




# The Impact of COVID-19 on Global Socio-Economic Spheres and International Migration

Maria V. Petrovskaya, Vladimir Z. Chaplyuk, Md. Nazmul Hossain, Milana M. -S. Abueva, and Ahmad S. Al Humssi 

## Abstract

The paper aims to examine the impact of the COVID-19 pandemic on global economic indicators through three main stages: the pre-pandemic, the pandemic, and the recovery stages. The paper is mainly based on secondary data sources, including books, research papers, scientific articles published in international journals, reports from the World Bank, IMF, and WTO, and national and international statistic agencies regarding the discussed issue. The research field includes the global national product, international trade, international investments, inflation rate, the global poverty and unemployment rate, and the international migration rate. The research found that COVID-19 has negatively impacted the country's macro-economic indicators, poverty, and immigration, which varies from country to country and is related to preventive measures, which, in turn, are related to the country's economic and health capabilities.

## Keywords

COVID-19 · World economy · Global poverty rate · International migration · Unemployment

## JEL Codes

F22 · O15 · E24 · Q40 · Q41 · Q43 · F66

M. V. Petrovskaya (✉) · V. Z. Chaplyuk · M. N. Hossain · M. M. -S. Abueva  
Peoples' Friendship University of Russia (RUDN University),  
Moscow, Russia

A. S. Al Humssi  
Peoples' Friendship University of Russia (RUDN University), Moscow,  
Russia

Financial University under the Government of the Russian Federation,  
Moscow, Russia

## 1 Introduction

Coronaviruses have been a large family of viruses (National Institute of Allergy and Infectious Diseases (NIAID), 2022) since the 1920s, which did not have a noticeable economic impact. The situation is getting increasingly dangerous due to different types of viruses: SARS-CoV, MERS-CoV, and SARS-CoV-2, which cause COVID-19 (Médecins Sans Frontières, 2022). The world has never witnessed an outbreak of the emerging coronavirus disease, COVID-19, which poses a major threat to the global economy. The spread of the COVID-19 pandemic has negatively affected all aspects of life, whether at the internal or external level because it covers the economic and social sectors of countries (World Health Organization (WHO), 2022). In 2020, countries began imposing gradual ban measures to limit the spread of the pandemic.

The spread of the COVID-19 pandemic forced countries to take preventive measures to reduce the health and economic effects of COVID-19. Due to the lack of understanding of the mechanism of the spread of the pandemic, the countries have taken primary health measures at the expense of their economies, which has damaged these economies and, in turn, significantly raised the unemployment rate worldwide. Moreover, measures restricting movement between countries were introduced, which prevented migration between countries and thus increased the global poverty rate.

Despite the weakness of the economies of many countries, they took severe preventive measures that led to the destruction of their economies. Thus, these countries need a long period to recover from the effects of this pandemic. Nevertheless, compared to the more developed countries, the COVID-19 pandemic has not significantly impacted the economies of developing countries.

We can note that the relationship between the spread of the pandemic and economic growth is an inverse relationship. In other words, if the severity of the pandemic and the extent of the pandemic spread increase, the negative effects on the

global economy also increase, which leads to a downturn in the global economy and vice versa.

In this research, the authors seek to determine the effects of the COVID-19 pandemic on the global economy and international migration. Due to the great impact of the COVID-19 pandemic on the economic and social life of countries and its direct impact on international migration, the authors found many studies that examined the impact of this pandemic on the economic indicators of countries. For example, Chaplyuk et al. (2021), Petrovskaya et al. (2022), Mohapatra et al. (2020), Morgan et al. (2021), and Dennis (2020) studied the impact of COVID-19 on the global economy. Other studies examined the relationship and the impact of COVID-19 on international trade (Kiyota, 2022; Pauwelyn, 2020) and poverty (Whitehead et al., 2021). The new WHO/World Bank reports also warn that financial hardship is likely to become more intense as poverty grows, incomes fall, and governments face tighter fiscal constraints (Sabet-Parry & Guo, 2021).

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## 2 Methodology and Data

The COVID-19 pandemic has affected the economic indicators of countries, including such indicators as a gross domestic product, unemployment, poverty, and immigration. In this research, the authors seek to determine (1) the impact of COVID-19 on the global economy and (2) the impact of COVID-19 on international migration.

The authors apply statistical and mathematical methods to detect the impact of COVID-19 on the global economy and international migration, based on various data, releases, and resolutions issued by international organizations, such as the World Bank, the World Health Organization (WHO), the World Trade Organization (WTO), etc.

