

Principles of Macroeconomics

Topic 1 Part 1

Introduction to Macroeconomics (CH 5)

Why do we study Macroeconomics?

- When the macroeconomy is doing well, jobs are easy to find, incomes are rising, and profits of firms are high.
- If the macroeconomy is in a slump, new jobs are scarce, incomes are not growing, and profits are low.
- The macroeconomy can have great effects on our lives.

Micro vs Macro

- **microeconomics** Examines the functioning of individual industries and the behavior of individual decision-making units—firms and households.

i.e. focus on individual decisions

- **macroeconomics** Deals with the economy as a whole, focuses on aggregates such as total national income, aggregate consumption and investment, and looks at the overall level of prices.

i.e. focus on aggregate behavior – the behavior of all households and firms together.

Micro vs Macro

- Micro often assumes **Flexible Price**.
- Flexible Price: price adjusts rapidly to the equilibrium (where demand = supply), and the market clears.

- Macro observes **Sticky Price** in reality.
- Sticky Price: price adjusts slowly to the equilibrium, so the market takes time to clear.

Macroeconomic Concerns

- Three of the major concerns of macroeconomics are:
 - Output growth
 - Unemployment
 - Inflation and Deflation
- Policy makers would like HIGH output growth, LOW unemployment, and LOW and STABLE inflation.

Output Growth

Instead of growing smoothly at the same rate, economies tends to experience cycles in their growth.

- **business cycle** The cycle of short-term ups and downs in the economy.

The main measure of how an economy is doing is output. Lower output implies lower standard of living.

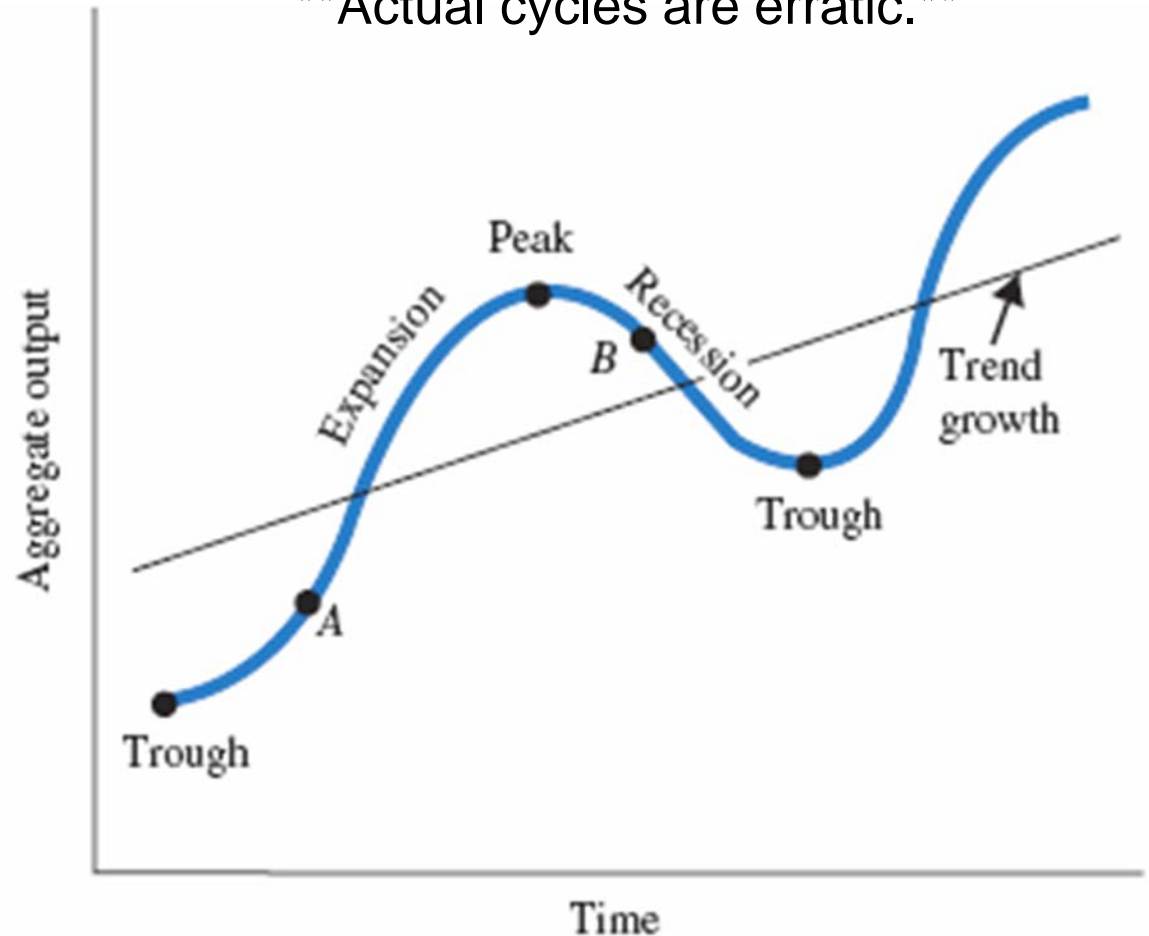
- **aggregate output** The total quantity of goods and services produced in an economy in a given period.

