Exercises 2 and 3 – April, 20th 2026

Political Economy: Exercises n.2

The production side of an open economy is described by the following equations:

$$C = 350 + 0{,}8\ Y_d$$
$$T = 250 + 0{,}25\ Y$$
$$I = 550 - 500\ R$$
$$X_N = 250 - 0{,}1\ Y - 500\ R,$$

while the money demand is

$$L = (0{,}5\ Y - 1000\ R)\ P,$$

where *C* is consumption, *T* the fiscal revenues, Y_d the disposable income, *I* the private investments, X_N the net exports, *R* the interest rate, *L* the demand for money and *P* the general level of prices. If *G* is the public spending, *Y* the income and *M* the money supply, calculate:

a) the IS and LM functions;

b) the reduced form of income and rate of interest;

c) the equilibrium level of production and rate of interest if public spending is set at 450, the money supply at 850 and the general level of prices is 1. Check that both production and financial markets are in equilibrium.

d) Suppose now that an exogenous shock on general level of prices occurs rising *P* to 1,1. Calculate the effect of the shock on the equilibrium level of income, rate of interest and private investments.

Political Economy: Exercises n.3

An open economy is described by the following aggregate demand components:

$$C = 200 + 0{,}9\ Yd$$
$$T = 100 + 0{,}3\ Y$$
$$I = 500 - 1000\ R$$
$$X_N = 190 - 0{,}13\ Y - 1000\ R$$

while the demand for liquidity is expressed by the following equation:

$$L = (0{,}5\ Y - 2000\ R)\ P,$$

where C is consumption, T the fiscal revenues, Yd the disposable income, I the private investments, XN the net exports, R the interest rate, L the demand for money and P the general level of prices. Indicating by G the public spending, by Y the income and by M the money supply calculate:

a. the IS and LM functions;

b. the reduced form of income and rate of interest;

c. the equilibrium level of production and rate of interest if public spending is set at 500, the money supply at 1000 and the general level of prices is 1, and check if total savings equal private investments.

d. The proper policy mix if the authorities aim at reaching a new equilibrium level of production at 2400 with an interest rate at 5% (0,05).