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## 3 Empirical Analysis and Results

To measure the impact of COVID 19, it is necessary to identify the channels through which COVID-19 can affect the economic and social life of countries and international migration.

The global gross domestic product has been negatively affected by the COVID-19 pandemic (World Bank, 2022). In 2020, there was a decrease in global GDP, which was mainly due to the global COVID-19 pandemic, as factories and laboratories were closed or stopped due to restrictive measures imposed. The world economy shook. Mills and industries closed. Airlines and tourism industries went bankrupt. Millions of workers in the service sector were fired.

People with low income, self-employed, micro-and small businesses, daily wages workers, and illegal immigrants were the hardest hit (Chaplyuk et al., 2021).

The spread of the COVID-19 pandemic significantly affected international trade. Due to the COVID-19 pandemic, the volume of trade between countries has significantly decreased due to several factors:

- Decreased production of goods and services due to preventive measures;
- Existence of restrictions on the transportation of goods and services between countries;
- From the point of view of UNCTAD, the positive trend for international trade in 2021 was largely the result of increases in commodity prices, subsidizing pandemic restrictions, and a strong recovery in demand due to the economic stimulus package (UNCTAD, 2022).

The spread of the COVID-19 pandemic had its physical and moral effects on global financial markets (Zhao et al., 2022), such as inward FDI. In 2008, global financial markets witnessed the collapse and worst performance since the outbreak of the global financial crisis (Akhmedov et al., 2021); COVID-19 gave a negative indication of the investors' sense of the trends of the impact of COVID-19 on the global economy and, at the same time, the increase in financial risks for companies and countries (Berzon et al., 2022).

The COVID-19 pandemic had a significant negative impact on FDI (OECD, 2022). In 2020, global FDI fell by 42% (UNCTAD, 2021). However, this indicator strongly rebounded in 2021, but the recovery is still highly uneven (Chaplyuk et al., 2022; UNCTAD, 2022).

COVID-19 affected tourism and transport; the number of flights was reduced, and many airports worldwide were closed (International Organization for Migration (IOM), 1953).

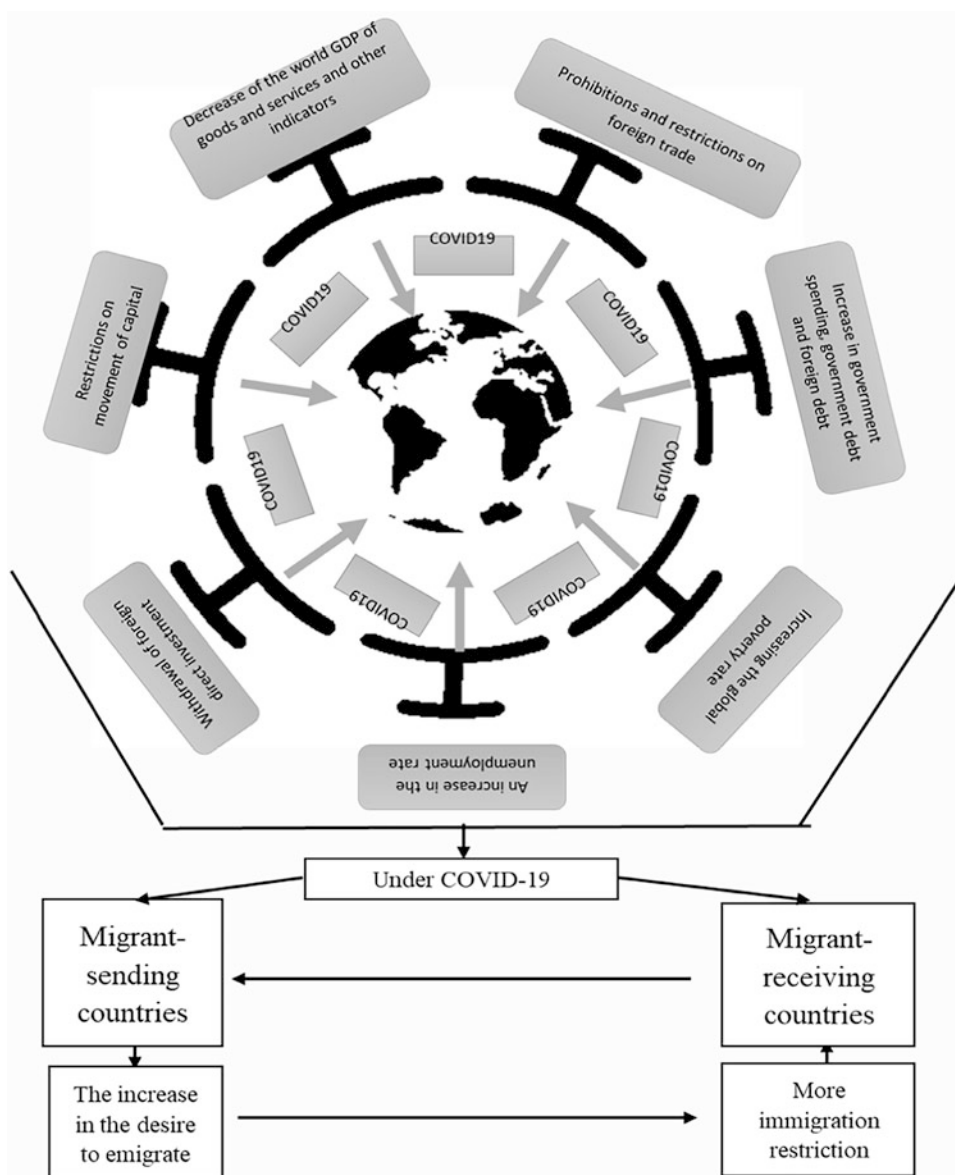
Under COVID-19, the number of travelers in the world has decreased significantly for several reasons, namely the fear of the outbreak of the COVID-19 pandemic, the preventive restrictions, the closure of airports, and the large cancellation of land and air tourist trips.

