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Unknown, and the Way Forward**

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Commentaries on the Global Fiscal Consequences of the COVID-19 Pandemic: The
Good, the Bad, the Unknown, and the Way Forward

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Abstract

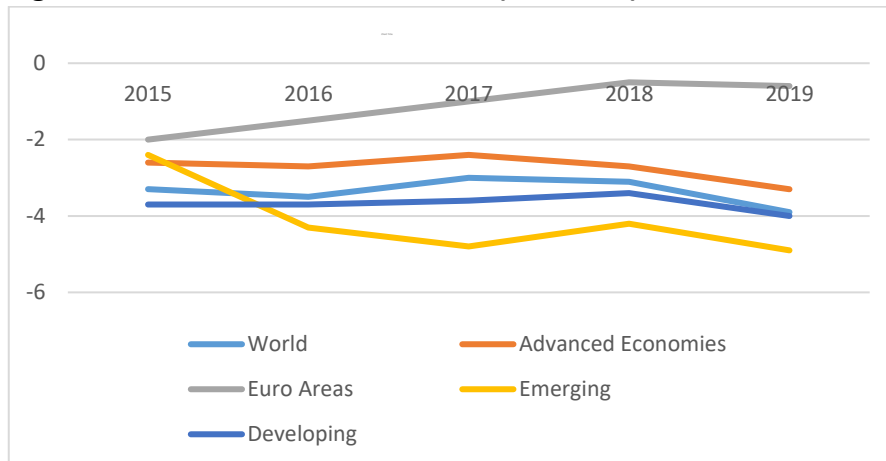
The COVID-19 Pandemic has thrown the hitherto global fragile economy into an unprecedented level of uncertainty. In an attempt to douse the pandemic's negative consequences, governments have resorted to the use of myriad fiscal policies to stimulate the economy. The global fiscal responses have been greeted with mixed feelings. There are three sides to the fiscal responses. While one side favours governments' responses, another group has identified the negative consequences of such actions. The last side is neither in support nor against governments' actions but rather enumerates some unclear issues. This study aims to run a commentary on the consequences of government fiscal responses to the COVID-19 pandemic. We also offer a roadmap for the post-pandemic era.

Keywords: COVID-19, Government expenditure, debt, and Budget deficit

Introduction

Prior to the COVID-19 pandemic, the world economy has reported fiscal imbalance, with many countries reporting increasing levels of debt and budget deficit (Makin and Layton, 2021). Figure 1 presents a snapshot of the global fiscal balance. An overview of the table shows that all the regions have reported negative fiscal balance, with emerging and developing regions taking the lead.

Figure 1: Government Fiscal Balance (% of GDP)



Source: IMF Economic Outlook

The pandemic has further thrown the hitherto global fragile economy into further uncertainty. In an attempt to combat the spread of the virus, governments have instituted lockdown policies, through the closure of borders, schools, and non-essential businesses. It is safe to assert that the world economy was in technical "shutdown". This shutdown resulted in unemployment, increase in poverty, economic output loss, and the eventual economic recession in most countries¹. In an attempt to minimize these ill-fated occurrences, governments have resorted to myriad fiscal policies to stimulate the economy. These policies have led to a surge in government expenditures targeted towards households and firms.

The global economy has spent about USD 14 trillion, comprising USD 7.8 trillion in additional spending or forgone revenue and USD 6 trillion in equity injections, loans, and guarantees (IMF, 2021). These expenditures are generally coined "stimulus package". There is a wide divide- among developing, emerging, and developed countries- in the design and implementation of the stimulus package. For instance, the developed and large emerging countries account for a large chunk of these expenditures because they: (i) have a large purse and fat reserves; (ii) were first hit by the pandemic and experienced worse health crisis. On the one hand, the developed and emerging countries have more policy options and tools, thus explained why they were able to provide support for both households and firms. On the other hand, the developing countries' stimulus packages are more directed to the households.

¹ IMF (2020) reported a 5% fall in the world economy, which is primarily caused by the lockdown policies.

