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Macroeconomic impact of COVID-19 on Africa: Evidence from an Africa-wide aggregate macroeconometric model

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First printing May 2021

Designed and printed in Addis Ababa, Ethiopia by the ECA Printing and Publishing Unit. ISO 14001:2015 certified.
Printed on chlorine free paper.

Cover photos: https://www.shutterstock.com

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Abstract

Using an Africa-wide macroeconometric model, this paper assesses the impact of the coronavirus disease (COVID-19) pandemic on economic growth and fiscal and trade performance in Africa. The findings reveal that gross domestic product (GDP) growth in 2020 will be between 4.8 and 8.4 percentage points lower than the baseline scenario without COVID-19. This translates into an estimated real GDP loss of between $200 billion and $220 billion in 2020. The pandemic has also widened fiscal deficits and raised public debt, while trade deficits have improved slightly. Although GDP growth is forecast to recover by an average of 2 per cent in 2021 and 1.4 per cent in 2022, in real terms, it will still be below pre-COVID-19 levels, despite a strong recovery. The results imply that the pandemic has posed a critical threat to African economies, leading to a further contraction of GDP, exacerbating the consequences of an already limited fiscal space. African countries should therefore act boldly and pursue a coordinated and concerted macroeconomic policy mix to mitigate the impact of the pandemic and stimulate economic activity. Furthermore, governments should embark on policies that could tackle structural issues by addressing constraints to economic growth and improving productive capacities and the business environment in order to attract investment and enhance domestic resource mobilization.

Keywords: pandemic, macroeconomic modelling, COVID-19, Africa
JEL classification no.: E17, I12

1. Introduction

Since early January 2020, the coronavirus disease (COVID-19) has spread rapidly from its epicentre in China to all regions of the world, leading to a global health and economic crisis. By the end of October 2020, COVID-19 cases had exceeded 36 million worldwide and 1.5 million in Africa. Less than a year ago, the scant literature that existed on the economics of pandemics discussed the Spanish flu outbreak between 1918 and 1920, the outbreak of severe acute respiratory syndrome (SARS) in Asia and the Ebola outbreak in Africa. The discussions often focused on mortality, with few details on the economic consequences of a pandemic. A few studies examined the macroeconomic impact of pandemics (Lee and McKibbin, 2003 and Edwards, 2005). However, despite their important policymaking implications, they did not explicitly focus on Africa. More recently, the Economic Commission for Africa (2015) assessed the macroeconomic impact of Ebola in the affected West African countries.

Studies have rarely looked at the economic effects of the COVID-19 pandemic, which have often been underestimated or downplayed, focusing instead on mortality. COVID-19 has shown the extent to which economic activities can be disrupted. It has also shown how important it is to understand the economic effects of pandemics and to determine what economic policies can be adopted to mitigate the health and economic consequences. This paper tends to fill this gap by investigating the macroeconomic effects of the COVID-19 pandemic in Africa using an Africa-wide aggregate macroeconometric model.

Our analysis shows that GDP growth in 2020 will be between 4.8 percentage points (optimistic scenario) and 8.4 percentage points (pessimistic scenario) lower than the baseline scenario without COVID-19, amounting to a loss in real GDP of between $200 billion and $220 billion in 2020. The fiscal deficit will have widened and public debt increased, but trade deficits will have improved slightly. GDP growth is expected to recover in subsequent periods, averaging 2.0 per cent in 2021 and 1.4 per cent in 2022, still below pre-COVID-19 levels.

The paper is structured as follows. Following the present introduction, section 2 provides a conceptual framework that discusses the channels of transmission and pathways through which the pandemic could impact economic activities in the short run. Section 3 briefly discusses the Economic Commission for Africa's macroeconomic model as the methodology used to investigate the impact of the pandemic on African economies. It highlights the main aspects of the macroeconomic model, while describing the key behavioural equations and economic policy instruments captured in the model framework. The section also outlines the assumptions used for constructing various scenarios in assessing the impact of the pandemic. Section 4 presents the macroeconomic effects of the pandemic on African economies, while the final section discusses policies that could ameliorate the adverse effects of the pandemic and accelerate the recovery process.