PEARL
Elementary Macroeconomics II

Week 2

April 18, 2017

In Chapter 7

- You will learn
  - How basic supply and demand helps us understand the labor market.
  - How labor market distortions like taxes and firing costs affect employment in the long run.

The rest are skipped in the class…

  - How to compute present discounted values.
  - How to value your human capital
  - Why return to a college education has risen enormously over the last half-century.

Some facts about U.S. labor market

- How important is wage income?
- How did it grow over the last century?
- How did the share of people working (the employment to population ratio) evolved over last 50 years?
- How did the unemployment rate evolved over last 50 years?

FIGURE 7.1

The Ratio of Employment to Population in the United States, 1960–2013

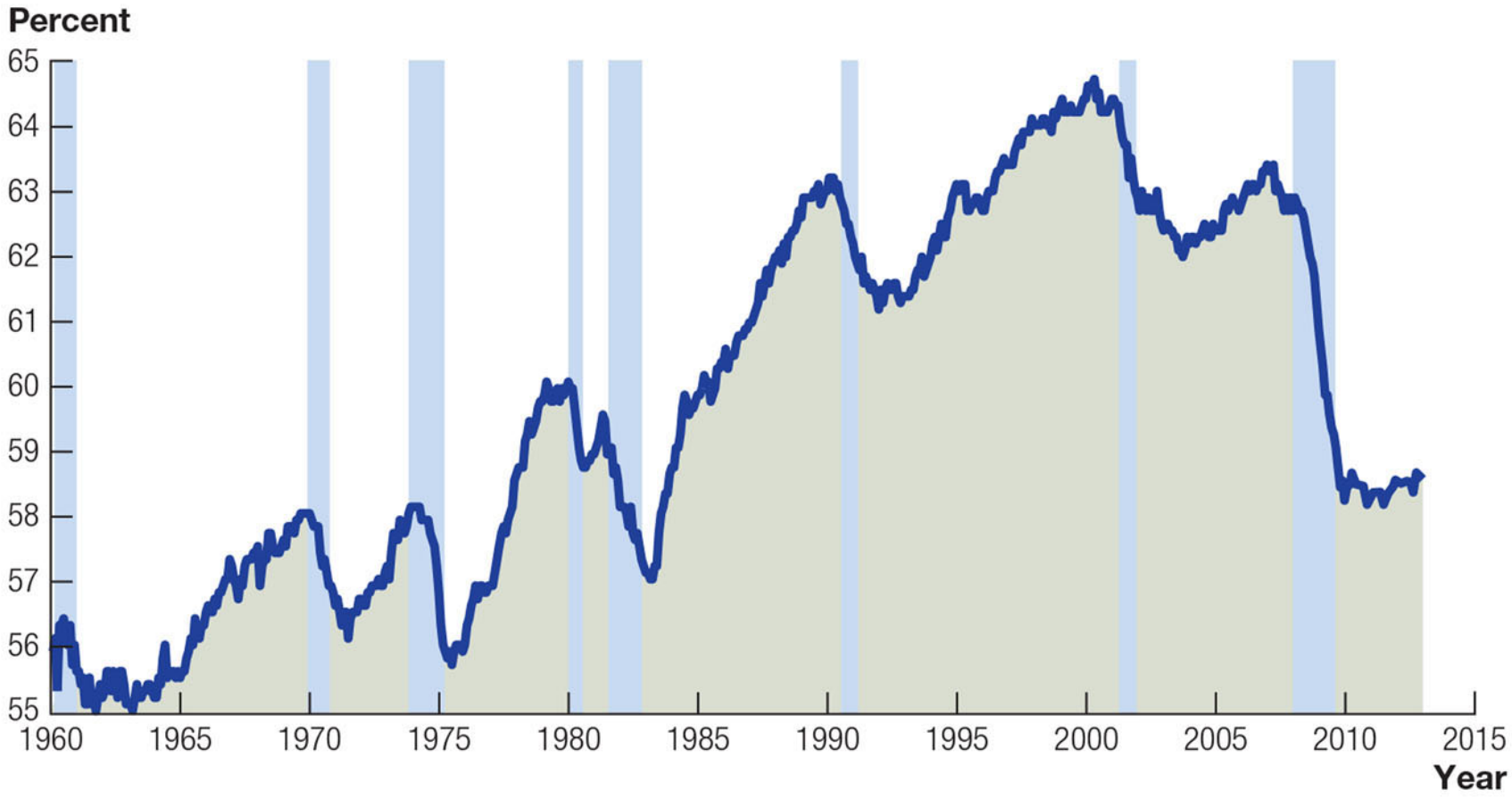


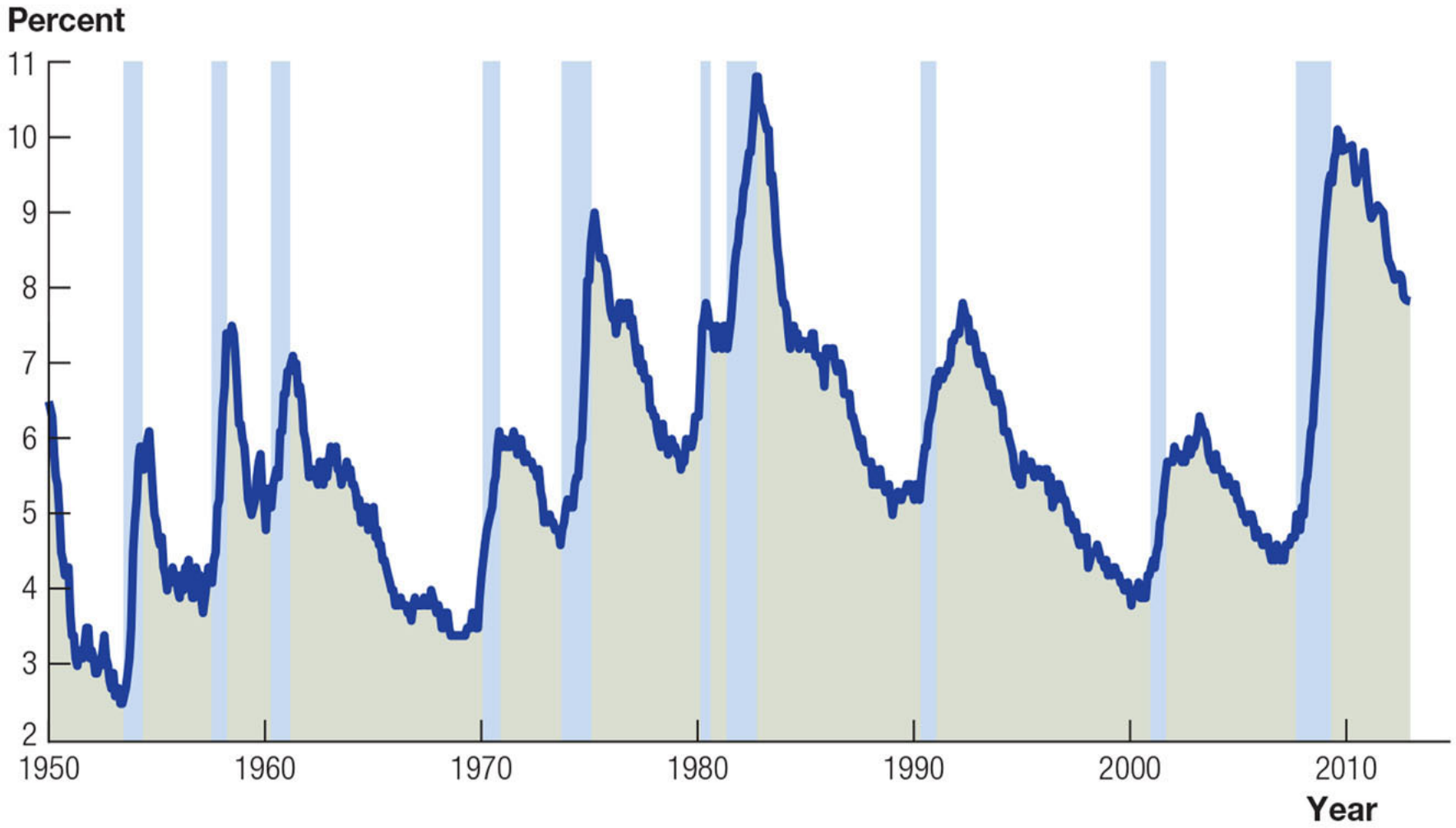
TABLE 7.1

The Composition of the U.S. Labor Force, January 2013

Civilian population, aged 16 and over	245 million
Labor force	156 million
Employed	143 million
Unemployed	12.3 million
Not in the labor force	89 million

