



How the COVID-19 crisis changed and will change the world economic map?

Field: Social Economy

Study by: Dídac García Mancebo - Consultant and Yukari Hirota - Consultant

Abstract

We consider the fact of how COVID-19 will rewrite the world economic map based on the economic forecast of several major consulting companies in light of the global spread of new coronavirus infections.

Introduction

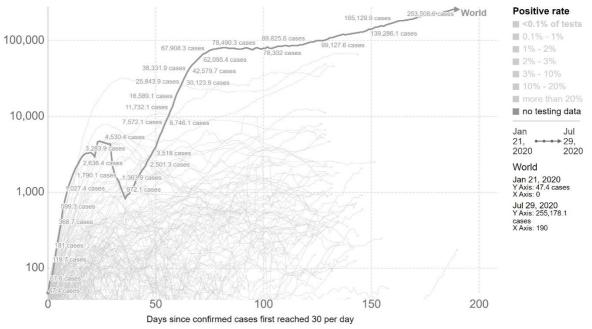
The pace of expansion of the number of people infected with the new coronavirus in the world seemed to have peaked since April, but it has continued to expand in June, and there is no sign of a decrease (Figure 1).

As the progressive return to the normality has been named "new normal", the economics are also adopting its own word "Coronomics", describing the impact of COVID-19 in the economies worldwide¹.

Daily new confirmed COVID-19 cases



Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



Source: European CDC - Situation Update Worldwide - Last updated 29 July, 10:14 (London time), Official data collated by Our World in Data CC BY

Figure.1: Daily New Confirmed COVID-19 cases (updated 29/07/2020) [2][

¹ Defined by the words of Daniel Stelter, economist and former member of the Boston Consulting Group's Executive Committee [1].





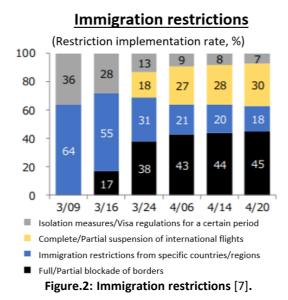
Martin Henning, Professor of Economics Geography at the University of Gothenburg, describes this overall outbreak in one word: **mobility** [3]. Due to globalization, manufacturing of one single product requires pieces of all over the world and inventories are reduced.

With the movements of people and goods in the world and economic activities in each country strongly restricted, the global economy is expected to fall into the negative **growth**² for the first time in 11 years in the first quarter of 2020, and a further decline in the second quarter. Major developed countries are prepared to support corporate financing and employment with large-scale economic measures [4] [5] [6] .

From the third quarter of 2020, the economic activities are planned to resume, but it is uncertain whether they will be steadily normalizing since it will not be possible to predict when the infection will end. As the future pace of infection spread and the ending time are uncertain, we will consider the future world economic map while looking at some forecasts about the economy itself.

Overall economic impact of COVID-19 in the world: focus on Migration, Import & Export

While China's travel restrictions are being relaxed, the severe restrictions continue to be seen around the world, mainly in European countries, the United States, and India. There are many limitations on the movement of people crossing borders, and the number of countries that have decided to block borders is increasing (Figure 2).



The transport services of each country have dropped sharply, and the number of world container arrivals (RWI/ISL Container Throughput Index) in March was -4.4% compared to the previous year, and the number of regular air services decreased by 70% in the whole world (Figure 3).

² Economic growth is defined by **Gross Domestic Product (GDP)**. According to the OECD (Organization for Economic Cooperation and Development) GDP is defined as the market value of all final goods and services produced within a country in a given period. In other words, the GDP is a way of measuring the internal flow of money within a country which could be calculated by measuring the expenditure considering all the sources (households, investments, public expenditure, and net exportations).





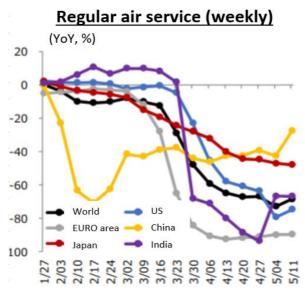


Figure.3: Regular air service (weekly)[7]

Exports have suddenly fallen (Figure 4) due to the suspension of production and logistics, and supply constraints due to disruption of the global supply chain are becoming more serious.

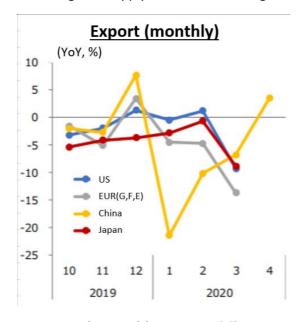


Figure.4: Export (monthly) (Source: MRI,[7])

Global economy is in recession

The global economic growth rate in the first quarter of 2020 was about -2% compared to the previous year, the first negative growth in 11 years (Figure 5). In addition to the year-on-year growth of 6.8% in the Chinese economy, the US economy was down 1.2%, the European economy was down 3.6%, and the Japanese economy was down 0.9%. However, it was after March that the new coronavirus infectious disease began to seriously damage the European and American economies[8].





