

# Lesson 3 Unemployment

# Labor force and unemployment

# Labor Force

**Labor Force is the sum of all individuals 16 years and older, not in the military or in prison, who are either currently employed or unemployed.**

## **Who is in the Labor Force?**

- **Above 16 years old**
- **Able and willing to work**
- **Not institutionalized (jails, hospitals)**
- **Not in military, in school full time, or retired**

# Defining and Measuring Unemployment

- The most frequently discussed symptom of a recession is unemployment.
- An *employed* person is any person 16 years old or older and works for pay, either for someone else or in his or her own business for 1 or more hours per week (including part-time job)

# Defining and Measuring Unemployment

- An *unemployed* person is a person 16 years old or older who:
  1. is not working,
  2. is available for work, and
  3. has made specific efforts to find work during the previous 4 weeks.
- A person who is not looking for work, either because he or she does not want a job or has given up looking, is *not in the labor force*. (*discouraged workers*)

# How is Unemployment Measured?

The **unemployment rate** is calculated as the percentage of the labor force that is unemployed.

$$\text{Unemployment rate} = \frac{\text{Number unemployed}}{\text{Labor force}} \times 100$$

# How is Unemployment Measured?

The **labor-force participation rate** is the percentage of the adult population that is in the labor force.

$$\text{Labor - force participation rate} = \frac{\text{Labor force}}{\text{Adult population (age above 16)}} \times 100$$

# Defining and Measuring Unemployment

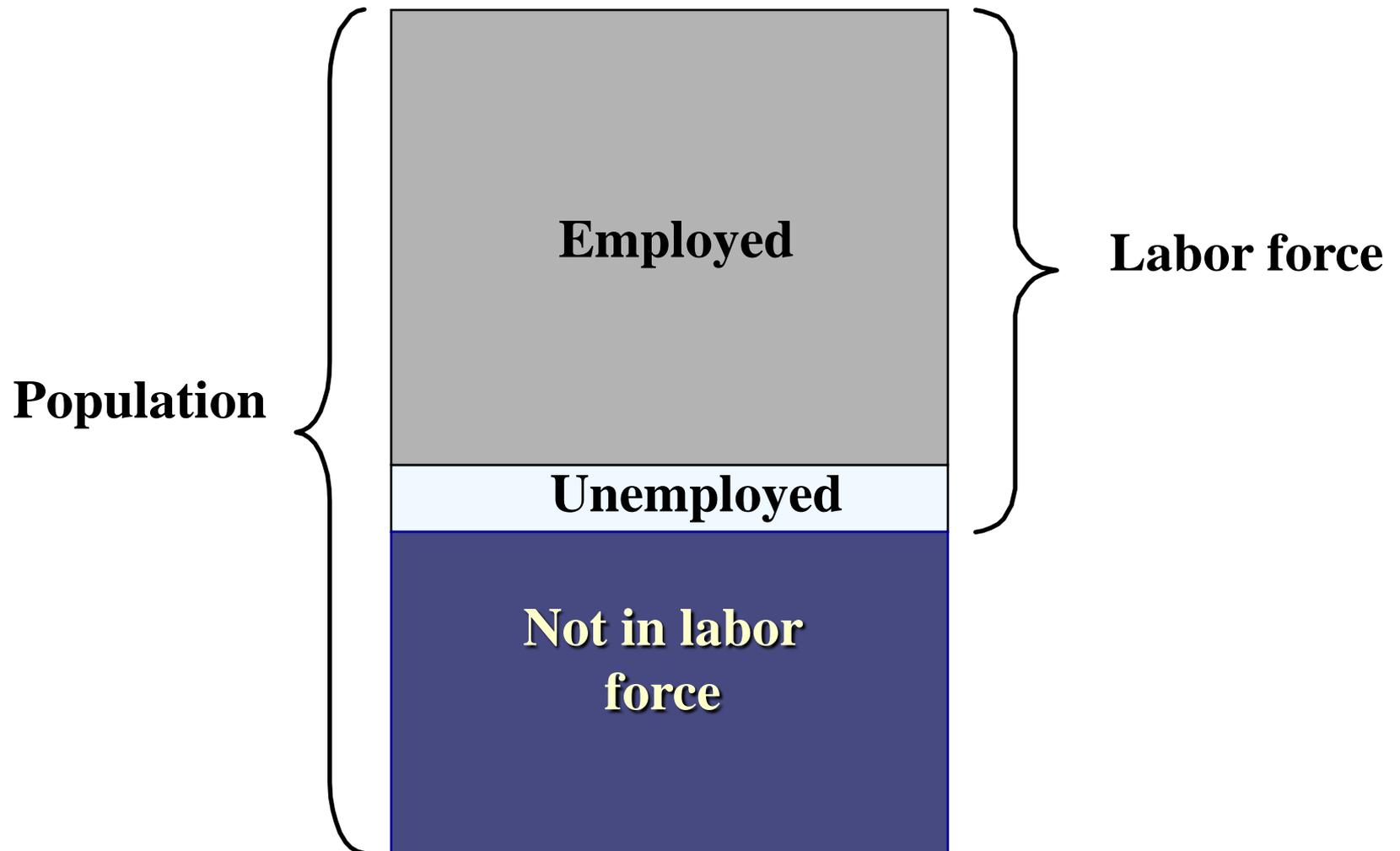
$$\text{labor force} = \text{employed} + \text{unemployed}$$

