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Minutiae and Global Economical Aspects of Pandemic COVID 19

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ABSTRACT

In the present scenario only one thing is controlling the world COVID 19. This disease has affected the whole world and resulted in the paralysis to global economy. Not only has the developing countries the developed countries also affected by the same. The death rate all over the world has increased and is still increasing day by day. The WHO has also made it clear that for the next few years we have to live with COVID. The present review tries to emphasize the effect on the global economy by the pandemic 2019.

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INTRODUCTION

With unpredictable speed of transmission, a pandemic disease named COVID-19 began generating headlines all over the world in early 2020[1]. Traces of virus have originated in December 2019 from the market of Wuhan, China which continuously expanded its roots in other countries[2]. United States is the most affected country by this virus, causing thousands of deaths globally[3-4]. Human coronavirus was first recognized in the mid 1960s[5]. Virus named as coronavirus (*coronam* is the Latin term for crown) due to crown likes spikes glycoproteins on their surface (envelope) studied under an electron microscope and further divided into four main subgroups: alpha, beta, gamma and delta[6-8].

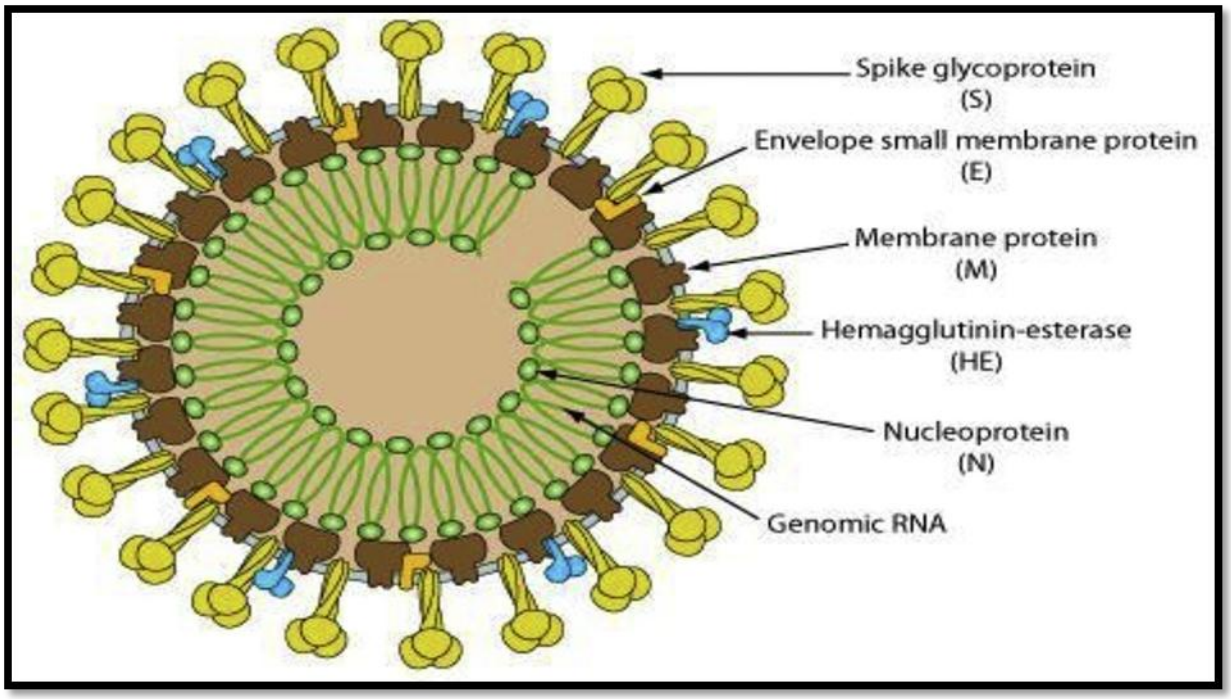

Figure No. 1: Basic structure of COVID Virus[9]

Common human coronaviruses are:

- 229E (alpha coronavirus)
- NL63 (alpha coronavirus)
- OC43 (beta coronavirus)
- HKU1 (beta coronavirus)

- MERS-CoV (beta coronavirus that causes Middle East Respiratory Syndrome, or MERS)
- SARS-CoV (beta coronavirus that causes severe acute respiratory syndrome, or SARS)
- SARS-CoV-2(type of beta coronavirus)

Human coronavirus which is also known as SARS-CoV-2, 2019-nCoV, and Covid-19 is a pandemic diseases and the type of beta coronavirus. It is enveloped positive single (+ssRNA)[10] strand RNA viruses with the biggest known RNA genomes, of 30-32kb.Coronavirus further categories into 2 types, L type (70%) and S type (30%).

