COVID-19 and Its Impacts on Global Economic Spheres

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Abstract. This is the era of globalization, called globalization of economic affairs. Due to economic globalization, along with economic issues, political, diplomatic, education, trade and investment factors have been globalized with the same speed.

For the reason why, being originated from Wuhan city of China’s Hubei province, the COVID-19 has been spread rapidly throughout the whole world; has lockdown the world’s economic, political, educational, research and all important sectors.

The world economy has shaken. Mills and industries have been closed. Airlines and tourism industries have been bankrupted. Millions of service holders have been unemployed. Low income, self-employed, micro and small scale businesses, daily wages labors and illegal immigrants are suffering most.

The main purpose of the study is to analyze the socio-economic impacts of the pandemic and intergovernmental initiatives to tackle it. The study is based on basically secondary sources of data and information which includes scientific and academic journals, scholar articles, research papers, books and other relevant sources pertaining to the subject.

The study recommended a wide range factors mainly global integrity, cooperation and coordination which are inevitable to confront the challenges the world is currently and gone vis-a-vis with.

Engaging artificial intelligence, robot and changing patterns of technologies effectively in agricultural production, industrial output, transportation, hospital, healthcare, and other critical sectors is inevitable to survive in the extremely critical time.

Keywords: COVID 19 · Pandemic · Socio-economic impact · Global poverty · Unemployment

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1 Introduction

Our present world is characterized by many variables that directly affect the world economy, starting from the WW1 and WW2, through the collapse of the Woods system, the global oil price crises, the financial crises, and finally the global pandemic, Corona virus.

On March 11, 2020 the World Health Organization declared the Covid-19 as an uncontrollable global pandemic and that it will be spread throughout the world. Despite these recommendations, states have not taken this pandemic seriously (WHO 2020).

The global pandemic as a symphony of COVID – 19 of the most important complex problems not only at the level of governments and countries but also at the level of educational institutions and scientific research at all levels of medicine, economics, etc. for example: United Nations 2020. The global economy has been hit by a health, human and economic crisis without precedent in the last century and that is continually evolving. In the face of the coronavirus disease 2019 (COVID-19) pandemic, economies have shut down and are paralyzed, and societies are in quarantine to varying degrees, measures that are only comparable to those in war situations. From the point of view Boissay and Rungcharoenkitkul (2020) Covid-19 differs from previous episodes in several important ways. Notably, the globally synchronized lockdowns and trauma of financial markets reinforce one another into an unprecedented economic sudden stop. For these reasons, the Covid-19 global recession is unique.

ILO Monitor COVID-19 has already transformed into an economic and labour market shock, impacting not only supply (production of goods and services) but also demand (consumption and investment).

The researchers Ozili and Thankom (2020) identify two main causes of the pandemic that led to economic losses. First, the spread of the virus encouraged social distancing which led to the shutdown of financial markets, corporate offices, businesses and events. Second, the exponential rate at which the virus was spreading, and the heightened uncertainty about how bad the situation could get, led to flight to safety in consumption and investment among consumers, investors and international trade partners.

In view of the great impact of the spread of the pandemic on the global economy, as demonstrated by the analysis of previous research, we seek in this article to measure the mechanism of the impact of the COVID 19 on the global economy.

The subject of the research is the diagnosis of socio-economic impacts of the pandemic and intergovernmental measures to support the economies.

Research tasks are:
- To determine the negative effects of the pandemic on the economies of countries;
- Find effective intergovernmental measures to support the economies in the period of the pandemic.
2 Methodology of the Study

The study is based on basically secondary sources of data and information including scientific and academic journals, scholar articles, research papers, books and other relevant sources to make in-depth analysis, interpretation and re-interpretation, and describe and explain the issue at hand of this proposed study. The study also included the qualitative and quantitative methods to understand the Covid-19 pandemic’s global socio-economic impacts. Some rudimentary aspects of quantitative tool, like economics data, are also used in this study.