$$\text{population} = \text{labor force} + \text{not in labor force}$$

$$\text{unemployment rate} = \frac{\text{unemployed}}{\text{employed} + \text{unemployed}}$$

$$\text{labor force participation rate} = \frac{\text{labor force}}{\text{population}}$$

# The Breakdown of the Population



# Criticisms of the Unemployment Rate

**It can misdiagnose the actual unemployment rate because of the following:**

## **Discouraged workers -**

- **Some people are no longer looking for a job because they have given up. 没有纳入**

## **Part-Time Workers-**

- **Someone who wants more shifts but can't get them is still considered employed. 愿望没有表达出来**

## **Illegal Labor-**

- **Many people work under the table. 指标是不准确的**

# Categories of unemployment

# 3 Types of Unemployment

## 1. Frictional Unemployment

- “Temporarily unemployed” or being between jobs.
- Individuals new enter the labor market

### Examples:

- High school or college graduates looking for jobs.
- Individuals who were fired and are looking for a better job.

# 3 Types of Unemployment

## Seasonal Unemployment

- This is a specific type of frictional unemployment which is due to time of year and the nature of the job.
- These jobs will come back

## Examples:

- Professional Santa Clause Impersonators



# 3 Types of Unemployment

## 2. Structural Unemployment

- Changes in the structure of the labor force make some skills obsolete.
- Workers have skills that are no longer in demand and these jobs will never come back.
- Workers must learn new skills to get a job.

### Examples:

- VCR repairmen
- Carriage makers



# 3 Types of Unemployment

## 3 Cyclical Unemployment

- **Unemployment that results from economic downturns (recessions).**
- **As demand for goods and services falls, demand for labor falls and workers are fired.**

### **Examples:**

- **Steel workers laid off during recessions.**
- **Restaurant owners fire waiters after months of poor sales due to recession.**

