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The Macroeconomic and Social Impact of COVID-19 in Ethiopia in the Global Context

Abstract

This paper focuses on the COVID-19 effects on economic growth, sectoral value-added and the external sector. Three scenarios were conducted with the UN Global Policy Model, in which the effect of COVID-19 is compared to what would have been the economic conditions without COVID-19. The analysis shows that the macroeconomic effect of COVID-19 in Ethiopia is to reduce growth, exports, imports and public revenue. It will also lead to an increase in public expenditure, public deficit, external debt and the debt-service ratio. The combined effect of all these may lead to macroeconomic instability that includes inflation, shortage of foreign exchange and pressure on balance of payment in 2020/21, unless it is wisely managed. It also stresses that the macroeconomic balance of the country was already in a precarious condition before the pandemic's effect. In addition, the paper discusses possible socio-economic effect of COVID-19 by focusing on unemployment and poverty, including its gender dimension. The paper finally draws general policy implications and suggestions for economic recovery.

Key words: COVID-19, Macroeconomics, Ethiopia

Contents

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Introduction

Early projections about the possible socio-economic impact of COVID-19 in Ethiopia were based on the assumption that the spread of the pandemic will be similar to what was happening in Europe and United States at the time. As a result, almost all projections were predicting that the country would see all the gains from its fast economic growth registered for more than a decade and half wiped out in a short period; and its poverty level to drastically increase. These studies, thus, warned the Ethiopian government to do its best to stop the spread of the virus by all means available to it, quickly and decisively.

The potential damage and urgency of the looming pandemic was very frightening at the time, to say the least. Although the government has tried its level best to stop the spread of the virus and minimize the economic impact of the pandemic, the gloomy projections didn't come into effect mainly because, for some unknown reasons, the spread of the virus was extremely small compared to what has happened in developed countries. This is a very fortunate outcome in Africa for otherwise the economic effect of the pandemic would have been devastating, given the nature of the livelihood of people in the continent. Notwithstanding this fortunate outcome, COVID-19 had and still having its toll on Ethiopian economy. Thus, the focus of this analysis is to make an assessment of its macroeconomic and social effect by focusing on its likely effect in 2020/21, which is the Ethiopian fiscal year that runs from July 2020 to June 2021.[1] We will also examine this issue in the context of a policy framework and project of the global recovery as outlined in UNCTAD (*TDR 2020*), Cripps, (2021) and McKinley, (2021).

We have envisaged three scenarios in this analysis. The first and the best-case scenario assumes that the COVID-19 economic shock that began in March 2020 has lasted up to the end of the 1st quarter of the Ethiopia new fiscal year 2020/21 (i.e., July to September 2020) only and that the economy went back to normal after that. The second-case scenario assumes that the economic shock has continued into the 2nd quarter (October to December 2020) but at the rate half the level of effect it had in the first quarter – We termed this the 2nd best-case scenario. The third and worst-case scenario assumes this shock will last up to the end of 2nd quarter in full force (or until the 2nd and 3rd quarter, with half the force it had in the first quarter).

Having these scenarios, the forecast about the likely macroeconomic and social effect of COVID-19 is documented in the rest of the study. This is done based on anticipated demand and supply side shocks that are projected based on the information gathered from global and local forecasts about micro and sectoral level effect (the methodology, the data and data sources are documented in Annex A1 and A2 in the Appendix). These shocks are incorporated in a consistent and inter-linked National Accounting Framework that is organized in an Excel-based macroeconomic database. The framework used is made up of sectoral GDP, balance of payment data as well as data about employment condition in Ethiopia. Sectoral linkages are formulated using previous studies, elasticities from previous partial equilibrium models on public revenue, expenditure and trade. Elasticities derived taken from inflation model are also used to capture the interaction between public finance effect of the pandemic and its implications for monetary and inflation development (the method, data and data sources are documented in Annex A1 and A2).

In all the three scenarios envisaged, the effect of COVID-19 is compared to what would have been the economic condition without COVID-19 by taking the average annual value of major

[1] The Ethiopian fiscal year that runs from July-June is the most relevant economic calendar to use in this study because it generally functions within this budget calendar. All government institutions in Ethiopia also report their plans and performance using this Ethiopian fiscal year. It is also difficult to convert it to European calendar year because the country doesn't have quarterly GDP figures. Thus, we will be using the fiscal year in this study. The COVID-19 related economic shock began in March 2020 which is the last month of the 3rd quarter of the Ethiopian fiscal year 2019/20.

macroeconomic variables in the three years before COVID-19 (2016/17-2018/19) to be the base run (the business-as-usual scenario), or the benchmark of the economic situation of the country without the effect of COVID-19.

