

## Reasons for wage rigidity

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1. Minimum wage laws
2. Labor unions
3. Efficiency wages

## The minimum wage

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- The minimum wage is well below the eq'm wage for most workers, so it cannot explain the majority of natural rate unemployment.
- However, the minimum wage may exceed the eq'm wage of unskilled workers, especially teenagers.
- If so, then we would expect that increases in the minimum wage would increase unemployment among these groups.

## The minimum wage in the real world:

- In Sept 1996, the minimum wage was raised from \$4.25 to \$4.75. Here's what happened:

Unemployment rates, before & after		
	3 <sup>rd</sup> Q 1996	1 <sup>st</sup> Q 1997
Teenagers	16.6%	17.0%
Single mothers	8.5%	9.1%
All workers	5.3%	5.3%

- Other studies: A 10% increase in the minimum wage increases teenage unemployment by 1-3%.

## Labor unions

- Unions exercise monopoly power to secure higher wages for their members.
- When the union wage exceeds the eq'm wage, unemployment results.
- Employed union workers are **insiders** whose interest is to keep wages high.
- Unemployed non-union workers are **outsiders** and would prefer wages to be lower (so that labor demand would be high enough for them to get jobs).

### Union membership and wage ratios by industry, 2001

industry	# employed (1000s)	U % of total	RBU % of total	wage ratio
mining	531	12.3%	12.9%	103.4
construction	6,881	18.4	19.0	151.0
manufacturing	18,149	14.6	15.5	105.9
transportation	4,441	24.1	25.4	127.8
comm. and pub util	2,981	22.6	23.7	104.2
wholesale trade	4,540	5.5	5.9	105.8
retail trade	20,505	4.5	5.0	117.8
fin, insu, and real est	7,648	2.1	2.8	90.1
services	34,261	5.9	6.8	103.3
government	19,155	37.4	41.8	121.1
<b>all</b>	<b>119,092</b>	<b>13.6%</b>	<b>15.0%</b>	<b>118.0</b>

RBU = nonunion workers represented by a union  
 wage ratio =  $100 \times (\text{union} + \text{RBU wage}) / (\text{nonunion wage})$

slide 27

## Efficiency Wage Theory

- Theories in which high wages increase worker productivity:
  - attract higher quality job applicants
  - increase worker effort and reduce “shirking”
  - reduce turnover, which is costly
  - improve health of workers  
*(in developing countries)*
- The increased productivity justifies the cost of paying above-equilibrium wages.
- The result: unemployment

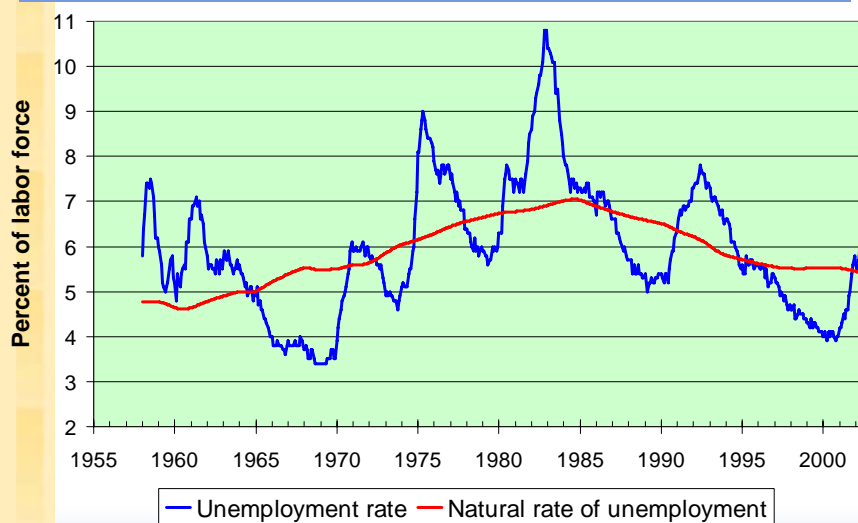
## The duration of unemployment

- The data:
  - More spells of unemployment are short-term than medium-term or long-term.
  - Yet, most of the total time spent unemployed is attributable to the long-term unemployed.
- This long-term unemployment is probably structural and/or due to sectoral shifts among vastly different industries.
- Knowing this is important because it can help us craft policies that are more likely to succeed.

