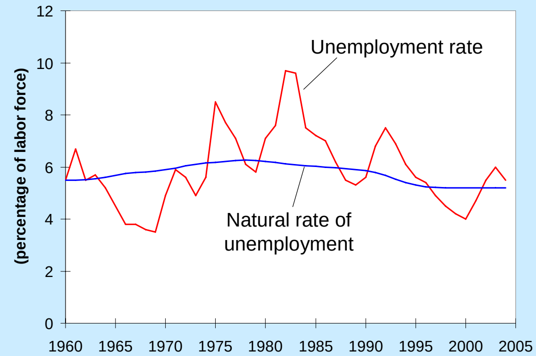
The 2nd Midterm

- This coming Thursday;
- Regular classroom and lecture time;
- Please arrive 5 minutes earlier;
- No.2 pencils, scantron forms, ***ink pens***, non-programmable calculators, and picture IDs.
- The format will be similar to that in the first midterm, with somewhat less questions.
  - 10 multiple choices;
  - Two calculations;
  - One short essay.

U.S. Unemployment Since 1960



Observed Unemployment = natural rate of unemployment + cyclical unemployment

- What determines *cyclical unemployment*?
  - Business cycles.
- What determines *the natural rate of unemployment*?
  - Structure of the economy;
  - Labor market institutions.

Explaining the Natural Rate: An Overview

Even when the economy is doing well, there is always some unemployment, including:

frictional unemployment
- It takes time to find a job that suits you.
- short-term for most workers

structural unemployment
- occurs when there are fewer jobs than workers
- usually longer-term

Job Search

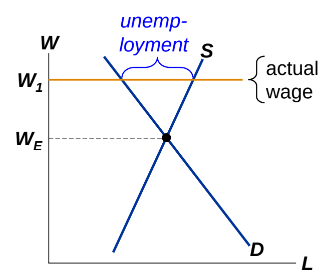
- Workers have different tastes & skills, and jobs have different requirements.
- **Job search** is the process of matching workers with appropriate jobs.
- **Sectoral shifts** are changes in the composition of demand across industries or regions of the country.
- Such shifts displace some workers, who must search for new jobs appropriate for their skills & tastes.
- The economy is always changing, so some frictional unemployment is inevitable.

Explaining Structural Unemployment

Structural unemployment occurs when not enough jobs to go around.

Occurs when wage is kept above eq'm.

There are three reasons for this…



1. Minimum-Wage Laws

- The min. wage may exceed the eq’m wage for the least skilled or experienced workers, causing structural unemployment.
- But this group is a small part of the labor force, so the min. wage can’t explain most unemployment.

2. Unions

- **Union**: a worker association that bargains with employers over wages, benefits, and working conditions
- Unions exert their market power to negotiate higher wages for workers.
- The typical union worker earns 20% higher wages and gets more benefits than a nonunion worker for the same type of work.

2. Unions

- When unions raise the wage above eq’m, quantity of labor demanded falls and unemployment results.
- “Insiders” – workers who remain employed, they are better off
- “Outsiders” – workers who lose their jobs, they are worse off
- Some outsiders go to non-unionized labor markets, which increases labor supply and reduces wages in those markets.

2. Unions

Are unions good or bad? Economists disagree.

- Critics:
  Unions are cartels. They raise wages above eq’m, which causes unemployment and/or depresses wages in non-union labor markets.
- Advocates:
  Unions counter the market power of large firms, make firms more responsive to workers’ concerns.

Henry Ford Again…

He was very nice…

- In 1914, he paid his employees $5 per workday, almost twice as much as the market level.
- Was he only be nice?
- After all, he is a profit maximizer.
- Workers organized in an assembly line are highly inter-dependant. If one worker is absent, other workers are less able to complete their own tasks.
- Quite rate dropped significantly after the increase in wage offered by the Ford Motor Company.

Table 1 Annual Turnover and Layoff Rates (%) at Ford, 1913–1915.

	1913	1914	1915
Turnover rate	370	54	16
Layoff rate	62	7	0.1

Oliver Blanchard
Macroeconomics, 3E

3. Efficiency Wages

- The theory of **efficiency wages**:
  firms voluntarily pay above-equilibrium wages to boost worker productivity.
- Different versions of efficiency wage theory suggest different reasons why firms pay high wages.