FIGURE 7.2

The U.S. Unemployment Rate, 1950–2013

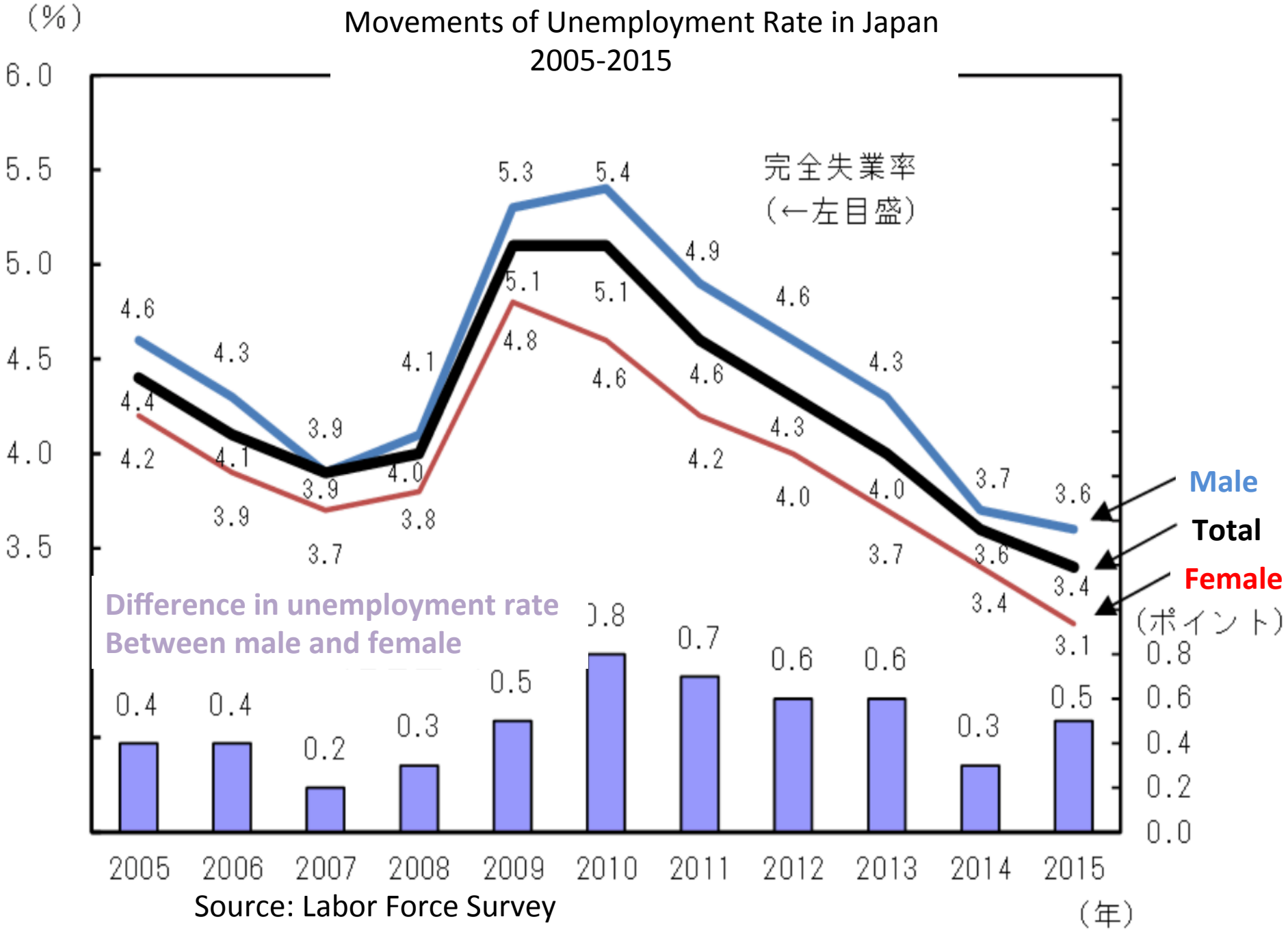


The composition of Japanese Labor Force
2015 Average

Source: Labor Force Survey
http://www.stat.go.jp/data/roudou/report/2015/index.htm