This stimulus package has been greeted with mixed feelings. There are three main arguments in the public domain. The first argument is in support of the increased and enhanced fiscal responses. The main tenant here is that a responsible government would rise to the occasion of protecting the welfare of her citizenry, irrespective of the associated cost(s). Among the disciples of this gospel are the household and firms, as they are the beneficiaries of the largesse. The second argument highlights the cost implication of government fiscal responses, among which are the increase in government expenditure, debt, and budget deficit, without an accompanying or compensating increase in government income. More troubling is the stance that government revenue is somewhat below the level of the pre-pandemic era, no thanks to the lockdown policies. The third argument orates that government fiscal responses would resort to series of unknown issues. This strand of the argument is neither in support nor against governments' fiscal responses to the pandemic. For instance, the eventual size of fiscal responses cannot be ascertained, as some countries (U.S., UK, France, Ireland, Canada, to name a few) have been revising upward budget targeted to tackle the pandemic. Another unknown is the uncertain sources and dynamics of financing the increased expenditures.

Emphasis has mainly been channelled to combating the spread and the severity of the virus and formulating policies that seek to minimize the associated cost. Understandably, the pandemic is yet to be under control, thus necessitating continuous government action. So far, governments' actions have been short-term. However, it is also important for policymakers to start formulating policies on navigating the economy once the pandemic is over. In essence, there is an urgent need for governments to start planning and preparing for the post-pandemic era.

Based on the foregoing, the objective of this study is bifocal. In the first stance, we seek to run a commentary on the consequences of governments' fiscal responses to the COVID-19 pandemic. Essentially, discussions are centred on three possible outcomes of the fiscal response: the good, the bad, and the unknown. Raising a disclaimer, this study does not intend to take a position about the eventual (or net) impact of governments' response. The second objective of the study is to create a potential roadmap governments could follow in the post-pandemic era. These two objectives are a novel contribution to the burgeoning COVID-19 literature.

The rest of the paper is structured as follows. The various forms of fiscal policy tools adopted are extensively discussed in Section 2. Section 3 delves into the effects of the fiscal responses. Section 4 offers a roadmap to recovery and the post-COVID-19 era.

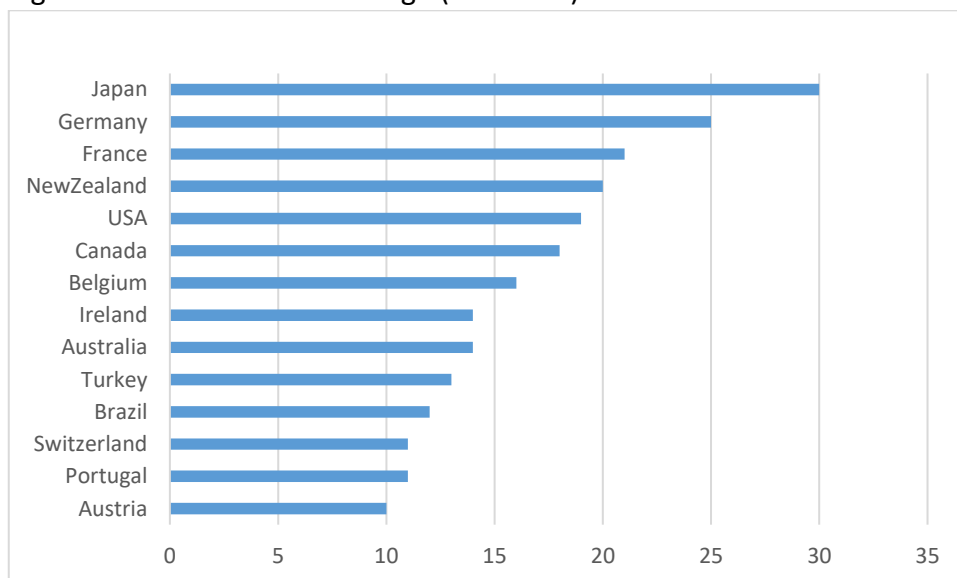
2.1 The Fiscal Measures Explored

At the onset of the outbreak, countries worldwide have laid more emphasis on studying the dynamics of the virus (mode of transmission, the R rate, and containment). The ease at which the virus spread informed governments to "shutdown" the economy. Among the popular forms of shutdown policies explored are closures of borders, schools, non-essential businesses, banning social gatherings, and wearing masks in public areas. One

of the immediate causalities of this shutdown is the contraction of output, with more emphasis on the demand side.