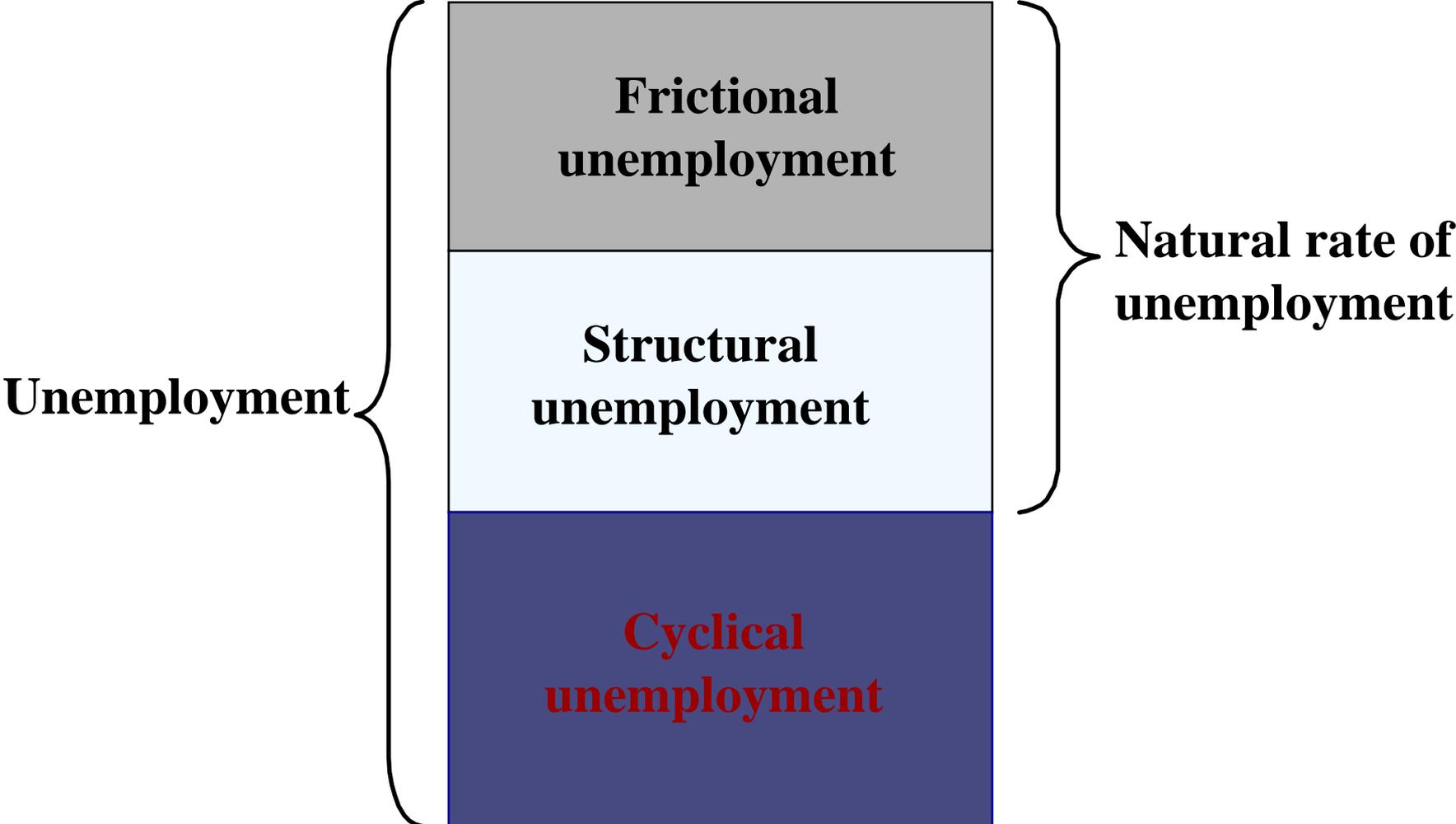
# The Natural Rate and Full Employment

Two of the of the three types of unemployment are unavoidable:

- Frictional unemployment
  - Structural unemployment
- Together they make up the **natural rate of unemployment (NRU)**.

