

**Long-run Aggregate Supply (AS) curve** In the long-run, aggregate supply is determined by the capacity constraints and labor supply of the economy, not by the price level. That means that in the long run, the AS curve is a straight, vertical line rising up from the horizontal axis at the full-employment level of output. The intersection of the long-run aggregate supply and aggregate demand curves determine the long-run equilibrium. An influx of workers will increase AS in the short run and will also increase the long-run full-employment level of output, shifting the long-run AS curve to the right. If workers' wages decrease, the AS curve will increase, but this will have no effect on the full-employment capacity of the economy, which is associated with long-run AS.

**Long-run Aggregate Supply (AS) and Long-run Aggregate Demand (AD) curve** Full employment is the highest level of real GDP an economy can maintain without inflationary price increases. An increase in government spending,  $G$ , will increase aggregate demand. This will cause an increase in the price level, but not an increase in output in the long run. An output increase is possible in the short run, but in the long run it's not. In the long run, the economy returns to the full-employment level of output. Graphically, this is a shift of the AD curve to the right. In the long run, the economy adjusts to the full-employment level of RGDP, where the new AD curve intersects the LRAS curve at a higher price level. Increasing the supply of labor causes a rightward shift in long-run aggregate supply (an increase in LRAS). This will shift equilibrium to a new point on the aggregate demand curve, one with a higher RGDP and lower price level. A decline in consumer confidence causes a decrease in consumption (one of the components of aggregate demand) and, so, a decrease in AD. A decline in aggregate demand shifts the economy to a new equilibrium point on the LRAS curve. If both short-run and long-run aggregate supply increase (meaning that the curves shift to the right) and the economy remains in equilibrium, it must be that the price level is lower, and the real level of output will increase. If aggregate supply decreases, this will lead to a decrease in the real level of output and an increase in the price level. This may either cause nominal output to increase or decrease. If people become more optimistic, this will increase AD, which will lead to increased real output and a higher price level. This will cause wages to increase (due to lower unemployment), which will reduce AS and eventually reduce real output in the long run, returning the economy to long-run equilibrium.

**Full employment** is the level of output at which cyclical unemployment does not exist? structural, frictional, and seasonal unemployment may still exist at full employment. The cyclical unemployment rate is zero. It doesn't mean that the unemployment rate is zero. Full employment is the highest level of real GDP an economy can maintain without an increase in prices. At full employment, cyclical unemployment is zero, but structural and frictional unemployment still exist.

**Cyclical unemployment** Unemployment caused by the business cycle. All economies go through periodic expansions and contractions. During contractions people may lose their jobs; this is cyclical unemployment.

**Structural Unemployment** Unemployment due to a fundamental change in the makeup of the economy. Structural unemployment is caused by things like laws or societal decisions that influence the type of production done in an economy.