Coronavirus belongs to Coronaviridae family, order of nidovirales, subfamily of coronaviridae and coronavirinae, genus of alpha, beta, gamma, and delta coronavirus[11]. The gene sources of alpha and beta coronavirus are probably bats and rodents. More than five coronaviruses infect the human host and cause respiratory disease. Extremely pathogenic coronavirus and zoonotic infection caused by the severe acute respiratory syndrome and Middle East respiratory syndrome which leads to worldwide eruption. According to estimate, viruses are responsible for about 5% to 10% of acute respiratory infections and 2% of the population are healthy carriers of a Covid 19[12].

The Novel strain of coronavirus SARS-CoV-2 was first detected in Wuhan city of China, in the region of Hubei as an outbreak of unrecognized pneumonia. First case of coronavirus was detected in Wuhan Huainan Seafood Wholesale Market[13-14]which presumed animal to human transmission of virus as the mechanism of transmission, but later on subsequent cases were not associated and it could also be transmitted from human to human and the people with symptoms are most frequently spreading the virus infection.

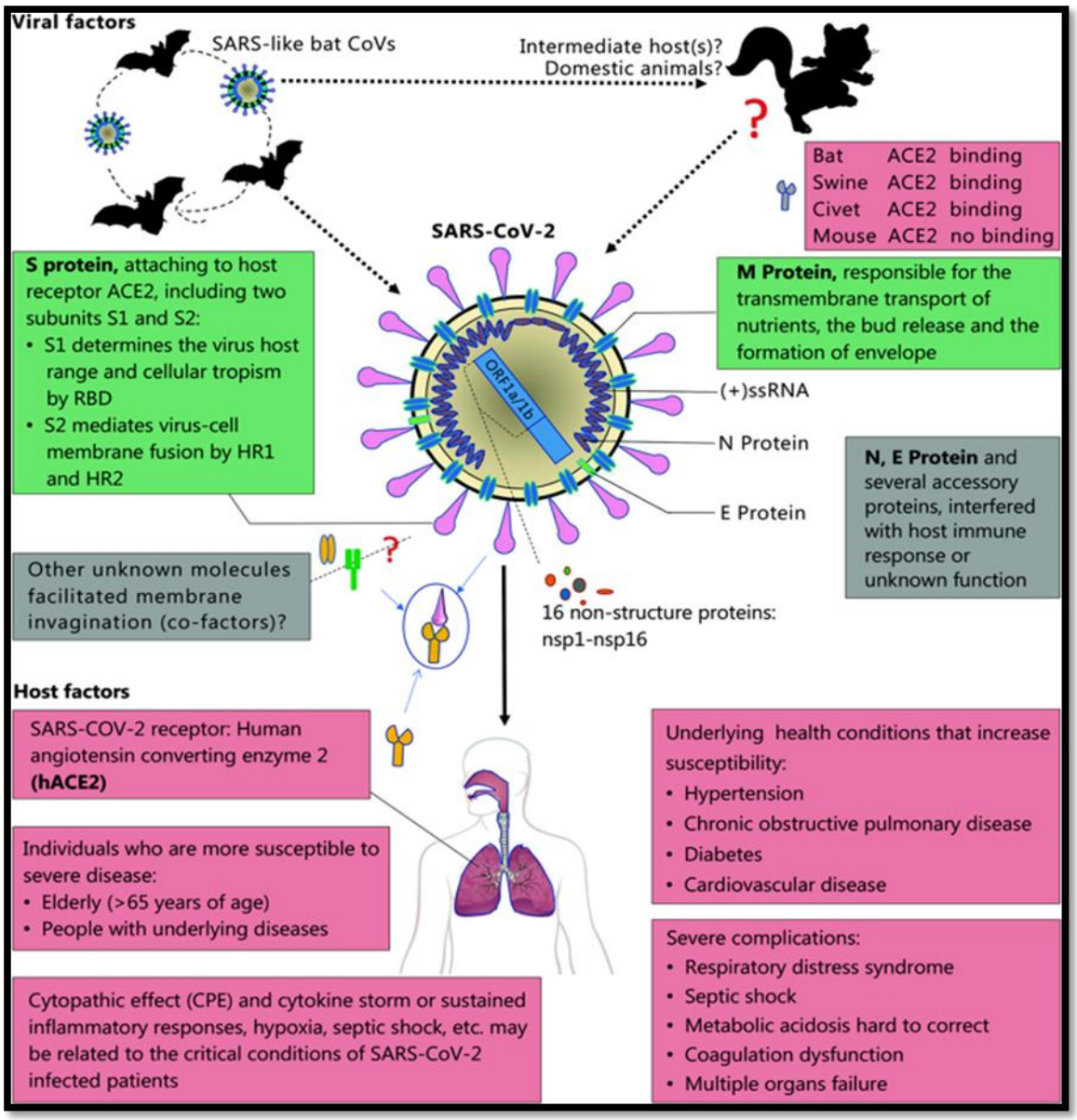

Figure No. 2: Factors Affecting Pathogenesis of COVID-19[15]

On the basis of data analysis from first case in Wuhan and investigations conducted by The Chinese Center for Disease Control and Prevention (CDC) and local CDCs, incubation time period generally within 3 to 7 days and longest time up to 2 weeks from infection to symptoms. The World Health Organization (WHO) on 30th January, 2020 announces the outbreak a Public Health Emergency of International Concern. The International Committee on Taxonomy of Viruses (ICTV) on 11th February, 2020 the WHO Director-General, Dr. Tedros Adhanom Ghebreyesus, named the virus as severe acute respiratory syndrome coronavirus-2 the disease caused by this new CoV was a "COVID-19"[16].