3. Efficiency Wages

Four reasons why firms might pay efficiency wages:

1. **Worker health**
   In less developed countries, poor nutrition is a common problem. Paying higher wages allows workers to eat better, makes them healthier, more productive.
2. **Worker turnover**
   Hiring & training new workers is costly. Paying high wages gives workers more incentive to stay, reduces turnover.

3. Efficiency Wages

Four reasons why firms might pay efficiency wages:

3. **Worker quality**
   Offering higher wages attracts better job applicants, increases quality of the firm's workforce.
4. **Worker effort**
   Workers can work hard or shirk. Shirkers are fired if caught. Is being fired a good deterrent?
   Depends on how hard it is to find another job.
   If market wage is above eq'm wage, there aren't enough jobs to go around, so workers have more incentive to work not shirk.

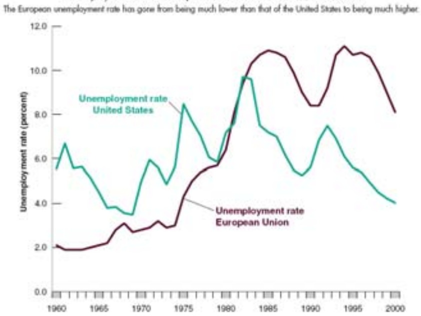
Observed Unemployment = natural rate of unemployment + cyclical unemployment

- What determines *cyclical unemployment*?
  - Business cycles.
- What determines *the natural rate of unemployment*?
  The natural rate of unemployment comes from either frictional unemployment or structural unemployment.
  - Structure of the economy: technological progress; declining sector; growing sector.
  - Labor market institutions: minimum wage; unemployment insurance; labor union.
  - Efficiency wage.

Figure 1-5

Unemployment Rates: Europe Versus the United States: 1960–2000

The European unemployment rate has gone from being much lower than that of the United States to being much higher.



Oliver Blanchard
Macroeconomics, 3E

ACTIVE LEARNING 3:
Exercise

Which of the following would be most likely to reduce frictional unemployment?

A. The govt eliminates the minimum wage.

B. The govt increases unemployment insurance benefits.

C. A new law bans labor unions.

D. More workers post their resumes at Monster.com, and more employers use Monster.com to find suitable workers to hire.

E. Sectoral shifts become more frequent.

ACTIVE LEARNING 3:
Answers

Which of the following would be most likely to reduce frictional unemployment?

A. The govt eliminates the minimum wage.

C. A new law bans labor unions.

These are likely to reduce structural unemployment, not frictional unemployment.

ACTIVE LEARNING 3:
Answers

Which of the following would be most likely to reduce frictional unemployment?

B. The govt increases unemployment insurance benefits.

E. Sectoral shifts become more frequent.

These are likely to increase frictional unemployment, not reduce it.

ACTIVE LEARNING 3:
Answers

Which of the following would be most likely to reduce frictional unemployment?

D. More workers post their resumes at Monster.com, and more employers use Monster.com to find suitable workers to hire.

Likely to speed up the process of matching workers & jobs, which would reduce frictional unemployment.

Explaining the Natural Rate of Unemployment: A Summary

The natural rate of unemployment consists of

- *frictional unemployment*
  - it takes time to search for the right jobs
  - occurs even if there are enough jobs to go around
- *structural unemployment*
  - when wage is above eq'm, not enough jobs
  - due to min. wages, labor unions, efficiency wages

In later chapters, we will learn about *cyclical unemployment*, the short-term fluctuations in unemployment associated with business cycles.

CHAPTER SUMMARY

- The unemployment rate is the percentage of those who would like to work who do not have jobs.
- Unemployment and labor force participation vary widely across demographic groups.
- The natural rate of unemployment is the normal rate of unemployment around which the actual rate fluctuates. Cyclical unemployment is the deviation of unemployment from its natural rate, and is connected to short-term economic fluctuations.

CHAPTER SUMMARY

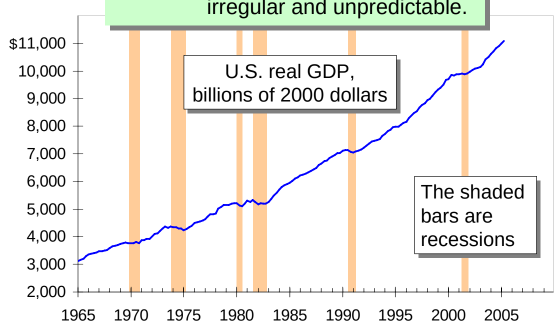
- The natural rate includes frictional unemployment and structural unemployment.
- Frictional unemployment occurs when workers take time to search for the right jobs.
- Structural unemployment occurs when above-equilibrium wages result in a surplus of labor.
- Three reasons for above-equilibrium wages include minimum wage laws, unions, and efficiency wages.

