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The Horrors of COVID-19 and the Recent Macroeconomy in Ethiopia

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Abstract
This review paper is emphasized on COVID-19 and macro-economy like GDP, unemployment, inflation and macro-economic policy in Ethiopia. The COVID-19 pandemic represents an unprecedented global crisis. Even if the spread of COVID-19 is suppressed in Africa, its economic damage will be unavoidable. In spite of the fact that COVID-19 was less expanded during the last 3 months, the Ethiopia economy showed a significant shock and drastically reduced in major macroeconomic variables. A 25-30% drop in exports of goods and services during 2020 is possible.COVID-19 will have a two-fold fiscal impact, pulling in opposite directions. Hence, there is a need to re-bounce back the economy while keeping our peoples safe from the pandemic, COVID-19.

Keywords COVID-19 · Macro-economy · Fiscal and monetary economics · Ethiopia

Introduction

On March 11, 2020, the World Health Organization declared a pandemic of the highly transmissible coronavirus disease, COVID-19, signaling its global spread (WHO 2020). The COVID-19 pandemic represents an unprecedented global crisis. Analysts make comparisons with the Great Depression of the 1930s. The COVID-19 pandemic recession is materially different to both the 2008–2009 global financial crisis (GFC) recessions and the 1930 Great Depression for several reasons. The most important distinction between the COVID-19 pandemic recession and the other two is the role of money and credit; throughout the GFC and the Great Depression, there was a

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significant contraction in money and credit, whereas now there is a historic expansion in money and credit. Much more typically, recessions result from some imbalances in the economy, either in the financial sector or the real economy, which have to be rebalanced. There were no such imbalances in this recession. There was instead a government-imposed lockdown in order to suppress the transmission of the coronavirus, resulting in a large shock to demand (Greenwood and Burton 2020).

The COVID-19 outbreak (previously 2019-nCoV) was caused by the SARS-CoV-2 virus. This outbreak was triggered in December 2019 in Wuhan City in Hubei Province of China. COVID-19 continues to spread across the world. Initially, the epicenter of the outbreak was China with reported cases either in China or being travelers from China. While some countries have been able to effectively treat reported cases, it is uncertain where and when new cases will emerge. Amidst the significant public health risk COVID-19 poses to the world, the World Health Organization (WHO) has declared a public health emergency of international concern to coordinate international responses to the disease. It is, however, currently debated whether COVID-19 could potentially escalate to a global pandemic (McKibbin and Fernando 2020).

In a strongly connected and integrated world, the impacts of the disease beyond mortality (those who die) and morbidity (those who are incapacitated or caring for the incapacitated and unable to work for a period) have become apparent since the outbreak. Amidst the slowing down of the Chinese economy with interruptions to production, the functioning of global supply chains has been disrupted. Companies across the world, irrespective of size, dependent upon inputs from China have started experiencing contractions in production. Transport being limited and even restricted among countries has further slowed down global economic activities. Most importantly, some panic among consumers and firms has distorted usual consumption patterns and created market anomalies. Global financial markets have also been responsive to the changes and global stock indices have plunged. Amidst the global turbulence, in an initial assessment, the International Monetary Fund expects China to slow down by 0.4 percentage points compared to its initial growth target to 5.6%, also slowing down global growth by 0.1 percentage points (OECD 2020).

Many studies have found that population health, as measured by life expectancy, infant and child mortality, and maternal mortality, is positively related to economic welfare and growth (Bhargava et al. 2001; Bloom and Sachs 1998; Bloom et al. 2005).

There are many channels through which an infectious disease outbreak influences the economy. Direct and indirect economic costs of illness are often the subject of the health economic studies on the burden of disease. The conventional approach uses information on deaths (mortality) and illness that prevent work (morbidity) to estimate the loss of future income due to death and disability. Losses of time and income by carers and direct expenditure on medical care and supporting services are added to obtain the estimate of the economic costs associated with the disease. This conventional approach underestimates the true economic costs of infectious diseases of epidemic proportions which are highly transmissible and for which there is no vaccine (e.g., HIV/AIDS, SARS, and pandemic influenza). The experience from these previous disease outbreaks provides valuable information on how to think about the implications of COVID-19.

Given the recent study conducted by Alemayehu Geda about the social and economic impact of COVID-19 in Ethiopia and using local and global media-based information and information obtained from interaction with some of the industry actors as well as his own research about the Ethiopian economy, one can understand and come up with the possible economic impact of the virus on the country. That study noted that GDP may contract by 11.2% in 2020/2021 fiscal year (that runs from July 2020 to June 2021) if the economic effect of the virus lasts until the end of 2020. In the best-case scenario of the effect of the virus being limited to the first quarter of the next Ethiopian fiscal year 2020/2021, the GDP may contract by 5.6% instead. In the worst-case scenario of the effect hanging around for the coming three quarters, the decline in growth could be as high as 16.7%.

Alemayehu Geda (Geda 2020) notices that the government's related latest forecast of economic growth for the coming 2020/2021 fiscal year is 8.5%. It is not clear whether the possible impact of COVID is taken into account in this forecast. If it is not, the government needs a growth rate of 19.7% (i.e., 11.2 + 8.5) to attain this 8.5% level of economic growth with the COVID effect included, and this is completely unrealistic. On the other hand, if the possible effect of COVID is not taken in this forecast, the growth, including the COVID effect, will be −2.7% (that is, almost a 3% decline) under the average scenario that we have envisaged in this study (in the best-case scenario of a 5.6% economic decline due to COVID, this could be a 3% growth of the economy in 2020/2021).

