# CHAPTER 6: UNEMPLOYMENT

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- Determinants of unemployment
- Why unemployment is an unavoidable characteristic of the economy and why it exists over the long run

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Unemployment is a phenomenon present in any economy both in the long and in the short run.

We call the <u>natural rate of unemployment</u> as the average rate of unemployment around which the economy fluctuates in the short run.

We will first discuss what determines the natural rate, in the second part of the course we will focus on the year-to-year fluctuations in the total employment, and unemployment rate



## NOTATION

Let L stand for the overall labor force; U for the number of unemployed people, and E for the number of employed labor force population. Unemployment rate is: U/(U + E).

Assume that L does not change over time; f is the rate of job finding by the U (i.e. the fraction of U finding a job during one period), and s is the rate of separation from E (i.e. the fraction of E losing jobs during one period).

Then for the unemployment rate to stay unchanged, we require  $s \times E = f \times U$ .

#### DETERMINANTS OF UNEMPLOYMENT

Replace E by L - U and do some trivial algebra, to obtain:

$$\frac{U}{L} = \frac{s}{s+f}$$

The equation tells us that the rate of unemployment depends positively on the rate of separation and negatively on the job finding rate.

We may evaluate how particular policies affect unemployment rate by looking at how they affect s and/or f.

## FRICTIONAL UNEMPLOYMENT

• Jobs have different characteristics and require different skills; workers have different abilities and different tastes. Thus, employers' and workers' search for better matches creates frictional unemployment.

Frictional unemployment can be also caused by sectoral shifts (e.g., falling/rising demand in particular industries)

Policies to reduce frictional unemployment: government retraining programs, job centers, etc.

Government usually provides unemployment insurance (UI) to those who lose their job.

The more generous such programs are the less time people will devote to searching a new job, and so f will fall, and the natural unemployment rate will rise.

UI policies may also increase *s* since unemployment becomes less risky for would-be-unemployed.

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Read p. 145 of the text, the last 2 paragraphs.

Another reason for unemployment is wage rigidity—the failure of wages to adjust to their equilibrium levels:

- Due to wage controls-minimum wage laws, and unions
- Due to considerations by employers—efficiency wages

Unemployment due to wage rigidity is called wait unemployment.

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Minimum wage laws have the largest effects on teenage and least skilled employment.

Pros of minimum wage: supports income poor

Cons: laws are not well targeted

## EFFICIENCY WAGE THEORIES

Efficiency wage theories: firms pay higher than equilibrium wages to make workers more productive.

- Wages influence nutrition and thus productivity (applies mostly to developing countries)
- Higher wages reduce labor turnover and so reduce firm's training costs, and searching costs
- Higher wages retain a better pool of workers
- Higher wages improve worker's effort since the costs of shirking are high

#### PATTERNS OF UNEMPLOYMENT

- The incidence and duration of unemployment increased over the last 25 years or so. Unemployment became more concentrated
- Since 50s there was a steady increase in the unemployment rate. Possible explanations: change in the composition of the labor force (does not explain the rise in unemployment after 70s); prevalence of sectoral shifts; skill-biased technical change and generous UI programs.

Practice Problems: 5, 8.