Macro_1010_quiz_6

Question 1

Suppose that the money demand function is

$$(M/P)^d = 700 - 35r^2$$

where r is the interest rate in percent. The money supply M is 2,000 and the price level P is fixed at 5.

a. Graph the supply and demand for real money balances.

b. What is the equilibrium interest rate?

c. What happens to the equilibrium interest rate if the supply of money is reduced from 2,000 to 1,500?

d. If the central bank wants the interest rate to be 4 percent, what money supply should it set.

Question 2

a. Using the IS-LM model, illustrate what occurs when government increases taxes by ΔT. On the graph denote the exact distance of the shift. What has happened to equilibrium output and the equilibrium interest rate?

b. Suppose the Fed has a stable interest rate policy. i.e. they want to maintain a constant interest rate. Illustrate on your graph what occurs if the Fed pursues this policy. Does the Fed expand or contract the money supply?

Question 3

Consider the following IS-LM model:

$$\begin{aligned} C &= 200 + 0.75(Y - T) \\ I &= 150 - 1000r \\ G &= 250 \\ T &= 200 \\ (M/P)^d &= 2Y - 8000r \\ M/P &= 1600 \end{aligned}$$

a. Derive the IS and LM curves.

b. Solve for the equilibrium levels of output Y and interest rate r.

c. What are the values for consumption C and investment I?