Apart from such gloomy picture of growth in 2019/2020, the Ethiopian economy is also characterized by significant macroeconomic instability and precarious balance of payment (and hence foreign exchange problem) condition even before the onset of the economic effect of COVID-19. Understanding the above horrors of COVID-19 and looking back to macroeconomic variables are a crucial moment. However, the current review may not deliver you with full information on the pandemic and its impact on all macroeconomic variables. For specification, we aimed at reviewing Ethiopian gross domestic product, unemployment, inflation, and fiscal and monetary economics or macroeconomic policy variables which can cause economic instability or crises in conjunction with the coronavirus outbreak in Ethiopia. Therefore, this review article is in a position to give brief information on the current pandemic relative to some important macroeconomic variables in a country.

Methodology

In terms of methodology, the literature review itself followed a systematic and integrative approach that started with a search for relevant literature in specialized and generic databases (Google search, Google Scholar, Internet, COVID-19 and macroeconomics repository, Harvest Plus Library) using the following search terms: "Covid-19 and the recent macro economy," "Impact of Corona virus on economy," "macroeconomic policy and the pandemic," and "Trade and covid-19." Additional literature was accessed through a snowball process, building on the references found in this key review paper. The search was restricted to papers and articles published in English in both academic and gray literature. The review was initiated in 2020; with the incorporation of selected additional studies, published materials are area under consideration with the same search methodology. The knowledge and experience of the authors and additional feedback gained through the pandemic resulted in some additional references. The review focused on reviewing the most important macroeconomic variables: Ethiopian gross domestic product, unemployment, inflation, and fiscal and monetary economics or macroeconomic policy variables which can cause economic instability or crises due to the coronavirus outbreak in Ethiopia.

COVID-19 and Macroeconomy in Ethiopia

In spite of the fact that COVID-19 was less expanded during the last 3 months, the Ethiopia economy showed a significant shock and drastically reduced in major macroeconomic variables. Just to mention some of these in figures, general inflation is currently 23%, while food inflation is 26%; the birr is devalued by the government significantly from about 32% a couple of weeks ago to about 34.34% (more than 7%) now; the government debt (without including recent pledges by the donors, which is significant) as percentage of GDP is above 55%; the export-import gap remained significant because we are importing more than 5 times our exports, which is just below $3 billion per annum. The government also predicted that about 30 million (half of this because of COVID effect) people could be food insecure and need help this year alone.

Thus, it is in the context of such precarious economic condition that the pandemic is hitting the country's economy (Table 1). Thus, the economic and social impact of COVID-19 is to change this precarious macroeconomic condition for the worst. As can be observed from the table, one can identify the impact of COVID-19 on aggregate macroeconomic variables (real GDP, inflation, gross domestic saving, gross domestic investment, reserve in months of imports, budget deficit, total debt, and trade balance) figuring out the change with and without the pandemic.

The economy of Ethiopia will shrink between 5.6 and 11% as a result of the coronavirus (COVID-19) pandemic, as stated in a paper by the renowned Addis Ababa

Table 1 The aggregate macroeconomic variables with and without COVID-19

Macro-indicator	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Real GDP growth rate (%)*	10.3	10.4	7.6	10.1	7.7	9.0	6.0
Inflation rate (CPI, % change)	8.1	10.4	7.5	8.8	16.8	15.3	23
Food inflation (CPI, % change)	10.3	12.5	7.2	11.2	14.1	19.8	26
End of period exchange rate Br/$	19.6	20.6	21.8	23.1	27.4	28.9	34
Reserve (month of imports)	2.3	2.5	2.6	2.4	2.1	2.4	1.7
Gross domestic saving (%GDP)*	22.5	21.9	22.4	22.5	19.7	20.2	
Gross domestic investment (% of GDP)	40.3	39.4	38.5	38.4	34.1	37.7	
Overall budget deficit including grants/primary deficit (%GDP)	− 2.6	− 2.5	− 1.9	− 3.28	− 3.03	− 2.5	
Current acct deficit, including official transfer (%GDP)	− 7.7	− 11.4	− 10.4	− 8.0	− 6.3	− 4.7	
Trade balance (X-M)% of GDP	− 18.7	− 20.8	− 19.1	− 16.0	− 14.7	− 13.0	
External debt (billions of USD)	14.0	19.09	21.74	23.3	25.8	27.0	27.7
External debt (% GDP)	25.6	29.5	30.1	29.4	31.9	29.1	28.8
Domestic debt (% GDP)	28.6	31.8	32.1	34.9	35.6	35.7	26.7
Total debt (% GDP)	53.2	61.4	62.2	64.3	67.5	64.8	55.6

Source: NBE, Annual Report (Various Years); MOFED (2016–2019)

*See Alemayehu and Addis (2016) for a critical review of this growth and saving figures. The WB estimated this to 4% while IMF to 3.2%

University Economics Professor Alemayehu Geda. “The government has estimated the growth of GDP for the year 2019/20 to be to be 9 percent. …If we take the government growth figure of 9 percent, the 2019/20 GDP of the country will be Birr 2.044 trillion. With this information, the effected of the 11 percent economic shock is to reduce this GDP by 227 billion Birr. In the best-case scenario of a 5.6 percent decline in GDP, this will be Birr 114 billion, and in the worst case scenario (with a GDP contraction of 16.7 percent), this may go as high as Birr 341 billion,” the paper released today stated. His paper stated that, with partial lockdown of the country as part of its mitigation strategy of COVID-19, 2.5 million private sector workers and self-employees will be vulnerable with a total of 2.5 billion birr income loss. He indicated that the damage by COVID-19 is a very large negative shock to the Ethiopian economy, which is expected “to significantly reduce income of household and aggravate the level poverty” (Geda 2020).

