

Review Problems: Short-run Model

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Jones, Macroeconomics, problems 11.1-11.4, 11.6, 11.8, 11.12, 11.14.

1 Basics

1. Does the Fed control the money supply?
2. What is the tool used by the Fed to control the money supply? How does it work?
3. Why do attempts at raising output above \bar{Y} lead to rising inflation?
4. Why does the change of inflation show up on the left-hand side of the Phillips curve?
5. What is meant by rational expectations?
6. Where is the supply curve in our model?

1.1 Answers: Basics

1. The Fed controls M0, but not the more relevant monetary aggregates, which are largely private credit.
2. The fed funds rate (see slides).
3. See slides.
4. Because we assumed that $\pi_t^e = \pi_{t-1}$ – adaptive expectations.
5. See slides.
6. It's missing.

2 Shocks in the short-run model

Analyze the effects of

1. changes in monetary policy (fed funds rate),
2. changes in government spending,
3. changes in potential output growth, $g(\bar{Y})$,
4. changes in inflation expectations [a bit tricky]

2.1 Answers: Shocks in the short-run model

1. Monetary policy: see slides.
2. Government spending: see slides. Though one could argue that the effects on demand could be small (crowding out).
3. Potential output: Nothing happens in the IS-MP diagram or the Phillips curve diagram. The economy cruises happily along its growth path, along the altered trend line. The only reason why this did not happen in 1973 is monetary policy (see slides). Of course, this is not strictly true. Real world frictions that are missing in our simple model create complications. For example, slower productivity growth requires slower wage growth. It may take time until labor contracts adjust to that.
4. Changes in inflation expectations: A bit of handwaving is required for this. The fed sets a given funds rate. If inflation expectations rise, long bond yields increase, which reduces aggregate demand. Effectively, this is a negative demand shock.

3 Monetary policy

1. In what sense is it irrelevant whether the Fed targets money supply or the interest rate?
2. In what sense is it not irrelevant?

3.1 Answer: Monetary policy

1. They are related by the money demand curve. Changing one changes the other.
2. Money demand shifts in ways not observed by the Fed. So there are practical differences.