FIGURE 5.1 A Typical Business Cycle

In this business cycle, the economy is expanding as it moves through point *A* from the trough to the peak.

When the *economy* moves from a peak down to a trough, through point *B*, the economy is in recession

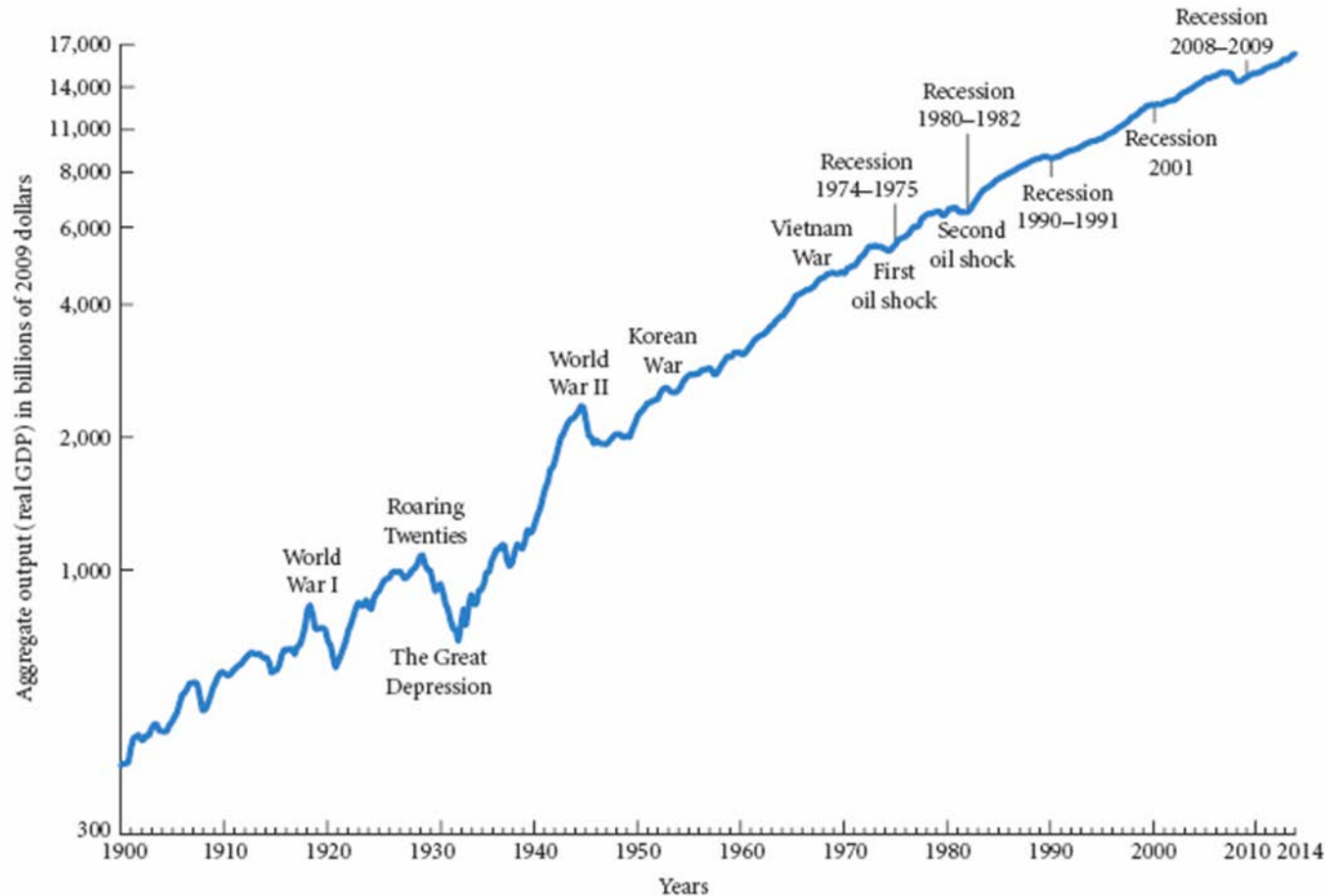
****Actual cycles are erratic.****



Output Growth

- **expansion** or **boom** The period in the business cycle from a trough up to a peak during which output and employment grow.
- **contraction** or **recession** Conventionally, a period in which aggregate output declines for two consecutive quarters. When output declines, firms cut back workers, so unemployment increases.
- **depression** A prolonged and deep recession.

