MACROECONOMIC APPROACH OF THE PANDEMIC COVID – 19

Liza Alili Sulejmani[1], Kristina Velickovska[2] and Afrim Alili[3], Ahmet Lokce[4]
[1]*International Balkan University - Republic of North Macedonia, liza.alili@ibu.edu.mk*
[2]*International Balkan University - Republic of North Macedonia, kristina.velickovska@ibu.edu.mk*
[3]*University of Tetovo - Republic of North Macedonia, afrim.alili@unite.edu.mk*
[4]*ahmet_lokce@hotmail.com*

ABSTRACT

The pandemic COVID – 19 represents not only a global health crises, but also a global finical crises, coming up with human and economic costs that tend to be higher at developing countries, due to their health care system, informal economic sector lower fiscal space, corruption, etc. Although each country have taken its individual measures regarding the pandemic COVID – 19, it is needed an international coordination in the economic policy, health care and science to face with its consequences.
In this regard, the main objective of this paper is to highlight the importance of the economic measures that governments around the world have taken in response to the Covid-19 pandemic which can vary in length and scope, to review the recent papers regarding the macro effects of the pandemic COVID – 19 as well as to emphasize the COVID-19 Economic Stimulus Index (CESI) that contains fiscal, monetary, and exchange rate measures, created by Elgin et al. (2020), based on the data for 166 rich, middle and low income countries. In addition, in this paper are only taken into consideration the fiscal and monetary stimulus. The results imply that richer countries have a larger economic stimulus package and adopt a larger fiscal and monetary stimulus.

KEYWORDS: pandemic COVID-19, CESI index, economic growth, fiscal stimulus, monetary stimulus.

1. INTRODUCTION

Many governments worldwide have introduced some unprecedented measures in order to contain the pandemic COVID – 19 due to its increased spread and risk. In this regard, priority measures were imposed by a sanitary situation, thus leaving little space for other options taking into consideration that health needs to remain the primary concern of the country and world. This has caused many businesses to shut down temporarily, as well as travel and mobility restrictions, financial market turmoil, lack of confidence and high uncertainty.

This period while the pandemic has started there has been a rapid change of the environment and indicators, thus making it extremely difficult to quantify the exact impact of these measures on economic growth. However, on the other side is clear that has had a negative impact on the output level, household spending, corporate investment and international trade, based on the estimates of the initial direct impact of shutdowns, based on sector output and consumption patterns across countries as well as the assumption of common effects within each sector and spending category in all countries.

Since no available needed observations, cannot be precisely evaluated the impact of measures of the pandemic COVID – 19 on the economic growth of the countries. This is due to the fact that the annual GDP growth depends on many factors, including the magnitude and duration of national shutdowns, the extent of reduced demand for goods and services in other parts of the economy, and the speed at which significant fiscal and monetary policy support takes effect. (OECD, 2020). But what is sure is the decreased short-term growth due to the impact of the shutdowns. The estimated decline of the level of output is equivalent to 2 percentage points decline in annual GDP growth for each month that strict containment measures continued. In addition, by using the COVID-19 Economic Stimulus

Index (CESI) that combines all adopted fiscal, monetary, and exchange rate measures, this paper illustrates the relationship between CESI index and two main stimuli in 166 countries: fiscal and interest rate cuts.
However, the situation of a considerable uncertainty remains yet regarding the duration and magnitude of the pandemic measures while on the other side the other problem is also the extent of their implementation across countries.

2. LITERATURE REVIEW

The public health threat from COVID-19 is the most serious respiratory infection since the Spanish flu pandemic in 1918 (Ferguson et al. 2020). COVID-19 is the fifth pandemic in the last two decades (World Economic Forum 2020). The pandemic COVID – 19 started in Wuhan, China in December of 2019 and persist globally. COVID-19 combines two fatal characteristics: it is three to thirty times deadlier than seasonal influenza, based on a crude case fatality rate, and at least ten times more contagious than SARS (WHO 2020a; Wilson et al. 2020; Wilder-Smith, Chiew, and Lee 2020).

