Group Assignment: Policy Analysis with a GVAR Model

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Group Assignment

- Suppose the world consists of 10 countries, namely Australia, Brazil, Canada, Germany, India, Japan, China, South Africa, South Korea, and the United States.

- We are interested in understanding how an unexpected surge in global oil prices and a decline in China's GDP affect the world.

- Download data on nominal GDP, consumer price index, nominal U.S. dollar exchange rate, and a global index of oil prices from 1980Q1 to 2020Q4.

- Build and estimate a GVAR model based on the downloaded data. For the calculation of foreign variables, consider fixed trade weights averaged over the period 2017 to 2019.

Group Assignment

Using your estimated model, please answer the following questions:

- What are the impacts of a 1 standard-error positive shock to global oil prices on real GDP, real exchange rate, and inflation in all countries?

- Does a negative shock to China's GDP spill over to the other countries via trade links?

- What are the main drivers of inflation in South Africa over the sample period? Are they mostly domestic or foreign factors?