WHO revealed outbreak to be pandemic disease on 11th March, 2020 as huge outbreak of disease in various countries, with 1000's of deaths around the world. According to the (WHO) World Health Organization, in 2002 to 2003 severe acute respiratory syndrome coronavirus (SARS-CoV), in 2009 H1N1 influenza have been recorded in the last 20 years, in 2012 viral epidemic in Saudi Arabia Middle East respiratory syndrome coronavirus (MERS-CoV) was first identified.

SYMPTOMS[17]

For some people it's not initially causing any symptoms. Symptoms include fatigue, chills, fever, cough, difficulty breathing, and loss of taste, loss of smell, sore throat, headache, muscle aches and pain. The others symptoms is still being under investigation by the Centers for Disease Control and Prevention (CDC).

DIAGNOSE [17-18]

Nasopharyngeal (NP) swab and/or an Oropharyngeal (OP) swab are often recommended for Test and diagnosis of early infection. In advanced COVID-19 cases rectal swab by real time RT-PCR (Real Time Polymerase Chain Reaction) may be carried out.

PREVENTION[18]

To prevent the spread of COVID-19:

- ✓ Clean your hands often. Use soap and water, or an alcohol-based sanitizers.
- ✓ Maintain a safe distance (at least 1 meter) from anyone who is coughing or sneezing.
- ✓ Don't touch your eyes, nose or mouth.
- ✓ Cover your nose and mouth with your bent elbow or a tissue when you cough or sneeze.
- ✓ Stay home if you feel unwell.
- ✓ If you have a fever, cough and difficulty breathing, seek medical attention.

At present there are no rational medications or vaccine for the treatment of COVID-19. Antiretroviral agents like Lopinavir-Ritonavir combo, as well as Chloroquine and zinc may have proven to be effective in some cases. In alternate therapies use of immunity boosters is recommended as preventive measure.

WORLDWIDE ECONOMICAL PROSPECT[19-26]

The death rates has been to a maximum in this case and thereby is been declared as pandemic. There are number of diseases in the past too which has resulted in huge mortality. According to the global health estimates 2016, ischaemic heart disease was the major cause of deaths all over the world followed by stroke.