COVID-19 and Gross Domestic Product

As stated by Alemayehu, given the relatively limited spread of the virus to date, the early economic impacts are concentrated in a few segments of the economy, namely, the hospitality industry, exporters (flowers/textiles), certain manufacturers, and banks. The more dominant rural, agricultural, and construction sub-sectors of the economy are so far not much affected, which could continue to be the case if containment efforts are successful in maintaining a “limited virus spread scenario.” However, even with just the current subset of affected sectors, the economic impacts will be considerable: By our estimates, growth will be 2.5% age points lower next year (falling to 5%), and the net balance payment impacts are close to $1.5 billion. If a wider and more adverse domestic virus spread scenario is assumed and should the global recovery be prolonged, macro-impacts would be several orders of magnitude larger than is presented here.

The coronavirus’ impact would be at most 1 percentage point of GDP for 2019–2020, as two-thirds of the fiscal year (up to February 2020) is essentially unaffected and only a subset of comparatively small sectors (cumulatively adding up to around 10–12% of GDP) are significantly affected for the remaining one-third of the year. This reduces growth from our previous expectation of 8% for 2019–2020 to just 7%. For the upcoming fiscal year, given full-year effects, we think the impact will be more substantive at 2.5 percentage points of GDP, and we would thus reduce our growth projections from the 7.5 growth forecast at the beginning of 2020 to just 5.0%. Seen from the demand side of GDP, estimates of affected wage-related income/expenditure suggest that impacts from this source alone are likely to be on the order of 0.8 to 1.6% of GDP, based on a calculation that uses median salary levels for affected industries (3000 birr per month) and potential numbers of affected persons ranging from 750,000 to 1.5 million being affected for a full year.

The government has revised its projection of economic growth for the current fiscal year of 2019/2020 to be 6% or a GDP of about 2 trillion birr. The effect of the 11% decline in the growth rate is equivalent to a reduction of such GDP level by 220 billion birr. In the event of the best-case scenario and hence a 5.6% decline in GDP, this will be 112 billion birr for this amount of GDP (Fig. 1). The government’s related latest forecast of economic growth for the coming 2020/2021 fiscal year is 8.5%. It is not

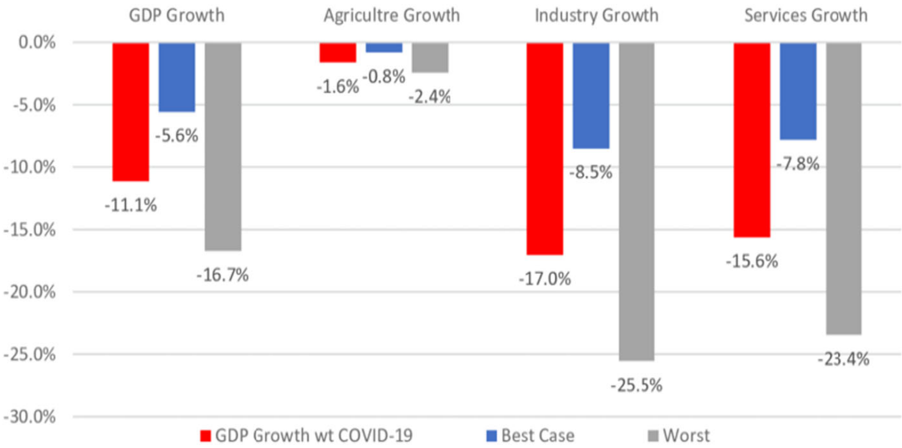

Fig. 1 GDP, agricultural, industrial and service growth and COVID-19. Source: Alemayehu, 2020

clear whether the possible impact of COVID is taken into account in this forecast. If it is not, the government needs a growth rate of 19.7% (i.e., 11.2 + 8.5) to attain this 8.5% level of economic growth with the COVID effect included, and this is completely unrealistic. On the other hand, if the possible effect of COVID is not taken in this forecast, the growth, including the COVID effect, will be − 2.7% (that is, almost a 3% decline) under the average scenario that we have envisaged in this study (in the best-case scenario of a 5.6% economic decline due to COVID, this could be a 3% growth of the economy in 2020/21) (Macro research Ethiopia 2020).

Unemployment and COVID-19

In Ethiopia, there were two arguments on the impact of coronavirus: The first is the optimistic viewpoint that supports import substitution. This positive impact resulted in innovation for domestic industries which are engaged in producing newly emerging products used to protect the pandemic and consumption. The second is pessimistic viewpoint that disagrees with the slogan of "stay at home" and closed economy. In a nutshell argument, in a coronavirus environment, the poor becomes poorest and the rich become richest resulting in unemployment, income inequality, unfair distribution, and aggravate poverty.