The rest of the study is organized as follows. Section one will highlight the current macroeconomic environment of the country in brief. This will give us the general picture of the macroeconomic condition of the country in the context of which the economic and social effects of COVID-19 need to be understood. This will be followed by section two where we have focused on the effect of the pandemic on economic growth, sectoral value-added, the external sector both from Ethiopia and global perspective – the latter being based on UN Global Policy Model based analysis. Section three will deal with the response of both the government and private sector to the pandemic and its implications. Section four is devoted to the discussion of the possible socio-economic effect of COVID-19 by focusing on unemployment and poverty that includes its gender dimension. Section five concludes the study by drawing the general policy implications of the study for recovery.

1. Current Macroeconomic Outlook of Ethiopia

Just before the emergence of COVID-19 as a global pandemic, the Ethiopian government had embarked on far reaching economic reform and liberalization through its reform plan termed “Homegrown Economic Reform” that was running for almost two years at the time. The key feature of this reform is a plan to increase the efficiency of the government as well as to liberalize of the economy that includes privatization of key public enterprises. This reform is supported by major donors that included the World Bank (WB) and International Monetary Fund (IMF) that committed significant resources (estimated at $10 billion which is 3 times the level of current exports of the country) and technical assistance for the purpose (see Geda, 2019). It is amidst this reform effort that the COVID-19 pandemic broke out and began to hit the economy.

Before the onset of COVID-19, the government’s expected growth of the economy in 2019/20 has been 9 per cent. IMF and WB revised their estimate of 6 per cent growth for 2019/20 which was undertaken before the onset of the pandemic to 3.5 and 4 per cent, respectively, in June 2020 taking the pandemic’s effect into account. The government has also revised its 9 per cent growth forecast to about 6 per cent at the same time. This 6 per cent growth is now turned out to be actual performance of the economy in the fiscal year 2019/20, according to the latest government report. This performance, has included one month in quarter three and the full 4th quarter during which time the effect of COVID-19 is taking its course (NBE, 2020). Taking into account the economic effect of COVID-19 in the last month of the 3rd quarter and the 4th quarter of the fiscal year, and using the government forecast of 6 per cent for the first three quarters, the estimate of growth in this study in 2019/20 is about 3 per cent (Geda, 2020). With this general picture of the economy in 2019/20, this study will focus on what really happened since the onset of the virus and what is likely to happen because of that in the fiscal year 2020/21 that began on July 1st, 2020. The study will also look at the governments and economic agents’ general response to the economic effect, in the context of the recovery in the global economy.

Even before it was hit by the economic effect of COVID-19, the Ethiopian macroeconomy was characterized by significant macroeconomic imbalances and precarious fiscal and balance of payment (and hence foreign exchange problem) conditions. This is partly because of structural factors and partly because of macroeconomic miss management and corruption of the regime that ruled the country from 1991 to 2018, before the current prime minster, PM Abyi Ahmed, took office in April 2018 (Geda, 2008; Geda and Yimer, 2016). One of the indicators, general inflation by August 2020, stood at 23 per cent, while food inflation being 26 per cent. By April 2021, the general and food inflation remained at 20 and 23 per cent, respectively. The Birr (the local currency) is devalued by the current government in collaboration with IFIs, significantly, from about Birr 28 per $ in November 2019 to 41 Birr in April 2021 -a depreciation of 46 per cent with no effect on raising exports or reducing imports but contributing to the high inflation. The macroeconomy was also characterized by significant gap between gross domestic saving and investment with implications for monetization of deficit, balance of payment deficit and rising level of indebtedness (Table 1).

Thus, by 2019/20, the public debt as percentage of GDP stood above 55.6 per cent; the export-import gap remained significant because the country was importing about 5 times that of its exports for more than a decade. The level of exports has stagnating below a $3 billion mark for more than a decade. This is happening despite the fact that the government official data shows an average annual GDP growth of 10 per cent since 2003/04 (for 17 years). The government also predicted that about 30 million (half of this because of COVID-19 effect) people could be food insecure and need help in this fiscal year – the conflict across the country is aggravating this situation by the day. Thus, it is in the context of such precarious economic and social conditions that the pandemic is hitting the economy (Table 1). The economic and social impact of COVID-19 is to change this precarious macroeconomic condition for the worse.

