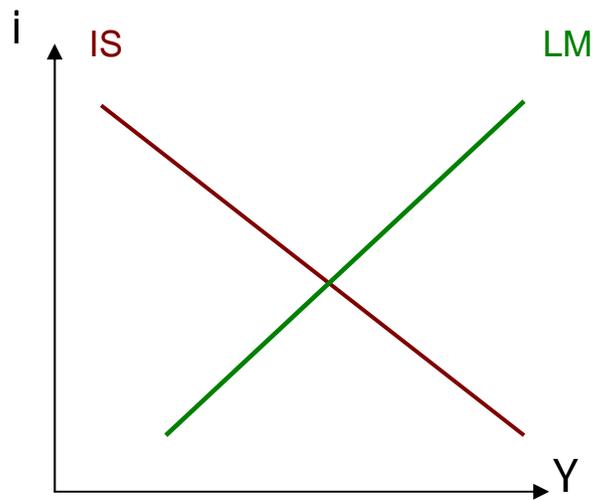


Applied Macro and International Economics

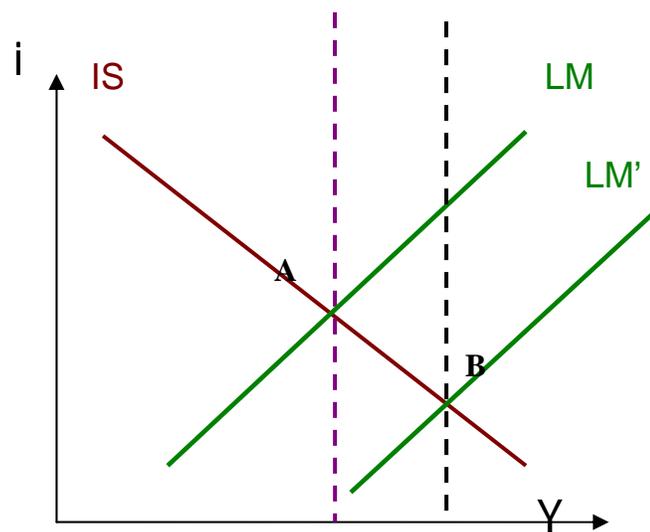
Assignment #1

Due Date: Session 6

This set of exercises allows you to apply the lessons of the IS-LM model to some real-world cases. Please feel free to use IS-LM diagrams (as the one on this page) wherever possible.



We use this graph to show (for example) how expansionary monetary policy affects an economy. In the case of expansionary monetary policy, the LM curve shifts out. The extra liquidity in the economy allows interest rates to fall, and investment and output to rise (see below).



The questions below will give you practice working through the IS-LM model.

Question 1: The Early 1980's

The early 1980s were an exciting time for the macroeconomy. President Reagan was attempting a tax cut revolution while the Federal Reserve, under Chairman Paul Volcker, was attempting to control inflation.

- a. President Reagan's tax policies were a crucial part of his economic plan. The most important policy tool was a massive tax cut (30 percent in three years). Use an IS-LM diagram to show how tax cuts would affect the economy. Assume that monetary policy does not change in this question.
- b. Now say that President Reagan's fiscal policies were expansionary while Volcker's monetary policy was contractionary. How would these two contemporaneous policies be represented in a single IS-LM diagram? Write a few sentences to explain your diagram. Can you say anything definitive about how output and interest rates would change?

Question 2: Japan in the 1990s

The 1990s were characterized as the "lost decade" for Japan. Growth in per-capita GDP was very low as the economy stagnated. As usual, economists debated at length whether Japan should try to use monetary or fiscal policy to solve its problems. The IS-LM model played a key role in these debates. Remember that the Japanese economy is in a pretty deep recession. This question is about trying to understand which policy the government should use to try to pull Japan out of a recession. Should it be expansionary or contractionary? More crucially, should the government use monetary policy or fiscal policy?

- a. To start thinking about which policy the government should follow, let's first think about the situation in Japan and what the LM curve looks like for Japan. Interest rates were extremely low in Japan at this time. When interest rates get close to zero, the demand for money is extremely high (say close to infinity). In this case, what does the LM curve look like? (Note that nominal interest rates cannot be lower than zero, so the LM curve cannot cross the horizontal axis of the IS-LM diagram). Draw a picture of what the LM curve may look like for Japan.
- b. Now, let's think about the IS-LM equilibrium in Japan. Which part of this LM curve do you think the Japanese economy is in equilibrium at? Indicate this on your graph and draw in the IS curve now to give you an equilibrium at that point.
- c. To decide whether it should use monetary or fiscal policy, let's think about what happens to the LM curve when there is an injection of liquidity into the system, i.e. the government uses expansionary monetary policy. How does the LM curve shift and how does this affect output and interest rates? Therefore, how effective a tool is monetary policy for pulling the economy out of the recession in Japan?
- d. Given where Japan is, is fiscal policy more or less effective than the usual case (i.e. the standard case we have talked through in class)? Can you show this with an IS-LM diagram? Compare the Japan case to the usual case using an IS-LM diagram for each.
- e. How do these findings inform the choice of policy for Japan in the 1990s?

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15.012 Applied Macro- and International Economics
Spring 2011

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