To reduce the drastic contraction in economic output, governments have activated some fiscal policy tools that sought to ensure the smooth running of the economy. The scale of the expenditure is unprecedented. It is estimated that the total global government expenditure is about \$14trillion (IMF, 2021). A common trend among countries is the increase in government expenditure. There seems to be a distinct pattern in the government spending pattern's aggressiveness and behavior across income groups. Some OECD members- and other emerging countries have earmarked over 10% of the GDP on the stimulus package. Figure 2 shows the scale of governments' expenditure.

Figure 2: Stimulus Fiscal Package (% of GDP)



[Source: IMF Policy Tracker](#)

Some emerging and developed countries have laid emphasis on both the household and the business community. The households have been given direct cash, in-kind Transfer, among others. The private sector has also received huge funding from the government. For instance, Germany created the great economic stabilization fund (WSF) to guarantee private sector loans, with a pledge of about EUR 750billion (representing about 25% of the GDP) towards WFS. The other side of the spectrum is the developing countries, particularly Sub-Saharan Africa and South Asia, whose main emphasis has been on the households. There are two plausible attributable reasons to developing countries' limited expenditure: (i) weak financial power; (ii) these countries or regions have been mildly impacted by the scourge of COVID-19, thus avoiding the huge projected consequences that would necessitate shutting down the economy. Even if at all, the shutdown policies implemented by these countries were short-lived, because of constrained fiscal space in these countries, compared to those experienced by the richer countries in Europe and North America.

The available policy tools are also considerably diverse/heterogeneous across income groups. Whilst the G7 countries have varying tools, other developed and emerging countries have limited options. In the case of the former, governments' actions tend to solve multiple issues. The U.S. issued about 3 ACTS² and one executive order, totalling 2.6trillion dollars (12% of GDP). A reference point is France, where their stimulus package encompasses nine diverse issues; Ireland has seven issues³. On the other hand, the less rich countries have mainly focused on the household by providing in-kind transfers and tax relief.

There is a long list of fiscal policy tools policymakers could use to ensure and enhance the economy's liquidity level. The eventually selected policy tool depends on the country's income level, proposed nature and timing of the objective, and the financial war-chest of Central Banks (i.e., short-/long-term). Some of the popular tools used so far are highlighted below:

- a) Cash Transfer: this entails direct cash payment from the government to the citizens. This form of policy tool is very common and has been adopted by countries-both developing and developed. For example, Australia, Austria, Canada have spent about 20% of the total stimulus package via cash transfer (IMF Policy Tracker).
- b) In-Kind Transfer: this is the non-monetary Transfer to the private economic agents. This could include food sharing, clothing, among others. When schools were closed during the lockdown period, some countries made food delivery provisions to students, who hitherto would have been in school. In some countries, the government made mortgage and rent payments to sectors impacted by the lockdown restrictions. This is just as electricity and telephone discounts were offered by government-owned corporations (Argentina, Andorra, Bahrain).
- c) Unemployment benefit. This type of policy tool is most effective in countries that are already operating social welfare schemes. In the U.S., a monthly stipend of about \$400 was paid as unemployment benefits. The U.K. has expanded its coverage of the Universal Credit Scheme.
- d) Wage subsidies: this occurs when the government funds parts of employers' wage bills and furlough programme. This tool aims to avoid the retrenchment of employees. In the U.K., the government announced the 75% wage contributions towards the furlough programme.
- e) Business Loans and equity injections/bailout. This policy option is directed wholly to the private sector. In the wake of the pandemic, business loans were offered to companies. In the U.K., business loans ranged between £50,000 - £100Million. The aviation sector is one of the sectors that recorded an influx of

² Coronavirus Aid, Relief and Economy Security Act ("CARES Act"); Coronavirus Preparedness and Response Supplemental Appropriations Act and Paycheck Protection Program and Health Care Enhancement Act.

