

Exercise session #9 - IS-LM model II

Problem 1 - Holman, 256/1

In the closed economy with no external trade the autonomous consumption is 200 bil.USD, the marginal propensity to consume is 90%, planned investment is 400 bil.USD, government expenditures are 300 bil.USD, transfers are 100 bil.USD and taxes are 250 bil.USD. What is the equilibrium level of output which puts the market for goods and services into balance?

Problem 2 - Holman, 256/2

Let us assume a closed economy with no proportional income tax. The marginal propensity to consume is 90%. How big will be the increase in the national product if the government

- increases expenditures on the construction of highways by 20 bil.USD?
- increases retirement benefits by 20 bil.USD?
- decreased the property tax by 20 bil.USD?

Problem 3 - Holman, 256/3

Let us assume a closed economy with no external trade. Government increases expenditures on the highways construction by 20 bil.USD. The government expenditures multiplier is 4.

- Use Keynesian cross to depict its effect on the domestic product. Compare the increase of government expenditures with the increase of domestic product.
- Using IS-LM model depict the final effect of government expenditures on equilibrium level of domestic product. Depict multiplication effect and crowding-out effect.

Problem 4 - Holman, 256/4

The equilibrium on the goods and services market is attained at the domestic product 1000 bil.USD and interest rate of 3%. Graphically show how will the domestic product and interest rate change if

- central bank decreases money supply.
- nominal money supply stays the same, but the price level decreases.

Problem 5 - Holman, 256/5

Government in the attempt to stimulate aggregate demand increases government expenditures by 30 bil.USD. Government expenditures multiplier is 4. Government also convinces central bank to hinder the increase in the interest rate and thus eliminate the crowding-out effect. Graphically denote what will be the effect of this policy on the domestic product.

Lecture 9: IS-LM model

- What are IS shocks + give an example from the real world?
- What are LM shocks + give an example from the real world?
- Explain why AD curve slopes downward (hint: derive AD curve from IS-LM model).
- What is the impact of decrease in money supply on the interest rate, income, consumption and investment? (2 points)
- What is the impact of increase in taxes on the interest rate, income, consumption and investment? (2 points)
- How does the efficiency of fiscal policy depend on the shape of LM curve (and why)?
- How does the efficiency of monetary policy depend on the shape of IS curve (and why)?
- Explain why each of the following statements is true (draw the picture of Keynesian cross/money market and explain). Discuss the impact of monetary and fiscal policy in each of these special cases.
 - If investment does not depend on the interest rate, IS curve is vertical.
 - If money demand does not depend on the interest rate, LM curve is vertical.
 - If money demand does not depend on income, LM curve is horizontal.
 - If money demand is extremely sensitive to the interest rate, LM curve is horizontal.
- Describe the short run and long run effect of a positive IS shock in IS-LM and AD-AS framework.
- Describe the short run and long run effect of a negative LM shock in IS-LM and AD-AS framework.
- Explain the spending hypothesis of determinants of the Great Depression.
- Explain the money hypothesis of determinants of the Great Depression.