Thus, by the 12 July 2020, the pandemic had spread to almost all countries causing **12.401.262** cases and **559.047** deaths globally. In addition to human suffering and loss of lives, the outbreak has generated a major global economic downturn. The world's largest economies (the G7 and China) are among those that have been most affected by the pandemic (Baldwin and DiMauro, 2020). To mitigate the negative effects of public health controls on the economy and to sustain public welfare, governments have adopted economic packages including fiscal, monetary, and financial policy measures (Gourinchas, 2020). These economic measures targeting households, firms, health systems and banks vary across countries in breadth and scope (DiMauro 2020). The existing literature on the economic effects of COVID-19 relies on past epidemics (Barro et al. 2020 and Ma et al. 2020, for example), survey data (Coibion et al. 2020), or theoretical models (Eichenbaum et al. 2020 and references therein). In addition in this paper, high-frequency indicators of economic activity are used (World Bank 2020, Kumar and Muhuri 2019, and Cerdeiro et al. 2020) in order to monitor the impact of COVID-19 measures.

COVID-19 is not only a worldwide public health crises but also an international economic emergency which negative effects are even greater than of the last global financial crisis of 2008. A global recession in 2020 is not only possible but also very likely (IMF 2020a): first, China, the United States, Europe are deeply affected. Goldman Sachs is forecasting a 9 percent contraction in China's GDP growth in 2020:Q1 and a 6 percent drop in US GDP growth in 2020:Q2, much worse than the -2.2 percent growth recorded in 2008:Q4 (Bloomberg 2020). Second, through contagion effects, these large economies will affect the rest of the world. (The Economist, 2020). Third, all the countries around the world will be hit by the pandemic. This implies direct and indirect costs related to containment and mitigation measures, such as reduced labor, production capacity, and productivity.

If the pandemic of COVID – 19 is not managed well, it will produce other crises, including financial crises (if bankruptcies go rampant and banks become illiquid or insolvent), sector collapses and macroeconomic crises (if the costs of mitigation turn out to be excessive given a country's fiscal space and income level)—with dire consequences for welfare and poverty alleviation (World Bank 2013; Furman 2020; Odendahl and Springford 2020; Galí 2020). Although we world has been dealing with pandemics so far, why COVID-19 is a different shock? First, it is a massive and highly contagious global shock. Second, it is simultaneously a negative supply shock and a negative demand shock: it reduces the ability of people to work and firms to produce, and it lowers the incentives and possibility for people to consume and for firms to invest (Bénassy-Quéré et al. 2020; Gopinath 2020; Furman 2020).

The vulnerability to the pandemic in developing countries is higher, while the ability to deal with it through policy is lower compared to developed countries. In addition to the direct effects, for developing countries exposed to global conditions, COVID-19 brings a sharp external demand shock. This is the case in, for example, countries in East Asia where trade and tourism are a large part of the economy (World Bank 2020a), developing countries that heavily rely on commodity exports for government revenues (World Bank 2018; The Economist 2020a), and those that depend on remittances from developed countries (Hausmann 2020).

There exist some structural conditions that can made the negative effect of pandemic COVID – 19 obvious in developing countries:

- Public health: low capacity of the health care system; many people do not have access to essential health care services; risk of catastrophic health expenditures; gap between the current and ideal health status of the average population is large (Wagstaff and Neelsen 2019).
- Labor markets: rampant informality (Loayza 2018). In lowand middle-income countries, 50 percent to 90 percent of total employment consists of informal labor.
- Fiscal space: no sufficient "fiscal space (Kose, Ohnsorge, and Sugawara 2018); debt subject to exchange rate and maturity risks, lower credit rating, and shallower financial markets.
- Governance: corruption, lack of transparency and accountability, low bureaucratic competence, and burdensome regulatory systems.

