

## COVID-19: Global Macroeconomics

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**Abstract:** The Corona Virus (COVID-19) outbreak has already brought human suffering and major economic disturbance. While the world economy was predicted to grow by 3.3% in 2020, after having experienced a 2.9% growing in 2019, the irruption of the COVID-19 has distressed the world and imposed an epoch-making shock on the fragile condition of the world economy. In order to better understand expected economic outcomes, this paper investigate different Macroeconomic scenarios of how Corona Virus might evolve in the coming year using a molding technique formulated by McKibbin and Lee (2003) and prolonged by Sidorenko and McKibbin (2006). It analyze the impacts of various scenarios on macroeconomic outcomes and financial markets in a worldwide hybrid DSGE/CGE general equilibrium theory. The study concludes the possible costs that can be prevent through global cooperative investment on public health in improving the quality of life and as a operator of economic growth.

**Keywords:** COVID-19, Macroeconomics, DSGE, Global Economy.

**JEL Codes:** E02, E6, D5, F62.

### 1. INTRODUCTION

World are facing health crisis unlike any in the 75-year history of the United Nations -one that is spreading human suffering, killing people and upending lives of people. The corona virus disease (COVID-19) is attacking societies at their core. The IMF has just reassessed the expectation for growth for 2020 and 2021, declaring that we have move into a recession – as bad as in 2009. The IMF expected improvement in 2021 only if the global countries succeeds in incorporate the virus and take the necessary economic measures. In the look of such an unprecedented condition in recent history, the creativeness of the effect must match the specific nature of the crisis – and the importance of the effect must match its scale. No country will be able to exit this situation alone. Whole world must come together. Every nation must step up with public and private collaborating from the outset. But on their own, national-level activity will not match the global scale and complexity of the crisis. This moment demands integrated, crucial, and innovative policy activity from the world’s leading economic and maximal financial and technical assistance for the poorest and most vulnerable people, who will be the hardest hit. Given the world’s large economic and social interrelation and trade— we are only as strong as the anaemic health system.

This paper seek to quantify the expected global economic costs of COVID-19 under different possible premise. The goal is to provide message to policy makers to the economic benefits of globally-coordinated plan of action responses to tame the virus. The paper used the world macroeconomic theory (G-Cubed) for the study, highlighting its capability to assess the macroeconomics of diseases and describes how macroeconomic sectors focused to develop a series of economic impact that are input into the world economic model and concludes the paper sum-up the main findings and discusses some policy implications.

## **2. THE HYBRID DSGE/CGE GLOBAL MODEL**

The researcher apply a global intertemporal general equilibrium model with heterogeneous agents known as the G-Cubed Multi-Country Model. This is a composite of Dynamic Stochastic General Equilibrium (DSGE) and Computable General Equilibrium (CGE) Models developed by McKibbin and Wilcoxon (1999, 2013). The approach corporate in the G-Cubed model is registered in McKibbin and Wilcoxon (1998, 2013). Different key features of the standard G-Cubed model are worth highlighting here.

First, the theory entirely accounts for framework and flows of physical and financial possession. For example, budget deficits accumulate into government debt and current account deficiency accumulate into foreign debt. The model imposes an inter temporal budget constraint on all households, firms and countries. Thus, a long-run stock balance acquire through the improvement of asset prices, such as the interest rate for government fiscal opinion or real exchange rates for the proportion of payments. However, the improvement towards the long run balance of each economy can be slow, occurring over much of a time period.

Second, firms and households in G-Cubed must use money issued by central banks for all proceedings. Thus, central banks in this theory set short term nominal interest rates to target macroeconomic outcomes such as unemployment, inflation, exchange rates, etc. based on Henderson-McKinney-Taylor rules. These are planned to approximate potential monetary regimes in each country or area in the model. These monetary concept tie down the long-run inflation rates in each nation as well as allowing short term improvement of policy to smooth move in the real economy.

Third, nominal wages are gluey and adjust over time based on country-specific labor acquiring assumptions. Firms hire labor in each sector up to the points that the marginal product of labor equals the real wage outlined in terms of the output price level of that sector.

