

The Long-Run Phillips Curve and the Role of Expectations

Expectation and the Short-Run Phillips Curve

The short-run Phillips curve (SRPC) is drawn for a given expected rate of inflation and a specific natural rate of unemployment. Changes in inflationary expectations will shift the SRPC. People base their inflationary expectations on information and personal experience, which can result in gaps between the expected rate of inflation and the actual rate of inflation.

1. Suppose the economy is experiencing 2 percent inflation. News of rising energy costs increases people's expectations of inflation. Graph the change in the SRPC.



2. If the government increases spending, how does it affect inflationary expectations? Explain.
3. If people are confident that a new Federal Reserve policy will achieve and maintain price stability, how does it affect inflationary expectations? Explain.
4. What will happen to the actual rate of inflation if people expect a higher inflation rate in the future? What will happen to the actual rate of inflation if people expect a lower inflation rate in the future? Explain.

The Long-Run Phillips Curve

The long-run Phillips curve (LRPC) represents the relationship between unemployment and inflation after the economy has adjusted to inflationary expectations. The LRPC corresponds to the long-run aggregate supply (LRAS) and occurs at the nonaccelerating inflation rate of unemployment (NAIRU). The NAIRU is the unemployment rate at which the unemployment rate does not change over time. The NAIRU corresponds to the full employment level of output and the natural rate of unemployment. Trying to keep the unemployment rate below the NAIRU leads to accelerating inflation rates and cannot be maintained in the long run. Unemployment rates above NAIRU will lead to accelerating deflation that cannot be maintained.

The LRPC is vertical because any unemployment rate above or below the NAIRU cannot be maintained. This means that there is no long-run trade-off between inflation and unemployment—that is, no policy can maintain unemployment rates below the NAIRU in the long run.

5. Draw a graph of the LRPC. Be sure to correctly label the axes and label the point at which the LRPC intersects the horizontal axis.

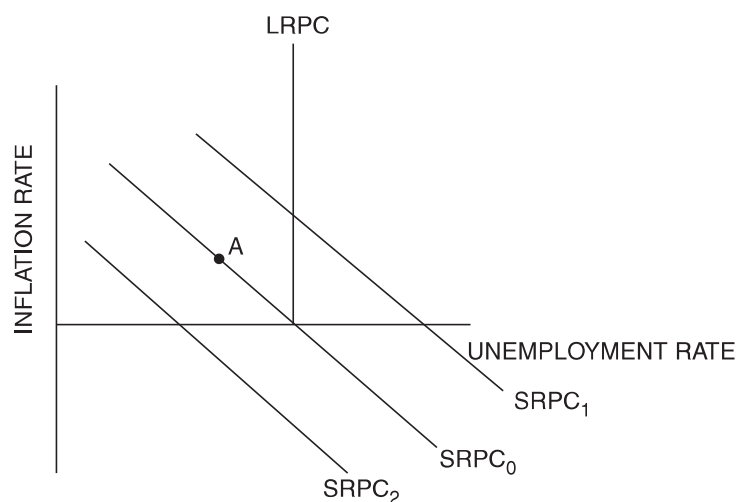


6. What does the slope of the LRPC indicate about the trade-off between the inflation rate and the unemployment rate?
7. Use the graph in problem 5 to show the effect on the LRPC if the natural rate of unemployment decreases. What happens to the LRAS when the natural rate of unemployment decreases?



Figure 5-9.1

Long-Run Adjustment



8. What change in inflationary expectations is shown by the shift in the short-run Phillips curve (SRPC) from $SRPC_0$ to $SRPC_1$ in Figure 5-9.1?

9. The LRPC is vertical at the unemployment rate that corresponds to an inflation rate equal to zero. What is the name for this rate of unemployment?

10. At point A on the graph, the actual rate of inflation is (*greater than / less than*) the expected rate of inflation, which will cause the SRPC to shift to the (*right / left*). Label point B on the graph where the economy will be in long-run equilibrium after the change in inflationary expectations. Label point C on the graph where the economy will be if policy makers attempt to keep the unemployment rate where it was at point A after the change in inflationary expectations.