy will cause debt, which will cause the public debt of the whole world to increase by approximately USD 24.6 billion (34%) (Our data in world, 2021). This is confirmed by various research works in the literature on economic and social changes, for example by comparing the intensity of the decline and then the increase in the value of basic stock indices during the SARS-CoV-2 coronavirus pandemic in 2020. It can be said that this is a real global crisis, because no country is spared and it causes many years of economic and social consequences. In addition, countries whose development depends on sectors of the economy that require social contact, and thus primarily tourism, gastronomy, transport and entertainment, are experiencing particular disturbances and crises. Emerging and developing economies face additional challenges from an unprecedented reversal of capital flows as global risk appetite wanes. Despite this, it is the developed economies that lose statistically higher values of macroeconomic values. Of course, this is related to the larger economy, which simply shrinks more by stopping the cash flow compared to smaller economies. However, on the other hand, developing economies experience more socio-economic turmoil. These include currency pressures, investment retreat to developed and stable economies, weaker healthcare systems and a more limited fiscal space that in many countries serves to support limited economic activity. Economies that entered this crisis in an unstable state, that is, with slow growth and high levels of indebtedness, face additional difficulties. Both advanced economies and emerging and developing economies are in recession. In 2020, the decline in developed economies was -6.1 percent. In contrast, emerging market and developing economies also had negative rates in 2020, which were at -1.0 percent, as shown in Figure 1, and an additional -2.2 percent if we exclude China.

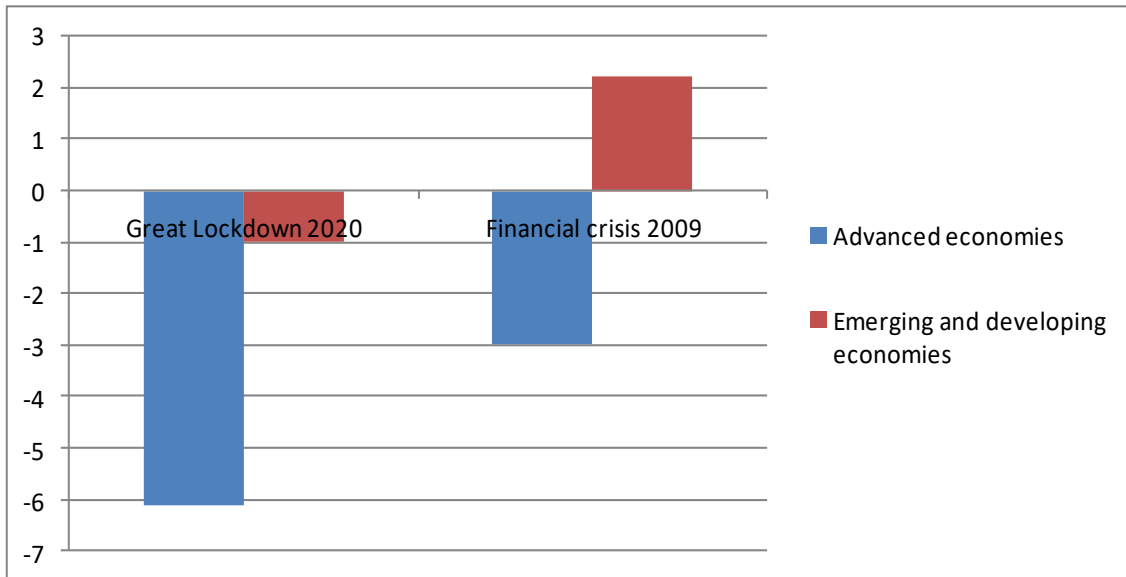


Fig. 1. Year-on-year percentage change in global GDP during the 2020 Covid-19 pandemic and the 2009 financial crisis

Source: International Monetary Fund, *World Economic Outlook, June 2020: A Crisis Like No Other, An Uncertain Recovery*, <https://www.imf.org/en/Publications/WEO>, (30.05.2021).