³ Detailed and up-to-date information can be found in the IMF policy tracker (<https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>).

equity injections and bailouts (Abate et al., 2020). Bank of England, European Central Bank, and Bank of Israel have announced various forms of equity injections-such as the purchase of corporate bonds.

- f) Tax-relief, tax-cut, or tax-break. This policy tool's objective is to reduce the cost of operation of the business sector. This will enable businesses to stay afloat and thus avoid the risks of bankruptcy, closure among others. Other related government charges and commissions have either been abolished or reduced (e.g., Angola, Ukraine, United Arab Emirates). Tax-related to medical equipment and/or services have been abolished in some countries (e.g., Vietnam, Zambia).

2.2 The effectiveness of these fiscal Measures

The attendant effect of these measures is expected to have diverse effects on economies because of the distinctive nature of such policy tools' principles and objectives.

- For instance, the stimulus earnings received by the higher income group in the U.K. were spent on non-essential and durable goods (Baker et al., 2020). On the flipside, lower-income groups and those who received unemployment benefits mainly spent on consumable goods (Chetty et al., 2020). Hence, evidence posits that direct cash transfer is more effective in emerging and developing countries.
- One of the advantages of cash transfer and in-kind Transfer is their coverage, as they provide easy access to the citizenry. As such, these two policy options are most effective, especially for the middle- and low-income groups.
- Contrasting furlough and unemployment benefits, it is expected that the former would have a higher impact on the economy than the latter in the short run. In the case of the former, the economic apparatus is still operating, thus taming the level of unemployment. Statistics show that countries (Australia and Belgium, U.K.) who operate both policies tend to have lower unemployment rate (Tetlow et al., 2020). On the other hand, furlough is seen as a temporary solution. Once the furlough scheme is over, there would be an increase in the unemployment rate, thus making unemployment benefits more effective in the long-run (Utermoht et al., 2020).

2.3 Efforts of the Multinational Organizations

Efforts to combat the pandemic are not limited to sovereign states. Regional bodies and multinational organizations have made some financial contributions to support governments' activities, most especially the developing nations. The International Monetary Fund (IMF), for instance, has implemented series of policies to provide financial help⁴. Statistics from the IMF's website show⁴ that about a quarter of the fund's USD 1trillion lending capacity has been utilized as COVID-related loans. The World Bank has disbursed about USD 160 billion in loans to tackle economic, health, and social shocks induced by the pandemic in about 100 developing countries. The World Bank

⁴ IMF's actions have focused on seven main tracks: emergency financing, grants for debt relief, call for bilateral debt relief, enhancing liquidity, adjusting existing lending arrangements, policy advise and capacity development

loans are more tied to projects with long-term benefits rather than direct loans to governments. Aside from the fact that the individual member countries of the European Union (E.U.) have invested heavily in stimulus packages, the union, in December 2020, agreed to channel about USD 900 billion to support less wealthy countries. The United Nations (U.N.) has advocated for a USD 2.5 trillion COVID crisis package for developing countries, comprising of:

- \$1 trillion should be made available through the expanded use of special drawing rights.
- \$1 trillion of debts owed by developing countries should be cancelled for the year 2020/2021.
- \$500 billion needed to fund a Marshall Plan for health recovery and dispersed as grants.

3. Effects of the Fiscal Policy tools: The good, the bad, and the unknown tales

There are two possible outcomes of governments' actions/policies. Governments' actions are generally favoured and received wide acceptance, by the people, if such actions were considered to have improved the standard of living of the population. Flipping the argument, governments' policies are considered bad if: (i) they failed to achieve their intended objective; or (ii) there is a wide castigation of the policy by people. This section aims to highlight the good and bad effects of governments' fiscal policy. It also seeks to identify some unknown effects of such governments' actions.