CHAPTER 6 Unemployment

slide 31

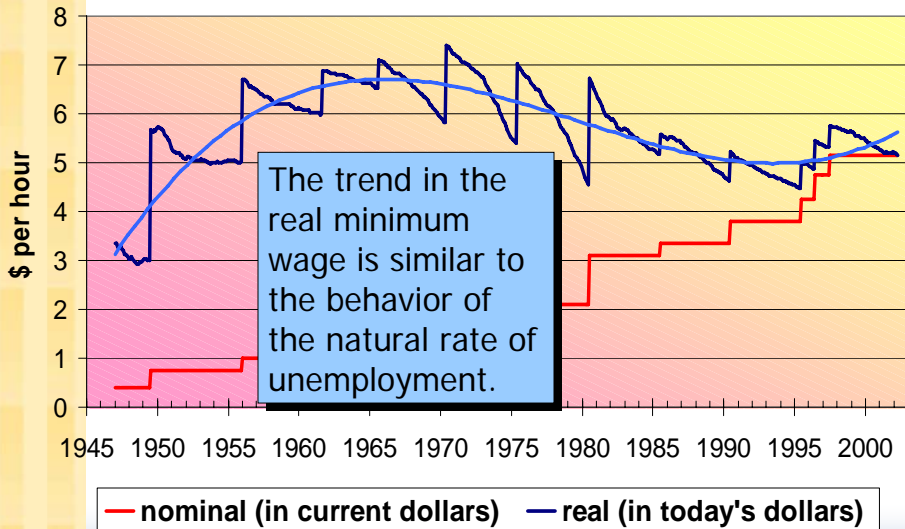
## Actual & natural rates of unemployment in the U.S.



CHAPTER 6 Unemployment

slide 32

## EXPLAINING THE TREND: The minimum wage



CHAPTER 6 Unemployment

slide 33

## EXPLAINING THE TREND: Union membership

Union membership selected years	
year	percent of labor force
1930	12%
1945	35%
1954	35%
1970	27%
1983	20.1%
2001	13.5%

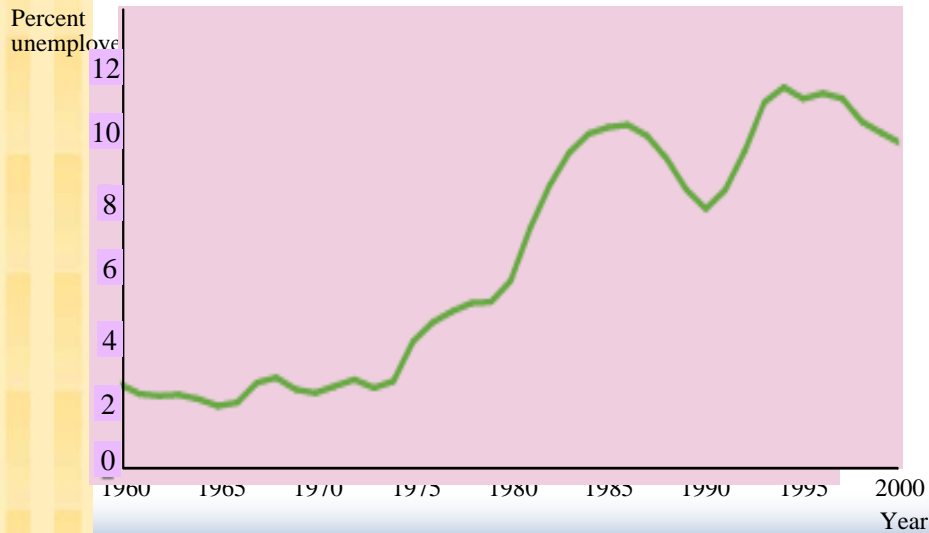
Since the early 1980s, the natural rate of unemployment and union membership have both fallen.

But, from 1950s to about 1980, the natural rate rose while union membership fell.

CHAPTER 6 Unemployment

slide 34

## The rise in European Unemployment



CHAPTER 6 Unemployment

slide 37

## The rise in European Unemployment

Two explanations:

1. Most countries in Europe have generous social insurance programs.
2. Shift in demand from unskilled to skilled workers, due to technological change.

*This demand shift occurred in the U.S., too. But wage rigidity is less of a problem here, so the shift caused an increase in the skilled-to-unskilled wage gap instead of an increase in unemployment.*

CHAPTER 6 Unemployment

slide 38

## Chapter summary

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1. The natural rate of unemployment
  - the long-run average or “steady state” rate of unemployment
  - depends on the rates of job separation and job finding
2. Frictional unemployment
  - due to the time it takes to match workers with jobs
  - may be increased by unemployment insurance

## Chapter summary

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3. Structural unemployment
  - results from wage rigidity - the real wage remains above the equilibrium level
  - causes: minimum wage, unions, efficiency wages
4. Duration of unemployment
  - most spells are short term
  - but most weeks of unemployment are attributable to a small number of long-term unemployed persons

## Chapter summary

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5. Behavior of the natural rate in the U.S.
  - rose from 1950s to early 1980s, then fell
  - possible explanations:  
trends in real minimum wage,  
union membership, prevalence of sectoral  
shifts, and aging of the Baby Boomers
6. European unemployment
  - has risen sharply since 1980
  - probably due to generous unemployment  
insurance there and a technology-driven shift  
in demand away from unskilled workers