During the 2009 financial crisis and the Covid-19 pandemic, advanced economies contracted more severely compared to emerging and developing economies. This effect can be described as a predictable economic phenomenon, because the size of the economy as measured by GDP is the number of transactions related to the flow of financial capital (European Commission, 2019). Therefore, a natural phenomenon in the course of restrictions and socio-economic constraints is a higher decline among larger economies. This phenomenon is naturally observed also among places where economic turnover is created, for example when comparing cities (larger socio-economic agglomerations) to villages and other smaller agglomerations. In addition, part of economic activity on a smaller scale may be transferred to other socio-economic spheres, for example by citing the transfer of stationary retail sales to the area of ordering products via the Internet. However, some services cannot be provided by this alternative, which causes a decrease in the number of these transactions, which will be more severe where the turnover was higher. Therefore, as a result of social restrictions, economic declines and turbulences are to a greater extent affected by economic centers. Per capita income is projected to decline in over 170 countries. The Covid-19 pandemic is leading to longer periods of economic downturn and deteriorating financial conditions, leading to further breakdowns in global supply chains. In his article, Fernandes (2020) describes the main effects and challenges of the current world situation related to the occurrence of a global pandemic. First of all, it is the global devastation of supply and demand and the collapse of the supply chain, which is the result of the significant globalization of markets. It's just that the pandemic phenomenon has accentuated this state of affairs. Therefore, it is necessary to consider whether this state of affairs is actually appropriate and beneficial for the economies of the world. Because during health, political and other crises, this state of affairs will make itself felt and will cause serious perturbations on the economic and social markets. In addition, interest rates are at a historically low level, which limits the possibility of influencing the financial markets to stimulate economies, and in the short term the situation must be reversed and improved. Another aspect of these changes is the emphasis on the globalization of markets, which, as a result of the crises, shows a lack of focus on low- and middle-income countries.

Currently, by mitigating the spread of Covid-19 through lockdowns, healthcare systems can cope with the disease, which in turn allows businesses to resume operations. In this sense, there is no compromise between saving lives and saving livelihoods. Countries should continue to spend generously on their healthcare systems, conduct extensive testing, and ensure access to vaccines and treatments to minimize the effects of the disease. This is because it has a further impact on the production capacity of the economy. While the economy is closed, policymakers have had to provide people with the ability to meet their needs and enable businesses to recover from the acute phases of the pandemic. Large-scale, timely and targeted fiscal, monetary and financial policies already taken by many countries, including loan guarantees, liquidity instruments, credit tolerance, extended unemployment insurance, increased benefits and tax breaks, have been a necessary lifeline for households and businesses. This support should continue throughout the economic downturn to minimize the lasting spillover effects on socioeconomic systems that may arise from subdued investment and job losses in this severe crisis. Policymakers also need to plan for a recovery. Following restrictive measures, policy should move swiftly to supporting demand, encouraging hiring companies and repairing balance sheets in the private and public sectors to aid economic recovery. Coordinated fiscal stimulus across all countries with fiscal space will increase benefits for all economies. Multilateral cooperation is essential to a good global recovery. To support the necessary expenditure in developing countries, bilateral creditors and international financial institutions should provide preferential financing,

subsidies and debt relief. The activation and establishment of swap lines between major central banks have helped to alleviate international liquidity shortages and may need to be extended to more economies. A concerted effort is needed to ensure that the world does not globalize, so that recovery is not damaged by further loss of productivity. Additionally, there are some encouraging signs that this health crisis will end. Countries are managing to contain the virus through social distancing practices, contact testing and tracing, and an extensive vaccination campaign. Therefore, the financial data shows an economic recovery and a reversal of the downward trend. Both advanced and emerging economies are expected to recover partially in 2021. However, there is still a risk of the coronavirus returning as part of subsequent mutations, which would result in a return to socio-economic restrictions. The International Monetary Fund predicts that if the pandemic continues in 2021, global GDP could fall by an additional 8 percent (IMF, 2021). At the moment, this scenario is receding due to the increasingly better health situation and the economic recovery resulting from the lifting of further socio-economic restrictions. However, we still face great uncertainty about what will happen next. According to the scale and pace of the crisis, national and international policy responses need to be broad-based and swiftly implemented, but also recalibrated as new disease data become available (Sroka and Szántó, 2018). Undoubtedly, the economic and social effects of the pandemic will be severe in the long run, but at the same time they show new knowledge and practical solutions for the economies as a whole. Most studies point to long-term changes in consumer and investor behavior, in particular increasing savings at the expense of investment and consumer spending. This will particularly jeopardize spending in the tourism, hospitality, catering and entertainment sectors. Countries where the tourism sector is important should continue to develop policies that minimize the impact on these vulnerable sectors of the economy.

