

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

## Economic Fluctuations, Unemployment, and Inflation

**Full Length Text** — Part: 3 Chapter: 8  
**Macro Only Text** — Part: 3 Chapter: 8

To Accompany "Economics: Private and Public Choice 12th ed."  
James Gwartney, Richard Stroup, Russell Sobel, & David Macpherson  
Slides authored and animated by:  
James Gwartney, David Macpherson, & Charles Skipton

[Next slide](#) ▶ Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

## Swings in the Economic Pendulum

◀ [Jump to first page](#) ▶ Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

## Instability in the Growth of Real GDP

- Although real GDP in the United States has grown at an average rate of approximately 3%, the growth has been characterized by economic ups-and-downs. Note, periods of recession are indicated with shading.

Annual growth rate of real GDP

Long-run growth rate (approx. 3%)

Source: Economic Report of the President, various issues.

◀ [Jump to first page](#) ▶ Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### The Hypothetical Business Cycle

- The four phases of the business cycle are expansion, peak, contraction, and recessionary trough.
- In contrast with the hypothetical cycle represented here, as the previous exhibit illustrated, real world business cycles are characterized by expansions and contractions of varying duration and magnitude.

← [Jump to first page](#) →

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### Economic Fluctuations and the Labor Market

← [Jump to first page](#) →

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### Labor Market Classifications

- **Employed**  
– a person (16 years old or over) who is
  - working for pay at least one hour per week,
  - self employed, or,
  - working 15 hours or more each week without pay in a family-operated enterprise.
- **Unemployed**  
– a person not currently employed who is
  - actively seeking a job, or,
  - waiting to begin a job, or,
  - on layoff, waiting to return to a previous job.

← [Jump to first page](#) →

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### Labor Market Classifications

- **Civilian Labor force**  
– civilians (16 years and older) who are either employed or unemployed.
- **Not in the labor force**  
– persons (16 years and older) who are neither employed nor unemployed (like retirees, students, homemakers, or disabled persons).

← [Jump to first page](#) →

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### Labor Market Indicators

- The non-institutional civilian adult population is grouped into two broad categories:
  - Persons not in the labor force, and,
  - persons in the labor force. (This group includes both the employed and unemployed).

$$\text{Labor Force Participation Rate} = \frac{\# \text{ in the Labor Force}}{\text{Civilian population (16+)}}$$

Recall the Labor Force =  $\boxed{\text{Employed} + \text{Unemployed}}$

← [Jump to first page](#) →

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### Labor Market Indicators

- To be classified as unemployed, one must be actively seeking work, waiting to begin a new job, or on layoff from a job.

$$\text{Rate of Unemployment} = \frac{\# \text{ Unemployed}}{\# \text{ in the Labor Force}}$$

Recall the Labor Force =  $\boxed{\text{Employed} + \text{Unemployed}}$

- The definition of unemployed involves some subjectivity.
- Some argue the **employment/population ratio** is a better indicator of job availability than the **unemployment rate**.

$$\text{Employment / Population Ratio} = \frac{\# \text{ employed}}{\text{Civilian population (16+)}}$$

← [Jump to first page](#) →

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

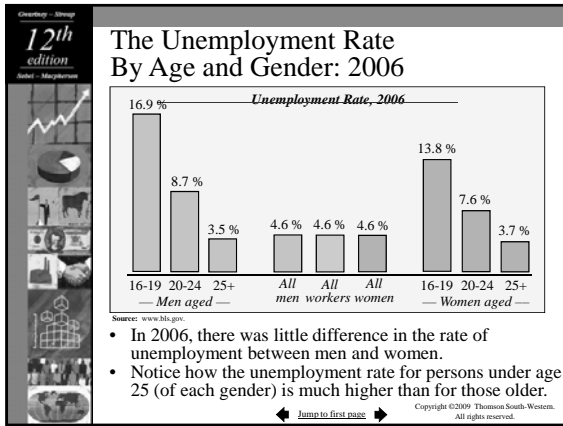
---

---

---

---






---

---

---

---

---

---

---

---

---

---

**Questions for Thought:**

- Classify each of the following as employed, unemployed, or not in the labor force:
  - a person who is not working but applied for a job at Wal-Mart last week
  - a person working part-time who is searching diligently for a full-time job
  - an auto worker vacationing in Florida during a layoff at a General Motors plant who expects to be recalled in a couple of weeks
  - a 17-year-old who works six hours per week as a route person for the local newspaper
  - a homemaker working 70 hrs a week preparing meals and performing other household services

