
Policy Effects and Cost Shocks in the AS/AD Model

CHAPTER OUTLINE

Fiscal Policy Effects

Use the *AS/AD* model to analyze the short-run and long-run effects of fiscal policy.

Monetary Policy Effects

Use the *AS/AD* model to analyze the short-run and long-run effects of monetary policy.

Shocks to the System

Explain how economic shocks affect the *AS/AD* model.

Monetary Policy since 1970

Discuss monetary policy since 1970.

DETAILED CHAPTER OUTLINE

I. Introduction

- A. Debates in Congress about the government budget are often based on ideology.
- B. Nevertheless, Congressional decisions have real impacts on the economy.

II. Fiscal Policy Effects

- A. In Chapter 26 we learned about the effects of government spending (G) and net taxes (T) on the economy.
 - 1. The tax multiplier is smaller than the government spending multiplier.
 - 2. An increase in G or a decrease in T both shift the AD curve to the right.
 - 3. Any expansionary fiscal policy will increase both output and the price level. The issue is how much each will increase. That depends critically on where the economy is on the AS curve.
 - 4. Expansionary fiscal policy works well on the flatter portion of the AS curve, but not so well on the steep part.
- B. Fiscal Policy Effects in the Long Run
 - 1. Most economists believe the long run AS curve is vertical. That implies fiscal policy has no long run effect on the economy.
 - 2. However, there is a great deal of disagreement about the exact number of years it takes for an economy to get to long-run equilibrium on its own.
 - 3. Some economists believe the economy can remain at an equilibrium below full employment for many, many years.

III. Monetary Policy Effects

- A. Introduction
 - 1. The Fed controls monetary policy following the Fed rule.
 - 2. The interest rate the Fed chooses (r) depends on output (Y), the price level (P), and other factors (Z).
- B. The Fed's Response to the Z Factors
 - 1. An increase in Z (such as a favorable cost shock) will cause the Fed to tighten monetary policy to keep the economy from overheating.
 - 2. Expansionary and contractionary monetary policies in response to changes in Z have the same issues as changes in G or T .
- C. Shape of the AD Curve When the Fed Cares More about the Price Level than Output
 - 1. Recall the Fed rule:
$$r = \alpha Y + \beta P + \gamma Z$$
 - 2. If α is large compared to β the AD curve will be fairly flat (Figure 27.3).
 - 3. A central bank that uses inflation targeting is (in effect) assigning a value of zero to α .
- D. What Happens When There is a Zero Interest Rate Bound?

1. The *zero interest rate bound* means the interest rate cannot go below zero.
2. Between 2008 and the end of 2015 the Fed maintained an interest rate of zero. But the real economy remained below full employment with sluggish growth. That suggested markets may have been calling for a negative interest rate.
3. A *binding situation* describes the state of the economy in which the Fed rule calls for a negative interest rate.
4. In a binding situation the *AD* curve becomes vertical. Monetary policy (in its simplest form) can no longer affect real output.
5. However, changes in government spending and/or net taxes will shift the *AD* curve. So will changes in autonomous planned investment.
6. It is very unlikely that a vertical *AD* curve could exist simultaneously with a vertical *AS* curve.

IV. Shocks to the System

A. Cost Shocks

1. Suppose an adverse cost shock hits the economy. This shifts the *AS* curve to the left. The economy is in a state of *stagflation*, with both high unemployment and high inflation.
2. The Fed rule determines whether the Fed will fight the output decrease (α is large relative to β) or the inflation (β is large relative to α).
3. If the economy is in a binding situation an adverse cost shock will affect only the price level.
4. *Cost-push inflation (supply-side inflation)* is inflation caused by an increase in costs. This leads to stagflation with output falling and prices rising.

B. Demand-Side Shocks

1. *Demand-pull inflation* is inflation that is initiated by an increase in aggregate demand.
2. Unlike cost-push inflation, demand-pull inflation causes higher inflation and greater output.
3. Demand shocks can be caused by factors other than fiscal or monetary policy. Changes in expectations are a good example.

C. Expectations

1. Expectations have important impacts on the economy. But they are difficult to quantify and even harder to forecast.
2. If inflation has been 10 percent per year for several years, people and businesses probably expect 10 percent inflation next year. *Adaptive expectations* can increase the time it takes for contractionary policies to reduce the inflation rate.
3. Central banks regularly conduct surveys to determine inflation expectations.

V. Monetary Policy since 1970

A. Introduction

1. Since 1970 there have been five recessions and two periods of high inflation.

2. The periods of recession and inflation overlap during the late 1970s and early 1980s. This is the period of stagflation in the United States.
 - a. During periods of high inflation the Fed generally raised interest rates.
 - b. The interest rate rose to about 15 percent in mid-1980. This high interest rate was engineered by the Fed (specifically Paul Volcker) to get rid of the persistent inflation of the 1970s. When the unemployment rate approached 10 percent, the Fed realized their policy had been too contractionary and they opened the monetary floodgates. The result was a decline in interest rates despite the Reagan tax cuts. There was no crowding out.
3. The Fed generally had high interest rates in the 1970s and early 1980s as it fought inflation. Since 1983, inflation has been low by historical standards, and the Fed focused in this period on trying to smooth fluctuations in output.
4. Between 2008 and 2015 the Fed reduced U.S. interest rates to near zero. That meant their best tool to fight the recession was exhausted.
5. But the Fed had also been buying large quantities of mortgage-backed securities, hoping the banks would lend these newly created reserves. Unfortunately, banks decided to hold vast quantities of excess reserves instead.

B. Inflation Targeting

1. *Inflation targeting* occurs when a monetary authority chooses its interest rate values with the aim of keeping the inflation rate within some specified band over some specified horizon.
2. Inflation targeting is a special case of monetary policy in which all the weight is on the inflation rate and no weight is assigned to output. In other words, α is zero in the Fed rule.
3. Inflation targeting became an issue in 2006. Then newly appointed Fed chairman Ben Bernanke had published a number of papers advocating inflation targeting. As the text correctly notes, Dr. Bernanke became much more pragmatic after he became Fed chair.
4. For the last decade or so, the Fed has set an inflation target of about 2 percent per year. The main reason is that nominal wages are sticky downward. A bit of inflation reduces the real wage, hopefully bringing the labor market back into equilibrium a bit faster.