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How much will poverty rise in Sub-Saharan Africa in 2020?

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The ongoing coronavirus pandemic is expected to drastically slow 2020 GDP per capita growth in Sub-Saharan Africa (SSA) by about 5 percentage points compared to pre-pandemic forecasts. This note presents results from an analysis of a comprehensive database of surveys from 45 of 48 SSA countries to examine the effects of the project fall in growth on poverty in the region. An additional 26 million people in SSA, and as much as 58 million, may fall into extreme poverty defined by the international poverty line of US$1.90 per day in 2011 PPP. The poverty rate for SSA will likely increase more than two percentage points, setting back poverty reduction in the region by about 5 years.

The coronavirus global pandemic (COVID-19) has caused a sudden and sharp fall in global economic activity. The relatively low number of infections officially reported from SSA may be misleading because testing capacity is limited and the region may still be in the early stages of the pandemic. [2] A rapidly-expanding pandemic in dense urban centers could easily overwhelm weak health delivery systems. This will be compounded by a slowdown in global economic activity and the additional effects of lockdowns imposed by many governments.

Although still unfolding, we can begin to assess the effect of the pandemic on poverty in SSA. This note estimates of the increase in poverty in SSA, given current knowledge. It also presents a profile of those vulnerable to falling into poverty as a result of the pandemic and poverty outcomes under selected economic scenarios. This assessment may need to be revised regularly to reflect the latest developments on the ground as the pandemic develops.

Methodology

This note uses a collection of household surveys (SSAPOV)[3] and GDP projections from the World Bank and the IMF's World Economic Outlook (WEO) to examine the potential impact of the pandemic on poverty in SSA. The methodology we use resembles that in Mahler et al. (2020).[4] The shock to GDP is defined as the difference in the 2020 GDP growth rate between the most recent World Bank projections and the Fall 2020 vintage of the WEO. This captures the projected growth rates before and after the knowledge of the pandemic and corresponding economic contraction.

GDP per capita is expected to contract throughout SSA in 2020 (Figures 1a and 1b). Prior to the pandemic, SSA's GDP per capita was forecasted to grow at 1.7 percent. As a result of the pandemic and other associated shocks, the GDP per capita growth forecast is now expected to be

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[1] This note was written by the SSA Team for Statistical Development in the World Bank's Poverty and Equity Global Practice.

[2] As of April 28, 2020, only 1% of total official the total COVID 3 million cases globally were reported to be in Africa (Source: ft.com).

[3] SSAPOV refers to a collection of harmonized nationally representative household surveys for Sub-Saharan Africa.

[4] Mahler, D.G., C. Lakner, R.A. Castaneda Aguilar, and H. Wu. 2020. "The impact of COVID-19 (Coronavirus) on global poverty: Why Sub-Saharan Africa might be the region hardest hit." World Bank Blog. April 20. https://blogs.worldbank.org/opendata/impact-covid-19-coronavirus-global-poverty-why-sub-saharan-africa-might-be-region-hardest

more than 5-7 percentage points lower, contracting 3.1 percent in the baseline scenario and 5.5 percent in the low scenario. The GDP per capita growth projection in the baseline scenario is lower by more than 10 percentage points in 7 countries in the region: Zimbabwe, Botswana, Sao Tome and Principe, Mauritius, and Seychelles (Figure 1b).

Figure 1a: Projected SSA negative GDP per capita growth, 2020
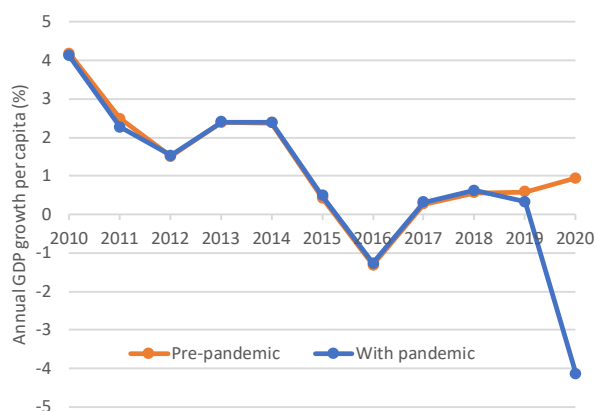
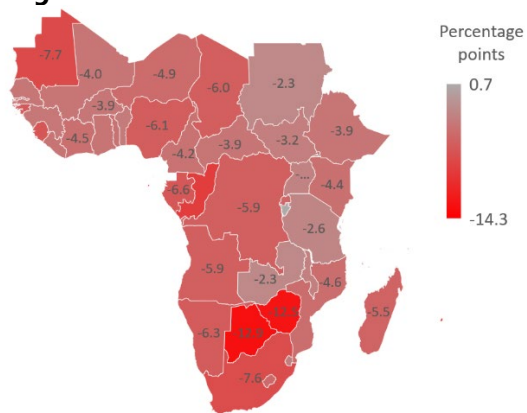
Source: WEO and World Bank *forecasts*