(continued on next slide)

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

---

---

**Questions for Thought:**

- Classify each of the following as employed, unemployed, or not in the labor force: (cont.)
  - a college student who spends between 50 and 60 hours per week attending classes and studying
  - a retired Social Security recipient
- The following are for the U.S. in 2006 (in millions)
 

Population (age 16 and over)	299.8
Civilian pop. (age 16 and over)	228.6
Employed	144.4
Unemployed	7.0

  - Calculate the unemployment rate.
  - Calculate the labor force participation rate.
  - Calculate the employment / population ratio

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---


---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson



## Three Types of Unemployment

← [Jump to first page](#) →

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---


---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson



## Three Types of Unemployment

- **Frictional Unemployment:**
  - Caused by *imperfect information*.
  - Occurs because:
    - employers are not aware of all available workers and their qualifications, and,
    - available workers are not fully aware of all the jobs being offered by employers.
- **Structural Unemployment:**
  - Reflects an imperfect match of employee skills to skill requirements of the available jobs.
  - Also reflects structural and demographic characteristics of the labor market.
- **Cyclical Unemployment:**
  - Reflects business cycle conditions
  - When there is a general downturn in business activity, cyclical unemployment increases.

← [Jump to first page](#) →

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---


---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson



## Employment Fluctuations: *Historical Record*

← [Jump to first page](#) →

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### Unemployment and Output Are Linked Over the Business Cycle

Share of labor force unemployed

- Here we illustrate the unemployment rate from 1960-2007.
- As expected, unemployment rose rapidly during each of the seven recessions (the shaded years indicate periods of recession).
- In contrast, soon after each recession ended, the unemployment rate began to decline as the economy moved into an expansionary phase of the business cycle. Note that the actual rate of unemployment was greater than the natural rate during and immediately following each recession.

← Jump to first page →  
Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### The Concept of Full Employment

- **Full Employment:**  
The level of employment that results when the rate of unemployment is normal, considering both frictional and structural factors.
- Full employment is closely related to the concept of the *natural rate of unemployment*.
- **Natural Rate of Unemployment:**  
The level of unemployment that reflects "job shopping" in an economy of imperfect information and dynamic change.

← Jump to first page →  
Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### The Concept of Full Employment

- The *natural rate of unemployment* is:
  - neither a temporary high nor temporary low.
  - a rate that is both achievable and sustainable.
  - the level of unemployment accompanying an economy's "*maximum sustainable rate of output*."
- Both demographic factors (e.g. young workers as a share of the labor force) and public policy (e.g. the level of unemployment benefits) influence the *natural rate of unemployment*.
- The actual rate of unemployment generally rises above the natural rate during a recession and falls below the natural rate during a boom.