The COVID-19 pandemic will have a significant impact on employment. It will diminish new job creation and increase unemployment. Job losses are expected in the construction, manufacturing, and service sectors as global value chains breakdown, businesses close, and small businesses fail under the pressure of extended shutdowns. For an economy like Ethiopia's which already faces significant youth unemployment, job losses due to severe restrictions on movement to limit the spread of the virus, capital budget reallocation and cut, supply shocks, and failed demand will have severe economic and political ramifications. The COVID-19 outbreak can rapidly transform into a social crisis in the country, as there is a significant share of informal self-employment, 40% of employed being self-employed, and the significant share of informality exposes the country to a potentially important social crisis. Urgent actions are required to protect jobs and reduce the shock on a vulnerable population. The Jobs

Creation Commission preliminary estimations suggest, over the next 3 months, 1.41 million jobs are threatened using a medium estimate (Data from JCC. World Bank, Ethiopia 2019).

A significant proportion of the 162,000 small- and medium-sized enterprises (SMEs) in Ethiopia could come under pressure, even with a crisis lasting a single quarter, let alone two or more successive quarters. If China's better capitalized and more profitable SME sector is used as a benchmark—with 14% unable to survive more than a month on a cash flow basis and 50% beyond 3 months—then the implications for SMEs in Ethiopia could be very serious, again depending on the severity of the pandemic. Another survey done in China showed that 30% of the companies have seen their income drop by more than 50%; another 28% reported a 20–50% drop. Since a minimum duration of 6 months is to be expected, anywhere north of 30% of Ethiopia's SMEs could be in jeopardy, mostly in urban areas and those embedded in food production, export, construction, and service industry supply chains.

The COVID-19 pandemic will have a significant impact on employment as well. It will diminish new job creation and increase unemployment. Job losses are expected in the construction, manufacturing, and service sectors as global value chains breakdown, businesses close, and small businesses fail under the pressure of extended shutdowns. For an economy like Ethiopia's which already faces significant youth unemployment, job losses due to severe restrictions on movement to limit the spread of the virus, capital budget reallocation and cut, supply shocks, and failed demand will have severe economic and political ramifications.

Gender-Differentiated Effects

COVID-19 is likely to intensify existing economic inequalities between men and women for a variety of reasons. These could be very serious, given the nature of their participation in the economy: much more likely than men to be unemployed (in urban areas), in non-wage employment concentrated in the informal sector with no or few social protections; the dominance of women as workers in the services sector; the large proportion of the workforce in industrial parks that are female; and women's heavy reliance of activities such as street training in urban areas that are especially vulnerable to negative consumer spending and reduced foot and other traffic in and around market areas.

Inflation

Annual inflation, both food and non-food, is likely to accelerate due to supply side disruptions (including the locust invasion) and pressure on the exchange rate. Ethiopia's experience during the 2007–2008 oil price shock was a record surge in food inflation to 62% in August 2008, the driver then being imported inflation (exogenous). Given the magnitude and combination of factors at play right now, a surge in food inflation well above the current rate of 26.9% – 30%+ – is possibly mirrored by a large increase in non-food inflation as well, again approaching 20%+.

The overall CPI for 2020 could potentially go well above 20%. Barring further shocks, there could be a significant deceleration in 2021, although single digits seem highly ambitious (United Nations Ethiopia 2020).

Inflation, both food and non-food, is likely to accelerate due to supply side disruptions (including the locust invasion) and pressure on the exchange rate (see below). Ethiopia's experience during the 2007–2008 oil price shock was a record surge in food inflation to 62% in August 2008, the driver then being imported inflation (exogenous). Given the magnitude and combination of factors at play right now, a surge in food inflation significantly above the current rate of 25%—that is, to around 30%+—is possibly mirrored by a large increase in non-food inflation as well, again approaching 20%+. The overall CPI for 2020 could potentially go well above 20%. Barring further shocks, there could be a significant slowing in 2021, although single digit would be a convergence of much improved economic conditions, including on the supply and forex side, and continued effective use of monetary and fiscal tools.

Fiscal and Monetary Economy and COVID-19

Fiscal Economy

Ethiopia's tax to GDP ratios remains relatively low, averaging 11.3% of GDP between 2013 and 2017, and lower than the African average of 15.8% over the same period. As stated earlier, more recent data for 2018/2019 indicate that Ethiopia's tax to GDP ratio is 10%. High dependence on revenues from imports and profit-making state-owned enterprises (SoEs) such as Ethiopian Airlines has left Ethiopia vulnerable to the fiscal effects of the pandemic. Ethiopia's fiscal deficit was broadly below the African average over the 5-year period to 2019 and was set conservatively at 3% of GDP for the current 2019/2020 fiscal year. Similarly, public debt was below the African average. Nonetheless, Ethiopia has been listed as being at high risk of debt distress, with overall debt to GDP ratios approaching the 60% threshold and debt servicing capacity, especially from exports of goods and services, remaining constrained (United Nations Ethiopia 2020).

COVID-19 will have a twofold fiscal impact, pulling in opposite directions. First, there will be pressure to spend more to deal with the health and socioeconomic impacts of the pandemic—and this is happening already with an initial 5 billion birr in additional expenditure authorized by the Parliament. Second, revenue collection is likely to be hit hard as a result of a contraction in economic growth as well as a fall in trade taxes due to decreased exports and imports. This will limit fiscal space, but the constraint could be handled by relaxing targets for the current and next fiscal years as well as finding non-inflationary sources of financing such as significantly new external concessional or near-concessional financing as well as debt reduction (not just temporary relief, which would increase repayment obligations in future years).