Table 1. Major Macroeconomic Development before COVID-19 and in 2019/20 in Ethiopia

Macro Indicator	*2013/14*	*2014/15*	*2015/16*	*2016/17*	*2017/18*	*2018/19*	*2019/20*
Real GDP Growth Rate (percentage) *	10.3	10.4	7.6	10.1	7.7	9.0	6.1
Inflation rate (CPI, percentage Change)	8.1	10.4	7.5	8.8	16.8	15.3	21.5
Food Inflation (CPI, percentage Change)	10.3	12.5	7.2	11.2	14.1	19.8	23.0
End of period Exchange rate Br/$	19.6	20.6	21.8	23.1	27.4	28.9	36.0
Reserve (Month of Imports)	2.3	2.5	2.6	2.4	2.1	2.4	1.7
Gross Domestic Saving (percentage GDP) *	22.5	21.9	22.4	22.5	19.7	20.2	20.9
Gross Domestic Investment (percentage of GDP)	40.3	39.4	38.5	38.4	34.1	37.7	30.8
Overall Budget Deficit including grants/Primary Deficit (percentage GDP)	-2.6	-2.5	-1.9	-3.3	-3.0	-2.5	-2.5
Current Acct Deficit, including official transfer (percentage GDP)	-7.7	-11.4	-10.4	-8.0	-6.3	-5.2	-4.1
Trade Balance (X-M) percentage of GDP	-18.7	-20.8	-19.1	-16.0	-14.7	-13.0	-10.1
External Debt (billions of $)	14.0	19.09	21.74	23.3	25.8	27.0	27.7
External Debt (percentage GDP)	25.6	29.5	30.1	29.4	31.9	29.1	28.8
Domestic Debt (percentage GDP)	28.6	31.8	32.1	34.9	35.6	35.7	26.7
Total Debt percentage GDP)	53.2	61.4	62.2	64.3.	67.5	64.8	55.6

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

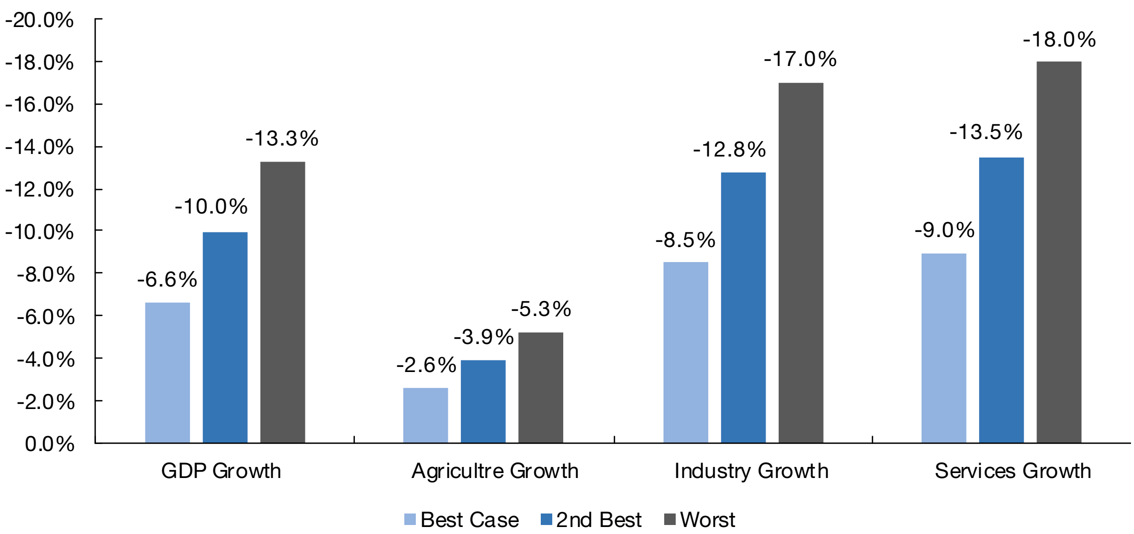
*See Geda and Yimer (2016) for a critical review of this growth & saving figures. The WB estimated this to be 4 per cent while IMF 3.2 per cent in June 2020.

