Макроэкономика 1 — МИЭФ, 2021 final

МИЭФ | Макроэкономика 1 | 2021 | final

SECTION 1

A. Multiple-choice questions

1

In the Solow model without technological progress, the economy is in its steady state. Other things equal, a higher population-growth rate leads to:

- (a) higher capital per worker;
- (b) no change in saving per worker;
- (c) higher consumption per capita;
- (d) a higher real interest rate.

2

Consider the $IS - MP$ model for a closed economy with fully flexible prices and wages. Initially, the output gap is zero and the central bank strictly targets inflation. An increase in transfer payments should be accompanied by:

- (a) tight monetary policy and no real effects;
- (b) neutral monetary policy and lower investment demand;
- (c) neutral monetary policy and no real effects;
- (d) tight monetary policy and lower investment demand.

3

In an open economy where only consumption and imports depend on income and taxes are proportional, the marginal propensity to import equals the marginal propensity to consume. The autonomous-expenditure multiplier:

- (a) is necessarily less than 1;
- (b) is necessarily equal to 1;
- (c) is necessarily greater than 1;

- (d) can take any value except 1.

4

In an open economy with perfect capital mobility, a fixed exchange rate and fixed domestic prices, what is the short-run effect of an increase in foreign prices?

- (a) Output and the interest rate remain unchanged
- (b) Output and the supply of liquid assets increase
- (c) Output increases and the supply of liquid assets falls
- (d) Output and the supply of liquid assets fall

5

In the $IS - LM - BP$ model with imperfect capital mobility, a flexible exchange rate, and fixed prices and wages, what is the short-run effect of a higher foreign interest rate?

- (a) Output and the domestic interest rate remain unchanged
- (b) Output and the domestic interest rate increase
- (c) The domestic interest rate increases, with an ambiguous effect on output
- (d) Output falls and the domestic interest rate increases

SECTION 2

C. Problem

Consider a closed demand-deficient economy described by the $IS - MP$ model. Consumption depends on disposable income, investment depends on the real interest rate, and government spending is exogenous. The central bank stabilises real output Y by choosing the nominal interest rate i according to

$$i = i^* + \mu(Y - Y^*),$$

where $\mu > 0$ and Y^* is the target level of real output.

(a) (10 marks) What is the IS schedule in the $IS - MP$ diagram? Explain intuitively why it slopes downward.

(b) (10 marks) Derive the IS schedule analytically, assuming constant inflation expectations π^e.

(c) (10 marks) What is the MP schedule in the $IS - MP$ diagram? Explain intuitively why it slopes upward and interpret the policy parameter μ.

(d) (10 marks) Illustrate any difference between bond-financed and tax-financed fiscal expansion using the $IS - MP$ diagram. Explain intuitively.

(e) (10 marks) Define the crowding-out effect and derive it analytically for bond-financed fiscal expansion. Explain intuitively why the effect on private investment may depend on how fiscal expansion is financed.

(f) (10 marks) Now suppose the economy is in a liquidity trap. Can fiscal expansion help the economy escape the trap? What are the limitations of fiscal policy, and why do policymakers use quantitative easing instead? Illustrate in the $IS - MP$ diagram.