Dynamics and impact of Covid-19 on the Bolivian economy

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Abstract

This document analyzes the transition dynamics of the Covid-19 pandemic and its possible effects on the Bolivian economy. A two-step modeling is used: first, the dynamics of the pandemic is modeled in such a way that the dynamics of the pandemic be efficient, expanding the classic SIR model to simulate the trajectory of the pandemic; numerical methods and another novel methodology to recover the parameters of these models are used. Second, in order to study the possible effects of the pandemic on the Bolivian economy, the modeling of the previous step is linked with a general equilibrium model. It is found that the effects of the pandemic generate a large and persistent recession in the Bolivian economy, as well as the containment policies to control the pandemic help save lives but can further exacerbate the downturn in the economy.