### **3. GLOBAL EFFECT**

Initially, the perceptual experience was that the COVID-19 epidemic would be decentralized in China only. It later dispersed across the world through the movement of people. The economic pain became intense as people were asked to stay at home, and the intensity was felt in different sectors of the economy with travel bans moving the aviation industry, diversion event cancellations affecting the sports industry, the prohibition of mass gathering affecting the events and entertainment industries (Horowitz, 2020; Elliot, 2020). There are parallels between the COVID-19 situation and the events of 2007: as in 2020, many people in the beginning recession assumed the impacts would mostly be localized (in that case based on a disruption caused by COVID-19 is not only devastating but also has spillover implications because it created demand and supply shocks in almost every area of human endeavour (El-Erian, 2020).

#### **3.1. Travel Industry**

The COVID-19 occurrence led the governments of many nations to impose restrictions on non-necessary travel to countries affected by COVID-19, emphatically suspending tourism travel, work visas and immigrant visas. Some nations placed a complete travelling ban on all forms of inward or outward travelling, shutting down all airports in the country. At the peak of the coronavirus pandemic, most airplanes flew almost empty due to mass passenger cancellations. The travel restrictions obligatory by governments subsequently led to the reduction in the demand for all forms of travel which forced some airlines to temporarily suspend dealings such as Polish Airlines, LOT, Air Baltic, La Compagnie, and Scandinavian Airlines. Such travel restraint cost the tourism industry alone a loss of over \$200 billion worldwide, excluding other loss of revenue for tourism travel, and were predicted to cost the aviation industry a total loss of \$113 billion reported to IATA. US airlines sought a \$50 billion bailout fund for the US Airline industry alone. The GTBA reported that the business travel sector would lose \$820 billion in revenue due to COVID-19.

#### **3.2. Hospitality Industry**

Restaurants have been affected during the pandemic primarily through the government declared 'social distancing' and 'stay-at-home policy' movement restriction imposed by the government in many nations. This led to rapid shutdowns in cities and states to control the spread of the coronavirus, which threw restaurants and hotels across the world into sudden shock. Hotels across the world witnessed booking cancellations

worth billions of dollars, and the hotel industry sought a \$150bn bailout. Restaurant enforcement laid off staff as they shut down their businesses temporarily as many people stayed at home, choose to eat cooked meals at home. Some restaurant executives criticized governments for imposing the stay-at home and social distancing policy which exterminated many small restaurants and pub businesses in small cities. They argued that governments' announcement of social distancing and stay-at home policies was an indirect way of telling masses not to come to the hotels, pubs and restaurants, which was a way of mutely destroying the hospitality industry during the pandemic. Hotels many counties announced the temporary suspension of normal operations which puts the approximation loss of jobs to 24.3 million globally, and 3.9 million in the US alone due to the decrease in hotel occupancy during the pandemic period. The economic effect of the pandemic on the hotel business was more severe than the 9/11 and 2008 recessions combined.

### **3.3. The Sports Industry**

The sports sector was severely affected during the coronavirus occurrence. In the football segment, major European football leagues in England and Scotland declared the immediate suspension of football matches for 6 weeks until 30th April. The Turkish super league was the last leading European league to suspend its matches. In Formula One, the Monaco Grand Prix was called off. The Tokyo Summer Olympic and Paralympic games were also deferred. The major league rugby (MLR) was cancelled for the residue of the 2020 season. In the snooker segment, the World snooker championship to be held in Sheffield from 18th April to 4th May, was postponed. In the swimming segment, the 2020 European Aquatics Championship scheduled for 11th to 24th in Hungary was postponed until August. In the baseball section, all major baseball league season games were called off in Mexico and Puerto Rico. In hockey, the 2020 hockey games in England was postponed. England's FIH Pro League games scheduled for 2nd to 3rd and 16th to 17th May were postponed. The Motorsport in Portugal was postponed after the Portuguese government declared a state of emergency and suspended all sporting events in the country.