3.1 The good

Admittedly, governments have spent an enormous amount of resources to ensure the smooth running of the economy since the start of this pandemic. One of the advantages of this huge governments' expenditure is the enhancement in the standard of living. Without government interference, the lockdown policies instituted could have had huge negative consequences on living standards. The non-essential workers, who have lost their jobs, would have had no source of income. Hence, increasing the spate of poverty, famine, mortality, and death rates. However, governments' invention has helped reduce the prowess of these indicators (Chetry et al., 2020). Evidences point to the fact that the stimulus packages have helped increase household's income and enhance economic growth. These assertions are more vivid in Table 1. The table shows that there has been an increase in the disposal income between the second and third quarter of 2020. This growth could be attributed to the increased spending pattern of the government. Besides, most countries recorded an increase in GDP over the period under investigation.

Table 1: Real Household income per capita and GDP for Selected OECD Countries

	Growth of household income per capita			GDP per capita growth		
	2020Q1	2020Q2	2020Q3	2020Q1	2020Q2	2020Q3
Australia	-0.7	-7.13	2.92	0.6	3.42	2.88
Austria	-2.87	-11.64	11.81	-5.14	-4.92	10.26
Belgium	-3.53	-11.82	11.52	0.7	-1.93	1.38
Canada	2.12	-11.5	8.8	0.73	11.16	-3.64
Chile	1.97	-13.86	4.85	1.16	-10.33	46.39
Denmark	1.55	-7.12	5.19	0.15	0.37	0.5
Finland	-1.53	-3.9	3.08	1.16	1.4	-3.17
France	-5.97	-13.71	18.42	-0.95	-2.65	3.52
Germany	-2.03	-9.67	8.5	-0.56	-1.31	4.25
Greece	0.17	-14.11	2.34	1.47	N/A	N/A
Ireland	-3.79	-3.46	10.78	0.14	3.54	N/A
Italy	-5.42	-12.86	16.1	-0.92	-5.25	6.4
Netherlands	-1.6	-8.58	7.63	1.08	-1.8	5.32
Norway	-1.65	-4.73	4.49	1.04	-4.1	-1.1
Poland	-0.22	-8.97	7.9	-0.38	3.34	0.62
Portugal	-4.07	-13.96	13.15	-0.52	-2.83	3.45
Slovenia	4.76	-9.88	12.36	2.41	-6.6	6.68
Spain	5.45	-17.92	16.39	-2.29	-5.72	7.32
UK	3.16	-18.87	15.86	-1.35	-3.88	5.11
US	-1.37	-9.09	7.33	0.67	10.45	-4.25
EU	-3.28	-11.34	11.5	N/A	N/A	N/A
G7	-2.11	-10.48	9.2	0.23	6.83	-1.78
OECD Total	-2.08	-10.55	9.11	-0.22	3.91	0.6

Note: N/A meant Not Available

[Source: OECD Household Dashboard.](#)

Policy tools targeted to the private business sectors have helped to reduce the rate of unemployment and preserve jobs. The multiplier effect of these cannot be over-emphasized. Martin et al. (2020) show that there could have been a 9% increase in the poverty rate without government intervention. However, with the intervention, the growth rate of poverty is close to zero. The stimulus packages have helped reduce the spate at which corporate organizations could have filed for bankruptcy. This has helped stabilize the financial/banking sectors. Sectors such as aviation, which were hitherto are close to filing for bankruptcy, have received a huge boost from the government (Abate et al., 2020). Above all, the spending spree governments have embarked on has helped avoid another global financial crisis and/or prolonged recession. The IMF outlook has forecasted that the global economy would record mild economic growth (0.5%) in 2021 and (2.0%) by 2022.

A section of the literature has acknowledged that the performance of some macroeconomic indicators has defied models' predictions and expectations. Although several factors have been attributed to this, the influence of the various stimulus packages cannot be ignored. Some studies concluded that the stability of inflation and

exchange rate was due to increased government expenditure (e.g., Benmelech and Tzor-Ilan, 2020). The stock markets' performances have been impressive after the initial slump in the capital market at the onset of the crisis. It has been argued that governments' fiscal actions have been a contributory factor (Ciner, 2021).

3.2 The bad

It is widely perceived that whatever has advantages would have accompanying disadvantages. As such, it is expected that there would be negative consequences of fiscal policy responses. These negative consequences are discussed in the light of households, firms, and governments. Starting with the household, the continuous financing of the furlough and wage subsidies programmes might lead to reallocation in the labour market and encourages laziness. Some workers might be reluctant to go back to work, even when the economy is eventually and fully opened.

