README

Estimation Strategy

The data used in calibration includes the outputs of three sectors and their proportions of in GDP over 1998-2019. We use the same statistics produced by model to match the real data, and then gauge the estimates of all the exogenous parameters. The following explains the input, output of functions.

Description of functions and sub-functions

1 、return_variables

Given the exogenous parameters, the allocation of production material and the technology productivity level, calculate the output in three sector, and the corresponding wage and capital rental rate

2、three_sector_model

Given parameter, endowment and technology, find the equilibrium allocation that satisfies the market equilibrium condition and get the output.

3、solve_model

Given parameter and initial technology, find the average percentages of output of three sectors in a given period. Then we can use these percentages to match the real data.

4、main

This is the main estimation function. estimate the exogenous parameters and stimulate the growth path of model.

5、 Shock 1, Shock 2, Shock 3

These three files introduce three shocks, which last for one year, two years, and three years separately, and simulate the growth path.

6、Compare_Shock

This file compares the effects of three kinds of shocks above, and plots the result in the same figures.