FIGURE 5.2 U.S. Aggregate Output (Real GDP), 1900–2014

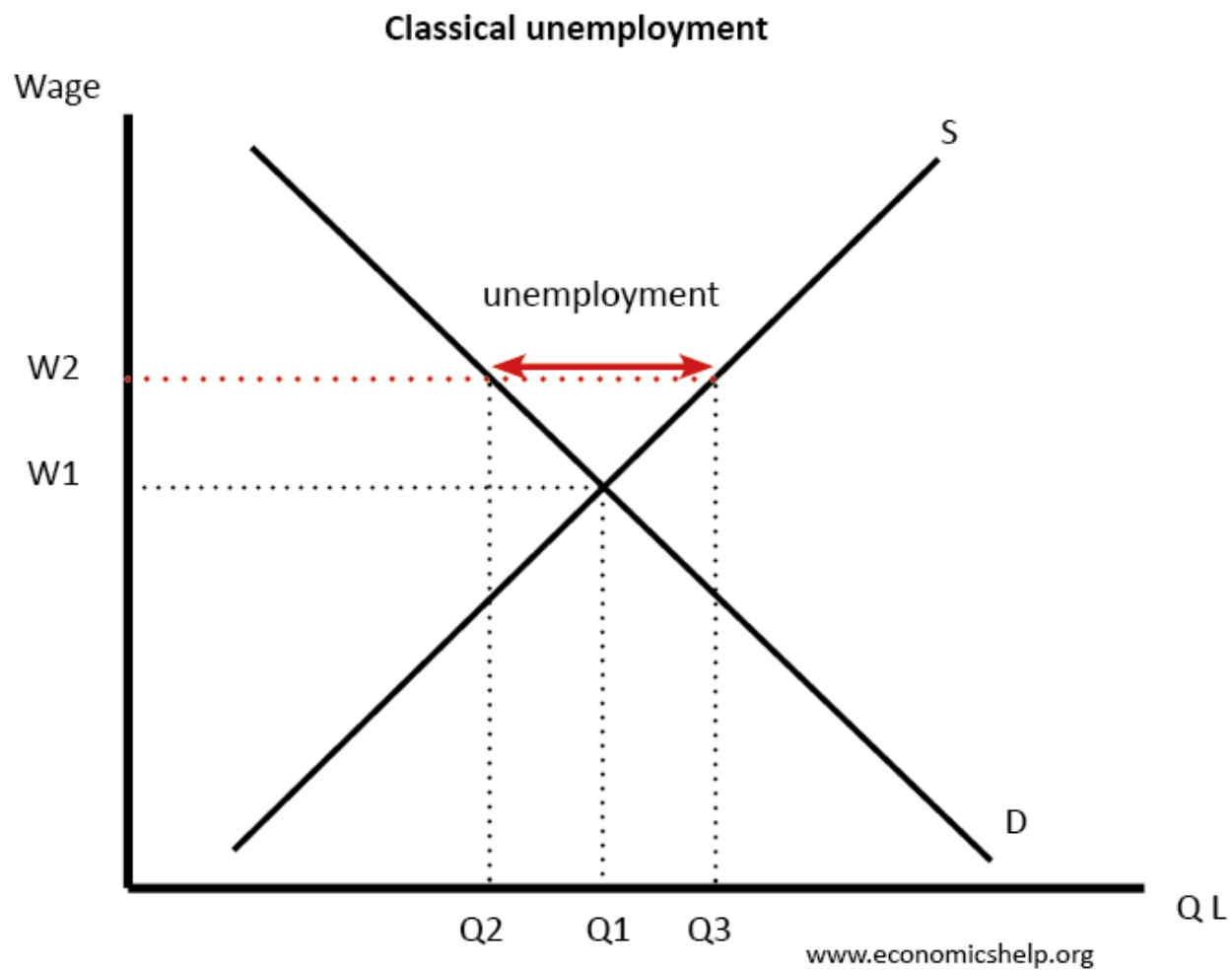


The periods of the **Great Depression** and **World Wars I and II** show the largest fluctuations in aggregate output.

Unemployment

- **unemployment rate** The percentage of the labor force that is unemployed.
- The rate is a key indicator of the economy's health.
- Unemployment seems to imply that the labor market is not in equilibrium. That is, supply of labor $>$ demand for labor.
- This is often because the “market wage” is above the “equilibrium wage”, and the wage is believed to be “sticky” so it takes time to adjust.

Unemployment



Inflation and Deflation

- **inflation** An increase in the overall price level.
- **hyperinflation** A period of very rapid increases in the overall price level. Very high inflation can destabilize economies and governments.
- **deflation** A decrease in the overall price level.

- **price level** = prices of some set of goods and services

- A macroeconomic goal: **Price Stability**

The Components of the Macroeconomy

- Four groups of the macroeconomic agents:
 1. Households
 2. Firms
 3. The government
 4. The rest of the world

- Households and Firms make up the private sector.
- Government is the public sector.
- Rest of the world is the foreign sector.