### 3.1 COVID-19 and International Migration

Migration is not acute and random; it has been around for a long time. It has spread for a long time along the stages of human life on this earth due to many economic, social, and other factors.

As previously shown, the COVID-19 pandemic negatively affected all economic and social aspects of countries

**Fig. 1** The main factors affecting international migration in light of COVID-19. Source: Compiled by the authors



and societies. As a result, it had a negative impact on international migration. In this research, the authors determine the impact of COVID-19 on international migration (Fig. 1).

COVID-19 has negative effects on the global economy: a declining global GDP of goods and services, low levels of trade between countries, restrictions on capital flows, increased government spending, public and foreign debt, etc. In addition to other factors without the impact of the COVID-19 pandemic (such as difficult life conditions), as well as life aspirations, these factors led to an increase in the desire of people to emigrate from the countries of their origin.

With the beginning of the spread of the COVID-19 pandemic in 2020, countries began to impose travel restrictions and other restrictions on receiving migrants to limit the spread of the COVID-19 pandemic. The impact of COVID-

19 on the global economy and migration can be explained by the following model:

$$MIGcoef. = HPOVr + HUr + LACJopp. + ASPJopp + PURwb\&BLC \tag{1}$$

where:

- MIGcoef.—migration coefficient;
- HPOVr—high poverty rate;
- HUr—high unemployment;
- LACJopp.—lack of job opportunities;
- ASPJopp—aspiration for better job opportunities;
- PURwb & BLC—pursuit of well-being and better living conditions.

Model (1) explains that the desire to emigrate is linked to several main factors, namely: high poverty, high unemployment, and lack of job opportunities in migrant-sending countries and better job opportunities and good living conditions (e.g., housing, employment) in migrant-reserving countries. Thus, with an increase in the phenomenon of immigration, it will exacerbate the economic problems in the migrant-sending countries, which can be listed in Model (2):

$$\text{RMIGcoef.} = \text{LoM} + \text{LoSC} + \text{IcIgUn} + \text{Dec.GDP} + \text{Etc.} \quad (2)$$

where:

RMIGcoef.—result migration coefficient;

LoM—loss of manpower;

LoSC—loss of scientific competencies, which leads to an increase;

IcIgUn—increase in ignorance and underdevelopment.

Thus, it will lead to considerable economic damage in the distant future, such as a decrease in the country's GDP and other economic problems.

Thus, the increase in migration will leave a number of economic and social problems in the countries of origin, the most important of which are the loss of human resources, loss of scientific competencies, increase in ignorance and underdevelopment, decrease in the country's GDP, etc.