3 Results

From the goal of this our study will focus on the global economic level. To study the mechanism of the effect of the Corona virus on the global economy, it is necessary to study the mechanism of the rapid spread of the virus worldwide.

The spread of the Covid-19 pandemic has an impact on all countries, whether developed or developing. According to estimates by the World Bank and the International Monetary Fund, the extent of the damage to the national product varies from one country to another. According to the expectations of the World Bank, we find that the economic growth of real GDP in 2020 will become negative by −3 and in 2021 it will be positive by 5.8%. According to estimates, the negative effects of the pandemic on the GDP of developed countries are more than that of developing and emerging countries (Fig. 1). Within the European Union region, the most affected countries are Italy −9%, and Spain −8%.

![Graph showing GDP percentage for different regions]

Source: World Economic Outlook, International Monetary Fund, April 14, 2020.
Notes: Data for 2020 and 2021 are estimates.

Fig. 1. Gross Domestic Product, %.
Here an explanation of the relationship between the spread of pandemic and economic indicators is strongly indirect. So the spread of pandemic can cause directly in reduce domestic product.

For the emerging and developing countries, it is ranked first Mexico, followed by Russia and Brazil. There is a positive view of the International Monetary Fund, as in 2021 there will be positive growth for most of the countries of the world.

In general, over the period between 1990 and 2021, we find that the global GDP per capita reached its lowest levels in the period of the spread of the pandemic, where we find, according to the estimates of the International Monetary Fund, that the global financial crisis of 2008–2009\(^1\) did not have negative effects like those caused by the Corona virus. Figure 2.

![Fig. 2. World growth in GDP per capita and recessions. Source: International Monetary Fund, World Economic Forum 2020.](https://openknowledge.worldbank.org/handle/10986/33540)

The IMF saw a far more optimistic scenario as recently as January. The pre-outbreak economic situation was poised to improve GDP per capita in 160 countries. Yet the pandemic has quickly plunged the world into “a global recession not seen before,” IMF has planned to use $1 trillion as lending to aid nations through the health crisis, but that aid needs to be kept in check for long-term recovery (World Economic Forum 2020).

The impacts of the spread of the pandemic not only has negative effects on GDP, it also increases unemployment rates Morrow-Howell et al. (2020), Powell et al. (2020) significantly as a result of restrictive measures in order to reduce the spread of the pandemic and thus can lead to an increase in poverty from a point of view Daniel Gerszon Mahler on (16 Apr 2020), the extreme poverty rate could reach more than

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\(^1\) Loayza, Norman V.; Pennings, Steven. 2020. Macroeconomic Policy in the Time of COVID-19: A Primer for Developing Countries. Research and Policy Briefs.no. 28; World Bank, Washington, DC. © World Bank. [https://openknowledge.worldbank.org/handle/10986/33540 License: CC BY 3.0 IGO. URL:](https://hdl.handle.net/10986/33540)
50 million people worldwide, the largest proportion in Sub-Saharan Africa is 22 million and 15 million in South Asia. At the same time the World Bank warns that between 60 and 100 million people will live in poverty Extreme.

One of the most affected economic sectors at the global level is the international trade in goods as shown in the following figure (Fig. 3).

The coronavirus pandemic led to a 3% drop in global trade values in the first quarter of 2020. The downturn is expected to accelerate in the second quarter, according to UNCTAD forecasts, which project a quarter-on-quarter decline of 27%. (UNCTAD 2020).

In Figure we find that the relationship between the spread of COVID-19 and global trade is inverse, the greater the spread of the virus, the smaller the volume of trade in goods and vice versa. From the point of view of Gruszczynski (2020), if bigger current pandemic affects, the greater are the chances that we will see the paradigm shift in international trade relations and governance.

By analysis foreign trade in the pandemic period, we found that the countries with more losses in trade are North America then Asia (WTO 2020).

Simulation of the economic impact model in the period of spread of the Corona virus and the economic situation thereafter:

The accompaniment of the global health crisis with a major economic and financial crisis puts pressure on the countries of the world significantly even after the global health crisis has passed- where it will have effects on the operating sector and
increasing unemployment rates and this includes the high level of corporate debt and trade tensions between the major economies.

