

ECONOMICS 2

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Week 3

Unemployment

Chapters 5

Outline

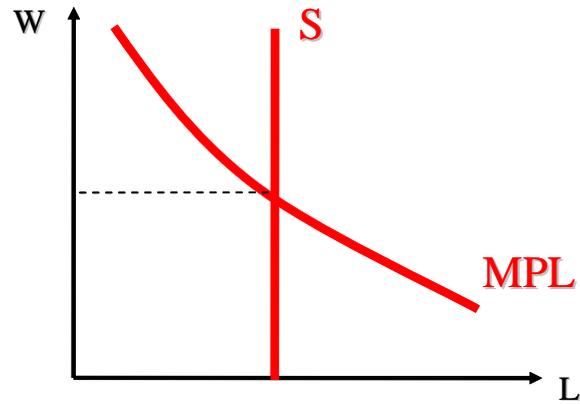
- What do we know?
- What are the observations?
- The natural rate of unemployment.
- Deviation from the natural rate.

What do we know?

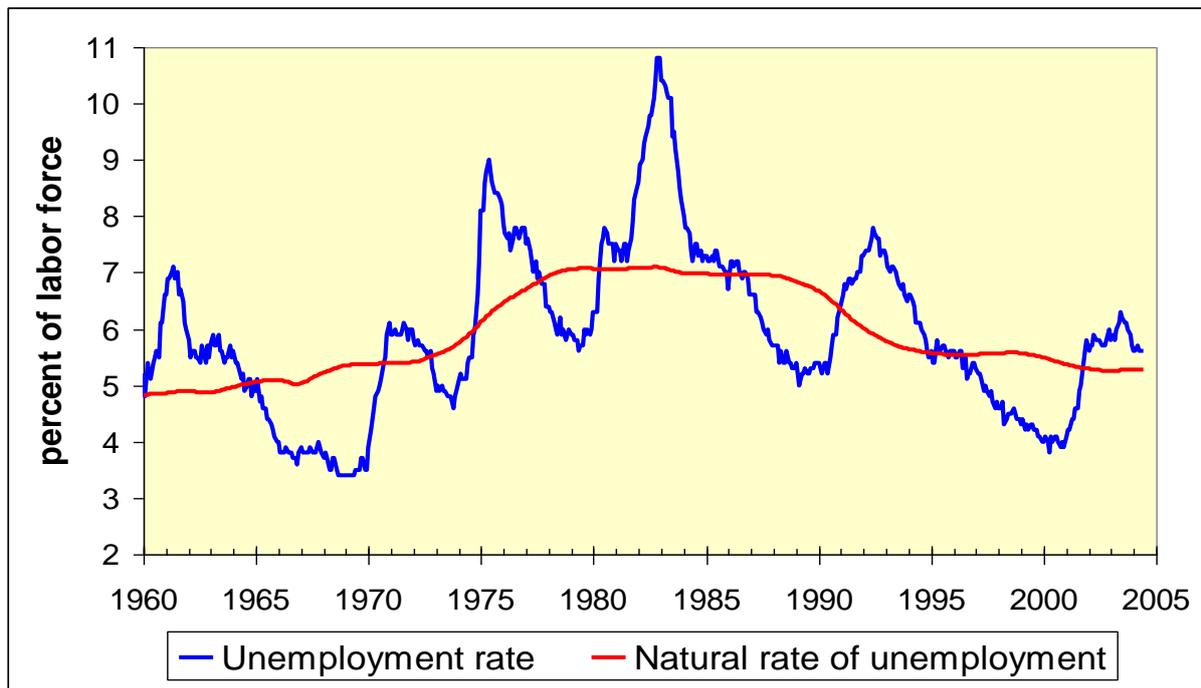
- A person is unemployed if he/she would like to work, but cannot find a job. I.e., he/she would work at the given wage level, but can not.
- Unemployment is always present in the modern market economies.

What is in the model?

The labor market is a simple market, which reaches equilibrium sooner or later.



Unemployment rate



Two questions

How and why does the natural rate of unemployment evolve?

How much and why does the economy deviate from the natural rate of unemployment?