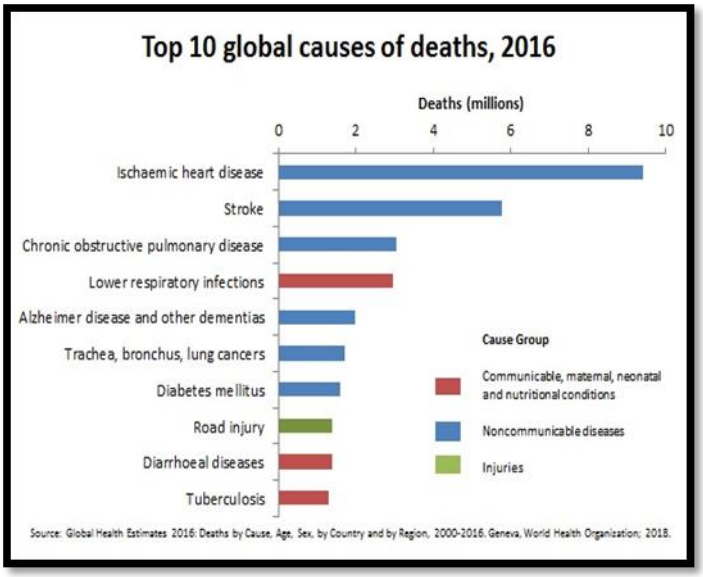

Figure No. 3: Top Ten Global Causes of Deaths

In the developing countries, the aspect was a bit different and according to World Health Organization; 2018 report lower respiratory infections are the main cause of deaths. Diarrhoea, ischaemic heart disease and HIV/AIDS are the second, third and fourth ranked diseases responsible for the acute death rates in low income countries.

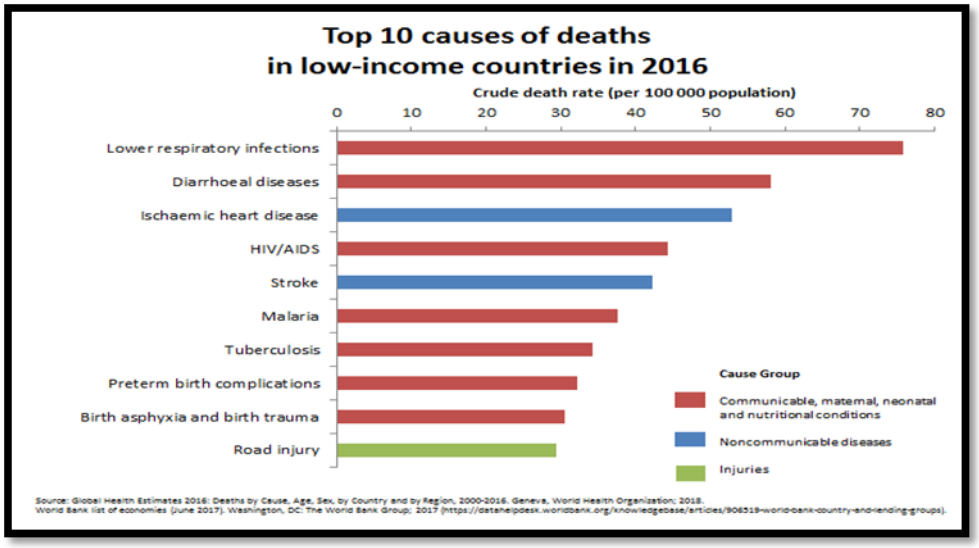

Figure No. 4: Top Ten Global Causes of Deaths in Low Income Countries

In the year 2016, the effect of SARs was not so high. In the records of WHO/ CDC the HIV and Ebola were the most fatal of the diseases. The records also suggested that the SARs fatality rate ranked 5th in the list.

