

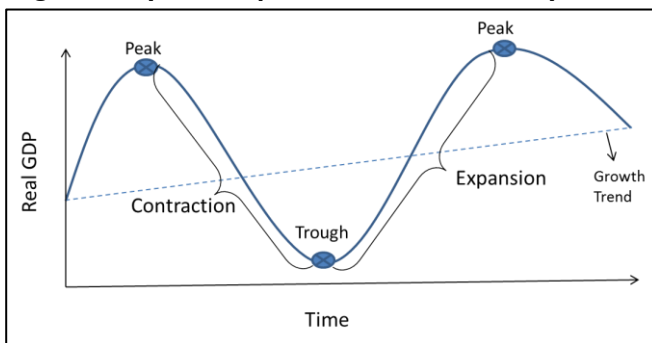


# Introduction to U.S. Economy: The Business Cycle and Growth

## What is the Business Cycle?

Over time, modern industrial economies tend to experience significant variations in economic activity. The economy shifts from periods of increasing economic activity, known as economic expansions, to periods of decreasing economic activity, known as recessions. Real gross domestic product (GDP)—total economic output adjusted for inflation—is the broadest measure of economic activity. The movement of the economy through these alternating periods of growth and contraction is known as the business cycle. There are four phases of the business cycle: the expansion, peak, contraction, and trough, as shown in **Figure 1**.

**Figure 1. Stylized Depiction of the Business Cycle**



Source: Congressional Research Service.

As the economy moves through the business cycle, a number of additional economic indicators tend to shift alongside GDP. During an economic expansion, economy-wide employment, incomes, industrial production, and sales all tend to increase alongside the rising real GDP. Additionally, over the course of an economic expansion, the rate of inflation tends to increase. During a recession, the opposite tends to occur, with decreasing employment, incomes, production, sales, and a decrease in the rate of inflation, occurring alongside falling real GDP. All of these indicators do not shift simultaneously, but they tend to shift around the same time.

Although these fluctuations in economic activity are referred to as a cycle, the economy generally does not exhibit a regular and smooth cycle as shown in **Figure 1**. Predicting recessions and expansions is notoriously difficult due to the irregular pattern of the business cycle; a single quarter of economic data is likely too short to be predictive of a trend. During an expansion there may also be short periods of decreasing economic activity interspersed within an expansionary period, and vice versa.

## Dating the Business Cycles

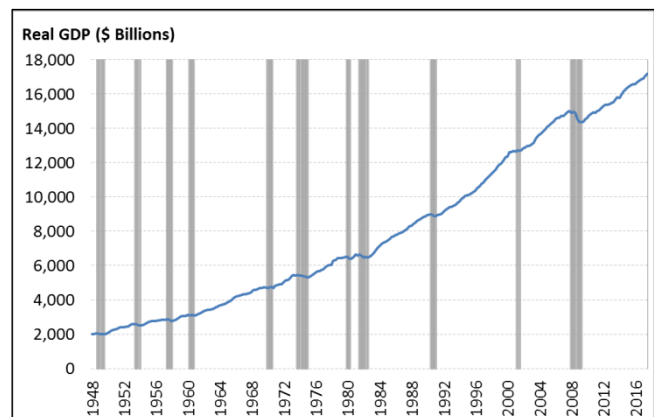
Business cycles are dated according to the peaks and troughs of economic activity. A single business cycle is dated from peak to peak, or trough to trough. The Business

Cycle Dating Committee at the National Bureau of Economic Research (NBER), an independent, nonprofit, research group, is generally credited with identifying business cycles in the United States.

NBER does not define a recession as two consecutive quarters of declining real GDP, which is popular in the financial press. Rather NBER uses a broader definition of a recession, as a period where there is a significant decline in economic activity that spreads across the economy. NBER uses a number of indicators to measure economic activity, including real GDP, economy-wide employment, real sales, and industrial production.

**Figure 2** presents real GDP between 1948 and part of 2017, along with recessions, as identified by NBER, represented with grey bars. Over this period, real GDP grew at an average annual pace of 3.1%.

**Figure 2. Real GDP and Recessions**  
1948:Q1 – 2017:Q3



Source: US. Bureau of Economic Analysis.

Note: Grey bars represent recessions as defined by NBER.

The economy tends to experience longer periods of expansion than contraction, especially since World War II (WWII). Between 1945 and 2009, the end of the most recent business cycle, the average expansion has lasted about 58 months, and the average recession has lasted about 11 months. Between the 1850's and WWII, the average expansion lasted less than half as long (about 26 months), and the average recession lasted about twice as long (about 21 months).