This sharp slowdown in growth will increase poverty. To assess poverty effects, we "line up" welfare, as proxied by per capita consumption, of the survey year welfare to 2020 under each projection. Survey data are available for 45 out of 48 SSA countries.[5] The lining up procedure is the same one used by the World Bank. [6] It is "distributionally neutral" because household welfare is adjusted in the same way for every household, by multiplying welfare by the growth rate in GDP per capita since the survey. In other words, we compute 2020 poverty rates for each country by scaling up welfare in the observed survey for each household according to growth in per capita GDP in each period. This was done both for the Fall 2019 vintage of the WEO and the most recent World Bank projections. The difference in lined-up poverty rates between the two vintages

represents a rough estimate of the effect of the crisis on poverty.

This methodology makes strong assumptions, yet provides a useful rough estimate of poverty effects. The first strong assumption is that GDP growth is fully reflected in consumption; in other words, we ignore saving and borrowing. [7] The second assumption is that the distributional effects will be neutral. In reality, certain countries and sectors are more vulnerable to economic downturns and public health crises. For example, informal sector workers are likely to be laid off and have less access to government programs. At the same time, effects might be stronger in urban than rural areas if social distancing is more economically disruptive in cities. Further, developing areas like SSA enter economic downturns with fewer resources to weather the socioeconomic challenges accompanying a sudden contraction. This methodology also cannot distinguish between different causes of the 2020 downturn: while the main factor is likely to be the pandemic, an independent drop in oil prices also contributed to slowing growth.

Figure 1b: Projected reduction in SSA GDP per capita growth in 2020

*Sources: SSAPOV data, WEO and W*orld Bank *forecasts*

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[5] The database includes the most recent household survey used for measuring poverty in each country (dating from 2008 to 2018) and consists of responses from 2.4 million observations. Countries excluded from the database are Eritrea, Equatorial Guinea, and Somalia which do not have recent official surveys for measuring poverty.

[6] The poverty rates for 2018 match the official World Bank poverty rates published in the PovcalNet website.
[7] Here we deviate slightly from Mahler et al. (2020) who, based on historical data, assume that 85% of growth is passed through to consumption.

Implications for poverty in SSA in 2020

The 2020 downturn will likely increase the SSA poverty rate by at least 2 percentage points (Figure 2)**.** This would mean that an additional 26 million people in SSA would fall into extreme poverty (defined as those living under US$1.90 per day in 2011 PPP). This projected increase in the poverty rate would return SSA to 2015 poverty levels, effectively wiping out 5 years of progress reducing impoverishment. Figure 3 presents the increase in poverty rates for all countries in the region. Half of the new poor will live in five countries: Democratic Republic of Congo, Ethiopia, Kenya, Nigeria, and South Africa – with Nigeria contributing the most with 6.9 million new poor. Sao Tome and Principe, Zimbabwe, Niger, Republic of Congo, Sierra Leone, and Botswana are expected to see the largest poverty rate increase.

Figure 2: Poverty rate for SSA forecast
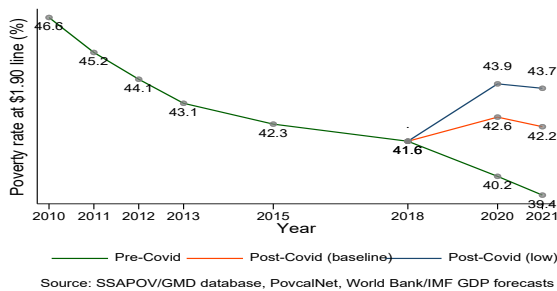
*Sources: SSAPOV data, WEO and W*orld Bank *forecasts*

