Phases of the Business Cycle

Business Cycle

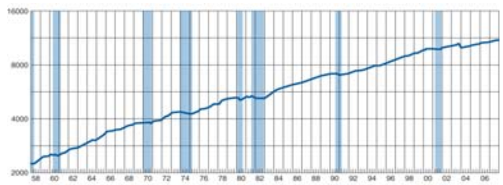
- Definition: alternating increases and decreases in the level of business activity of varying amplitude and length
- How do we measure “increases and decreases in business activity?”
  - Percent change in real GDP!

Business Cycle

- Why do we say “varying amplitude and length?”
  - Some downturns are mild and some are severe
  - Some are short (a few months) and some are long (over a year)
- Do not confuse with seasonal fluctuations!

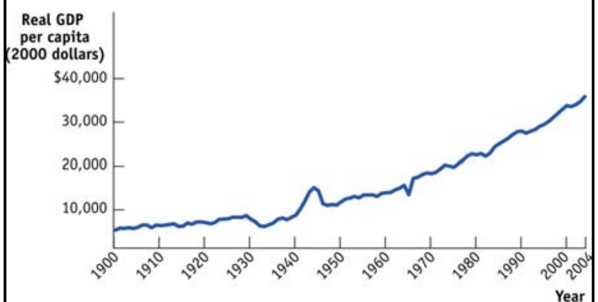
Real GDP 1958-2007, in 2000 dollars

- Note: “Years” is on horizontal axis and “real GDP” is on vertical axis.
- General trend of economic growth
- Recession years are shaded blue: note downward slope on graph indicating that GDP is decreasing.

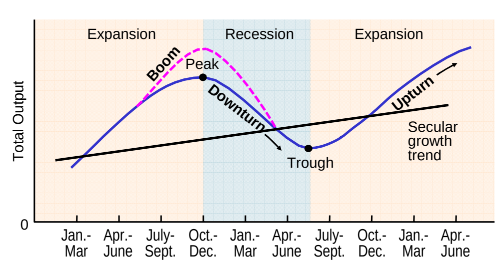


Note: Shaded areas indicate recessions.

U.S. real gross domestic product per person from 1900 to 2004



The Phases of the Business Cycle



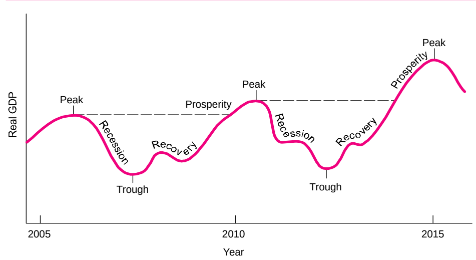
McGraw-Hill/Irwin

Long-Run Economic Growth

Secular long-run growth, or **long-run growth,** is the sustained upward trend in aggregate output per person over several decades.

A country can achieve a permanent increase in the standard of living of its citizens only through long-run growth. So a central concern of macroeconomics is what determines long-run growth.

The Conventional Three-Phase Business Cycle



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Recession

- What is a recession?
  - Generally, 2 or more quarters of declining real GDP
  - Implication: it's not officially a called a recession until the economy has already been declining for 6 months!

- Who decides when we're in a recession?
  - National Bureau of Economic Research traditionally declares recessions
  - Private research organization, not a federal agency
- Recession dates from peak of business

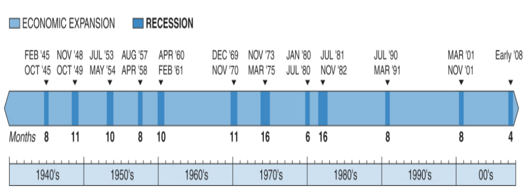
Post-World War II Recessions*

Recession dates	Duration (months)	Percentage decline in real GDP	Peak unemployment rate
Nov. 1948–Oct. 1949	11	−1.7%	7.9%
July 1953–May 1954	10	−2.7	5.9
Aug. 1957–Apr. 1958	8	−1.2	7.4
Apr. 1960–Feb. 1961	10	−1.6	6.9
Dec. 1969–Nov. 1970	11	−0.6	5.9
Nov. 1973–Mar. 1975	16	−3.1	8.6
Jan. 1980–July 1980	6	−2.2	7.8
July 1981–Nov. 1982	16	−2.9	10.8
July 1990–Mar. 1991	8	−1.3	6.8
Mar. 2001–Nov. 2001	8	−0.5	6.0
?? Early 2008			

*The February 1945–October 1945 recession began before the war ended in August 1945.

Note: These recessions were of varying duration and severity.

Another Look at Expansions and Recessions



Can you find a pattern? Neither can economists! That's why recessions are hard to predict.

Business Cycle Theories

- Endogenous theories:
  - Innovation theory: innovation leads to saturation.
  - Psychological theory: alternating optimism and pessimism
  - Inventory cycle theory: inventory and demand not in sync
  - Monetary theory: changes in money supply by Federal Reserve
  - Underconsumption theory: or overproduction

Business Cycle Theories

- Exogenous theories:
  - The external demand shock theory: effect of foreign economies
  - War theory: war stimulates economy; peace leads to recession
  - The price shock theory: fluctuations in oil prices

Endogenous

- Starts from within the model
- Endo- inside, source
- Genous- born

Exogenous

- From outside of the model
- Exo- outside
- Genous- born, source

Business Cycle Theories

- **Endogenous theories**
  - **Innovation theory**
  - **Psychological theory**
  - **Inventory cycle theory**
  - **Monetary theory**
  - **Under-consumption theory**
- **Exogenous theories**
  - **Sunspot theory**
  - **War theory**

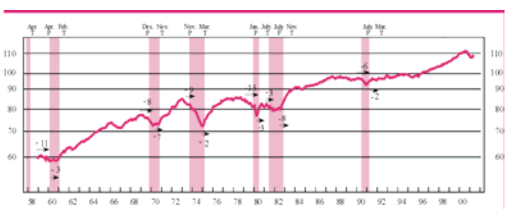
Business Cycle Forecasting

- **The Ten Leading Economic Indicators**
  - **1. Average workweek of production workers in manufacturing**
  - **2. Average initial weekly claims for state unemployment insurance**
  - **3. New orders for consumer goods and materials**
  - **4. Vendors performance (companies receiving slower deliveries from suppliers)**
  - **5. New orders for capital goods**

Business Cycle Forecasting
(Continued)

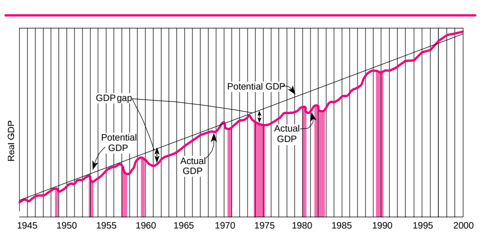
- **The Ten Leading Economic Indicators**
  - **6. New building permits issued**
  - **7. Index of stock prices**
  - **8. Money supply**
  - **9. Spread between rates on 10-year Treasury bonds and Federal funds**
  - **10. Index of consumer expectations**

The Index of Leading Indicators, 1958-2001



Note that the index has turned down well before recessions begin and turned upward before recovery set in

The GDP Gap, 1945-2000



Since potential GDP has exceeded actual GDP for most years since World War II, we have had a GDP gap. However in some periods, most recently from 1996 through 2000, actual GDP has been greater than potential GDP

The GDP gap is the amount of production by which potential GDP exceeds actual GDP