An obvious negative tale of the fiscal policy, for both business and government entity, is the rise in the debt level, without clarity on how to finance the instrument. This becomes more precarious for the firms who were hitherto struggling to keep their business afloat. The supposed financial respite might further enhance the vulnerability of such businesses. Thus, the financial support might be a temporary solution that could lead to the final closure of such businesses, if not properly managed.

An attendant effect of the rising debt level is the dwindling credit ratings of government and businesses. Among other things, the objective of the stimulus package is to sustain aggregate demand. However, a recent consumer survey by Cassim et al. (2020) show that consumer spending has not gotten to the level recorded for the pre-covid period. The various stimulus packages are short-termed. Thus, the aggregate demand in the future might be slow. Hence, the status of the aggregate demand remains unknown when governments stop financing such packages. Also, the price stability objective of the fiscal policy has not been met, as there is evidence of high commodity price fluctuations (Salisu et al., 2020).

On a micro level, the effectiveness and uneven allocation of the stimulus packages, to the business community, is a source of concern. In terms of level playing field allocation, it has been reported that large businesses and companies with political connections have received preferential treatment. Flitter's (2020) survey showed that only 12% of the Black and Latino applicants for the Small Business Administration (SBA) were successful. Also, companies reputable for misconducts and laying off of staffs were not exempted from receiving financial supports from the governments. Hence, the judicious use of such funds is in doubt. Recipients of governments' supports have also been accused of misallocation and diversion. For instance, the Washington Post (2020) reported that a large share of the USD 1 billion, allocated to the U.S. defence ministry for the purchase of medical supplies were funnelled into building shipyards and shoring up their armoury. Also, the Inspector General of the SBA reported that about USD 3.8 billion loans had been sent to ineligible beneficiaries.

3.3 The Unknown

There tends to be unison regarding the fact that government debt and budget deficit, induced by the pandemic, are on the rise. It is bad enough that these instruments are high; more worrisome is the notion that these instruments are rising at an increasing rate⁵. With the world facing the second wave of the pandemic (and some countries experiencing third wave), it is expected that there would be a surge in governments' expenditure. Hence, it remains unknown what the eventual governments' expenditure would be. In essence, there is no end in-sight to the already over-bloated deficit finances. This problem has become more pronounced for the E.U. member countries. The stability and growth pact mandates E.U. member countries to limit their budget deficit to 3% of the GDP. Statistics from IMF show that some member countries have gone beyond the acceptable limit. It remains unclear what the consequences would be for the defaulters.

Aside from the problem of the huge size of debt and deficit, little or nothing is known about how to finance these instruments. In the short term, the possibility of increasing government income, either through taxation or other means, remains slim. This is not unconnected to the fact that the economy remains fragile, and to ensure stability in the aggregate demand and supply, the tax rate should be considerably low. Should the government consider reducing their expenditure, such an act would only reduce the size of the deficit. However, this might push down the growth trajectories, at least in the short-run, until a time when the private sector's participation has fully recovered.

The pandemic's devastating effect and the financial support from the government are unevenly distributed across sectors and industries. While acknowledging that some sectors have recorded losses, it is also important to state that other sectors have reported improved performance (Izzeldin et al., 2021). Statistics from the IMF policy tracker show that: (i) some sectors (e.g., health, aviation, tourism) have received more funding and support from the government than other sectors (say entertainment, banking, and consumer discretion); (ii) in relation to households, businesses and firms have received a larger proportion of the stimulus package. It remains unknown where the contribution to the recovery process should be in proportion to the value of the financial support received or the sectors' performance. It is also unclear whether business entities should contribute more than the household. The concerned stakeholders should give these issues adequate consideration and reflection.