The Components of the Macroeconomy

1. Households
2. Firms
3. The government
4. The rest of the world

1 + 2 + 3 = the Closed Economy

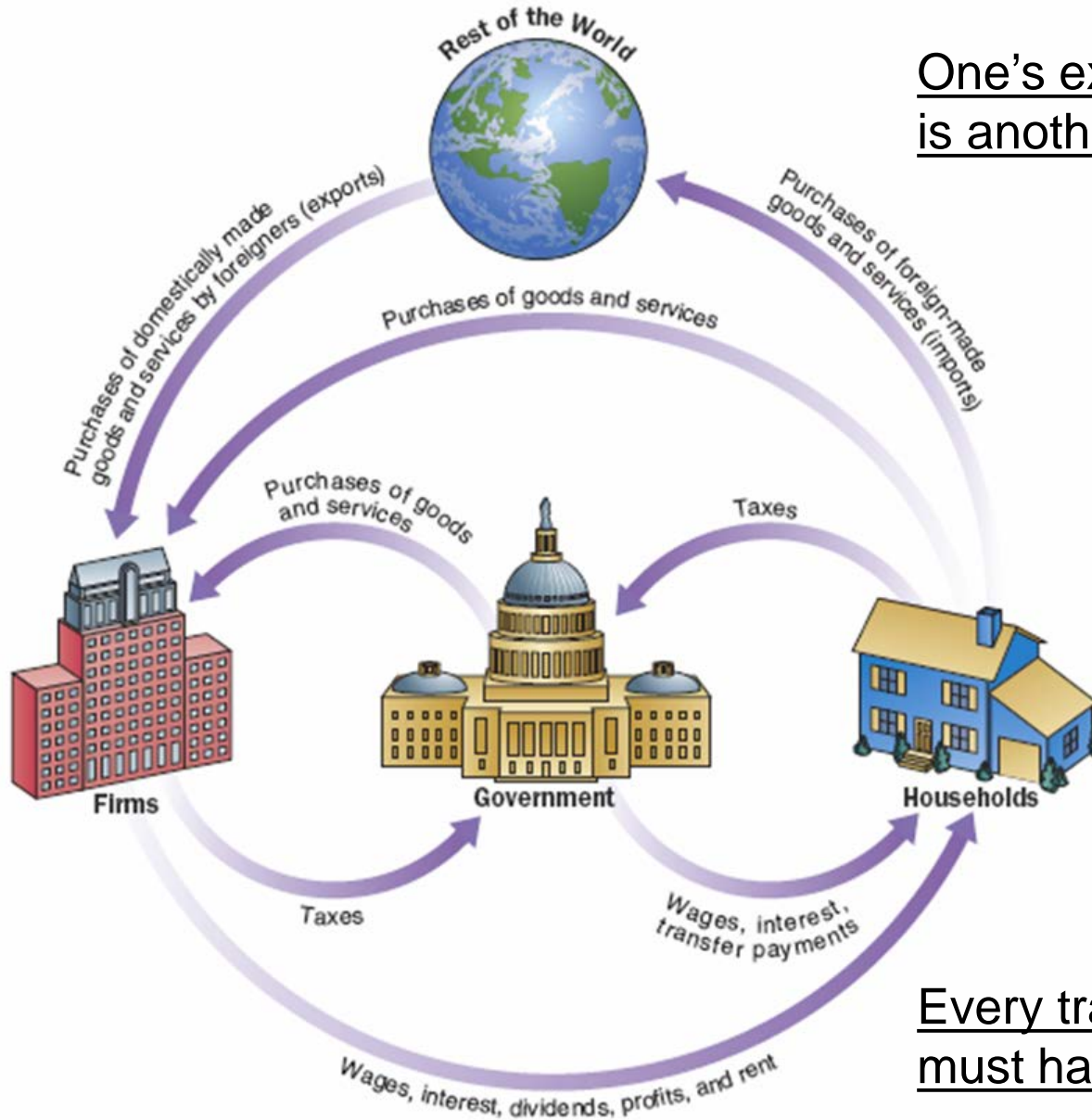
1 + 2 + 3 + 4 = the Open Economy

The Circular Flow Diagram

Economists use the diagram to show the interactions between the four groups.

- **circular flow** A diagram showing the flows in and out of the sectors in the economy.
- **transfer payments** Cash payments made by the government to people who do not supply goods, services, or labor in exchange for these payments, e.g. social security benefits, veterans' benefits, and welfare payments.

FIGURE 5.3 The Circular Flow of Payments



One's expenditure is another's receipt.

Every transaction must have two sides.

The Circular Flow Diagram

- Households receive income from firms and the government, purchase goods and services from firms, and pay taxes to the government. They also purchase foreign-made goods and services (imports).
- Firms receive payments from households and the government for goods and services; they pay wages, dividends, interest, and rents to households and taxes to the government.
- The government receives taxes from firms and households, pays firms and households for goods and services—including wages to government workers—and pays interest and transfers to households.
- Finally, people in other countries purchase goods and services produced domestically (exports).
- **Note: Although not shown in this diagram, firms and governments also purchase imports.**

The Three Market Arenas

- Another way of looking at the ways the four groups of agents relate to one another is to consider the markets in which they interact.
- The three market arenas:
 - The goods-and-services market
 - The labor market
 - The money (financial) market

The Three Market Arenas

Goods-and-Services Market

- Households and the government purchase goods and services from firms.
- Firms purchase goods and services from each other and also supply to the market.
- Households, the government, and firms demand from this market.
- The rest of the world buys from and sells to the market.

The Three Market Arenas

Labor Market

- Households supply labor, and firms and the government demand labor.
- Labor is also supplied to and demanded from the rest of the world.

The Three Market Arenas

Money Market

- Households supply funds to this market
 - To earn income from dividends on stocks and interest on bonds.
- Households also demand (borrow) funds from this market
 - To finance their consumption or to smooth consumption.
- Firms borrow to build new facilities by issuing corporate bonds or stocks.