**We are at full employment if we have only the natural rate of unemployment.**

# The Natural Rate and Full Employment



# The Natural Rate and Full Employment

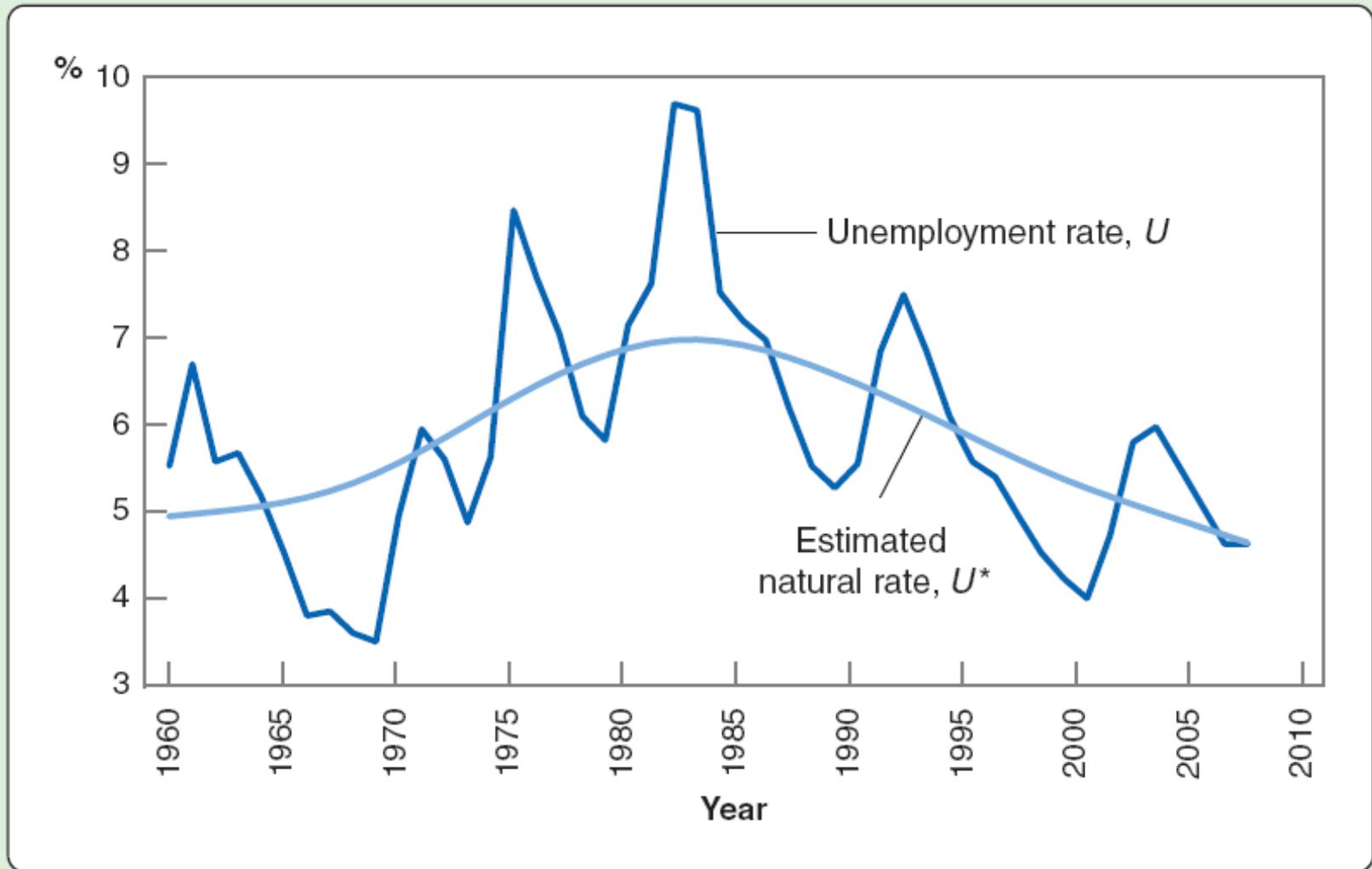
**Full employment means NO Cyclical unemployment!**