2. Macroeconomic Effect of COVID-19 in Ethiopia and the UN Global Policy Models (GPM) Projection

2.1 GDP Growth Effect

Using the method briefly noted in section one above and elaborated in detail in Annex A1, as well as the global forecast about the external sector that is documented in Annex A2, Figure 1 shows the growth effect of the (pure) COVID-19 macroeconomic effect under three scenarios that we have assumed for this study. In the best-case scenario, in which the COVID-19 effect is limited to the end of the first quarter of 2020/21 (i.e., September 2020), COVID-19 is estimated to reduce GDP by 6.6 per cent in the fiscal year 2020/21, compared to the base-run (and this is also the most likely effect of the pandemic in last quarter of the previous fiscal year, 2019/20).[2] The effect of this shock is found to be the highest in the service sector which is expected to shrink by 9 per cent. This is followed by the industrial sector that will decline by 8.5 per cent. The sever negative economic effect of COVID-19 on the service and industrial sectors means that the urban economy is disproportionately affected more than the rural economy (the agricultural sector). This makes the economic and social impact of COVID-19 severe because the industrial and service sectors contribute about 85 per cent to overall economic growth and about 88 per cent to urban employment. The agricultural sector is expected to be the least affected, declining only by 2.6 per cent, compared to the base-run (Figure 1). In the second-best case scenario, GDP growth in 2020/21, is expected to decline by 10 per cent, compared to the base-run.

Figure 1. Different Scenarios for GDP and Sectoral Growth Effect of COVID-19 in Ethiopia



[2] Given the government's latest actual growth rate of 6 per cent for the fiscal year 2019/20, our estimated growth decline of 6.6 per cent implies the actual growth rate must have decelerated to 2.85 per cent (weighted average growth of all quarters, the last quarter declining by 6.6 per cent). This is identical to WB's estimated figure for the year. However, the government has insisted that the economy has grown by 6 per cent last fiscal year (see Geda and Yemir (2016) and McGregor (2018) about the history of exaggerating GDP growth figures in Ethiopia).

2.2 The UN Global Policy Model and Other Related Projections for Ethiopia

Since the estimates shown in Figure 1 are given as deviations from the base-run, their implications for the actual growth rate need to take into account the expected growth of the economy before COVID-19 and into the future. Latest government report (NBE, 2020) puts the 2019/20 fiscal year actual GDP growth at 6 per cent (Table 1). It also forecasted growth in 2020/21 to be 8.5 per cent.[3] Taking into account this 8.5 per cent expected growth of the government, the effect of the 6.6 per cent decline due to the COVID-19 effect is to render the expected growth in 2020/21 to be about 2.0 per cent.[4]

There are also a number of projections by local and international institutions about the Ethiopian economy. These various forecasts are summarized in Table 2. The projection in this study is similar to the revised forecast by the Ethiopian Economic Association using a Social Accounting Metrics database. It is also identical with IMF's latest forecast for 2021 and one percentage point below the African development bank's forecast for 2021 (see Table 2).[5] In the second-best case scenario growth in 2020/21, including the government's forecast, is expected to be negative 1.5 per cent.

Table 2. Forecast of the Economic Effect of COVID-19 by Different Institutions

	Previous Fiscal Year 2019/2020		*Fiscal Year 2020/21 (Forecast)*	
GDP Growth (Various Estimates)	*Without COVID-19 Effect (Earlier Forecast)*	*With COVID-19 Effect (Latest Estimate)*	*Pure COVID-19 Effect (From the Base-run)*	*COVID-19 Effect Included: [Including Gov't 8.5% growth forecast (Best Case Scenario, with Q1 effect only)*
Government of Ethiopia (Actual)	9.0%	6.0%		8.5%
World Bank, is for 2020/2021 fiscal yr.	6.0%	2,9%		(0.0) %
IMF, is for 2020&2021	6.0%	3.2%		2.0%
AfDB, is for 2020 &2021 [Worst case scenario]	7.1%	3.6% [2.6%]		5.5% [3.1%]
EEA, SAM-based Model, for 2020/21 [Worst case scenario]			-5.9 to-6.7 [-13.1]	2.6 [0.6]
This Study ,2020/2021 [Worst case scenario]**		**2.85%**	**-6.6 [-10.0]**	**2.0% [-1.5]**

* Note: Best case scenario assumes the effect of COVID-19 to be limited to the 1st Quarter of fiscal year 2020/21; while the worst-case scenario, given in [ ], assumes this effect to stay for 1st& 2nd Quarters of 2020/21, its effect in the 2nd quarter being mild, being reduced by 50 per cent.