Figure 3: Forecast of SSA countries' increase in poverty rates, 2020 (percentage points)
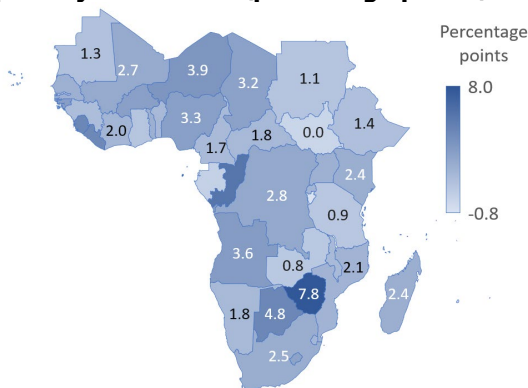
*Sources: SSAPOV data, WEO and W*orld Bank *forecasts*

If welfare changes are distributionally neutral, people self-employed outside of agriculture and living in urban areas would be disproportionately affected (Table 1). Even if the fall in welfare were uniform across the population, the impact on poverty would be different for different socio-demographic groups, because of existing disparities in living standards. The following table presents a profile of the existing poor who would have been poor under the baseline forecast. The new poor are the people who may fall into poverty as a result of the pandemic under the World Bank's most recent growth forecasts. The non-poor represents the group whose welfare will be greater than US$1.90 per day even under the latest World Bank forecasts.

Table 1: Profile of new poor in SSA, 2020 (poverty rate%)

How to read: e.g, 30.1% of new poor live in urban areas.

Socio-demographic group	New poor	Existing poor	Non-poor
Lives in urban area	30.1	19.6	45.5
Self-employed outside agriculture	29.8	21.0	29.4
Works in service/ sales	11.5	6.7	17.0
Is self-employed in agriculture	53.7	62.7	42.6
Some primary ed	63.3	57.7	70.8
Child (younger than 18)	51.5	55.8	43.6
Female	50.8	50.8	50.7
Lives in female-headed household	19.5	17.1	22.0

The people who will fall into poverty as a result of the pandemic are very different than those who are already poor. They are more likely to be living in urban areas, have at least some primary education, be self-employed outside of agriculture, work in service or sales occupations, and live in a female-headed household. More than half the new poor are still expected to be children under 18 years.

Scenario Analysis

The projected decline in GDP per capita growth could result in up to 58 million additional poor in SSA in 2020. Since the global pandemic is still unfolding and its full extent is yet unknown, we present several scenarios of reduction in household welfare and increase in regional poverty. Compared to the baseline based on 2019 IMF forecasts, a 5, 7, and 10 percent uniform drop in welfare would result in additional 28, 40, and 58 million poor, respectively. A larger shock in urban welfare compared to rural welfare would also increase in the number of poor. For example, if the shock in urban areas was 10 percent and rural areas was 5 percent, 6 million more people would fall into poverty than in the scenario with a uniform 5 percent shock (36 vs. 28 million).[8]

Table 2: Growth scenarios for 2020 and SSA poverty effects

Scenario	Poverty rate for SSA (pct)	# poor (mil)	Add. poor (mil)
Baseline (Oct-2019 WEO forecasts)	40.2	448	
5pct welfare drop	42.7	476	28
7pct welfare drop	43.7	488	40
10pct welfare drop	45.4	506	58
Urban 10pct, rural 5pct welfare drop	43.0	479	31
Urban15 pct, rural 7pct welfare drop	44.2	493	45

Note: The poverty line used to compute the poverty rate is $1.90 per day in 2011 PPP.

The pandemic has particularly hurt sectors such as services and manufacturing where workers are in close proximity with other people. The incomes of self-employed workers outside of agriculture is also likely to fall because of the general slowdown in economic activity and mobility restrictions. The SSAPOV data can shed light on the effects of these sectoral shocks on poverty for 30 out of the 45 SSA countries, representing 77 percent of the 2020 population.

If incomes in the service sector were to drop by 50 percent for 3 months in this sector, an additional 18.4 million individuals would fall into poverty in the 30 countries (Table 3).
We examine two sectoral scenarios: (a) a 50 percent drop in income for 3 months and (b) a 50 percent drop in income for 6 months. We adjust this shock to each household by the fraction of prime working-age members (15-55 years) who work in a given sector.[9] Nearly 1 of 4 prime-age employed adults works in the services sector. The last two rows present scenario results where workers in more than 1 sector lose income.

