1 IS-LM Microfoundations

Explain why each of the following statements is either true or false. If true, discuss the short-run impact of monetary versus fiscal policy in these special cases.

a. If investment does not depend on the interest rate, the IS curve is vertical.
b. If money demand does not depend on the interest rate, the LM curve is vertical.
c. If money demand does not depend on income, the LM curve is horizontal.
d. If money demand is extremely sensitive to the interest rate, the LM curve is horizontal.

2 IS-LM / AS-AD Equilibrium

An economy’s full-employment level of nominal output, \( \bar{Y} \), is 1,000. Government spending, \( G \), is 200 and the nominal money supply, \( M_s \), is 5,000. Expected inflation, \( \pi^e \), is 2%. Desired consumption, desired investment, real money demand, and government taxes are are given as follows:

\[
C^d = 200 + \frac{2}{3}(Y - T) - 500r \\
I^d = \frac{500}{3} - 500r \\
L = 0.5Y - 250(r + \pi^e) \\
T = 0.25Y - 50
\]

a. Derive the IS curve and the LM curve.
b. What are the general equilibrium values of the real interest rate, price level, consumption, and investment?
c. If the government raises spending to 250, what will be the new equilibrium values of the real interest rate, price level, consumption, and investment? What happens to the government’s fiscal balance?
d. Calculate the “Keynesian” government spending multiplier for this economy and compare it with the long-run government spending multiplier implied by this AS-AD model.

3 Neutrality of Money

a. What does it mean for money to be neutral?
b. What are the policy implications of the neutrality of money?
c. What empirical evidence do we have for or against the neutrality of money?

4 U.S. Monetary and Fiscal Policy in the 1980s

In the early 1980s, the U.S. federal government cut taxes and increased budget deficits while the Federal Reserve pursued a tight monetary policy.

What is the short-run impact of this policy mix suggested by the IS-LM / AS-AD framework? Explain and depict your answer graphically. What about the long-run impact?