Direct and Indirect Fiscal Impacts of the COVID-19 Pandemic

Direct Impact: The Health and Fiscal Cost of Dealing with the Pandemic The direct fiscal cost of the pandemic arises from the cost of providing health care to those that suffer from the virus and making testing available to the targeted segment of the population. A tentative analysis that accounts for the younger profile of the country's population is conducted. Moreover, the direct cost includes the intervention to humanitarian needs arising from income loss of individuals due to economic slowdown and social distancing. Another aspect of the direct cost is the expense that will be incurred to subsidize industries that might otherwise go bankrupt.

Indirect Impact: The Lost Government Revenue Due to Decreased Economic Activity The indirect cost of the pandemic on the fiscal situation of the country arises from the decline of government revenue. The following are channels through which the revenue impact will be felt:

International Trade Tax A decline in imports will impact negatively the revenue from foreign trade tax collection. In fiscal year 2018/2019, 74.8 billion birr was collected from foreign trade tax. The significant rebound in international trade, the introduction of the revised excise tax regime, and the improved revenue mobilization effort were producing signs of strong revenue growth from international trade tax during the first half of the 2019/2020 fiscal year. In total, it was planned to collect 98.3 billion birr during the current fiscal year. However, a decline in economic activity and the disruption of the global supply chains for imported items are expected to significantly reduce revenue from foreign trade taxes. Revenue losses due to the impact of the epidemic are estimated to be around 38.3 billion birr under a conservative scenario.

A slowdown in domestic economic activities will impact negatively the revenue from domestic indirect taxes. During fiscal year 2018/2019, 77.8 billion birr was collected from domestic indirect taxes. With the significant resource mobilization effort in the 2019/2020 fiscal year, it was planned to collect 97.8 billion birr tax revenue from this source. A decline in economic activity and reduction in household consumption are expected to highly affect the government revenue mobilization from domestic indirect taxes such as value-added and excise taxes. The government revenue loss from these sources is estimated to reach 4.3 billion birr under a conservative scenario. A significant slowdown in domestic economic activities will also impact negatively the revenue from direct taxes including employment income tax (with the private firms to lay-off employees). In fiscal year 2018/2019, 115.9 billion birr was collected from the direct tax sources. With the significant resource mobilization effort in the 2019/2020 fiscal year, the tax revenue planned to be collected from this source stood at 147.4 billion birr. A decline in economic activity is expected to reduce income tax, business profit tax, and other direct taxes.

The revenue loss from this component is estimated to reach 1.74 billion birr under a conservative scenario. Non-tax revenue collection from government services is impacted. During fiscal year 2018/2019, 42.8 billion birr was collected from non-tax revenue sources. It was planned to mobilize 51.6 billion birr resources from this source in fiscal year 2019/2020. A decline in an economic activity, specifically the pandemic impact on public service provision and the service sector, is expected to reduce the revenue from non-tax sources such as administrative fees and other related non-tax sources due to the social distancing measures. The revenue loss from non-tax sources is estimated to reach 1.5 billion birr.

Monetary (Health of the Financial System, Liquidity, Access to Credit)

With regard to the health of the country’s financial sector, credit growth to the private sector picked up before the COVID-19 outbreak, from 22.5% in 2018 to 34.7% in

2019. Growth in private sector credit was faster than growth in credit to the government, a remarkable shift, indicating a move toward a more private sector-driven economy. The ratio of non-performing loans (NPLs) remained stable, below 3% in 2019. This is likely to change as both the private sector and SoEs struggle to service their debts.

The National Bank of Ethiopia's (NBE's) injection of 15 billion birr into the financial system should help banks to reschedule loan maturities and payments with their customers. Nevertheless, this liquidity is unlikely to make its way into the large number of micro-, small-, and medium-sized enterprises (MSMEs) that operate in the informal sector and account for much of employment and self-employment. COVID-19 will reduce Ethiopia's main sources of foreign exchange earning such as exports of goods (e.g., flower, textiles), services (e.g., tourism receipts), remittances, and foreign direct investment (FDI).The reduction in forex flows will put pressure on the managed float of the birr. If recent history is any guide, then the birr is expected to depreciate by 7.5–16.5% in nominal terms against the US dollar by the end of 2020, but the depreciation could be sharper depending on global and regional conditions and pressure on external accounts. The decline in global commodity prices and overall global demand is expected to ameliorate inflationary pressures that could emerge as a result of the depreciation of the exchange rate, softening but not eliminating the impact on the poor and vulnerable (United Nations Ethiopia 2020). The current managed rate may come under considerable pressure with the chances of widening the gap between the official and parallel markets, a distinct possibility that will require careful monitoring and policy action.

Balance of Payments (Trade in Goods and Services, FDI, Remittances, ODA, Debt)

Trade Balance Given the composition of Ethiopia's exports and their destinations, the impact is already serious and likes to worsen considerably over the next 2 quarters. Ethiopia exports mainly to Asia (41%), Europe (25.4%), and Africa (20%). In terms of countries, the list is as follows: Saudi Arabia (16.5%), China (13.1%), UAE (11.9%), and Japan (11%). Within the exception of China, all of these export destinations are either in the middle of the pandemic or just at the early stages, suggesting that access to these markets will remain severely constrained during Q2–Q3 2020 and possibly Q4 as well (Q = quarter).