The natural rate of unemployment

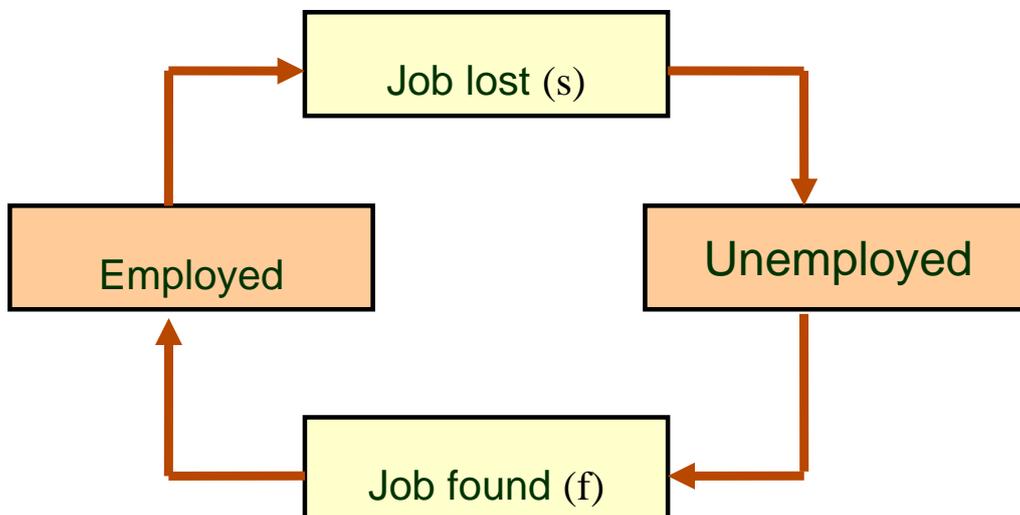
$$L = E + U$$

Labor force = Employed +
+ Unemployed

f% of the job seekers find a job.

s% of the employed lose their job.

Finding and losing jobs



Unemployed

Unemployment rate

- Unemployment rate: U/L .
- What is the unemployment rate in the long run?
- Equilibrium condition:

$$fU = sE$$

The number of job seekers and those who lose jobs are the same.

Unemployment rate

$$fU = sE$$

$$fU = s(L - U)$$

$$fU = sL - sU$$

$$(f + s)U = sL$$

$$U/L = s/(f + s)$$

Reasons of unemployment 1

Job seeking and frictional unemployment

- The labor force is not homogenous – different persons, different skills, different needs.
- There is limited information on the job opportunities.
- The jobs and the job seekers are geographically located.

Reasons of unemployment 1

The matching of jobs and job seekers takes time. This phenomenon is called **frictional unemployment**.

Can frictional unemployment be avoided?

No! There is permanent **change in the sector structure** of production, thus frictional unemployment is always present.

Frictional unemployment and economic policy

Steps to **mitigate** frictional unemployment:

- Employment agencies, information provision
- Education

Steps that **increase** frictional unemployment:

- Unemployment benefits

Frictional unemployment and economic policy

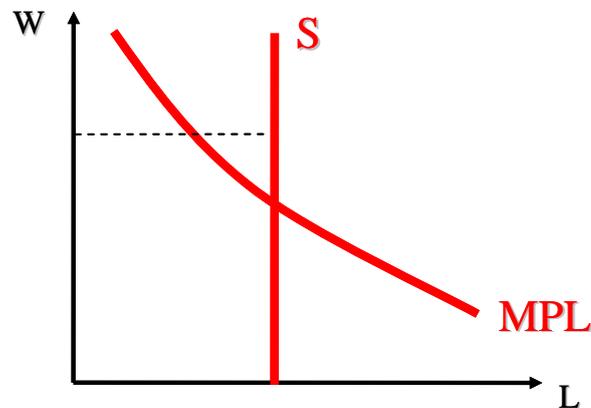
Is the effect of unemployment benefits on frictional unemployment necessarily bad?

No!

- Longer search can result in optimal decision.
- Can make changing jobs easier.

Reasons of unemployment 2

Inelastic real wages



Structural unemployment

If real wages are inelastic then part of the job seekers do not start working not because they are waiting for better offers but because there are no suitable jobs for them. This is called **structural unemployment**. The job seekers are waiting for new job opportunities.

Question: If there is excess supply on the market, why does the price not decrease?

Minimum wage

- The minimum wage is a legal minimum of wages. With it the government causes inelasticity.
- The minimum wage does not affect most of the people. It pushes above the equilibrium the wage of unskilled workers.
- It has the largest effect on teenager workers. (Common proposal: minimum wage should not apply to the young employed.)
- Tax subsidies can be better tools for supporting the poor.

Trade unions

The trade unions represent the interests of the employed, and can be in monopolist position.

The wages of trade union members are not determined on the market, but through negotiations among the leaders of the trade unions and firms.

The trade union bargains can affect those firms as well where no trade unions are present.

Efficient wages

Labor is not homogenous.

The firms might offer wages above the equilibrium so as to acquire (retain) **efficient** labor force.

There can be positive relation between productivity and wage.

- Higher wage – better nutrition.
- Higher wage – no **contraselection**.
- Higher wage – less exits.
- Higher wage – stronger motivation.

The structure of unemployment

The length of unemployment

How quickly can someone find a job after losing a job?

The answer can help learn the reasons of unemployment, and what are the best policy measures in the given situation.

Short time = frictional unemployment

Long time = structural unemployment

The structure of unemployment

Demographic differences

Two reasons of high unemployment: low rate of job gains or high rate of job losses.

According to U.S. research findings the main problem is in the job losses.

Deviation from the natural rate

Up to now we did not say anything about the reasons of big fluctuations in the unemployment rate.

According to empirical results the rate of unemployment is strongly related to the economic fluctuations.

When is the unemployment rate higher: during crises or during booms?

Okun`s law

$\% \text{ change in real GDP} = 3\% - 2x \text{ the } \% \text{ change in unemployment rate}$