ECON2113 Macroeconomics

Chapter 5 Exercises

Solutions

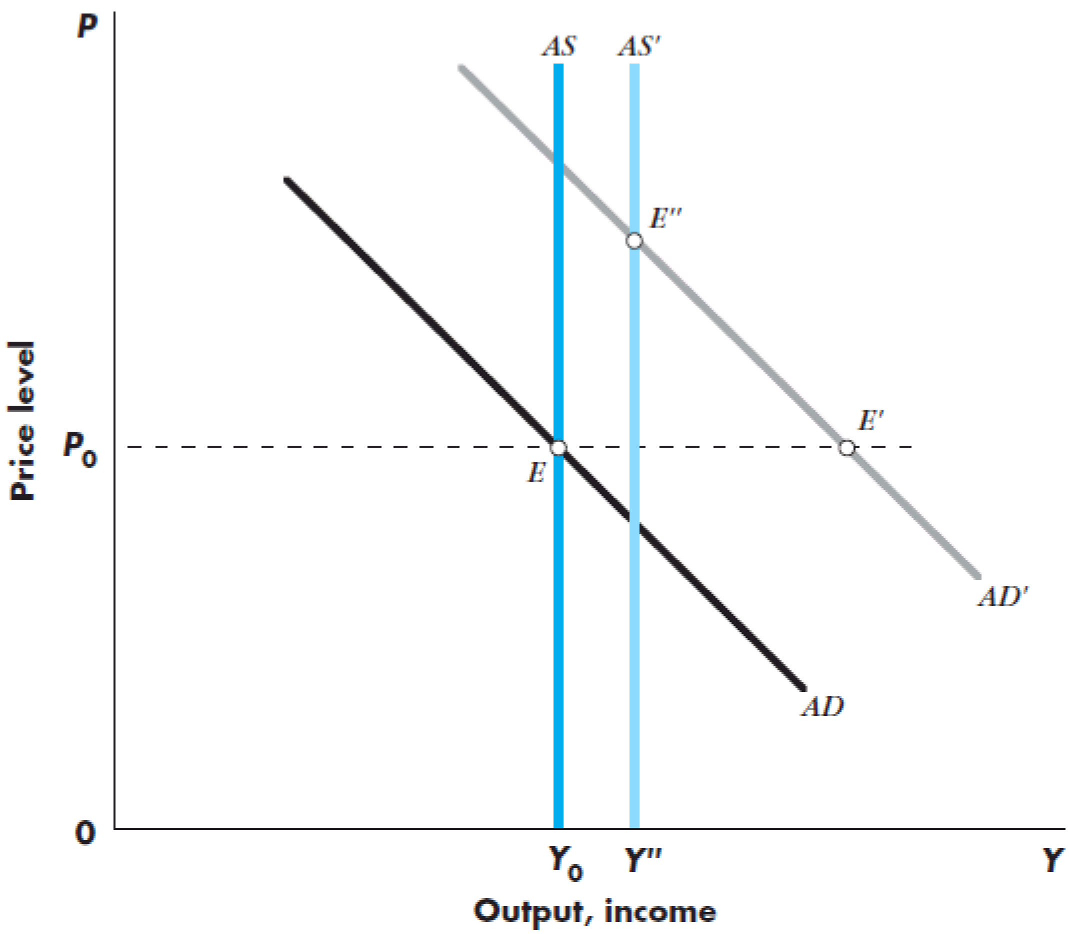
1. The classical aggregate supply curve is vertical, since the classical model assumes that nominal wages always adjust immediately to changes in the price level. This implies that the labor market is always in equilibrium and output is always at the full-employment level. If the AD-curve shifts to the right, firms try to increase output by hiring more workers, and they try to attract them by offering higher nominal wages. However, since we are already at full employment, the overall work force does not increase, so firms merely bid up nominal wages. The nominal wage increase is passed on in the form of higher product prices. Since the level of wages and prices will have increased proportionally, the real wage rate and the levels of employment and output will remain unchanged.

   If there is a decrease in demand, workers are willing to accept lower nominal wages to stay employed. Lower wage costs enable firms to lower their prices, and ultimately nominal wages and prices decrease proportionally while the real wage rate and the levels of employment and output remain the same.

2. The Keynesian aggregate supply curve is horizontal since the price level is assumed to be fixed. It is most appropriate for the very short run (a period of a few months or less). The classical aggregate supply curve is vertical and output is assumed to be fixed at its potential level. It is most appropriate for the long run (a period of more than 10 years) when prices are able to fully adjust to all shocks. Neither of these two aggregate supply curves describes a very realistic or interesting scenario. The medium-run aggregate supply curve is upward-sloping since wage and price adjustments are assumed to be slow and uncoordinated. This scenario is more realistic and most useful for periods of several quarters or a few years.

3. a. As Figure 5-11 (the figure on P25 of lecture notes) shows, a decrease in income taxes shifts both the AD-curve and the AS-curve to the right. The shift in the AD-curve tends to be fairly large and, in the very short run (when prices are fixed), leads to a significant increase in output without a change in prices. But in the long run, the AS-curve will also shift to the

right. Since lower income tax rates provide an incentive to work more, output will increase, but only by a fairly small amount. Therefore we see a large increase in the price level with a slightly higher level of real GDP in the long run.



b. Supply-side economics includes any policy measure that will increase potential GDP by shifting the long-run (vertical) AS-curve to the right. Supply-side economists put forth the view that a cut in income tax rates will increase the incentive to work, save, and invest. Some economists claimed that this would increase aggregate supply so much that the inflation and unemployment rates would simultaneously decrease, and that the resulting high economic growth might even lead to an increase in tax revenues, despite lower tax rates. However, when these policies were implemented in the early 1980s, they did not have the predicted effects. As seen in Figure 5-11, the long-run effect of a tax cut on output is small, but the price level may increase substantially.