← Jump to first page →  
Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

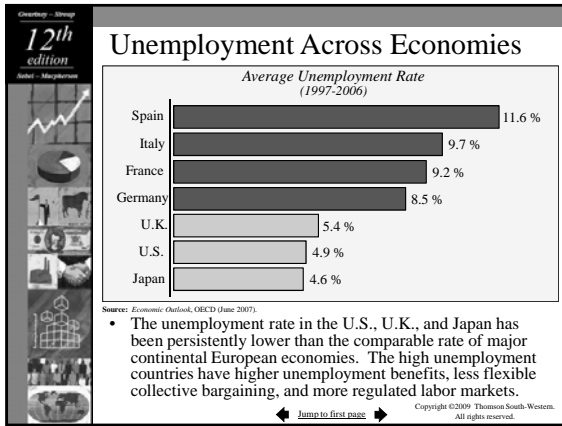
---

---

---

---

---



---

---

---

---

---

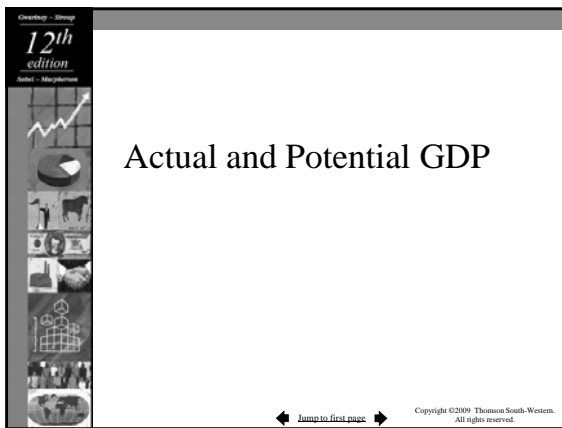
---

---

---

---

---



---

---

---

---

---

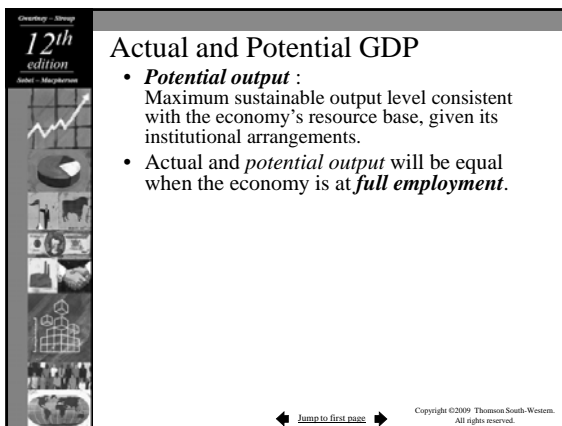
---

---

---

---

---



---

---

---

---

---

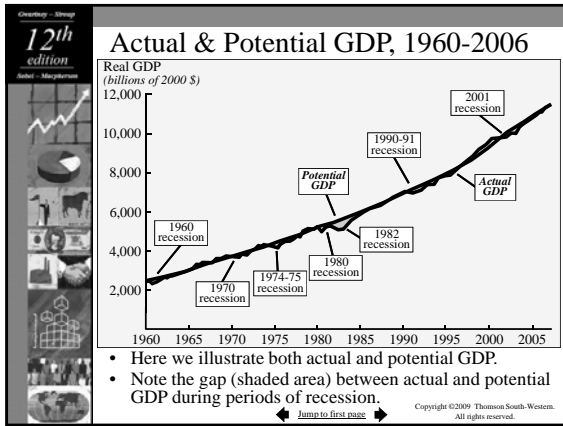
---

---

---

---

---




---

---

---

---

---

---

---

---

---

---

**Questions for Thought:**

- During a recession, which of the following will be true?
  - The actual rate of unemployment will be lower than the natural rate.
  - Actual GDP will be lower than potential GDP.
  - Actual employment will exceed what is considered as full employment.
- How will increased usage of the Internet by employers and employees influence the job search process? Will it tend to increase or decrease the natural rate of unemployment?

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

---

---

**Questions for Thought:**

- True or false.* When full employment is present the rate of unemployment will be zero.
- What is the relationship between the natural rate of unemployment and full employment? Why might the natural rate change?
- Frictional unemployment is a result of:
  - not enough jobs for everyone to be employed
  - unemployed workers' skills not matching those needed for available jobs
  - a decline in the demand for labor, such as during a recession
  - imperfect information & temporary periods of unemployment while workers change jobs

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---


---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson



## Effects of Inflation: *An Overview*

◀ [Jump to first page](#) ▶

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---


---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson



## Inflation

- Inflation is a change in the general level of prices as measured by a price index such as the GDP deflator or the consumer price index.
  - Inflation is generally measured at an annual rate.
  - When inflation is high, the year-to-year changes in the inflation rate are nearly always highly variable, making them difficult to predict.

◀ [Jump to first page](#) ▶

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---


---

---

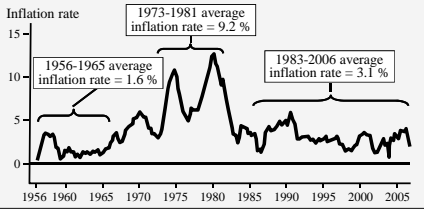
---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson



## The Inflation Rate, 1956-2006



◀ [Jump to first page](#) ▶

Copyright ©2009 Thomson South-Western. All rights reserved.