The spread of the Corona pandemic has a major impact on the level of global poverty, and the reason is the stopping of economic activities and daily works, which reduces production, which in turn leads to an inflationary situation resulting from the decrease in the quantity supplied and the increase in demand (based on the financial savings of individuals) on commodities, the most important of which are food and medicine. Here, the states potential can play an important role to overcome the situations.

We can explain the stages during which the pandemic affects the economic aspects accordingly:

- The spread of the pandemic → Decrease employment because of the preventive measures → Decrease production → Increase inflation rate because of the increase in demand and the decrease in the supply of goods and services;
- Decrease in demand due to the decrease in the quantity of money caused by lower people's income due to stopping work and increasing unemployment due to the pandemic → Decreased prices;
- Government funding through lending → Increase employment and amount offered for funds at the same pace → Life returns to normal.

To model the impacts, we need a set of economic, health and preventive indicators that are from our point of view, and from the viewpoint of experts from the World Bank, the International Monetary Fund and the World Health Organization, Most of these indicators correspond to researches as Dorine et al. (2020). The most important indicators that the pandemic is supposed to influence are:

- The pandemic economic impact model $M$
- Basic reproduction number $R_0$
- Preventive measures (quarantine and self-isolation) $R_r$
- Other preventive measures $OPM$
- Food, health and economic security risks $FHESR$
- Unemployment $U$
- Income $I$
- Gross domestic product $GDP$
- Poverty Rate $Pr$
- Foreign trade $Ft$
- Foreign investment $FDI$
- Finance Provide $Fp$

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M = \{ R_0 + R_r + OPM + FHESR \} = \{ GDPI + Pr + U + FDI + FT + Fp \} \]
In the Table 1 the assumed effects of epidemics on the economy, health and preventive measures (Classification by degree of risk of epidemic [Epidemic speed rate, death rate & recovery rate]: cases 1–10).

As is also noticed from the table that in the event of the impact of the pandemic and its spread rate is low (cases 1–2–3) it will lead to a decrease directly and indirectly will lead to a low impact on economic indicators, the most important of which is the national product, income and investment and the stop of factories and factories gradually in this case the state will carry out inexpensive security and prevention measures Much of the crisis associated with the spread of the pandemic can be avoided, without preventing the reaching the second stage, and the cost will be greater.

In the event that the impact of the pandemic (cases 4–5) and its prevalence rate is significant, it will lead to a greater impact than the previous case on economic indicators due to a partial interruption of production and an increase in the percentage of the unemployed that will lead to pressure on the financial sector and a decrease in incoming incomes to the state treasury and an increase in expenditures for preventive measures and limiting the spread of the pandemic.

In the last stage (cases 6–7–8–9–10), in these cases the pandemic has a great impact on the economy (the collapse of the economy completely), the factories and factories have stopped completely, and the death rate has increased dramatically. In this case, the state cannot do anything but leave the situation as it is until the pandemic begins to gradually decline and then its removal, and this is related in the time period of the pandemic and consequently the conditions after the pandemic, which is the most effective, is the demise of the state due to the demise of the most important component of the state, which is the people.

By analyzing previous data on the stages of the epidemic and the current situation of the current pandemic (COVID 19), we find that the impact of COVID 19 on the global economy and health is not low-risk or very high-risk, but rather it is almost medium-risk. Despite its average effect compared to other epidemics, it has not proven that countries are unable to cope with epidemics that can be more deadly than the current pandemic.