Civilian Population aged 15 and over	110.56 million
Labor Force	65.89 million
Employed	63.67 million
Unemployed	2.22 million
Not in a labor force	44.67 million

Movements of Unemployment Rate in Japan 2005-2015



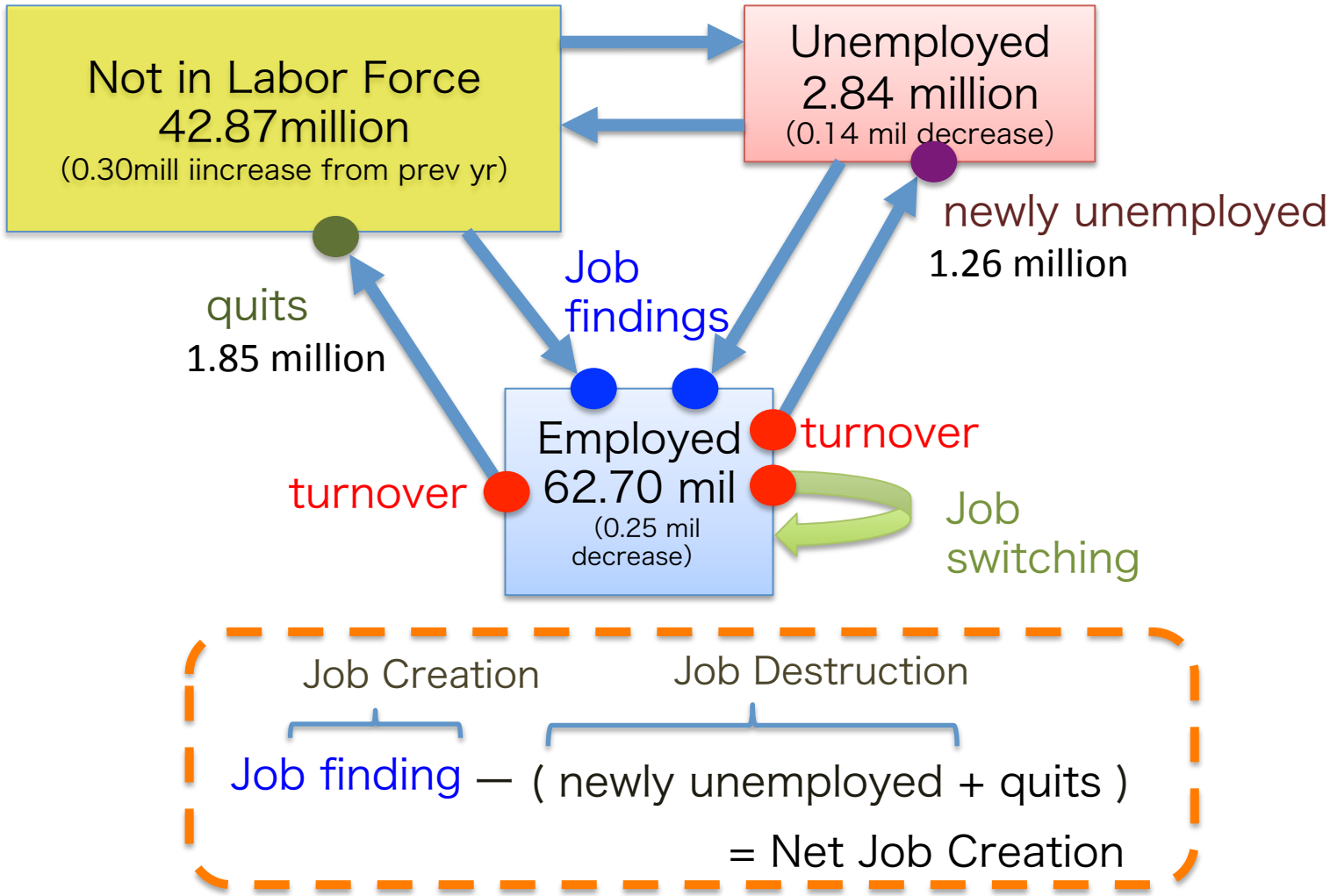
Source: Labor Force Survey
http://www.stat.go.jp/data/roudou/report/2015/index.htm

The Dynamics of the Labor Market

- Job creation
- Job destruction

- Net Job creation=Job creation − Job destruction

Labor Dynamics in 2012 Japan



Source: Labor Force Survey
http://www.stat.go.jp/data/roudou/report/2012/index.htm

Some Facts on Unemployed

- How are the unemployed spells are like for most of the unemployed?
- What is the implication of above?
- How do most of the developed economy dealing with unemployment?