The Three Market Arenas

Money Market

- The government borrows by issuing government bonds.
- The rest of the world borrows from and lends to the money market.
- Borrowing and lending is coordinated by financial institutions, which take deposits from one group and lend them to others.

The Money Market

- **treasury/government bonds** Promissory notes issued by the government when it borrows money.
- **corporate bonds** Promissory notes issued by firms when they borrow money.
- **shares of stock** give to the holder a share in the firm's ownership and therefore in the firm's profits.
- **dividends** The portion of a firm's profits that the firm pays out each period to its shareholders.

The Money Market

Bond vs Fixed Deposit (FD)

- Both are secure and give interest as returns.
- Bond constitutes Debtor-Creditor relationship, but FD does not. FD is based on a contractual agreement.
- Bond is backed by assets, but FD is not.

The Role of the Government in the Macroeconomy

Two main policy instruments:

- **fiscal policy** Government policies concerning taxes and spending.
- **monetary policy** The tools used by the central bank to control short-term interest rates.

The Role of the Government in the Macroeconomy

- **fiscal policy (FP)** is carried out by the government, concerning taxes and government spending.
 - Expansionary FP, e.g. cut taxes, raise spending to boost the economy.
 - Contractionary FP, e.g. raise taxes, cut spending to slow down the economy.

The Role of the Government in the Macroeconomy

- **monetary policy (MP)** is carried out by the central bank to control short-term interest rates (i) via money supply (MS).
 - Expansionary MP, e.g. increase MS to reduce i to boost the economy.
 - Contractionary MP, e.g. decrease MS to raise i to slow down the economy.

A Brief History of Macroeconomics

- **Great Depression** The period of severe economic contraction and high unemployment that began in 1929 and continued throughout the 1930s.
- **stagflation** A situation of both high inflation and high unemployment, observed in the 1970s.