| Case | R₀ | Rr | FOM | FHER | GDP | I | Pr | U | FDI | FT | Fp |
|------|----|----|-----|------|-----|---|---|---|-----|----|----|
| 1    | R₀ < 1 | +10% | +10% | +10% | −10% | −10% | +10% | +10% | −10% | −10% | +10% |
| 2    | R₀ < 1 | +20% | +20% | +20% | −20% | −20% | +20% | +20% | −20% | −20% | +20% |
| 3    | R₀ < 1 | +30% | +30% | +30% | −30% | −30% | +30% | +30% | −30% | −30% | +30% |
| 4    | R₀ < 1 | +40% | +40% | +40% | −40% | −40% | +40% | +40% | −40% | −40% | +40% |
| 5    | R₀ < 1 | +50% | +50% | +50% | −50% | −50% | +50% | +50% | −50% | −50% | +50% |
| 6    | R₀ > 1 | +60% | +60% | +60% | −60% | −60% | +60% | +60% | −60% | −60% | +60% |
| 7    | R₀ > 1 | +70% | +70% | +70% | −70% | −70% | +70% | +70% | −70% | −70% | +70% |
| 8    | R₀ > 1 | +80% | +80% | +80% | −80% | −80% | +80% | +80% | −80% | −80% | +80% |
| 9    | R₀ > 1 | +90% | +90% | +90% | −90% | −90% | +90% | +90% | −90% | −90% | +90% |
| 10   | R₀ > 1 | +100%| +100%| +100%| −100%| −100%| +100%| +100%| −100%| −100%| +100%|

Source: by author
Diagnosing the negative effects of any pandemic is difficult and complicated due to the lack of accurate ability to assess the losses, especially in the stage of spread. So in our research we will focus on three stages Fig. 4

![Diagram showing stages of pandemic and economic situation](image)

**Fig. 4.** Stages of pandemic and economic situation in country. Source: by author

First: (pre-pandemic period). This stage is characterized by setting advance plans in order to reduce the negative health and economic effects of the spread of the pandemic. Accuracy and caution in identifying potential losses will help to develop strategic plans that can make losses close to zero.

In the beginning stage of the pandemic, the countries have sufficient input to face the pandemic, but this is related to the pandemic period, whether it is short or long.

Second: The economic situation in period of a pandemic characterized initially by a state of confusion to accommodate the crisis, any error in appreciation, and taking inappropriate decisions that may have devastating effects on the economy. This requires prudent economic management to reduce economic losses and identify possible opportunities for restoring the economy to what it was before the pandemic.

Third: The end of the pandemic: is very similar to the reconstruction of some of the affected sectors, the most important of which is the tourism sector and the employment sector, and this requires government funding to start economic activities.

**Recommendations**

From the above, a necessary result can be reached that may assist countries in the period of health crises.

Determine the places where closed industrial zones must be established in addition to closed agricultural areas with the province to the possibility of rapid transition to other areas and thus will be a transition between agricultural areas and industrial until the pandemic is removed.

Allocating financial reserves for preventive measures and for the necessary productive operations in order to secure the minimum level of food security for the country and prevent a famine associated with the pandemic.

Increasing awareness among citizens of the methods of advice and guidance, and even penal and national measures if necessary to limit the spread of pandemics.

The bottom line is that a pandemic has varying degrees and is not expected from time to time. Therefore, the impact of pandemics is similar to the effect of war and other...
times more severe than wars. Therefore, as required by the state to preserve the military security of the state, states must also undertake initial and beneficial preventive measures in the event of future pandemics.

4 Conclusion

The spread of the Corona virus has devastating effects on the economies of countries, as the virus has spread very quickly between countries, forcing countries to close their internal and external economies activities. The absorption of the crisis by governments not too late led to avoiding other effects that may be long-term.

The strong impact of the Corona virus and its rapid spread has led to an economic crisis that did not occur 150 years ago. This very time to subdue to the impacts of pandemic in short order otherwise the world has to pay heavy cost. It’s already created massive production losses, communication disruption, economic destruction, social and political unrest and massive job loss. Global integrity, cooperation and coordination are inevitable to confront the challenges. Engaging artificial intelligence, robot and changing patterns of technologies effectively in agricultural production, industrial output, transportation, hospital, healthcare, and other critical sectors is inevitable to survive in the extremely critical time.

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