

# The model-based assessment of macroeconomic impact of the COVID-19 on emerging economies.

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## Abstract

Extending the theoretical framework proposed by Eichenbaum, Rebelo, and Trabandt (2020), we simulate an open-economy SIR-model with heterogeneity in age, labor productivity, and the susceptibility of the COVID-19. The decrease of capital flows from advanced economy would impair the efficiency of capital investment, which would reduce the long-run growth of emerging economies. The magnitude of the impact varies along with scenario assumptions such as the severity of infection, lockdown policy, and access to vaccine.

**JEL classification:** E2,E6, H3,J1.

**Keywords:** life cycle model, heterogeneous-agent OLG economy, SIR macro model

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