**Economists generally agree that an unemployment rate of around 4 to 6 % is full employment.**

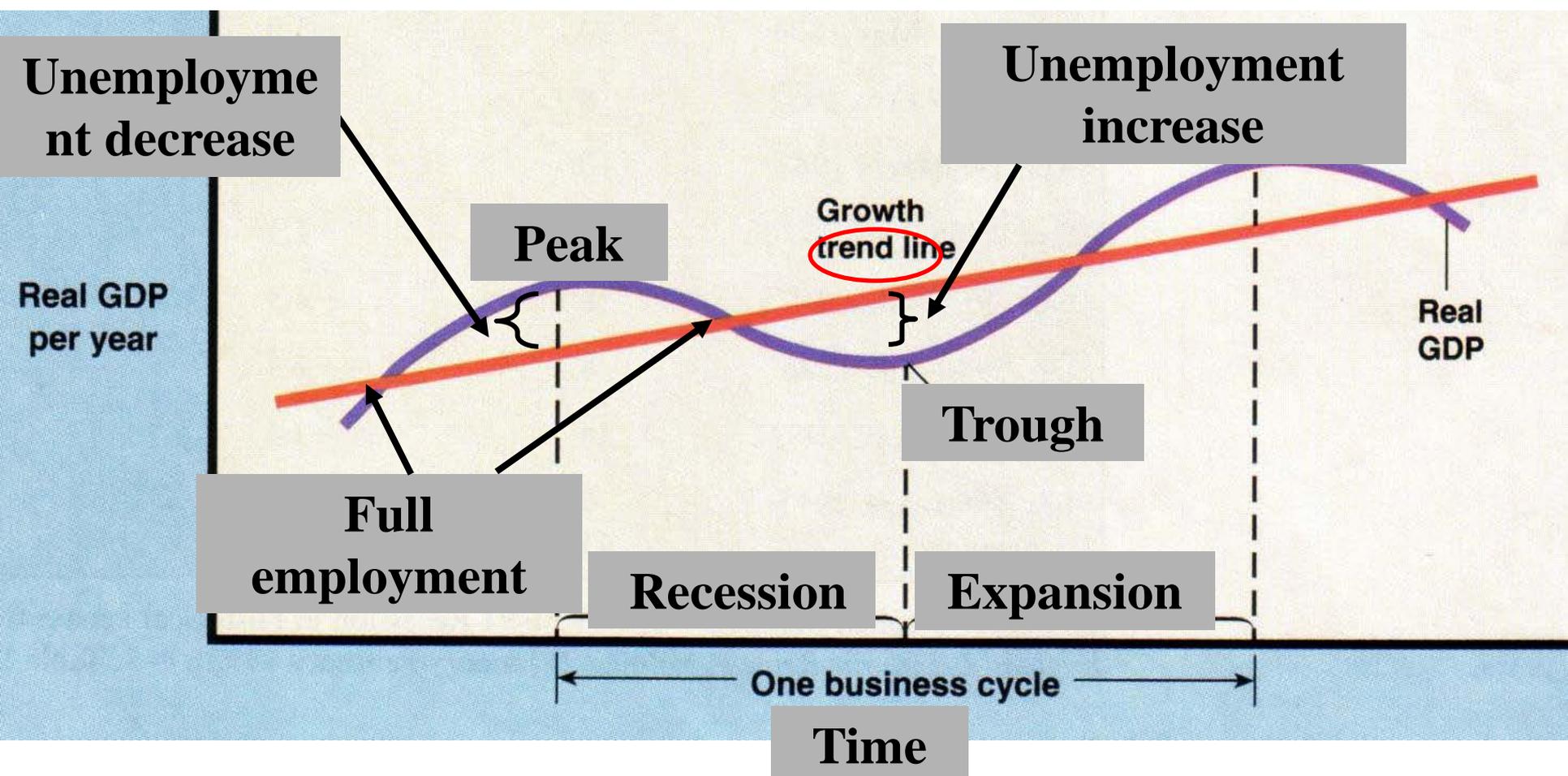
**4-6% Unemployment = NRU**

# The Natural Rate and Full Employment

**FIGURE 12.2** The U.S. Natural Rate of Unemployment, 1960–2007



# Relationship between unemployment and economic cycle



# 2018 FRQ #3

3. Countries face trade-offs between producing consumer goods and producing capital goods.
- (a) Country X takes one hour to produce a unit of consumer goods and two hours to produce a unit of capital goods. Country Y takes two hours to produce a unit of consumer goods and four hours to produce a unit of capital goods. Which country has a comparative advantage in the production of consumer goods? Explain.

The following table shows labor-market data for Country X.

Employed	180,000
Frictionally unemployed	10,000
Structurally unemployed	5,000
Cyclically unemployed	5,000
Not in the labor force	100,000

- (b) Calculate the unemployment rate in Country X. Show your work.
- (c) Calculate the labor force participation rate in Country X. Show your work.
- (d) Draw a correctly labeled graph of the production possibilities curve for Country X, with consumer goods on the horizontal axis and capital goods on the vertical axis. Indicate a point on your graph, labeled Z, that reflects the current level of unemployment.