Table 3: Labor market scenarios of the impact of COVID-19 on poverty in SSA in 2020

Sector	Share prime-age workers (%)	50% drop in incomes for 3 months		50% drop in incomes for 6 months	
		Additional poor (mil)	Change in Gini	Additional poor (mil)	Change in Gini
Services	23.4	18.4	-0.4	24.1	-0.8
Industry	6.3	7.9	0.1	9.2	0.1
Self-employed	15.9	14.8	0.1	18.9	0.2
Services & industry	29.8	20.2	-0.4	27.6	-0.9
Services, industry, & self-employed	30.6	20.4	-0.4	27.9	-0.8

Note: The baseline scenario WEO October-2019 forecasts.
Source: Authors' analysis using SSAPOV database, World Bank, and IMF growth projections.

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[8] Other scenarios not examined here include a weaker shock to GDP in SSA, a smaller "pass-through" from GDP growth to household welfare, and differential impact on socio-demographic groups.

[9] It would be more accurate to examine working hours and wages of all workers in the household. However, data on these variables are available for many fewer countries than data on sector of employment.

Table 4: 2020 forecast GDP per capita growth and poverty rates pre-COVID and with COVID

Country	Survey year	Population in 2020 (millions)	Pre-COVID		Post-COVID	
			GDP per capita growth, pct (WEO Oct 2019)	Poverty rate, pct[1]	GDP per capita growth, pct (WEO Apr 2020)	Poverty rate, percent[1]
Angola	2018	32.9	-1.8	49.9	-4.2	51.6
Benin	2015	12.1	3.8	41.1	1.7	42.2
Botswana	2015	2.4	2.4	13.4	-7.1	17.0
Burkina Faso	2014	20.9	3.0	29.8	-0.9	33.1
Burundi	2013	11.9	-2.4	80.2	-8.3	81.7
Cabo Verde	2015	0.6	3.7	1.7	-5.2	2.5
Cameroon	2014	26.5	1.6	20.1	-3.6	22.2
Central African Rep.	2008	4.8	2.9	69.7	-0.7	71.5
Chad	2011	16.4	2.9	40.0	-3.1	43.1
Comoros	2013	0.9	1.5	17.0	-3.7	18.1
Congo, Dem. Rep.	2012	89.6	0.9	69.8	-5.1	72.6
Congo, Rep.	2011	5.5	0.3	39.1	-4.7	43.2
Côte d'Ivoire	2015	26.4	4.6	17.6	0.1	19.6
Eswatini	2016	1.2	-0.6	27.4	-2.0	28.3
Ethiopia	2015	115.0	5.5	17.4	1.6	18.7
Gabon	2017	2.2	2.1	3.3	-2.5	3.5
Gambia, The	2015	2.4	3.3	7.0	-0.5	8.2
Ghana	2016	31.1	3.5	10.5	-0.5	11.5
Guinea	2012	13.1	3.4	19.2	0.4	20.3
Guinea-Bissau	2010	2.0	2.6	59.1	-3.6	62.5
Kenya	2015	53.8	3.2	29.3	-1.7	32.0
Lesotho	2017	2.1	-0.8	26.5	-5.8	29.6
Liberia	2016	5.1	-1.0	43.9	-4.9	48.2
Madagascar	2012	27.7	2.5	74.0	-2.1	75.9
Malawi	2016	19.1	2.2	67.2	-1.8	69.5
Mali	2009	20.3	1.9	40.0	-1.4	42.2
Mauritania	2014	4.7	3.6	5.2	-4.1	6.5
Mauritius	2017	1.3	3.8	0.1	-6.8	0.2
Mozambique	2014	31.3	3.3	59.9	-0.5	61.6
Namibia	2015	2.5	-0.3	15.4	-4.3	16.7
Niger	2014	24.2	2.1	38.2	-2.8	42.2
Nigeria	2018	206.1	-0.1	51.0	-5.8	54.2
Rwanda	2016	13.0	5.6	44.7	1.1	46.2
Senegal	2011	16.7	3.8	24.5	0.1	26.6
Seychelles	2013	0.1	2.5	0.7	-11.6	0.9
Sierra Leone	2018	8.0	2.4	36.6	-4.3	41.4
South Africa	2014	59.3	-0.4	19.9	-7.2	22.2

[1]The poverty line used for computing the poverty rate is $1.90 per capita per day in 2011 PPP.

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