MRI³ predicts that downside pressure on the global economy will be stronger in the second quarter than in the first quarter, with negative growth of nearly -5% year-on-year. It is expected to exceed the decline during the global financial crisis (-3.3% YoY). The global economy was concerned to be entered a recession phase since the first quarter of 2020[9].

World real GDP growth rate

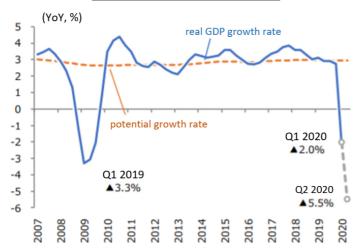


Figure5: World real GDP growth rate. In between 2007 and 2010 it can be observed a typical GPD evolution in a V-form shape for an economic recession, which is expected for the current situation [7].

GDP Growth: most probable scenarios /Economic world map on post COVID-19

Although this section presents prediction scenarios, these forecasts are based on certain assumptions, such as the future spread of global infections, national policy responses and their impact, and financial market trends.

Scenario (1)

Suppression of strong economic activities until the end of May 2020, to avoid an epidemic relapse. Although the degree of restraint will be relaxed after June 2020, certain restraints impacting economic activities, such as securing a minimum social distance, will continue for about a year[9].

- World economic growth rate: 2020 -3.0% year-on-year, 2021 +5.7% year-on-year
- Country growth rate in 2020: US -4.7%, Europe -6.0%, China +0.6%, Japan -4.9%
- Worldwide Economic loss: 760 trillion yen (8% of world GDP)

Scenario (2)

Intermittent economic activity suppression is implemented until the end of December 2020, resuming economic activities and restricting them again once the pandemic relapses. Although the degree of restraint will be relaxed after the beginning of 2021, a certain degree of economic activity constrain will continue for about a year [9].

³ Mitsubishi Research Institute, Inc. One of the consulting firms in Japan.





- World economic growth rate: 2020 -4.9% year-on-year, 2021 +5.8% year-on-year
- Country growth rate in 2020: US -6.1%, Europe -8.9%, China -3.2%, Japan -6.5%
- Economic loss is 1,120 trillion yen worldwide (12% of world GDP)

Scenario 3

Infection control is not achieved within 2020. In 2021, gradually curbing the degree of restraint on economic activity, but continuing intermittent restraint until 2022 [9].

- World economic growth: 2020 -4.8% year-on-year, 2021 +3.7% year-on-year
- Economic loss is 1,310 trillion yen worldwide (13% of world GDP)

As it can be seen from the different scenarios presented, China is likely to play an important role in the global economy regardless of the outcome of the current pandemic, at least in the near future. On these conditions and considering also the decades long economic trend [10], [11], world's economy will be probably influenced even more by Asian countries, not only by China, but also by India, Indonesia. Nevertheless, GDP can be affected by many factors, hence the predictions may change if they are applied too much in the future.

Conclusions

Currently, the pandemic shows no sign of slow down and has affected almost all economic aspects of the world. The preventive measures implemented so far have limited the mobility of people, which disrupted the economic growth in all countries, mainly the more developed ones [9] [12]. Having the people's movement restricted, to overcome the difficulties and mitigate the economic downturn to maintain the social distance, digital services, and contactless technology began to play a critical, as well as important, role, much more than previously predicted [13] [14].

Global Forecast Summary

(%) GDP Growth	Annual Average 2014-2018	2018	2019	2020f	2021f
US	2.5	2.9	2.3	-3.3	3.8
Eurozone	2.0	1.9	1.2	-4.2	2.9
China	7.0	6.7	6.1	1.6	7.6

Figure.6: Global Forecast Summary [4]

With no clear end of the pandemic on sight, the countries more involved in the manufacturing and provision of digital services are likely to recover faster from the downside of the global recession [15]. Asian countries with steady economies and contained the outbreak (as of July 2020) will likely lead and benefit more from the digital services business. In particular, China's Belt & Road initiative, along with roads and ports, will develop digital infrastructures as well. This initiative will have a strong influence on the economic development of the countries where it is deployed and, by extension, in the whole world [16]. Although predictions can be accurate, the economy is influenced by many





factors, whose interaction and behavior can be difficult to analyze. The near future development in the aftermath of the pandemic might be already set. However, the global economic situation and its ramifications in the different branches of society are extremely problematic to predict for the far future, especially in the light of the economic recovery of the western countries and the economic development of the African nations [17].

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