### **3.4. The Oil Price War and the Effect on Oil-dependent Countries**

Early in 2020, the oil price fell due to the oil price war between Russia and Saudi Arabia. The coronavirus epidemic worsened the condition through the reduction in the demand for oil products. The imposed travel limitation during the pandemic, which led to a reduction in the movement of people and goods, effect in a fall in demand for aviation fuel, coal and other energy

products, which afterward led to a fall in oil price due to low demand. The coronavirus crisis also affected a wide range of energy markets such as the coal, gas and renewable energy marketplace, but its impact on oil markets was more severe because it stopped the movement of people and goods, which led to a drastic decrease in the demand for transport fuels. When Saudi Arabia later provide excess oil to the world, the marketplace was flooded with too much oil, exceeding demand during the COVID-19 pandemic, and afterwards leading to a fall in oil price. The outcome of the pandemic on oil-dependent countries was intense. The global decrease in oil price composed with the low demand for oil products in the international marketplace led to a significant shortage in oil revenue to oil-dependent countries, which enhanced current account deficits and worse the balance of payment position of numerous oil-dependent countries such as Angola, Venezuela and Nigeria. These countries also faced increasing pressure on their foreign exchange reserves, which afterwards led to the decrease of local currencies against the dollar. Countries like Nigeria, Kenya and South Africa intimate a reduction in the price of petrol in the local gas stations. National budgets were also struck. The sustained decline in global oil price due to the COVID-19 meant that the current national budget became obsolete for most oil-dependent countries, and had to be altered because it did not show the current economic reality since the budget was priced at a higher oil price from 2019. Accordingly, the national budget of some oil-dependent nation ran into large deficits which forced some countries to either (i) seek new budget that was priced using the current low oil price in the global market or (ii) create a foreign loan from the IMF to fund their budget deficits.

### **3.5. Import Dependent Countries**

Many import-dependent nation were badly affected during the coronavirus pandemic. Many countries imported their necessary good from major exporting countries and depend mostly on these countries for the consumption of essential commodities that are imported. The decrease in goods flowing through the global supply chain and significant reliance on China for imported goods, led to shortfall of supplies to import dependent nation as China shut down many of its export plant. This led to increases in the price of the leftover stock of imported supplies already in import-dependent country, which also triggered inflationary pressures on the price of basic commodities despite the general low demand for imports due to the coronavirus pandemic. During the coronavirus outbreak, it was challenging to seek alternative imports after China's shut-down because many nation had partly or fully closed their borders which strangled international trade at the time.

### **3.6. The Financial Sector: Banks and Fintech**

The macroeconomic slowdown led to a growth in nonperforming loans in the banking sector by 250 basis points. Private sector banks had the highest influence to credit risk during the eruption. Nonperforming loans arose from loans issued to small and medium scale enterprises (SMEs), tour operators, airlines, hotels, retail, restaurants, construction and real estate businesses. During the epidemic, there was a general decrease in the volume of bank proceedings, a decline in card payments and a fall in the use of ATM cash machines globally. This led to fewer fees collected by banks which negatively affected banks' profits. FinTech businesses were also affected. Some Fin-tech businesses perceived very low patronage by consumers. There was a significant flight to safer spend by consumers, which negatively affected the venture capitalists that funded existing and new FinTech firms. This made many venture capitalists begin to hoard new assets which led to the drying up of financing for some Fin Tech businesses.

### **3.7. The Financial Markets**

The most visual outcome of the COVID-19 situation on financial markets was the outcome in the global stock market. Global stock markets lost \$6 trillion in worth over six days from 23 to 28 February, reported by S&P Dow Jones Indices. Between February 20 and March 19, the FTSE 250 index fell by 41.3% (from 21,866 to 12,830), the S&P 500 index fell by 28% (from 3,373 to 2,409), and the Nikkei fell by 29% (from 23,479 to 16,552). In the same time, large worldwide banks witnessed a drop in their share price, for example, JP Morgan Chase's share price fell by 38% (from US\$137.49 to US\$85.30), Citigroup's share price fell by 49% (from US\$78.22 to US\$39.64), and Barclays' share price fell by 52% (from £181.32 to £86.45). Although the oil price war, in which Saudi Arabia and Russia were impulsive down oil price by growing oil production, played a part in the fall in stock markets indices, the consequent fall in stock market indices in March was primarily due to investors' flight to area during the coronavirus pandemic.