- Between 1956 and 1965, the general price level increased at an average annual rate of only 1.6%.
- In contrast, the inflation rate averaged 9.2% from 1973 to 1981, reaching double-digits during several years.
- Since 1982, the average rate of inflation has been lower (3.1% from 1983-2006) and more stable.

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### Unanticipated and Anticipated Inflation

- There are two different kinds of inflation:
  - **Unanticipated inflation:**  
An increase in the price level that comes as a surprise, at least for most individuals.
  - **Anticipated inflation:**  
A widely expected change in the price level.

◀ [Jump to first page](#) ▶

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### Effects of Inflation

- High and variable rates of inflation are harmful for a number of reasons:
  - Because unanticipated inflation alters the outcomes of long-term projects like the purchase of a machine or operation of a business, it will both increase the risks and retard the level of such productive activities.
  - Inflation distorts the information delivered by prices.
  - People will respond to high and variable rates of inflation by spending less time producing and more time trying to protect their wealth and income from the uncertainty created by inflation.

◀ [Jump to first page](#) ▶

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

12<sup>th</sup> edition  
Gwartney - Stroup  
Sobel - Macpherson

### What Causes Inflation?

- Nearly all economists believe that rapid expansion in the money supply is the primary cause of inflation.

◀ [Jump to first page](#) ▶

Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

**12<sup>th</sup> edition**  
Gwartney - Stroup  
Sobel - Macpherson

**Questions for Thought:**

1. Suppose that the CPI was 150 at the end of last year and 157.5 at the end of this year. What was the inflation rate during the year?
2. If decision makers anticipate an inflation rate of 3% at the start of a year and prices during the year to rise by 7%, this is an example of
  - a. anticipated inflation.
  - b. an inflation rate higher than anticipated.
  - c. an inflation rate lower than anticipated.
3. *True or false:* when the inflation rate is high and variable, decision makers will generally be able to anticipate year-to-year changes in inflation quite accurately.

[← Jump to first page →](#) Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

---

---

**12<sup>th</sup> edition**  
Gwartney - Stroup  
Sobel - Macpherson

**Questions for Thought:**

4. How would an unanticipated 5 percent jump in inflation impact the wealth of:
  - a. Joe, who has a 30-year home mortgage at a fixed interest rate
  - b. The McCoy's, who hold most of their wealth in long-term fixed yield bonds
  - c. Hanna, a retiree drawing a pension of a fixed dollar amount
  - d. Jose, a heavily indebted small-business owner.
  - e. Mike, the owner of an apartment complex with substantial debt at a fixed interest rate
  - f. Tina, a worker whose wages are determined by a 3-year union contract ratified three months ago

[← Jump to first page →](#) Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

---

---

---

---

---

**12<sup>th</sup> edition**  
Gwartney - Stroup  
Sobel - Macpherson

**Questions for Thought:**

5. What impact will high and variable rates of inflation have on the economy? How they will they influence the risk accompanying long-term contracts and related business decisions?
6. Compared to the United States, labor markets in Europe are characterized by more generous unemployment benefits. Other things constant, how will this influence the unemployment rate in Europe compared to that in the U.S.? Explain.

[← Jump to first page →](#) Copyright ©2009 Thomson South-Western. All rights reserved.

---

---

---

---

---

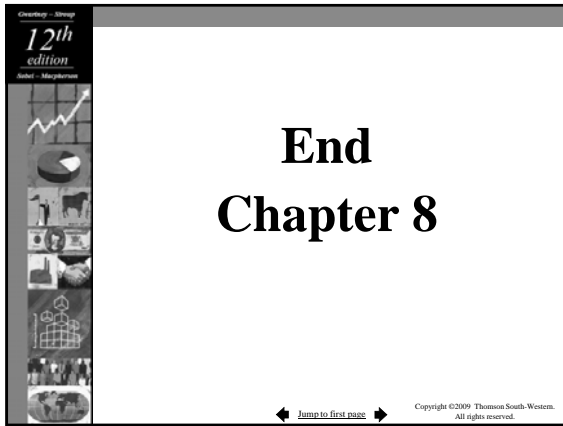
---

---

---

---

---



---

---

---

---

---

---

---

---