

2022

IARIW-TNBS Conference on “Measuring Income, Wealth and Well-being in Africa”

Paper Prepared for the IARIW-TNBS Conference, Arusha, Tanzania, April 14-15, 2022

To the rescue? The mitigating role of tax and benefit rescue packages for poverty and inequality in Africa amid the COVID-19 pandemic

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The COVID-19 global pandemic is having a devastating impact not only on people's lives but also on global as well as national economies. Developing countries are particularly exposed to the pandemic due to their weaker healthcare and welfare systems, risks of famine, volatile commodity prices, and low standards of living. It has been estimated that lockdown measures affected 81 percent of the world's workforce at the height of the crisis, that poverty could increase by half a billion people, and that Africa will be hit by at least \$100 billion in economic costs this year.

Governments around the world have taken various measures to dampen the effect of lockdown measures and associated economic hardships on households for an overview of social protection policies adopted in Africa). In the developing world, measures to mitigate the effects on poverty and inequality have included various forms of income support (from food baskets to topping up existing means tested benefits or introducing new temporary benefits) along with tax deferrals and waivers. At the same time, developing countries are confronting the crisis with a highly constrained fiscal space. The situation could grow considerably worse depending on how successful governments are in managing the pandemic; public actions to address not only the immediate health crisis but also the economic repercussions of the resulting lockdown measures are critical in reducing the hardship experienced by individuals and families.

A better understanding of the effects of COVID-related policies on households is therefore both timely and necessary to help developing country governments navigate through the crisis. To that end, it is critical to distinguish between the impact of the COVID-driven lockdown measures and economic downturn from the impact of tax and benefit policies on poverty and inequality. It is also paramount to consider how the effects vary across different groups in the population.

This paper analyses the distributional effects of the COVID-19 pandemic in African countries, namely Ghana, Mozambique, Tanzania, Uganda, and Zambia. After first estimating the aggregate economic impact of the lockdown measures across industries, we analyse how the emergency income support measures and tax waivers introduced by governments affected poverty and inequality. Using a cross-country comparison, our analysis unpacks the differential effects on the population as a whole and on specific demographics such as women, children and the elderly.

Specifically, we use the SOUTHMOD tax-benefit microsimulation models to assess the role of tax-benefit measures implemented by governments in response to the crisis. The SOUTHMOD models, which have been developed as part of a collaboration between UNU-WIDER, the University of Essex, SASPRI and national teams in each country over the last five years, provide a harmonised platform to investigate different tax-benefit policy systems in place under two scenarios: we compare the policy landscape in a world that faced COVID-19 in 2020 to a counterfactual without the pandemic and related countermeasures. To further distinguish the economic impacts of the policies from those of the crisis and associated lockdown measures, we follow the decomposition approaches pioneered by Bargain and Callan (2010), extended by Tasseva and Paulus (2020) and most recently adapted to the case of Ecuador by Jara et al. (2021).

In terms of the methods, the analysis proceeds as follows. We will first update the underpinning data sets that the models use to the pre-COVID situation by reweighting the data sets so that they match the most recent population estimates (by age and sex groups).

In the next step, we adjust these data sets to take into account the estimated economic impacts of the disease and the lockdown measures implemented to combat it. This modelling relies on combining World Bank's country-level data on the expenditure components of GDP (e.g. household consumption and investment) with national input-output (IO) tables. For each country, we derive an estimate of how each GDP component changes as a result of COVID, allocate these demand shocks to different industries based on their respective sources of demand, and then use IO tables to estimate how the demand shocks propagate through the economy. The last step allows us to estimate an annual output shock from COVID-related lockdown measures in each sector. Finally, before we can analyse the parallel effects of tax-benefit policies using the SOUTHMOD microsimulation models, we distribute the industry-level shocks to the micro-level using country-level empirical data where available.

The final step, which is only possible with access to microsimulation models, examines the distributional impacts of this macro shock by decomposing them into three components: First, how much incomes and poverty would have changed in the absence of any government

intervention; second, to what extent ‘normal’ tax and benefit policies help mitigate the shock through automatic stabilisers (the reduction in tax and the increase in benefits when individuals lose income); and (iii) what is the extent of the incremental relief offered by the new COVID-related new tax and benefit measures.

In the current version of the paper, we discuss our main data sources, methods, and preliminary estimates of the effects of COVID-driven lockdown measures and related policies on poverty and inequality in the countries of interest.

While the research is in progress, our current results lend support to modest growth in consumption-based inequality and relatively large increases in consumption-based poverty across the five countries studied, while also pointing to notable heterogeneity in impacts across countries. Mozambique, in particular, was severely affected by the pandemic, with substantial increases in poverty and inequality and large reductions of incomes in the informal sector. Across all countries, automatic stabilisers only had a limited role in mitigating losses of disposable income. Our forthcoming work will unpack the contribution of emergency income support measures and tax waivers in alleviating these effects.