### **3.8. The Event Industry**

The event sector contributed significantly to the economy prior 2020. In 2018, for example, business events hosted more than 1.5 billion associate across more than 180 countries (Oxford Economics). The circumstance industry create more than \$1.07 trillion of direct spending, produce business events, correspond spending to plan business events, business events-related travel and direct disbursement by exhibitors. The business also

created 10.3 million direct jobs globally and create \$621.4 billion of direct GDP. During the COVID19 occurrence, the events industry was hit financially by a large number of cancellations — evidence, conference, live music shows, parties, weddings, brand launches, corporate events, trade shows and more. Several big events were off, for instance, Informa delayed or canceled events worth £400m over coronavirus pandemic. The E3 and SXSW tech events were canceled which led to direct losings beyond \$1 billion. The 2020 Met Gala was postponed emphatically. In the US, many big event governance institution that were hit financially by the coronavirus appealed for national aid from the U.S. government. The outcome ticketing segment of the industry was also affected. One of the biggest global ticketing and events company 'Eventbrite' proclaimed that the COVID-19 outbreak materially affected its business mindset for 2020. The effect of the increasing nullification on Eventbrite was so bad that the company had to withdraw its previously published 'positive outlook' for the first quarter of 2020. The effect of the eruption on global live events was worse by the social distancing policy imposed by several governments.

### **3.9. The Entertainment Industry**

The global film industry subject a \$5 billion loss during the coronavirus outbreak. Various Hollywood movie productions were postponed. The International Alliance of Theatrical Stage Employees (IATSE) reported that an approximation 120,000 below-the-line diversion industry jobs were lost due to the coronavirus epidemic, most of which were theatrical stage employees. The pandemic shutdown outcome in the loss of 120,000 jobs held by its 150,000 members, and the IATSE advocated that the entertainment industry should be enclosed in the planned federal stimulus (or bailout) package. In Italy, the COVID-19 happening severely affected the entertainment industry which incurred losses approximation to run into the millions of euros per week: from February 23 to March 1, 2020. There were estimated losses of 7.2 million euros in the theater segment, 2.5 million euros in the dance activities segment, 7.3 million euros in the film screening sector, 4.1 million euros in the live music segment and 1.8 million euros in the exhibition segment. In the UK, an figuring 50,000 industry freelancers were expected to lose their jobs as a result of the COVID-19 epidemic according to BECTU (Broadcasting, Entertainment, Communications and Theatre Union). Jointly, unemployment levels in the entertainment business rose to unprecedented highs, and yet there were uncertainty as to whether the entertainment industry would acquire part of the planned federal stimulus bundle as many lawmakers argued that the entertainment industry was not a main driver of the economy, and some



present that the entertainment industry does not bring much to economic activities compared to the banking and manufacturing sectors.

### **3.10. The Health Sector**

The services of public hospitals grew in high demand but the majority of the testing equipment was in private hospitals. China temporarily closed all health facility in the central city of Wuhan, the epicentre of a COVID19. Iran's hospitals endeavor to cope with the coronavirus eruption. In Spain, government nationalized all private hospitals and healthcare providers as the virus was spreading very rapidly. Singapore had adequate healthcare facilities and workers to deal with the growing number of COVID-19 patients, and private hospitals were invitatory and accepting foreign COVID-19 patients. The Ministry of Health (MOH) in Singapore afterwards advised all doctors in public and private hospitals, and private specialist clinics, to instantly stop accepting new foreign patients who do not live in Singapore. The coronavirus eruption also affected the pharmaceutical supply chain. Drug makers around the world trust heavily on component made in Chinese factories. Around 60% of the world's active pharmaceutical ingredients (API) were made in China and the coronavirus outbreak caused severe supply effort as China shutdown majority of its factories including factories that produce drugs. Many pharmaceutical institution did not store up considerable amounts of APIs prior to the coronavirus outbreak, and as a result, some necessary drugs were in short supply. The pharmaceutical companies that had stored up a significant amount of APIs in their warehouse refused to sell them for fear of running out of supplies while others were prepared to sell only at a very high price. The over reliance on Chinese API business posed the biggest risk to the global pharmaceutical industry and the COVID-19 outbreak enlarge the risk even further. Health insurers were also struck. Many health insurers in the US could not cope with the insurance payments to hospitals and the insurers sought to be enclosed in the planned federal ease stimulus package as the health sector's economic outlook was negative. The S&P 500 Managed Health Care index fell to 7% in February show that investors felt the health care sector would be badly hit. Moody's rating agency downgraded the nonprofit and public healthcare sector's outlook from stable to negative because of the continuing spread of the coronavirus disease (COVID-19). Moody's reported that the health sector was probable to see lower cash flow in 2020 compared to 2019 and decreasing revenue due to the cancellation of electoral surgeries. The ratings agency also declared that even if the coronavirus outbreak could be restrained, nonprofit healthcare companies were already facing rising cost and widespread uncertainty. Also, investment financial institution that



