

Seminar 6. Exercises with multipliers

Exercise 1

Consider a closed economy, for which we know the following: government spending $G = 500$ bil.lei, autonomous taxes $T_0 = 400$ bil.lei, investments $I = 200$ bil.lei, autonomous consumption $C_0 = 100$ bil.lei, transfers $TR = 0$ and the marginal propensity to consume $= 0.9$

- Determine the levels of GDP, private consumption, taxes, and budgetary deficit if the government only intends to collect lump-sum taxes (tax rate t is 0).
- Determine the level of GDP and the budgetary deficit if the tax rate t is $1/3$.

Exercise 2

Consider a closed economy where the marginal propensity to consume is 0.9 and the tax rate is $1/3$ (33,3%). Determine the change in government spending (ΔG) that would help reduce the budgetary deficit by 100 mil.lei.

Exercise 3

Consider a closed economy where $c = 0.8$; $t = 0.15$; $Y = 3400$ mil. €, private consumption (C) = 2000 mil. €, $G = 500$ mil. €, $TR = 0$ and $T_0 = 0$. In an attempt to raise more money to finance a strategic infrastructure project, the government plans to collect lump-sum taxes that amount to 50 mil. €. Determine the effects of an increase in the autonomous taxes by 50 mil. € ($\Delta T_0 = 50$ mil. €) on GDP, budget deficit (BD) and private consumption (C).

Exercise 4

Assuming that the level of government spending increases by 1 million € ($\Delta G = 1$ mil. €), while transfers decrease by exactly 1 mil. € ($\Delta TR = -1$ mil. €) determine what will happen with:

- The level of GDP ($\Delta Y = ?$)
- The level of budget deficit ($\Delta BD = ?$)