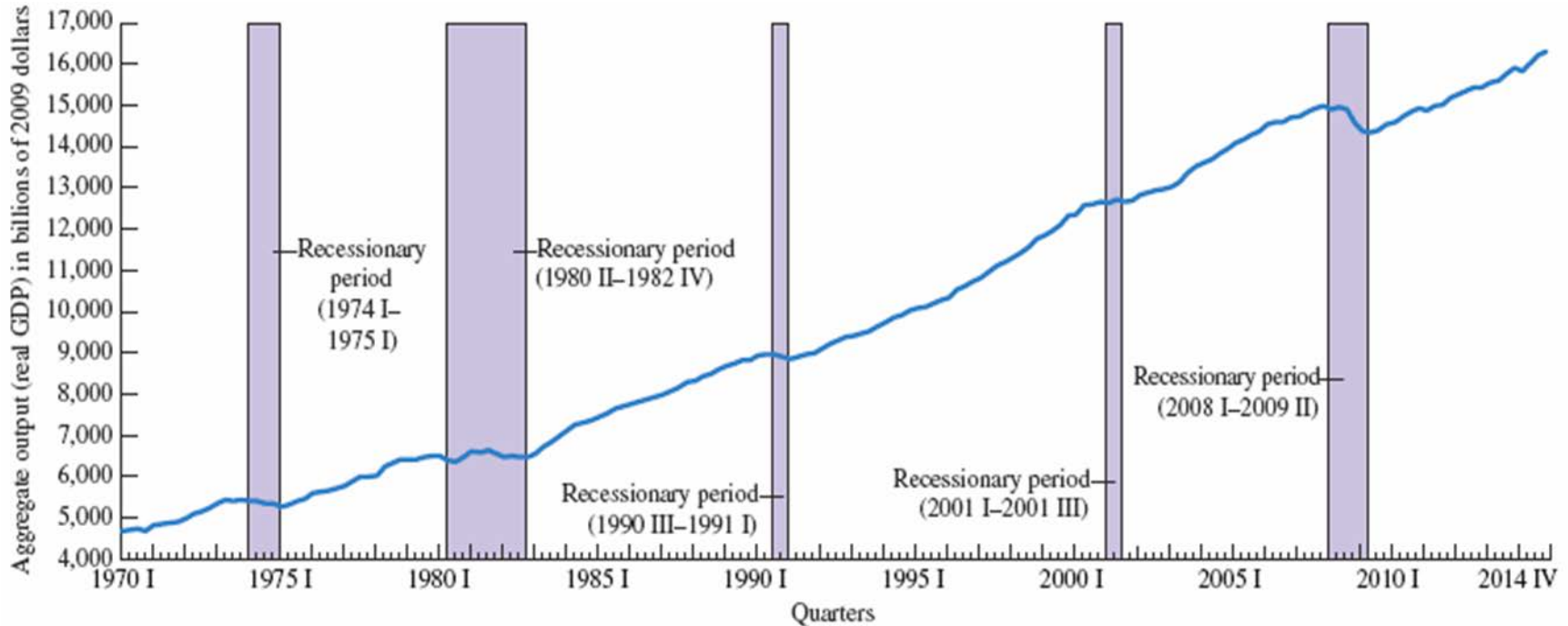
Great Depression 1929-1939

After a period of boom, Wall Street was filled with “reckless speculation”. Everyone from millionaires to janitors invests their savings in stocks. This raised stock prices to be higher than the actual values.

When the economy slowed down, production declined and unemployment rose. Nervous investors