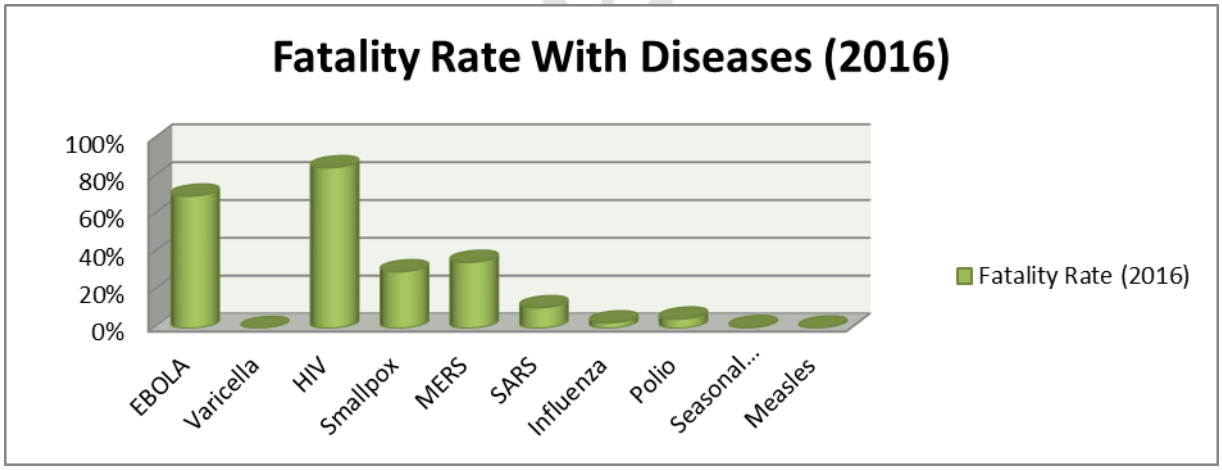

Figure No. 5: Top Diseases Causing Fatality in 2016

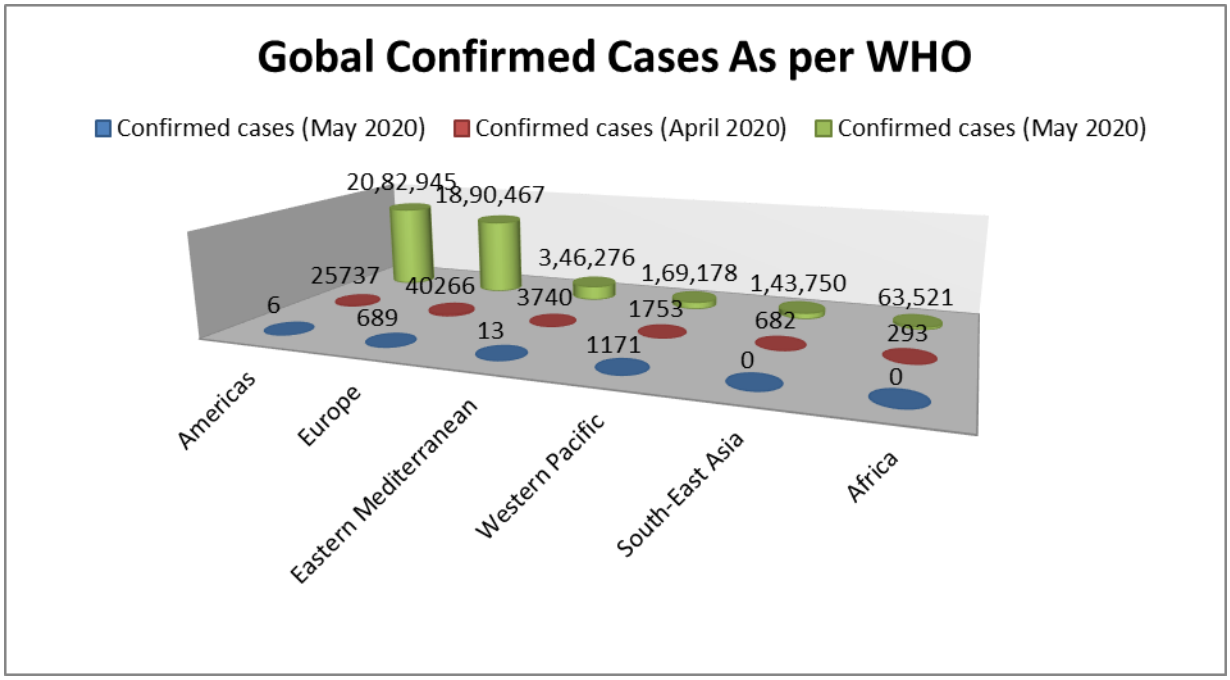

Figure No. 6: Global Effect of COVID in Past Three Months

The number of death has tremendously increased in the past two months. The regions of globe where the number of confirmed cases where zero by March 2020; has increased considerably since last 2 months. In Africa and South East Asia, the cases has crossed 50,000 and 1,49,000 respectively. In America, the cases has raised from 6 in March 2020 to 2,082,945 by 15 May 2020. This increased number of confirmed cases has resulted in lockdown implementation. This lockdown resulted in closing of all working sectors. The lockdown with no work and maximum saved economy use has resulted in the fall in GDP globally. The global GDP was 2.9 in