invested heavy in health care force health care companies and medical supply firms to regard ways through which they can profit from the crisis by increasing prices. The effect of the outbreak on the health sector was the growth in the number of deaths due to the short supply of drugs, insufficient number of hospital beds, lack of vaccine to cure the patients, and insufficient isolation centers to cater for the rising number of COVID-19 cases.

### **3.11. The Education Sector**

The coronavirus disrupted the \$600 billion higher education. Educators and students around the world felt the rippling effect of the coronavirus as colleges and universities were instructed to shut down after the coronavirus was declared a public health emergency in many nation. There were school closures of some kind in 44 nation on four continents, including Africa, with millions of students around the global facing disturbance. The outbreak had a more terrible consequence on schools that did not have an online learning program. Moody's, a credit rating agency, downgraded the higher education of U.S. outlook from 'stable' to 'negative', because 30% of the colleges and educational institution in the US already had a weak operational performance, and it was challenging for these colleges and universities to adapt with the financial and academic changes needed to cope with the coronavirus occurrence. Also, UNESCO reported that the COVID-19 eruption disrupted the education of at least 290 million students internationally. Public schools in the US were closed, Australia shut down some schools, while countries like Israel, Italy, Nigeria, France, Egypt and Spain shut down all schools, and this results some form of unemployment for teachers. Northern Ireland's authorities suspended all examinations in its colleges and universities. Multiple universities in U.S that ran a study abroad program overseas instructed students to return home from France, Italy and Spain as the coronavirus occurrence became severe in those countries. On the positive side, there were proposition that the coronavirus increased the importance of online education and distance learning, but the realism was that only a small percentage of the world's education is taught online. For instance, in the US alone, about 2.4 million undergraduates which is equal to 15% of the total undergraduate students in the US studied entirely online in the fall of 2019. Moreover, few schools had the capability to lay a distance learning program for their students. Finally, countries like UK, Canada, and US combined lost billions in education revenue as foreign students either quit their studies or were sent back home, while other foreign students looked elsewhere for quick education when the travel regulation prevented them from studying in UK, Canada and US during the outbreak.

## 2. ECONOMIC FORECASTS

### Global Growth

The economic situation remains highly unstable. Uncertainty about the duration and depth of the health crisis-related economic effects are fueling perceptual experience of risk and volatility in financial markets and corporate decision-making. In addition, uncertainties concerning the global epidemic and the effectiveness of public policies supposed to curtail its spread are adding to market volatility. Accumulation the economic situation is a historical drop in the price of crude oil that reflects the global decrease in economic activity, prospects for disinflation, and contributes to the decline of the global economy through various channels. On April 29, 2020, Federal Reserve Chairman Jay Powell declared that the Federal Reserve would use its "full range of tools" to support economic activity as the Commerce Department according a 4.8% drop in U.S. GDP in the first quarter of 2020. In assessing the state of the U.S. economy, the Federal Open Market Committee discharged a statement indicating that, "The ongoing public health crisis will weigh to a great extent on economic activity, employment, and inflation in the near term, and poses considerable risks to the economic attitude over the medium term." The Organization for Economic Cooperation and Development (OECD) on March 2, 2020, down its forecast of global economic growing by 0.5% for 2020 from 2.9% to 2.4%, supported on the assumption that the economic effects of the virus would peak in the first quarter of 2020. However, the OECD estimation that if the economic effects of the virus did not peak in the first quarter, which is now apparent that it did not, global economic growth would change by 1.5% in 2020. That forecast now seems to have been highly optimistic. On March 26, 2020, the OECD altered its global economic predict based on the continued effects of the pandemic and measures governments have adopted to incorporate the spread of the virus. According to the updated estimate, the current policy measures could reduce global GDP by 2.0% per month, or an yearly rate of 24%, approaching the level of economic decrease not experience since the Great Depression of the 1930s. The OECD estimates in Table 1 will be altered when the OECD releases updated country-specific data. Labeling the projected decline in global economic activity as the "Great Lockdown," the IMF released an updated prediction on April 14, 2020. The IMF concluded that the global economic system would undergo its "worst recession since the Great Depression, surpassing that seen during the global financial crisis a decade ago." In addition, the IMF estimation that the global economy could decrease by 3.0% in 2020, before increasing by 5.8% in 2021; global trade is proposed to fall in 2020 by 11.0% and oil prices are planned

