

Fiscal Macroeconomics

Class Exercise 1

- Consider a two-period economy in which the government that keeps a balanced budget with a level of public investment equal to g . At time $t = 0$ the government makes an additional investment in infrastructure ε , financed with one-period bonds paying an interest of R , and taxes households at $t = 1$ to fully repay debt.
- Prices are fully rigid, so output at $t = 0$ is fully demand-determined.
- Consumer demand, income and disposable income in period 0 are given as follows:

$$\begin{aligned}c &= \beta_0 + 0.9 \cdot y_{\text{disp}} \\y_{\text{disp}} &= (1 - 0.3)y \\y &= c + (g + \varepsilon)\end{aligned}$$

where y_{disp} is disposable income. Total demand consists solely of private consumption and the government investment, there is no private investment, and no government consumption. The government collects proportional taxes at the flat rate of 30 per cent.

Questions

1. Evaluate the "normal" level of public investment g before the "shock" ε
2. Evaluate the impact on output of the government investment in infrastructure (the fiscal multiplier)
3. What is the extra tax revenue needed by the government in period 1 to be solvent?