Many economic and social problems have been exacerbated by the spread of the COVID-19 pandemic in 2020. Due to COVID-19, countries closed their borders to stranded migrants, including workers, students, and others, such as migrants traveling for medical treatment (McAuliffe & Triandafyllidou, 2021). If we consider these factors, we can build the model of migration under COVID-19 (Eq. 3):

$$\Delta \text{MIGcoef.u COVID-19} = \text{InDM} \uparrow \text{TrSt.} \uparrow \text{RecRC} \uparrow \text{RMIGcoef.u COVID-19} \downarrow \Delta \text{MIGcoef.il} \uparrow \quad (3)$$

where:

$\Delta$  MIGcoef.u COVID-19—migration coefficient under COVID-19;

InDM—an increase in the desire to migrate compared to normal conditions (without COVID-19);

TrSt.—transportation restrictions;

RecRC—refusal of receiving countries to receive immigrants due to the COVID-19 pandemic;

RMIGcoef.u COVID-19—resulting migration coefficient under COVID-19;

MIGcoef.il  $\uparrow$ —illegal migration rates.

It is somewhat difficult to assess the impact of COVID-19 on the transnational movement of international migrants across countries. However, estimates from the UN DESA (UNCTAD, 2021) indicate that COVID-19 may have reduced the growth of international migrants by about two million people. In other words, if there had not been COVID-19, the number of international migrants in 2020 would have been around 283 million (United Nations, Department of Economic and Social Affairs Highlights (UNDESA), 2020–2021).

In this way, it can be said that the COVID-19 pandemic has had physical effects not only on the economic and social life of individuals and countries but also on global migration rates through increased desire to migrate compared to normal conditions (before COVID-19) under transportation restrictions and refusal of receiving countries to receive immigrants due to the COVID-19 pandemic. Therefore, the sending countries witness poverty increase at a higher rate. Moreover, these countries experience higher unemployment rates compared to the pre-pandemic period, which leads to an increase in illegal migration rates.

## 4 Conclusion

The COVID-19 pandemic has had devastating economic and social effects because it destroyed the economies of countries, cut off trade, investment, and tourism relations, and claimed millions of human lives, as it can be called the global war of the twenty-first century.

The COVID-19 pandemic has had physical effects not only on the economic and social life of individuals and countries but also on global migration rates, through increased desire to migrate compared to normal conditions (before COVID-19) under transportation restrictions and refusal of receiving countries to receive immigrants due to the COVID-19 pandemic. Therefore, the sending countries witness poverty increase at a higher rate. Moreover, these countries experience higher unemployment rates compared to the pre-pandemic period, which leads to an increase in illegal migration rates.