Summary

The market is a process of confronting supply and demand, whereby buyers and sellers determine what they are going to buy and sell, and on what terms. The above definition presents the market as some mechanism that has the ability to self-regulate and strike an intrinsic balance between opposing market forces (Albrecht, 2010). The relations arising on the market between the demand and the supply and the resulting price depend on the conditions and under what competition the economic entities operate under. Good condition of the economy is understood as good results of economic measures compared to other countries, with further economic growth and development. Economic growth means an increase in the annual production of goods and services in a country (Kamerschen et. al., 2001). If in the next year the entire economy manages to sell more goods and services than in the previous year, then we are dealing with economic growth. When we are able to earn more, the source of growth is our work, but if at the same time the prices of the goods we buy rose by the same amount, we were dealing only with nominal growth. We cannot buy more than before. Therefore, actual economic growth occurs due to real growth, i.e. after adjusting for inflation. Economic growth relates only to quantitative changes. On the other hand, economic development includes changes of a qualitative nature, e.g. through the use of better and better modern methods of production and management, which affects the efficiency of work. The benefits of economic growth and development are an increase in living standards, increased production, a better social situation and greater public security.

GDP growth usually means a good economy, an increase in industrial production, an inflow of foreign investments and an increase in exports. The inflow of foreign investments and an increase in exports cause an increase in demand for the national currency by abroad, which is expressed in an increase in the exchange rate. It can be assumed that there is a generally accepted relationship that GDP growth also causes the national currency to rise in relation to other currencies. The sustained GDP growth may pass into the phase of the so-called overheating, i.e. an increase in inflationary tendencies, expectations of an increase in interest rates (one of the measures to fight inflation), which also leads to an increase in the value of the national currency. Therefore, it is very important to keep the exchange rate balance. It should be remembered that too high an increase in the domestic currency exchange rate (appreciation) may lead to an increase in export costs (unfavorable currency exchange rate), a decrease in import costs, which in turn will refer to a decline in GDP or at least a slowdown in its growth. Nominal GDP is calculated according to the current value of money, while real GDP is calculated according to the real value of money, thus taking into account inflation. The conversion is the division of nominal GDP by the price index. In statistical summaries, real GDP is most often presented in constant prices from a selected base year. Real GDP growth or decline is a measure of economic development (Miciuła, 2018). For international comparisons, GDP is converted at the current exchange rate, usually to US dollars or purchasing power parity. It should be remembered that GDP is only a certain convention for counting the value of production in a given period. In simple terms, it is the sum of the value of all final goods and services produced in a given period. Value is the product of the quantity and the price of individual goods.

In 2021, we are dealing with the third wave of the coronavirus pandemic, so the situation was still not very optimistic. The public health situation continued to decline, which also translated into concerns about the economic condition of many households and businesses. Despite the fact that macroeconomic measures improved their values and fluctuated within the limits of previous years, the situation in many sectors of the economy was still serious and caused huge losses and their shrinking in terms of income opportunities. Quite simply, on the other hand, certain sectors of the economy increased their

income values (transportation services, the packaging industry, the pharmaceutical industry, and the production of clothing and health products) in response to the needs related to the global fight against the coronavirus pandemic. Covid-19 is still a problem and a risk, because despite the relatively high percentage of vaccinated population and the gradual lifting of restrictions, there is a risk of new cases as a result of new mutations of the coronavirus (currently the delta variant). Therefore, it cannot be assumed that there will be no re-introduction of administrative restrictions to prevent the spread of the pandemic. The sectors of the economy that suffered the most were: accommodation and gastronomy (more broadly tourism), service activities (e.g. hairdressers, beauticians and others) and all activities related to culture, entertainment and recreation. Other industries recorded slight declines compared to the previous year, and others recorded increases despite the pandemic. When analyzing the economy as a whole, three areas can be identified in which certain types of economic activity are found. The first area is the sectors which, as a result of pandemic constraints, recorded the greatest losses due to temporary total or partial inability to conduct business (tourism, service activities, cultural activities as well as entertainment and recreation). The second area are sectors which, as a result of administrative restrictions, recorded slight declines. In the third area, on the other hand, we distinguish industries that recorded significant growth, which was related to the activity related to the production and services supporting the fight against the pandemic or supporting the replacement of traditional trade channels (e.g. online orders or packaging production). An additional economic effect of the current pandemic is the increase in average inflation, which is estimated to increase annually by 4 percent until 2023. This fact will also put pressure on wages. Therefore, the situation on the labor market will be stable, despite the maintenance of the deficit and public debt path in the coming years. The material situation of households has slightly improved despite the pandemic. Spending has changed in response to the dynamics and constraints of the pandemic. For example, spending on consumer goods and services decreased by more than 6 percent, while expenses on food and beverages as well as household goods increased by 5 percent. These changes were related to the limitations resulting from the pandemic. On the other hand, the upward trend in disposable income was maintained, despite a slowdown in its dynamics.

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