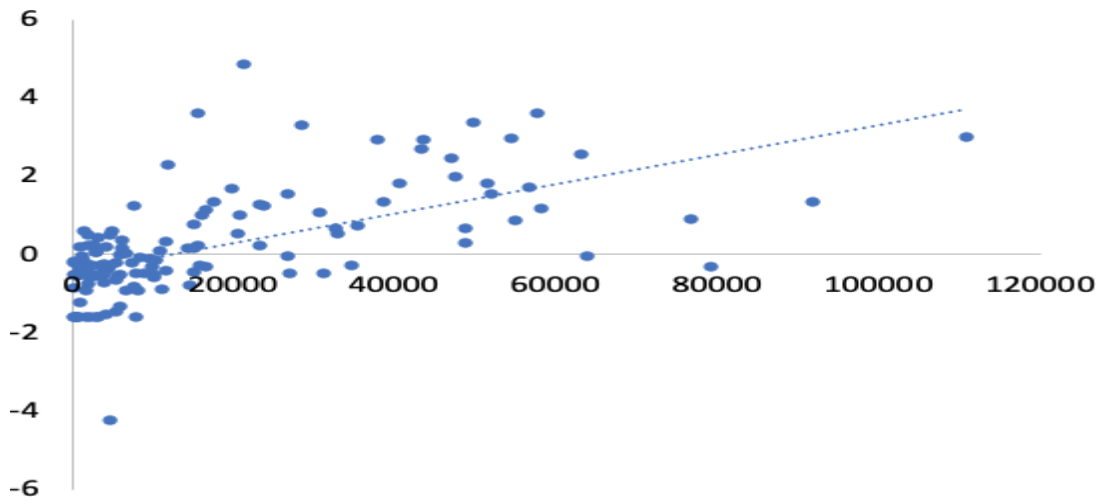
Thus having into consideration the above facts as well as the challenge of COVID-19 that the developing country governments face, it will be hard for them to conduct measures to cope with the crisis. Thus, they have to rely on straightforward emergency relief and recovery policies.

3. COVID-19 ECONOMIC STIMULUS INDEX (CESI) AND ECONOMIC GROWTH

In order to illustrate the relationship between the pandemic COVID – 19 and the economic growth, we have used the Elgin et al. (2020) comprehensive review of different economic policy measures adopted by 166 countries as a response to the COVID-19 pandemic. In addition, they have created a large database including fiscal, monetary and exchange rate measures. Their database created six policy variables classified under three categories: fiscal policy, monetary policy, and balance of payment/exchange rate policy.

Next, by using principle component analysis (PCA) of Elgin et al. (2020), they formed the COVID-19 Economic Stimulus Index (CESI) that combines all adopted fiscal, monetary, and exchange rate measures. Further, it is investigate the extent to which countries' economic responses are shaped by several country characteristics, pandemic-related variables and public health measures (Correia et al. 2020). Below we illustrate several correlations. Figure 1 illustrates the correlation between CESI index and GDP per capita, where it is shown that rich countries have a larger CESI value, indicating a larger economic stimulus package, compared to developing and undeveloped countries.

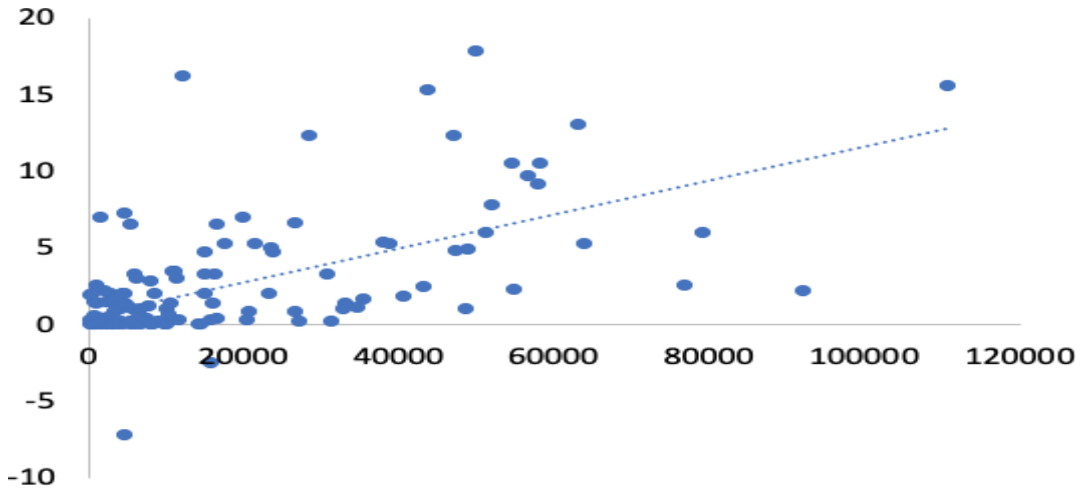
Figure 1. Relationship between CESI index and GDP per capita.