A 25–30% drop in exports of goods and services during 2020 is possible: flower exports declined by 80% in Q1 and are now stopped—the plan was to generate USD 450 million from these exports, with USD 225 million realized in the first 6 months of the Ethiopia FY (fiscal year); textile exporters obtained USD 100 million over the same period but faced cancelation of orders from the USA, Europe, and China; tourism contributed about USD 600 million in 2018/2019, and this will take a very hard hit with the severe restriction of air travel and its possible continuation into the holiday season and beyond; and Ethiopia Airlines, which has already lost USD 550 million in Q1 2020, could see a doubling or trebling of this figure, reducing net income with losses becoming a real possibility—depending on the duration of air travel restrictions and speed of pick-up in passenger traffic. It is worth noting that, with regard to Ethiopia's trade in services, the country had a negative net balance with exports amounting to

USD 5 billion and imports at USD 5.6 billion in 2018/2019; transport (mainly Ethiopian Airlines) accounted for 69% of total service exports and 55% of imports.

On the upside, Ethiopia can expect significant relief from the sharp fall in oil prices, which could persist through 2020 if not longer. The price of a barrel of Brent Crude stood at USD 19 in April 2020 compared to USD 32 in March, a drop of 73%. Assuming the average fall in crude oil prices stands at 50% during 2020 and that total demand in Ethiopia remains at the same level (but more likely to drop with (https://countryeconomy.com/raw-materials/brent) economic contraction), then the import bill for oil could potentially drop from USD 2.6 billion in 2019 to USD 1.3 billion, generating a large saving of USD 1.3 billion.

Given the composition of Ethiopia's exports and their destinations, the impact is already serious and likes to worsen considerably over the next two quarters. Ethiopia exports mainly to Asia (41%), Europe (25.4%), and Africa (20%). In terms of countries, the list is as follows: Saudi Arabia (16.5%), China (13.1%), UAE (11.9%), and Japan (11%). With the exception of China, all of these export destinations are either in the middle of the pandemic or just at relatively early stages, suggesting that access to these markets will remain severely constrained during Quarters 2 and 3 of 2020 and, in the worst case, beyond. A 20–25% drop in exports of goods and services during 2020 is, therefore, conceivable and needs to be considered in policy-making. There will be upsides as well, some unwelcome, such as reduced imports as economic activity contracts, but others welcome, such as a lower fuel import bill. The net impact on the already large trade deficit is estimated, however, to be negative, implying the need for increased financing from other sources.

Goods Market The flower industry, which has brought 256 million USD in 2019, is teetering on disaster risking 150,000 jobs along with it. Companies in the sector are exporting only 5% of what they normally do as demand in Europe and the Middle East collapse following the outbreak. Some companies have discontinued exporting altogether. UNCTAD reports that global demand is expected to suffer as 57% of multinational enterprises it tracks warn of severe global demand shocks. This will dump the demand for Ethiopia's export such as textile and leather. Moreover, with the closure of cafes around the world, Ethiopia's export commodities such as coffee are expected to face depressed demand and prices. On the upside, Ethiopia can expect significant relief from the sharp fall in oil prices, which could persist through 2020 if not longer. The forex savings could be considerable here with estimates that the last sharp fall in prices in 2014 led to a reduction in the import bill of hundreds of millions of dollars.

The Service Market The largest decline as a result of COVID-19 is expected in passenger travel per World Trade Organization's Services Trade Barometer. Ethiopian Airlines, the largest carrier in the continent, lost $550 million from January to April because of the coronavirus outbreak. By the end of March, Ethiopian Airlines has suspended flights to ninety destinations across the world, and the airline is working at only 10% of its flight capacity. As a result, a further slump in revenue is forecasted that would last at least through June 2020. Closely associated with the travel industry is the hospitality industry. Already a significant reservation cancelation has been recorded, which makes the sector vulnerable. Tourism contributed USD 868 million in 2018/2019, and this will take a very hard hit with the severe restriction of air travel and its possible continuation into the summer holiday season and beyond. This will undoubtedly have wide, substantial, and negative multiplier effects on a wide range of business and enterprises and their ability to sustain employment.

Remittances Remittance is another important source of foreign currency in Ethiopia, and its importance has increased in recent years. Data from the National Bank of Ethiopia shows that remittances/private individual transfers represented the single biggest source of foreign currency inflow to Ethiopia in 2019—USD 5.7 billion in the fiscal year ending in July 2019. Ethiopia is already experiencing a reduction in remittance beginning February, and it is expected to get worse as the USA, which hosts a large number of Ethiopians diaspora, is going through a difficult time. Since the crisis started, more than 10 million Americans have filed for unemployment benefits. If early indications from other remittance-reliant economies are any guide, a drop of 10–15%—around USD 570–850 million—can be expected due to job losses in the major Western and Gulf State labor markets and repatriation of workers from these regions.

