

Unemployment

Ryoichi Imai

The Natural Rate of Unemployment

L : labor force, E : Employed, U : Unemployed

f : job finding rate, s : job separation rate

By definition,

$$L = E + U. \quad (1)$$

In the steady state, the flow out of unemployment equals the flow into it.

$$fU = sE. \quad (2)$$

We can eliminate E in (2) by using (1) to obtain the unemployment rate as

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

If $s = .01$ and $f = .20$, the unemployment rate is 4.76%.

Any policy that affects the rates of job finding or separation can change the natural rate of unemployment.

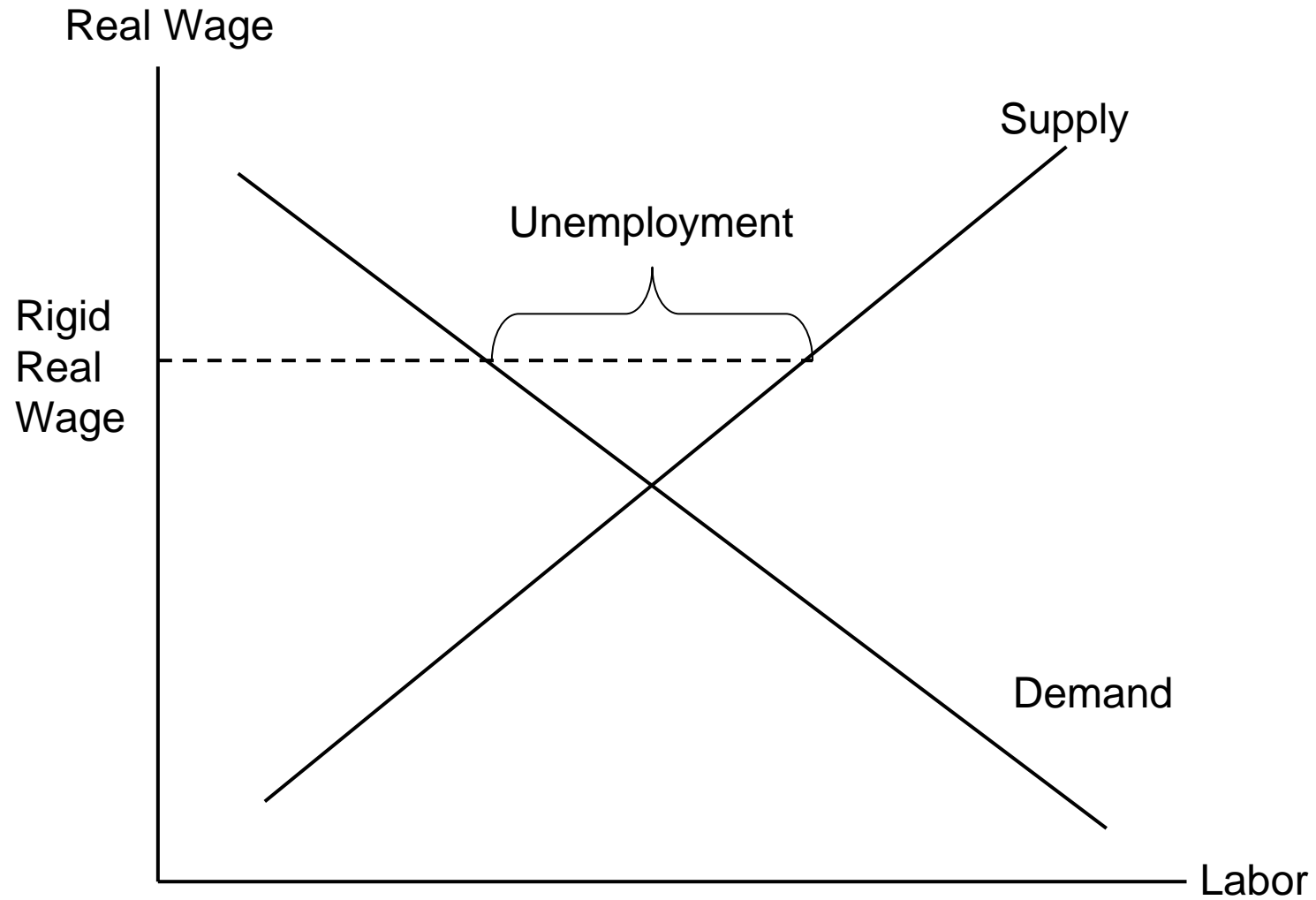
Job Search

- The *Natural Rate of Unemployment* is the average rate of unemployment around which the economy fluctuates.
- *Frictional Unemployment*: unemployment caused by the time it takes to search for a job.
- A change in the composition of demand in industries or regions is called a *sectoral shift*.
- With unemployment insurance, workers are less pressed to search for new employment, which increases the natural rate of unemployment.

Real Wage Rigidity

- *Wage Rigidity*: the failure of wages to adjust until labor supply equals labor demand. Wage rigidity causes *Structural Unemployment*.
- 3 sources for wage rigidity:
 - minimum wage laws,
 - monopoly power of unions, and
 - efficiency wages.

Real Wage Rigidity Leads to Job Rationing



Minimum-Wage Laws

- Minimum-wage regulations tend to discourage employers to create jobs.
- However, minimum-wage regulations are not *binding* (that is, workers earn well above the minimum) in most cases except for teenage unemployment.

Unions

- The wages of unionized workers are determined by *collective bargaining* between union leaders and firm management.
- The unemployment caused by unions is an instance of conflict between *insiders* and *outsiders*.
- Those workers already employed try to keep their wages high, which reduces job opportunities for the unemployed.

Efficiency Wages

- High wages make workers more productive.
 - Better-paid workers are healthier and more productive. (This story is applicable to poor countries)
 - High wage reduces labor turnover. The more paid workers are more willing to stay at their current jobs.
 - Asymmetric Information: *Adverse selection and Moral hazard.*

Asymmetric Information

- *Adverse Selection*: The employer does not know the productivity of each individual worker. Lowering wages encourages more productive workers to leave.
- *Moral Hazard*: The employer cannot monitor individual workers' effort level. Lowering wages reduces the loss of losing jobs as well as workers' incentive to work more productively.

Various Unemployment Rates across Demographic Groups

- Younger workers have much higher unemployment rates.
 - They are uncertain about their career plans.
 - They try different jobs before making a commitment to a specific occupation.
- Unemployment rates are much higher for blacks than for whites.
 - Less access to informal job-finding networks
 - Discrimination by employers?