to fall by 42%, also shown in Table 1 This prediction assumes that the pandemic fades in the second half of 2020 and that the plan of action measures can be turned rapidly. The IMF also declared that many countries are facing crisis like, health, a domestic economic crisis, capital outflows, falling external demand, and a collapse in commodity prices. In accumulation, these various effects are interacting in ways that make prediction difficult.

**Table 1**  
**OECD and IMF Economic Forecasts Percent change in Real GDP Growth**

<i>Countries</i>	<i>OECD March 2020 Projection</i>			<i>Countries</i>	<i>IMF April 2020 Projection</i>		
	<i>2019</i>	<i>2020</i>	<i>2021</i>		<i>2019</i>	<i>2020</i>	<i>2021</i>
World	2.9%	2.4%	3.3%	World	2.9%	-3.0%	5.8%
Canada	1.6	1.3	1.9	Canada	1.6	-6.2	4.2
Euro Area	1.2	0.8	1.2	Euro Area	1.2	-7.5	4.7
Germany	0.6	0.3	0.9	Germany	0.6	-7.0	5.2
France	1.3	0.9	1.4	France	1.3	-7.2	4.5
Italy	0.2	0.0	0.5	Italy	0.3	-9.1	4.8
Japan	0.7	0.2	0.7	Japan	0.7	-5.2	3.0
Mexico	-0.1	0.7	1.4	Mexico	-0.1	-6.6	3.0
U. K	1.4	0.8	0.8	U.K	1.4	-6.5	4.0
USA	2.3	1.9	2.1	USA	2.3	-5.9	4.7
China	6.1	4.9	6.4	China	6.1	1.2	9.2
India	4.9	5.1	5.6	India	4.2	1.9	7.4
Russia	1.0	1.2	1.3	Russia	1.3	-5.5	3.5

*Source:* OECD Interim Economic Assessment: COVID-19: The World Economy at Risk, Organization for Economic Cooperation and Development. March 2, 2020, p. 2; World Economic Outlook, International Monetary Fund, April 14, 2020, p. ix.

Before the COVID-19 occurrence, the global economy was struggling to recover a broad-based recovery as a result of the lingering impact of growing trade protectionism, trade conflict among major trading partners, falling trade good and energy prices, and economic uncertainty in Europe over the impact of the UK departure from the European Union. Individually, each of these issues conferred a solvable situation for the global economy. Collectively, however, the issues weakened the global economy and decreased the available policy flexibility of many national leaders, particularly among the leading developed economies. In this situation, COVID-19 could have an outsize impact. While the level of economic effects

will sooner or later become clearer, the response to the pandemic could have a significant and enduring effect on the way businesses create their work forces, global supply chains, and how governments move to a global health crisis. The OECD estimation that increased direct and indirect economic costs direct global supply chains, decreased demand for goods and services, and decrease in tourism and business travel mean that, "the adverse consequences of these improvement for other countries (Non-OECD) are epoch-making." Global trade, measured by trade volumes, slowed in the last quarter of 2019 and was expected to decline further in 2020, as a result of weaker global economic activity connected with the pandemic, which is negatively affecting economic activity in different sectors, including hospitality, airlines, ports, and the shipping industry.

According to the OECD's updated forecast: ?

- The impact of these restrictions will be on retail and wholesale trade, and real estate services, and in professional although there are notable differences between nations.
- Business closures could reduce economic output in advanced and major emerging economies by 15% or more, other emerging economies could experience a decline in output of 25%. ?
- Countries dependent on tourism sector could be affected more, while nations with large agricultural sectors could experience less severe effects.
- Economic effects likely will vary across nations reflecting differences in the timing and degree of containment measures.