Foreign Direct Investment Ethiopia was the largest recipient of FDI in East Africa and ranked fifth on the continent in 2018. Although estimated FDI inflows in 2018/2019 declined to USD 3 billion from USD 4.2 billion in 2016/2017 (UNCTAD 2019; National Bank of Ethiopia (NBE) 2019), the total stock of FDI reached USD 22.25 billion, just over one-fourth of GDP, mainly concentrated in mining, petroleum refining, real estate, manufacturing, and renewable energy. Most new investments in 2017 went into textiles and garments, real estate, hospitality, and construction (UNCTAD, UNCTAD stat n.d.). Before COVID-19, FDI prospects were positive due to continued improvements in investment facilitation measures and the government's intention to open up key economic sectors to foreign investors (EY 2018). The COVID-19 outbreak is expected to lead to a sharp fall in FDI inflows to Ethiopia as key FDI sectors such as oil refining, textile and garment, and hospitality industries are expected to be hit the hardest due to plunging prices and global demand.

Furthermore, precarious economic conditions in major investor countries or regions such as the China, the USA, and Europe suggest that any recovery will be slow. Cepheus Capital estimates that FDI inflows to Ethiopia will fall to approximately USD 2.4 billion per annum in 2019/2020 and 2020/2021. It needs to be noted that COVID-19 is not the only variable in this connection: the timing and conduct of general elections as well as the pace of the government's privatization program will also play a large role in determining FDI flows in 2020–2021 (CEPHEUS 2020; Federal Democratic Republic of Ethiopia 2020). The National Bank of Ethiopia report shows that FDI is another important source of foreign currency with over USD 3 billion in 2019. Ethiopia is already experiencing a reduction in remittance beginning February, and it is expected to get worse. Capital outflow due to the outbreak is another area that could affect the Ethiopian economy. According to IMF, investors have already removed USD 83 billion from emerging markets since the beginning of the crisis, the largest capital outflow ever recorded. This is particularly concerned to low-income countries in debt distress such as Ethiopia.

Official Development Assistance An increase in ODA can be expected as international financial institutions (IFIs), in particular, begin to provide substantial additional resources as budget support and some multilaterals and bilaterals top-up their assistance and/or speed-up disbursements. The resources currently either disbursed or under discussion amount to around USD 1 billion: AfDB, close to USD 170 million under discussion; Department for International Development (DFID), Euro 140 million in budget support plus USD 11 million for the health response; Germany, USD 130 million; WB, USD 82 million disbursed; and the IMF, USD 411 million. Assuming all of these resources materialize, this would still cover only about 25% of the funding gap of approximately USD 4 billion indicated in the government's impact assessment.

Debt There is a risk that increased external financing, unless provided on concessional or near-concessional terms, could add to Ethiopia's debt burden over the medium term, putting additional strain on low debt servicing capacity and putting off a significant improvement in access to foreign exchange by the private sector. A net reduction in debt, principal, and interest as well as relief on debt service by all official creditors to Ethiopia will be essential to providing the country with the fiscal space and import capacity required to sustain high rates of (inclusive) growth over the medium term, as set out in the Homegrown Economic Reform Programme (HGER).

Conclusions

The COVID-19 pandemic represents an unprecedented global crisis. Analysts make comparisons with the Great Depression of the 1930s. This review article examines the empirical evidence on the major macroeconomic variables like real GDP, unemployment, inflation, and the policy of economy which inculcate both fiscal and monetary economies during this period of pandemic, 2020. The potential conclusions forwarded from the reviews are as follows: The economy of Ethiopia will shrink between 5.6 and 11% as a result of coronavirus (COVID-19) pandemic. The effect of the 11% decline in the growth rate is equivalent to a reduction of such GDP level by 220 billion birr. The COVID-19 pandemic will have a significant impact on employment. It will diminish new job creation and increase unemployment. The Jobs Creation Commission preliminary estimations suggest, over the next 3 months, 1.41 million jobs are threatened using a medium estimate. Given the magnitude and combination of factors at play right now, a surge in food inflation well above the current rate of 26.9% – 30%+ – is possibly mirrored by a large increase in non-food inflation as well, again approaching 20%+. Even if the spread of COVID-19 is suppressed in Africa, its economic damage will be unavoidable. The price of oil, which accounts for 40% of Africa's exports, has halved, and major African exports such as textiles and freshly cut flowers have crashed. Tourism—which accounts for up to 38% of the gross domestic product (GDP) of some African countries—has effectively halted, as has the airline industry that supports it. Collapsed businesses may never recover. Without a rapid response, governments risk losing control and facing unrest. To protect and build towards our shared prosperity, at least $100 billion is needed to immediately resource a health and social safety net response. Another $100 billion is critical for economic emergency stimulus, including a debt standstill, the financing of a special purpose vehicle for commercial debt obligations, and provision of extra liquidity for the private sector.

COVID-19 will have a twofold fiscal impact, pulling in opposite directions. First, there will be pressure to spend more to deal with the health and socioeconomic impacts of the pandemic, and, second, revenue collection is likely to be hit hard as a result of a contraction in economic growth as well as a fall in trade taxes due to decreased exports and imports. The National Bank of Ethiopia's (NBE's) injection of 15 billion birr into the financial system should help banks to reschedule loan maturities and payments with their customers. COVID-19 will reduce Ethiopia's main sources of foreign exchange earning such as exports of goods. A 25–30% drop in exports of goods and services during 2020 is possible: flower exports declined by 80% in Q1 and are now stopped. It is worth noting that, with regard to Ethiopia's trade in services, the country had a negative net balance with exports amounting to USD 5 billion and imports at USD 5.6 billion in 2018/2019; transport (mainly Ethiopian Airlines) accounted for 69% of total service exports and 55% of imports. If early indications from other remittance-reliant economies are any guide, a drop of 10–15%—around USD 570–850 million—can be expected due to job losses in the major Western and Gulf State labor markets and repatriation of workers from these regions. The COVID-19 outbreak is expected to lead to a sharp fall in FDI inflows to Ethiopia as key FDI sectors such as oil refining, textile and garment, and hospitality industries are expected to be hit the hardest due to plunging prices and global demand.