now began to sell their stocks. This caused the market to crash. Together with bank runs, the economy worsened. Many people went bankrupt.

A **bank run** occurs when people withdraw money from a bank, because they believe the bank may cease to function in the near future.

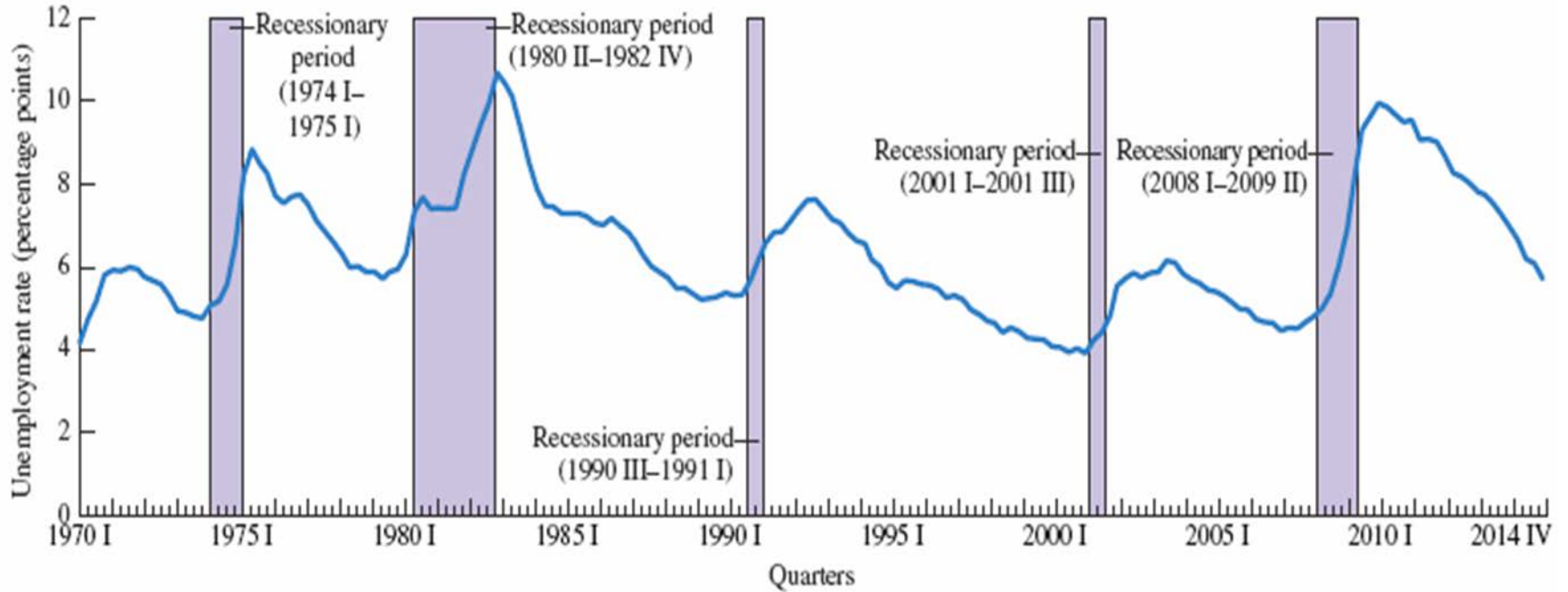
FIGURE 5.4 Aggregate Output (Real GDP), 1970 I–2014 IV



