

Exercise session #5 - Aggregate Demand - IS-LM model

Problem 1 - Simple IS-LM

According to the IS–LM model, what happens to the interest rate, income, consumption, and investment under the following circumstances?

- The central bank increases the money supply.
- The government increases government purchases.
- The government increases taxes.
- The government increases government purchases and taxes by equal amounts

Problem 2 - IS - LM and monetary intervention of CNB

Use the IS–LM model to predict the effects of each of the following shocks on income, the interest rate, consumption, and investment. In each case, explain what the Fed should do to keep income at its initial level.

- After the invention of a new high-speed computer chip, many firms decide to upgrade their computer systems.
- A wave of credit-card fraud increases the frequency with which people make transactions in cash.
- A best-seller titled *Retire Rich* convinces the public to increase the percentage of their income devoted to saving.

Problem 3 - Computational exercise - for home

Problem 4 - IS-LM - boundary cases

Explain why each of the following statements is true. Discuss the impact of monetary and fiscal policy in each of these special cases.

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

Problem 5 - IS-LM - mix strategies

Suppose that the government wants to raise investment but keep output constant. In the IS–LM model, what mix of monetary and fiscal policy will achieve this goal? In the early 1980s, the U.S. government cut taxes and ran a budget deficit while the Fed pursued a tight monetary policy. What effect should this policy mix have?

Problem 6 - IS-LM - long run

Use the IS–LM diagram to describe the short-run and long-run effects of the following changes on national income, the interest rate, the price level, consumption, investment, and real money balances.

- An increase in the money supply.
- An increase in government purchases.
- An increase in taxes.