The most recent recession in the United States, the so-called Great Recession, began in December 2007 and ended in June 2009, a total of 18 months. Since the 1850's, in the United States, 13 recessions have lasted as long as or longer than the Great Recession; however, all other recessions occurred before the Great Depression of the 1930's. The

current economic expansion has been underway for 101 months, making it the third longest economic expansion in the United States since the 1850's so far.

### Short-Term Economic Growth

In the short term, the business cycle is the largest determinant of economic growth. The economy's position within the business cycle will largely determine whether real GDP is growing or shrinking. For example, during the expansionary period immediately before the recession of 2007-2009, real GDP grew at an average pace of about 2.8% per year, whereas during that recession real GDP was shrinking by about the same percentage per year.

Over longer periods of time, the volatility of the business cycle fades to reveal the medium-term growth trend of the economy. If one were to average the growth rate through an entire business cycle, it would reveal the medium-term growth trend, shown as the dotted line in **Figure 1**. For example, in the most recent complete business cycle, measured from peak to peak, real GDP grew at an average pace of 2.5% per year.

### Potential Causes of the Business Cycle

In general, the business cycle is governed by aggregate demand (total spending) within the economy. Recessions occur as aggregate demand decreases, and expansions occur as aggregate demand increases. The potential causes of changing aggregate demand include changes in government policy, consumer or business confidence, and external shocks to supply.

#### Government Policy

Government policy, specifically monetary and fiscal policy, can impact aggregate demand either directly or indirectly. The legislature is largely responsible for fiscal policy in the United States through changes in the level of government spending and tax revenue. The government can directly increase aggregate demand by spending more on goods and services, while keeping tax revenue constant. Additionally, the government can indirectly increase aggregate demand by reducing tax revenue, while keeping government spending constant. Reducing tax revenue increases the amount of money in individuals' and businesses' wallets, allowing them to spend more on goods and services.

Monetary policy can also be used to impact aggregate demand indirectly. The U.S. Federal Reserve implements monetary policy by changing short-term interest rates. For example, lowering interest rates can encourage businesses to make new investments and individuals to buy new goods, because the lower interest rates make it less expensive to borrow money.

Fiscal and monetary policy, when implemented successfully, can help soften the business cycle. However, when unsuccessful these policies may exacerbate the fluctuations of the business cycle. Additionally, fiscal and monetary policies are most effective at shifting aggregate demand, and therefore economic growth, in the short term. The effectiveness of these policies is believed to diminish over time, as actors within the economy adjust to changes in government spending or the money supply. For this

reason, fiscal and monetary policies are thought to be less effective over longer time periods, and continuous stimulative policy is likely to increase the rate of inflation over time.

#### Consumer and Business Confidence

Changes in consumer or business confidence can impact aggregate demand as well. If individuals believe the economy will perform poorly in the future, individuals are likely to increase how much they save to prepare for lean times in the future. The associated decrease in spending would lower aggregate demand. Similarly, if businesses perceive that the economy is about to enter a recession, they are less likely to make investments in new machinery or factories because consumers would not be able to afford their new products during the recession.

In large part, the recession of 2007-2009 was the result of previous overconfidence by individuals and businesses in the future performance of the economy, specifically the housing sector. To simplify greatly, individuals, banks, and investment firms all believed housing prices would continue to rise for some time, and incorporated these expectations into the mortgages and mortgage-related securities that were designed during this expansionary period, causing an asset bubble. However, as the economy underperformed with respect to expectations, many individuals could not afford to make payments on their mortgages. As mortgages continued to default, the securities built on those mortgages began to decline in value. As businesses and individuals realized that their investments were not worth as much as they thought, they engaged in a process of de-leveraging, decreasing the amount they spent on consumption or investment and paying down their debts, which caused a decrease in aggregate demand as well. Decreasing aggregate demand resulted in the significant recession. Additionally, the financial crisis disrupted credit markets in such a way that businesses or individuals wanting to make new investments or purchases could not access the credit necessary to make those purchases, further inhibiting aggregate demand.

#### External Supply Shocks

As part of a global economy, events outside of the United States can often impact aggregate demand inside the United States. For example, in 1979, the United States faced a decrease in the supply of oil due to the Iranian Revolution. The decrease in the supply of oil, and the associated spike in oil prices, caused the prices of many other goods to rise. The rise in prices led to decreased consumption and investment by individuals and businesses, decreasing aggregate demand and causing a recession.

#### Additional CRS Resources

CRS In Focus IF10408, *Introduction to U.S. Economy: GDP and Economic Growth*, by Jeffrey M. Stupak and Mark P. Keightley.

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