Business Cycles: Introduction

- Over the long run, real GDP grows about 3% per year on average.
- In the short run, GDP fluctuates around its trend.
  - **recessions**: periods of falling real incomes and rising unemployment
  - **depressions**: severe recessions (very rare)
- Short-run economic fluctuations are often called **business cycles**.

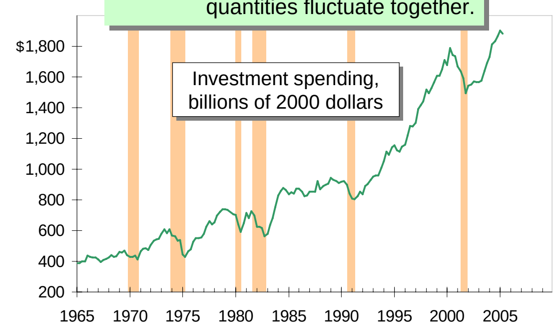
Three Facts About Economic Fluctuations

FACT 1: Economic fluctuations are irregular and unpredictable.



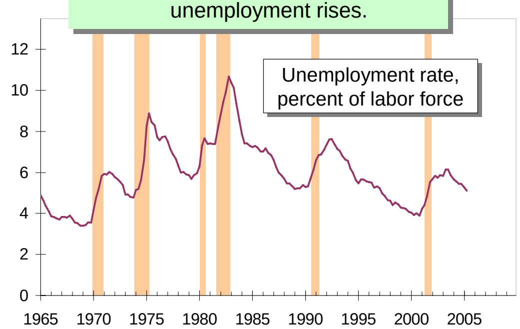
Three Facts About Economic Fluctuations

FACT 2: Most macroeconomic quantities fluctuate together.



Three Facts About Economic Fluctuations

FACT 3: As output falls, unemployment rises.



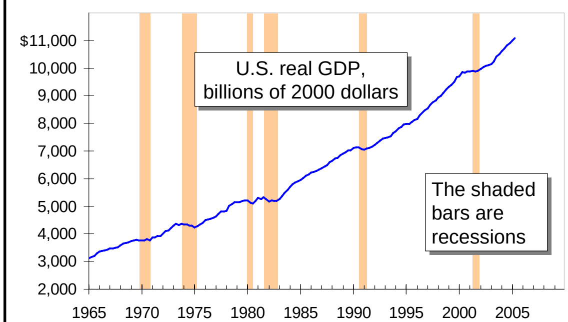
Counter-cyclical v.s. Pro-cyclical

- pro-cyclical variables: those that move ***with*** the cycle; in other words, those that go up during expansions and go down during recessions.
  - Consumption;
  - Investment;
  - Job finding rate;
  - Job creation rate.
- Counter-cyclical variables: those that move ***against*** the cycle; in other words, those that go down during expansions and go up during recessions.
  - Unemployment rate;
  - Unemployment duration;
  - Job destruction rate.

Post-war business cycles

- The economy has become less volatile to some extent;
- We have relatively shorter and milder recessions;
- And longer expansions.

Three Facts About Economic Fluctuations



Are business cycles changing?

- Probably the business cycle is evolving over time;
- Probably the business cycle is not changing, but we have been experiencing different types of shocks – less severe shocks after the second world war.
- Probably the business cycle is not changing, but the background of the economy is changing – a more/less uncertain world, the structural change of the economy.

Two case studies today

- The long expansion during 1990s;
- The two “jobless” recoveries from the 1991 recession and the 2001 recession.