4. The Way Forward

While acknowledging that the pandemic is yet to be over, especially as most countries are reporting the second wave of the virus, there is the need to create a roadmap of the post-pandemic era. The COVID-19 pandemic is novel and thus exposed the world to

⁵ Countries, especially the developed ones, are upwardly revising their budgets to tackle the effects of pandemic. In 2020, France revised their budget thrice; UK made about four changes to their budget. The 2021 budget is not unaffected. For instance, Canada has committed between USD 70-100 billion stimulus package for the next 3 years. Greece has made provisions for "solidarity taxes" and increased social contributions. In Australia, has made provision tagged "JobMaker" for the 2021-2024 fiscal years. Similar plans were introduced by New Zealand (IMF, 2021).

uncharted territory. As such, there is no clear theoretical or historical guidance on how to navigate the pandemic cum economic crisis. The potential policy tools could be classified into short- and long-term.

In the short term, the economy would be fragile, and governments must be mindful of pursuing aggressive and unrealistic targets. On the expenditure side, there should be a gradual withdrawal of expenditure targeted towards the welfare citizenry. The pace of the withdrawal should be influenced by the rate the economy is reopening and the rejuvenation of the private sector. There should be reduced access to expenditures targeted toward employment sustainability (furlough scheme, unemployment benefits). As stated earlier, these expenditures enhance labour reallocation and reduce labour supply. However, when access is more stringent and restricted, labour supply is expected to be at the optimal level. On the part of the firms, there is the need to have debt restructuring. The loans granted to the firms will ensure the sustainability of liquidity. However, the road to recovery to the post-pandemic era might be long, hence the need to grant struggling firms some breathing space and respite. The extent to which governments can follow these suggestions depends on their financial space. These policy recommendations are meant for countries with a considerable high financial war chest, such as the emerging and developed countries.

We now turn to government revenue. For emerging and developed countries, taxation as a source of revenue should be less emphasized. An increase in taxation reduces disposable income, which thus fuels a fall in aggregate demand. The continuous fall in aggregate demand could affect the supply side and delay the much-anticipated and needed economic growth recovery. However, the case of developing countries is somewhat different. Given that they are financially constrained, and the pandemic has increased their expenditure, there is an associated increase in debt level. Evidences have shown that developing and middle-income countries are more susceptible to debt crisis (Koh et al., 2020). To forestall the possibility of this happening, there is the need to raise the level of income to the pre-pandemic era. Hence, there would be an increase in the level of taxation.

In the long term, the important role of public investment should not be understated. Public investments in sectors (e.g., health, education, and public infrastructure) that are critical to the recovery of the economy should be prioritized. This would lead to the creation of jobs, enhance productivity, and improve private sector participation. Prior to the pandemic, there have been resounding advocacies to policymakers to solve non-economic problems: climate change, digitalization, reshaping the workforce in line with technological advancement. With the pandemic, the global economy has been put in a reset position, hence positioning us to chart a new and desirable course. Some public investment initiatives could be targeted towards achieving a green economy and artificial intelligence. Though there has been huge private participation in these areas. However, with governments' involvement, the pace of product development would be faster. The government could also provide financial incentives to encourage the private sector towards efficient energy usage. Another area public investment could be

channelled to are sectors critical for the attainment of Sustainable Development Goals (SDGs). It has been documented that the chances of meeting the SDGs are very slim (Filho et al., 2020). The pandemic has been a further setback for developing and emerging countries of achieving the goals by 2030. Developed countries and some multinational organizations could rescue the situation by locating projects and investments in low and middle-income countries. Xiao et al. (2020) submit that to meet the SDGs, there is a need for additional investment (2019- 2030) of 9.8 and 2.7 percent of GDP per year in developing and emerging countries, respectively. The developed economies could divest into such countries. Thus serves as a source of income, as the return of investment is higher in capital-starved countries. The involvement of the private sector participation in the provision of investment should also be considered. Governments should incentivize the private sector corporation, using policies like tax breaks/cuts, loans, and equity injection, among other measures.