the 2019 which has descended to -3.0 because of Covid. Figure 7 represent the global economical downfall because of Corona and projection of world Economy by 2021 as per IMF, World economical outlook, April 2020.

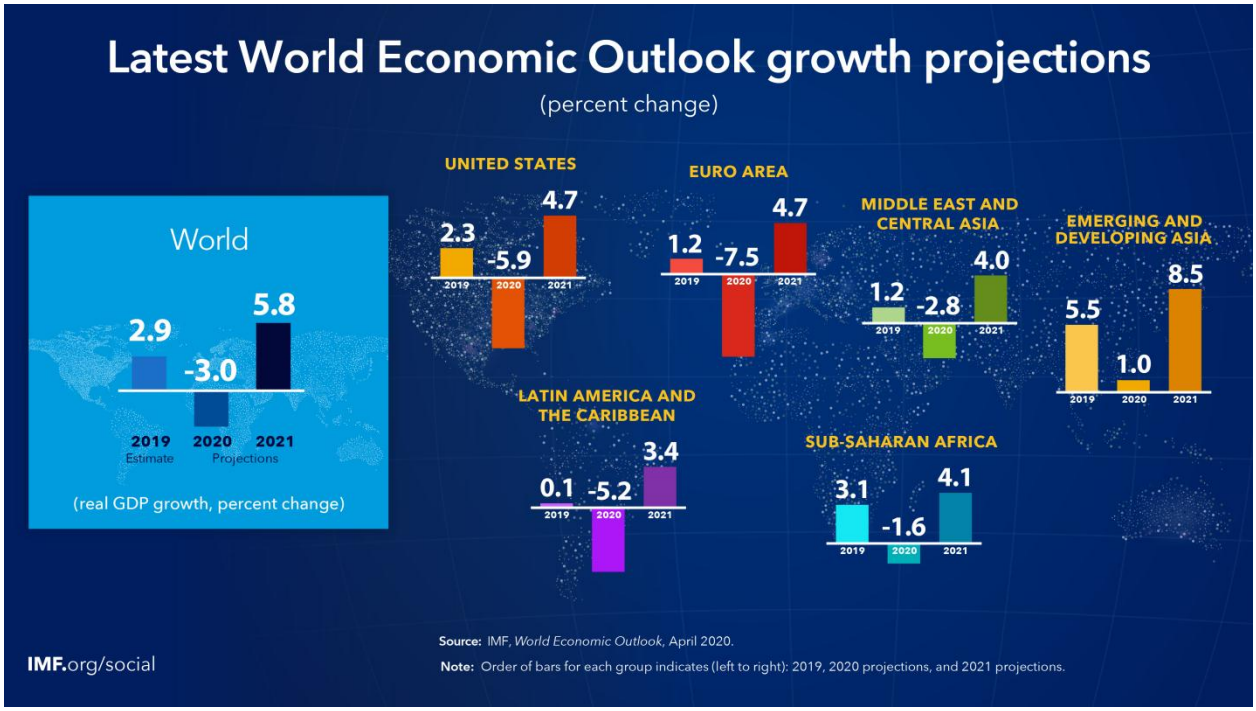

Figure No. 7: Global Projected Economical Outlooks

CONCLUSION

From the present review on the economical aspects of world it is proven that Covid 19 has inverse effect. Many sectors in the trade market are either closed or on the verge closing. The death rates in many areas have increased tremendously in the past two months. The GDP has gone down in almost all continents or regions of the globe. The reports suggested that if the effect of this pandemic gets over in time the world economy will again get stable by 2021.

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