Source: Elgin et al. (2020) and authors' calculations.

Out of three, fiscal stimulus package (as a percentage of GDP) and interest rate cut (percent cut from the benchmark pre-COVID-19 level) represent the two main components of the CESI index. In this regard, Figures 2 and 3 shows the correlation of the fiscal and interest rate cut stimulus with GDP per capita.

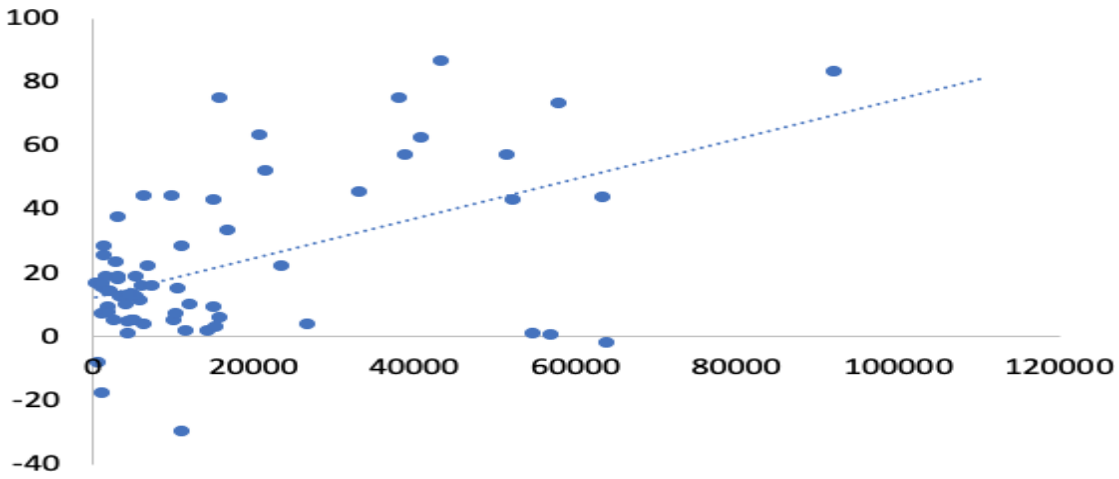
Figure 2. Relationship between fiscal stimulus and GDP per capita



Source: Elgin et al. (2020) and authors' calculations

As we can see, in the Figure 2 due to the correlation of the fiscal stimulus and GDP per capita on 166 countries, it implies that the richer countries adopt a larger fiscal stimulus, compared to the medium and low developed countries.

Figure 3. Relationship between interest rate cut stimulus and GDP per capita



Source: Elgin et al. (2020) and authors' calculations

On the other side, due to the correlation of the interest rate cut stimulus, it implies that the richer countries have a larger monetary stimulus compared to developing and undeveloped countries.

4. CONCLUSION

Recently the pandemic COVID – 19 has been attracting the attention of scholars and policymakers regarding the crucial role that this global health crisis has on the economic development of the countries worldwide. In this regard, the main aim of this paper is to contribute to the existing literature review as well as to address the importance of the relationship between the COVID-19 Economic Stimulus Index (CESI) and the fiscal and monetary stimuli of 166 countries and in this regard to address their policy taken actions. Thus, by using principle component analysis (PCA) of Elgin et al. (2020), COVID-19 Economic Stimulus Index (CESI) and fiscal and monetary stimulus, the results of the correlation implies that the richer countries have a larger CESI value, thus a larger economic stimulus package, as well as a larger fiscal and monetary stimulus compared to middle and low income countries.

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