** UNCTAD studies (*TDR 2020*; McKinley, 2021; Cripps, 2021) are not included in the table because they are not directly comparable. These studies use calendar year which matters in particular for the analysis in 2020, especially as their GDP growth estimates were finalized in mid-2020 when the full impact of Covid-19 in the second part of the year was unknown. Accordingly, GDP growth was estimated at 1.95 per cent for 2020; further, following the economic contraction in 2021 the projected average annual growth during 2021 and 2022 was 2.1 per cent.

3 The Ethiopian Economic Association (EEA et al., 2020) estimated this to be 2.2 per cent reduction in best case scenario and 9.9 per cent reduction in the worst-case scenario in their estimate around April 2020e. Their estimation is on the lower side in their first version because they computed their figures only form the side of the contribution of labour alone (neglecting the contribution of capital, capacity utilization and efficiency, among others). They did not take the sectoral interactions either. In their revised version, they took all aspects that I have identified in Alemayehu (2020) (trade, finance, FDI, remittance etc.) and pursued a SAM-based model and came up with similar figures closer to our forecast here, which is given in Table 2.

4 This procedure assumes that the government forecast of 8.5 per cent doesn't include the effect of COVID-19. This presumption of ours is reasonable because, if it does, it implies a 15.8 per cent growth of the GDP to offset even the minimum COVID-19 effect that we have identified here as the best-case scenario, which is unrealistic.

5 The forecast in this study is also similar to another estimate I did using a parsimonious African focused dynamic stochastic applied short-run macroeconometric model (see Gade, 2021).

UNCTAD studies (*TDR 2020*; McKinley, 2021; Cripps, 2021) use the UN Global Policy Model (GPM henceforth), which produces projections for the world economy (including explicitly a sample of African Countries, with Ethiopia one of them). These projections are conditional on a number of assumptions about policy stances, of which the baseline lays out a policy configuration similar to those of this study, and the best-case scenario implies a more radical transformation of the African economies along a 'global green New Deal' supported by a sustained global recovery (McKinley 2021; Cripps, 2021).

Having this framework, the GPM based projection for Ethiopia shows Ethiopia's very strong growth rate in real income per capita (at $2015 in PPP) of 4.5 per cent per annum (2011-19) before the COVID-19, is projected to decline to (-0.5) per cent in 2020-22. It is, however, projected to 'recover' with a 2.5 growth rate of this per capita income in 2023-30 (McKinley, 2021; Cripps, 2021). The outcomes of GPMs projection for low-income oil-importing African countries, that includes Ethiopia, shows that such countries actually make little use of fossil fuels and are thus already closer to being 'carbon-neutral' than higher income economies. In addition, Ethiopia's growth in 2020-30 will see only a minor gain of 0.3 percentage increase compared to the "business as before scenario (BBS) of the GPM's projection. However, in the third "alternative development scenario (ADS) of GPM, compared to the BBS, Ethiopia will get a 6-percentage points increase in its per capita income growth, and it will also see a 48 per cent increase in its per capita income in 2040. In addition, this scenario shows Ethiopia's intra-regional trade will increase from the BBS scenario of 2.3 per cent to 8.6 per cent. It will also lead to a decline in its debt to GDP ratio from 81 per cent in BBS and "market driven decarbonization scenario (MDDS) to 67 per cent in the ADS (see Cripps, 2021 and McKinley, 2021 for detail). This projection is very similar to the projection of growth in this study for 2020/21. A summary of this result and related other projections is given in Table 2. Notwithstanding the realistic picture it gives about Ethiopian condition, the GPM based scenario analysis, however, needs a special policy context that requires understanding the importance of demand-led growth path for recover. The GPM-based analysis, however, has also noted the limitation of this demand-led path for recovery in developing countries that includes Ethiopia (see UNCTAD, *TDR 2020*). This issue is discussed in section four.

2.3 The Effect on the External Sector and the Implications for Financialization

2.3.1 The External Sector

The external sector (international trade and finance) is also found being vulnerable to the COVID-19 effect in Ethiopia. The sector's vulnerability comes from the effect of COVID-19 on global commodity prices, volume of exports and imports as well as from the disruption of the supply chain that Ethiopia has with its major trading partners that includes China, UAE, Saudi Arabia, Europe and the United States.