In addition, the OECD argues that China's emergence as a global economic actor marks a epoch-making departure from past global health episodes. China's growth, in accumulation with globalization and the interconnected quality of economies through supply chains, capital flows, and foreign investment, amplify the cost of containing the spread of the virus through isolation and restrictions on labor mobility and travel. China's global economic function and globalization mean that trade is performing a role in spread the economic effects of COVID19. More broadly speaking, the economic effects of the pandemic are being dispersed through three trade channels:

- (1) directly through supply chains as decreased economic activity is distributed from intermediate goods manufacturer to finished goods producers.
- (2) As a result of a drop whole in economic activity, which decrease demand for goods in general, including imports; and

- (3) Through decreased trade with commodity exportation that supply producers, which, in turn, bring down their imports and negatively affects trade and economic activity of exporters.

## 5. POLICY IMPLICATIONS

The first step is to climb the most robust and cooperative health effect the world has ever seen. Health system disbursement must be scaled up right away to meet urgent needs and the surge in demand for tests, expanded attention facilities, adequate medical supplies and more health care workers; and for health system readiness and response in countries where the virus has not yet appeared or where there is no community transmission to date. The strongest activeness must be furnished to the multilateral attempt to conquer transmission and stop the pandemic, led by the World Health Organization (WHO), whose content must be fully met. Scientific cooperation in the search for a vaccine and effective medicine must be promoted through drive such as the WHO sponsored commonality trials. Universal approach to vaccines and treatment must be assured, with full respect for human rights, gender equality and without stain.

The second step is to do everything attainable to cushion the knock-on effects on millions of people's lives, their support and the real economy. That means the direct supply of resources to support workers and households, scale-up of social protection, provision of health and unemployment insurance, and support to businesses to prevent bankruptcies and massive job losses. That also means scheming fiscal and monetary responses to assure that the burden does not fall on those nations who can least bear it. A large-scale, interconnected and comprehensive joint response amounting to at least 10 per cent of global GDP is needed now more than ever. This crisis is genuinely global. It is in everyone's involvement to ensure that developing countries have the best chance of managing this crisis, or COVID-19 will risk becoming a long-lasting constraint on economic recovery.

The third step is to acquire from this crisis and build back better. Had we been farther advanced in gathering the Sustainable Development Goals and the Paris Agreement on Climate Change, we could better face this situation - with stronger health systems, a healthier natural environment, less gender inequality, fewer people living in extreme poverty, and more resilient societies. We must seize the possibility of this crisis to strengthen our seriousness to implement the 2030 Agenda and the 17 Sustainable Development Goals. By making progression on our global roadmap for a more inclusive and sustainable future, we can better act to future crises.

## 6. CONCLUSIONS

This paper has conferred some preliminary estimates of the cost of the COVID-19 eruption under seven different scenarios of how the disease might develop. The goal is not to be determinate about the virus outbreak, but rather to provide information about an extent of possible economic costs of the disease. At the time of writing this paper, the chance of any of these scenarios and the range of arguable alternatives are highly uncertain. All major countries need to take part actively. It is too late to act once the disease has taken hold in many other nation and attempt to close borders once a epidemic has started. There needs to be immensely more investment in public health and development in the affluent but also, and especially, in the poorest countries. This study point the possible costs that can be confront through global cooperative investment in public health in all countries. This critical policy engagement for decades, yet politicians continue to disregard the scientific evidence on the role of public health in rising the quality of life and as a operator of economic growth. The recession which many countries intimate was a reflection of the difficult choice that policy makers had to make in pick out whether to save the economy before saving the people or to save the masses before saving the economy; many countries chose the latter. There were criticisms that the policies were immature or insufficient, too fast, and that the policies deviate one another in some areas, for instance, the accommodating monetary policy encouraged economic agents to engage in economic activities while the lockdowns and social distancing (stay-at-home) policy ventilated economic activities from taking place. Finally, the coronavirus-induced public health situation created an opportunity for many governments to make permanent reforms in the public health sector.

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