References

- Abate, M., Christidis, P., and Purwantoc, A.J. (2020) "Government support to airlines in the aftermath of the COVID-19 pandemic" *Journal of Air Transport Management*. DOI: 10.1016/j.jairtraman.2020.101931
- Baker, S. R, Farrokhnia, R. A., Meyer, S., Pagel, M and Yannelis, C. (2020) "Income, Liquidity, and the Consumption Response to the 2020 Economic Stimulus Payments" NBER Working Paper No. 27097
- Benmelech, E. and Tzor-Ilan, N. (2020) "The Determinants of Fiscal and Monetary Policies During the Covid-19 Crisis" NBER Working Paper 27461
- Cassim, Z., Handkiski, B., Schubert, J., & Zouaoui, Y. (2020) "The \$10 trillion rescue: How governments can deliver impact" McKinsey & Company. Available at: <https://www.mckinsey.com/~media/McKinsey/Industries/Public%20Sector/Our%20Insights/The%2010%20trillion%20dollar%20rescue%20How%20governments%20can%20deliver%20impact/The-10-trillion-dollar-rescue-How-governments-can-deliver-impact-vF.pdf>
- Chetty, R., Friedman, J.N., Hendren, M., and Stepner, M (2020) "How Did Covid-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data" NBER Working Paper Series No 27431
- Ciner, C. (2021) "Stock return predictability in the time of COVID-19", *Finance Research Letters*, 38. <https://doi.org/10.1016/j.frl.2020.101705>
- Filho, L., Brandli, W., Lange Salvia, L.L., Rayman-Bacchus, A., Platje, J. (2020) "COVID-19 and the U.N. Sustainable Development Goals: Threat to Solidarity or an Opportunity?" *Sustainability*, 12, 5343. <https://doi.org/10.3390/su12135343>
- Flitter, E. (2020) Few Minority-Owned Businesses Got Relief Loans They Asked For. *New York Times*. Available at <https://www.nytimes.com/2020/05/18/business/minority-businesses-coronavirus-loans.html>
- International Monetary Fund (2020) *Fiscal Monitor: Policies for the Recovery*. Washington, October.
- International Monetary Fund (2021) *Fiscal Policy Update*. Washington, January
- Izzeldin, M., Muradoglu, Y.G., Pappas, V., and Sivaprasad, S. (2020) "The impact of Covid-19 on G7 stock markets volatility: Evidence from a ST-HAR model" *International Review of Financial Analysis*, 74, 101671
- Koh, W., Kose, A.M., Nagle, P., Ohnsorge, F.L., Sugawara, N (2020) "Debt and Financial Crises" World Bank Policy Research Working Paper 9116
- Makin, A.J. and Layton, A. (2021) "The global fiscal response to COVID-19: Risks and repercussions" *Economic Analysis and Policy*, 69, 340-349
- Martin, A., Markjvidal, M., Hallegatte, S., and Walsh, B. (2020) "Socio-Economic Impacts of COVID-19 on Household Consumption and Poverty" *Economics of Disasters and Climate Change*, 4, 453–479
- Salisu, A.A., Akanni, L.O. Raheem, I.D. (2020) "The COVID-19 Global Fear Index and the Predictability of Commodity Price Returns" *Journal of Behavioural and Experimental Finance* <https://doi.org/10.1016/j.jbef.2020.100383>.
- Tetlow, G., Pope, T., and Dalton. G. (2020) "Coronavirus and Unemployment: The Importance of Government Policy: A Five Nation Comparison." IfG Insight, Institute for Government, London
- Utermöhl, K., Ozyurt, S., and Subran. L. (2020) "The Risk of 9 Million Zombie Jobs in Europe." Allianz Research, München und Umgebung, Germany.

https://www.allianz.com/content/dam/onemarketing/azcom/Allianz_com/economic-research/publications/specials/en/2020/june/2020_6_17_labor_market.pdf

Washington Post (2020) Pentagon used taxpayer money meant for masks and swabs to make jet engine parts and body armor. Available at <https://www.washingtonpost.com/business/2020/09/22/covid-funds-pentagon/>

Xiao, Y., D'Angelo, D. and Lê, N.-P. T. (2020) "Infrastructure Investment and Sustainable Development Goals." In Well Spent: How Strong Infrastructure Governance Can End Waste in Public Investment, edited by G. Schwartz, M. Fouad, T. Hansen, and G. Verdier. Washington, DC: International Monetary Fund.