The 1992-2000 expansion

Growth, Unemployment, and Inflation in the United States, 1960-2001 (in percent)

	1960-2000 (average)	1992-2000 (average)	2000	2001
Output growth	3.5	3.7	4.1	1.1
Unemploy ment rate	6.1	5.4	4.0	4.8
Inflation rate	5.1	1.7	2.3	2.1

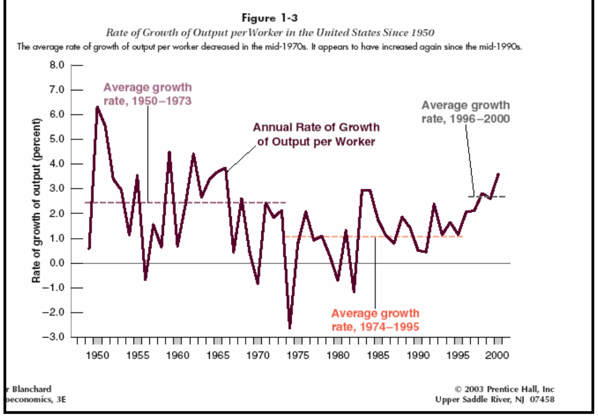
The long expansion of 1992-2000

- ***Output growth*** was positive for nine years in a row, making the period the longest U.S. economic expansion since the WWII.
- Sustained growth in output was associated with a steady increase in employment, and a steady decrease in ***unemployment***.
- Although low unemployment is typically associated with increasing inflation, the ***inflation*** rate remained low.

In short, the economic performance of U.S. from 1992 to 2000 was impressive: ***high output growth, low unemployment, and low inflation.***

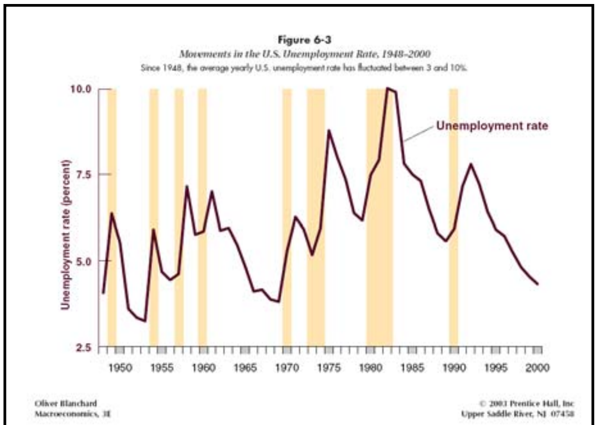
Explaining the high output growth: the “new economy” hypothesis

- Many argue that, since the long expansion during 1990s was associated with the rapid development of the high-tech sector, the U.S. had entered a *New Economy.*
  - The rise of dot-com internet companies.
  - A period of faster technological progress
- Let’s take a look at the productivity growth…



We can say the following…

- Productivity growth varies from year to year, it appears that starting at some point in the 1970s, there was a decrease in the average rate of growth of output per worker;
- During 1990s, however, the average rate of growth of output per worker increased again.
- This is the components emphasized by the New Economy hypothesis.
- New Economy? Maybe…or we were just being lucky.



Explaining the co-existence of low unemployment and low inflation

- Many have argued that the observed low unemployment does not comes from ***low cylical unemployment***, but rather ***low natural unemployment.***
- In other words, we may have had a new natural rate of unemployment during 1990s, which was lower than the one we used to have.

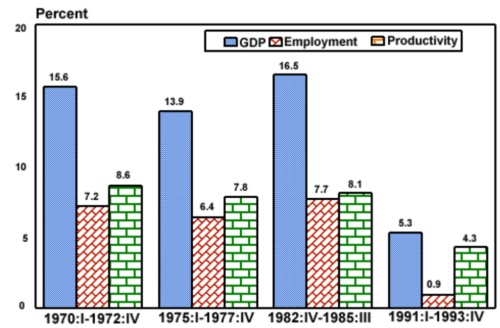
Additional Reading: How Natural is Unemployment?

- The NAIRU for the U.S. economy has been estimated as around 6%.
- Perhaps the NAIRU was lower than 6% during 1990s?
  - Globalization?
  - Productivity surge?
- Maybe, but unemployment has gone up substantially since 2001.

Case Study #2: the Jobless Recoveries

- During the 2001 recession, the performance of the labor market, the downturn was severe and the recovery has been exceptionally slow.
- This was called “the jobless recovery”. The labor market also recovered slowly following the 1990-91 recession.

What do we mean by “jobless recovery”?



Bernanke’s list of explanations

- Increases in benefit costs to employers has retarded hiring.
- firms are slow to begin hiring because of rising uncertainty.
  - the September 11 attacks;
  - the wars in Afghanistan and Iraq;
  - the accounting and corporate governance scandals that came to light in the summer of 2002;
- an increased pace of structural change in the U.S. economy. For example, globalization shifts job opportunities abroad.
- the remarkable increase in labor productivity we have seen in recent years