Economic impacts originate in the demand-side and supply-side shocks related to the pandemic and policy responses to it including lockdowns. The most apparent economic impact takes the form of slowdown in economic activity, leading to lower revenues (both private and public) and higher unemployment. Specific examples already happening include the following: reduction in exports (flower exports curtailed because of closures of major markets in Europe); decline in tourism; contractions in services (transport, restaurants, entertainment) due to closures and fall in other economic activities; lower remittance flows due to less income/higher unemployment facing remitters caused by lockdown/downturn in source countries; and some disruptions in wholesale and retail trade. Unanticipated government expenses are likely to lead to expenditure switching and/or increasing. Also, delays in imports (particularly of food and medicines, input supplies for seasonal agricultural production [seeds, fertilizers]) may occur with corresponding negative consequences in agricultural production, food security, and health. Note that the main crop season (Meher) has ended recently. The focus thus needs to be on flow of agricultural products to markets and the delivery of modern inputs to farmers (chemical fertilizers, improved seeds, pesticides, and herbicides) for the next Meher. The exceptions in this regard are Belg production and production of crops with more than one harvest in a year (such as coffee, fruits, and vegetables). Disruptions to modern input supplies and migrant labor now may be important constraints to these. Hence, there is a need to re-bounce back the economy while protecting our people safe from the COVID-19 pandemic.

The Way Forward

To intervene, it is important to develop an all-inclusive proactive response strategy that addresses the adverse impact of the COVID-19 that arises from the widening fiscal gap, the decline in export of goods and services, the inflows of remittance, and the foreign direct investment. Though there are encouraging initiatives adopted by federal, regional, and city governments in Ethiopia, these efforts should be supported to go beyond launch and are implemented in a sustainable manner. Also important is the tracking of the implementation that will create the opportunity to quickly draw lessons and redesign interventions accordingly. Bearing the above in mind, the following mechanisms will be used to mobilize the required resource: external official non-debt financing—near-grant or grant—will become even more important. It will now need to last at current (or higher) levels for a longer period to sustain the HGER, potentially for 5 years (to 2024), swiftly unlocking the funding available from IFIs while managing the debt profile of the country as well as any possibility of grant financing from other non-traditional sources in the region and outside. While new money will be vital, we request development partners to quickly repurpose their resources for 2020–2021—even a 20–30% repurposing of inflows of USD 4 billion estimated in 2020 could make USD 800–1250 million available and accelerated disbursement of existing program resources from development partners, especially front loading of budget support, during quarters 2 and 3 of 2020 and project spend later in 2020 and heading into 2021.

All these measures are appropriate and will bear fruit if effectively implemented or complied with. In this regard, a number of issues should be emphasized. First, it appears that the pandemic has yet to reach its peak. In parallel, the full impact of the disruptions will occur with some delay. The worst of both may happen together in a few weeks. Action now, including as much preparation as possible, is thus indispensable. Second, coordination of effort and information in all aspects of the response to the pandemic and at all levels of government (within and across federal, regional, and local institutions) is critical. Third, clear, comprehensive, accurate, and regular updates of what the government is doing are extremely essential. Moreover, all government organs should convey a consistent message and implement mutually reinforcing actions. Such updates/actions will help the public to make informed choices, calm an anxious population, and make preventive measures more complied with and effective as a consequence. The first appears to occur with growing urgency, the second is improving, and the third requires more attention.

In addition, falling supply of produce to markets (urban and, to a lesser extent, rural) exposes consumers to higher prices. Expected/actual declines in agricultural or food imports may have an analogous effect on corresponding market prices. Anecdotes of rising price of edible oil are a relevant example. Thus, ensuring minimal disruption in flow of goods with appropriate actions in transport/logistics and procurement is a priority: remove unnecessary and/or illegal check points/taxes/other payments through the coordinated effort of federal, regional, and local authorities; institute expedited COVID-19-related checks to further reduce delays on the road; use existing platforms, such as the Ethiopian Grain Trade Enterprise (EGTE) and the Productive Safety Net Programme (PSNP), to procure and distribute grains including to private traders/retailers; keep markets open with clear and enforced sanitization procedures and appropriately scheduled closed days to implement those procedures; minimize the operational burden on retailers in the form of regulations which, though appropriate in normal times, discourage operators under the current difficult circumstances—up-to-date licenses and tax arrears; and steer away from price controls but focus on creating an enabling environment where food and agricultural traders can function as well as possible, given these challenging circumstances.

Limitation of the Review

This work is limited to some most important macroeconomic variables and the two macroeconomics policies which showed a significant shock and changes in a short period of time since the outbreak of the pandemic. In the future, the researchers can investigate in detail by focusing on sector-specific and microeconomic impact of COVID-19.

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