MyEconLab Real-time data

Aggregate output in the United States since 1970 has risen overall, but there have been five recessionary periods: 1974 I–1975 I, 1980 II–1982 IV, 1990 III–1991 I, 2001 I–2001 III, and 2008 I–2009 II.

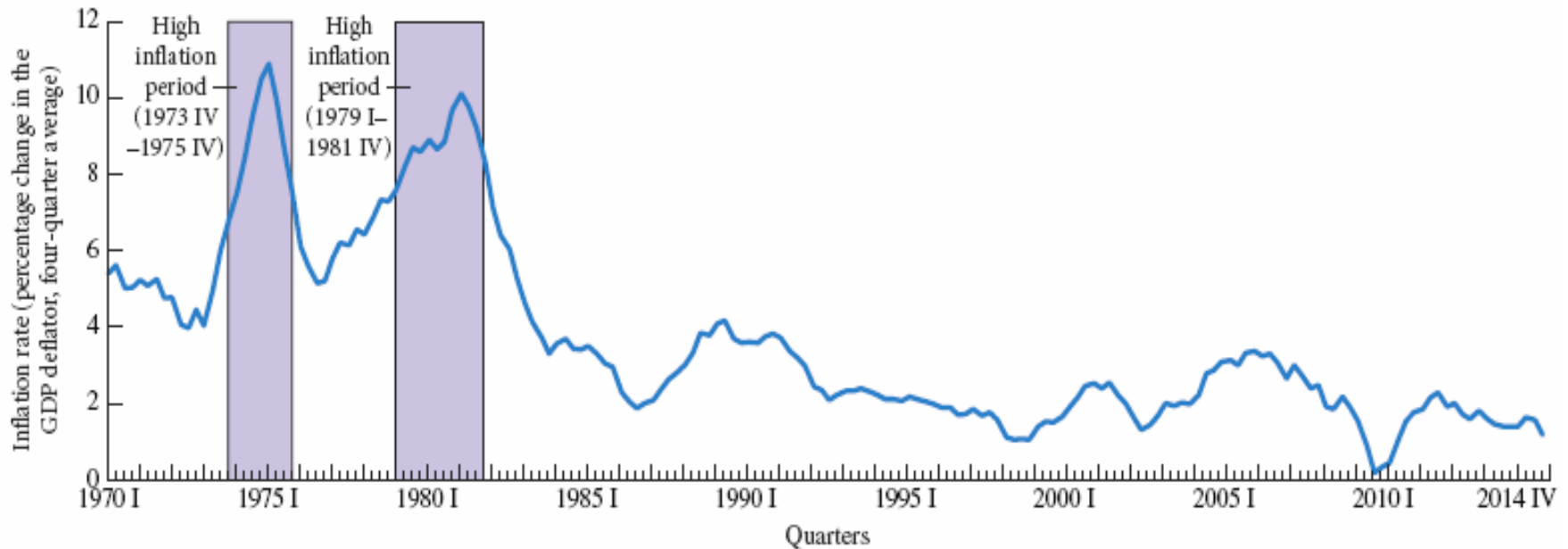
FIGURE 5.5 Unemployment Rate, 1970 I–2014 IV



MyEconLab Real-time data

The U.S. unemployment rate since 1970 shows wide variations. The five recessionary reference periods show increases in the unemployment rate.

FIGURE 5.6 Inflation Rate (Percentage Change in the GDP Deflator, Four-Quarter Average), 1970 I–2014 IV



MyEconLab Real-time data

Since 1970, inflation has been high in two periods: 1973 IV–1975 IV and 1979 I–1981 IV. Inflation between 1983 and 1992 was moderate. Since 1992, it has been fairly low.