

Long-Run Aggregate Supply

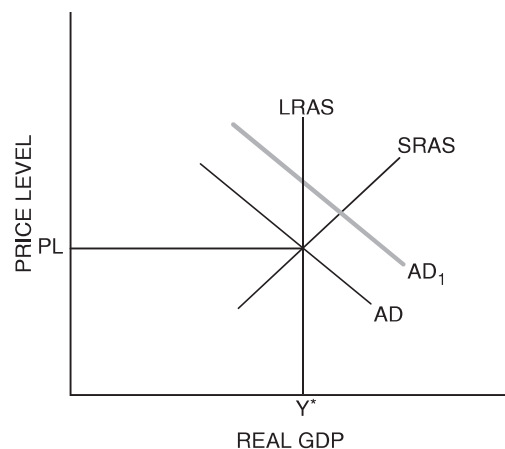
In this activity we move from the short run to the long run. In the short run, at least one factor of production is fixed. In the long run, all factors of production are variable. The short-run aggregate supply (SRAS) curve is upward sloping because of slow wage and price adjustments in the economy. But in the long run, wages and prices have time to adjust. That is, wages and prices are fully flexible. This means that any time the price level changes (i.e., there is inflation or deflation), wages and other input costs fully adjust so there is no overall effect. For example, if prices were doubled and wages and other input costs doubled, there would be no effect. Or if prices were cut in half, but so were wages and other input costs, there would be no effect. In the long run, wages and other input costs adjust so the economy always returns to the full-employment level of output. This means that the long-run aggregate supply (LRAS) curve is vertical at the full-employment output level (which is also called potential output).

Using Figure 3-8.1, answer the following questions about how the economy will react over time if the aggregate demand (AD) shifts from AD to AD₁.



Figure 3-8.1

Increase in Aggregate Demand Starting at Full Employment



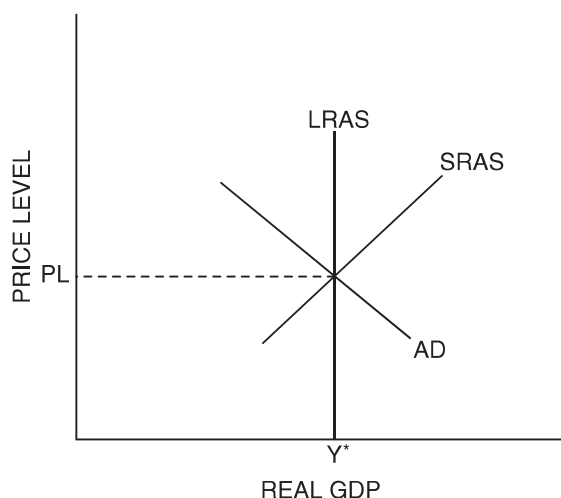
1. What will happen to output, nominal wages and real wages, and the price level in the short run? Explain.
2. What will happen to output and the price level when the economy moves to long-run equilibrium? Explain.

3. On Figure 3-8.1, draw the long-run equilibrium situation (including PL, Y, and AD).
4. Using Figure 3-8.2, answer the following questions about how the economy will react over time if the aggregate supply (AS) shifts from $SRAS$ to $SRAS_1$. Assume that no monetary or fiscal policy is undertaken.



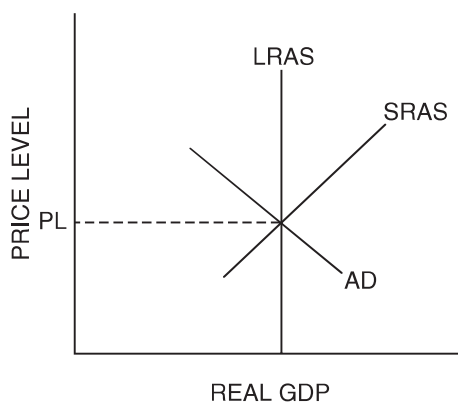
Figure 3-8.2

Change in Short-Run Aggregate Supply



5. After $SRAS$ decreases, what happens to the short-run output, nominal wages, real wages, and the price level?
6. What will happen to output and the price level when the economy moves to long-run equilibrium? Explain.
7. On Figure 3-8.2, draw the long-run equilibrium situation (including PL, Y, and AS).

Read the description of each change in AS or AD. Draw your own graph showing the starting point as long-run equilibrium, illustrated in the graph below. Draw a new SRAS or AD curve that represents the change caused by the event described. Explain the reasons for the short-run change in the graph, and then explain what happens in the long run. Identify the final AD curve as AD_f and the final SRAS curve as $SRAS_f$.



8. The government increases defense spending by 10 percent a year over a five-year period.



9. OPEC cuts oil production by 30 percent, and the world price of oil rises by 40 percent.



10. The government increases spending on education, health care, housing, and basic services for low-income people. No increase in taxes accompanies these programs.



11. Can the government maintain output above the natural level of output with AD policy? If the government attempts to, what will be the result?