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## References

- Akhmedov, F. N., Zeitoun, M. S., & Al Humssi, A. (2021). Financial engineering to optimize risk management in banks based on interest rate swaps to better hedge the exposure to interest rate fluctuations the case of banks in Syria. *International Review*, 1–2, 99–107. <https://doi.org/10.5937/intrev2102101A>
- Berzon, N. I., Novikov, M. M., Pozharskaya, E. L., & Bakhturina, Y. I. (2022). Monitoring the modern experience of financial risk management in Russia based on corporate social responsibility for sustainable development. *Risks*, 10(5), 92. <https://doi.org/10.3390/risks10050092>
- Chaplyuk, V. Z., Akhmedov, F. N., Zeitoun, M. S., Abueva, M. M.-S., & Al Humssi, A. S. (2022). The impact of FDI on Algeria's economic growth. In E. G. Popkova & B. S. Sergi (Eds.), *Geo-economy of the future* (pp. 285–295). Springer. [https://doi.org/10.1007/978-3-030-92303-7\\_32](https://doi.org/10.1007/978-3-030-92303-7_32)
- Chaplyuk, V. Z., Alam, R. M. K., Abueva, M. M.-S., Hossain, M. N., & Humssi, A. S. A. (2021). COVID-19 and its impacts on global economic spheres. In E. G. Popkova & B. S. Sergi (Eds.), *Modern global economic system: Evolutional development vs. revolutionary leap* (pp. 824–833). Springer. [https://doi.org/10.1007/978-3-030-69415-9\\_94](https://doi.org/10.1007/978-3-030-69415-9_94)
- Dennis, M. J. (2020). The impact of COVID-19 on the world economy and higher education. *Enrollment Management Report*, 24(9), 3–3. <https://doi.org/10.1002/emt.30720>
- International Organization for Migration (IOM). (1953). *Constitution (adopted October 19, 1953)*. IOM. Accessed May 2, 2022, from <https://www.iom.int/constitution-and-basic-texts-governing-bodies>.
- Kiyota, K. (2022). The COVID-19 pandemic and the world trade network. *Journal of Asian Economics*, 78, 101419. <https://doi.org/10.1016/j.asieco.2021.101419>
- McAuliffe, M., & Triandafyllidou, A. (Eds.) (2021). *World migration report, 2022*. IOM. Accessed May 2, 2022, from <https://reliefweb.int/sites/reliefweb.int/files/resources/WMR-2022-EN.pdf>.
- Médecins Sans Frontières. (2022). *Medical activities, Coronavirus*. Accessed April 2, 2022, from <https://www.msf.org/coronavirus>.
- Mohapatra, S., Priyanka, V., Mohapatra, S., Kohli, I., & Mishra, R. K. (2020). Impact of corona virus COVID-19 on the global economy. *International Journal of Agricultural and Statistics Sciences*, 16(2), 771–778.
- Morgan, A. K., Awafo, B. A., & Quartey, T. (2021). The effects of COVID-19 on global economic output and sustainability: Evidence from around the world and lessons for redress. *Sustainability: Science, Practice and Policy*, 17(1), 76–80. <https://doi.org/10.1080/15487733.2020.1860345>
- National Institute of Allergy and Infectious Diseases (NIAID). (2022). *Coronaviruses*. Accessed May 7, 2022, from <https://www.niaid.nih.gov/diseases-conditions/coronaviruses>.
- OECD. (2022). *FDI in figures*. Accessed May 2, 2022, from <https://www.oecd.org/investment/investment-policy/FDI-in-Figures-April-2022.pdf>.
- Pauwelyn, J. (2020). Export restrictions in times of pandemic: Options and limits under international trade agreements. *Journal of World Trade*, 54(5), 727–747. Accessed May 1, 2022, from <https://kluwerlawonline.com/journalarticle/Journal%2Bof%2BWorld%2BTrade/54.5/TRAD2020031>.
- Petrovskaya, M. V., Chaplyuk, V. Z., Alam, R. M. K., Hossain, M. N., & Al Humssi, A. S. (2022). COVID-19 and global economic outlook. In E. G. Popkova & I. V. Andronova (Eds.), *Current problems of the world economy and international trade* (pp. 127–139). Emerald Publishing Limited. <https://doi.org/10.1108/S0190-128120220000042013>
- Sabet-Parry, R., & Guo, J. (2021). *More than half a billion people pushed or pushed further into extreme poverty due to health care costs*. WHO; World Bank. Accessed May 2, 2022, from <https://www.who.int/news/item/12-12-2021-more-than-half-a-billion-people-pushed-or-pushed-further-into-extreme-poverty-due-to-health-care-costs>.
- UNCTAD. (2022). *Global trade growth, 2022*. Accessed May 2, 2022, from [https://unctad.org/system/files/official-document/ditcinf2022d1\\_en.pdf](https://unctad.org/system/files/official-document/ditcinf2022d1_en.pdf).
- UNCTAD. (2021, January 24). *Global FDI fell by 42% in 2020, outlook remains weak*. Accessed May 2, 2022, from <https://unctad.org/news/global-foreign-direct-investment-fell-42-2020-outlook-remains-weak>.
- UNCTAD. (2022, January 19). *Global FDI rebounded strongly in 2021, but the recovery is highly uneven*. Accessed May 2, 2022, from <https://unctad.org/news/global-foreign-direct-investment-rebounded-strongly-2021-recovery-highly-uneven>.
- United Nations, Department of Economic and Social Affairs Highlights (UNDESA). (2020–2021). *Annual highlights report, 2020–2021*. Accessed May 2, 2022, from [https://cdn.un.org/desa/Highlight\\_Report\\_2020-2021.pdf](https://cdn.un.org/desa/Highlight_Report_2020-2021.pdf).
- Whitehead, M., Taylor-Robinson, D., & Barr, B. (2021). Poverty, health, and COVID-19. *BMJ*, 372, n376. <https://doi.org/10.1136/bmj.n376>
- World Bank. (2022). *GDP (current USD)*. Accessed May 2, 2022, from <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.
- World Health Organization (WHO). (2022). *COVID-19 cases*. Accessed May 14, 2022, from <https://COVID19.who.int>
- Zhao, L., Rasoulinezhad, E., Sarker, T., & Taghizadeh-Hesary, F. (2022). Effects of COVID-19 on global financial markets: Evidence from qualitative research for developed and developing economies. *The European Journal of Development Research*, 35, 148–166. <https://doi.org/10.1057/s41287-021-00494-x>