The basic supply and demand model of labor market

- How are the employment and wages determined?
- How do they responds to some economic changes?
  - income tax
  - Reduction in labor demand
- How can we understand unemployment in this basic model?

FIGURE 7.3

The Labor Market

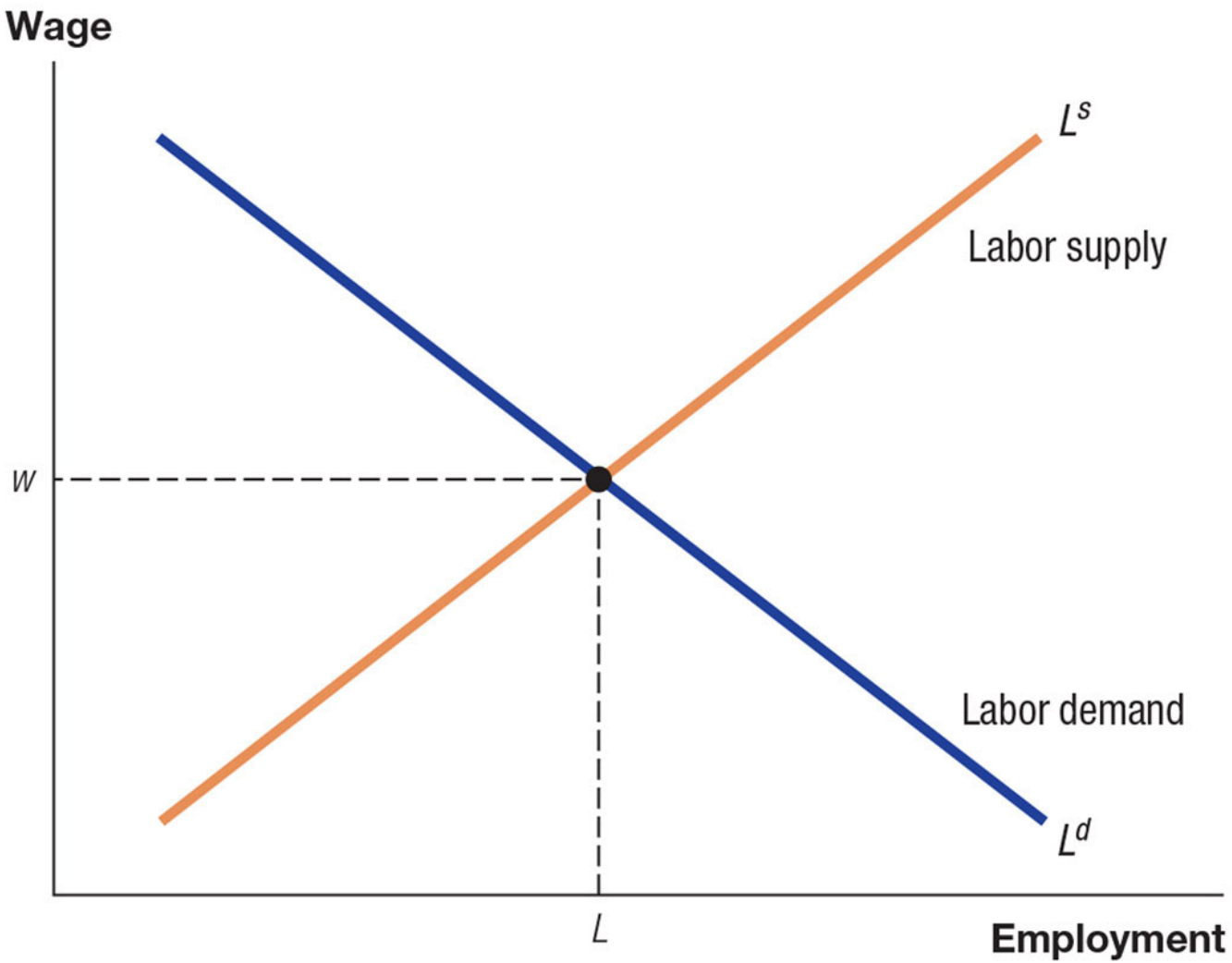


FIGURE 7.4

An Income Tax at Rate τ

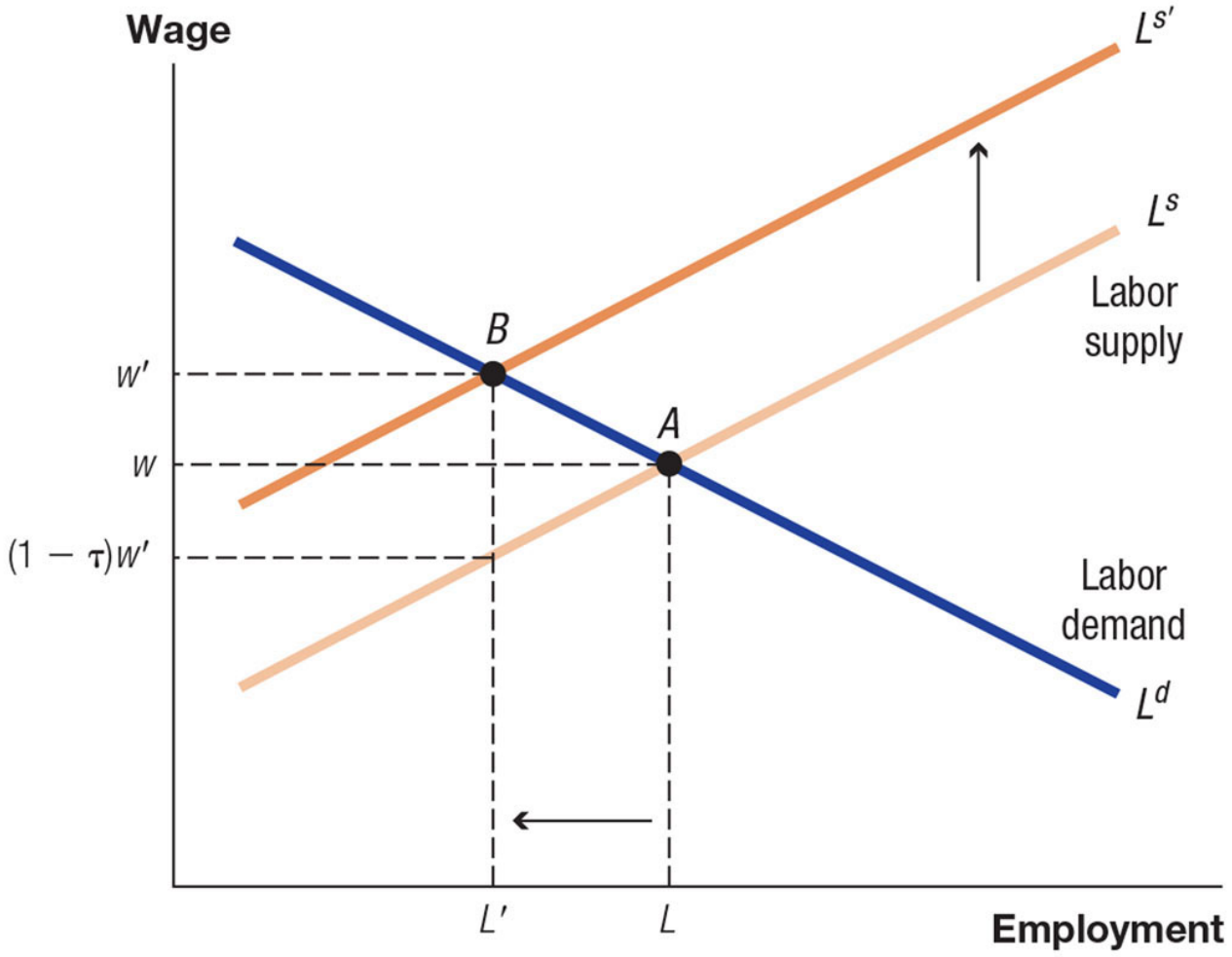


FIGURE 7.5

A Reduction in Labor Demand

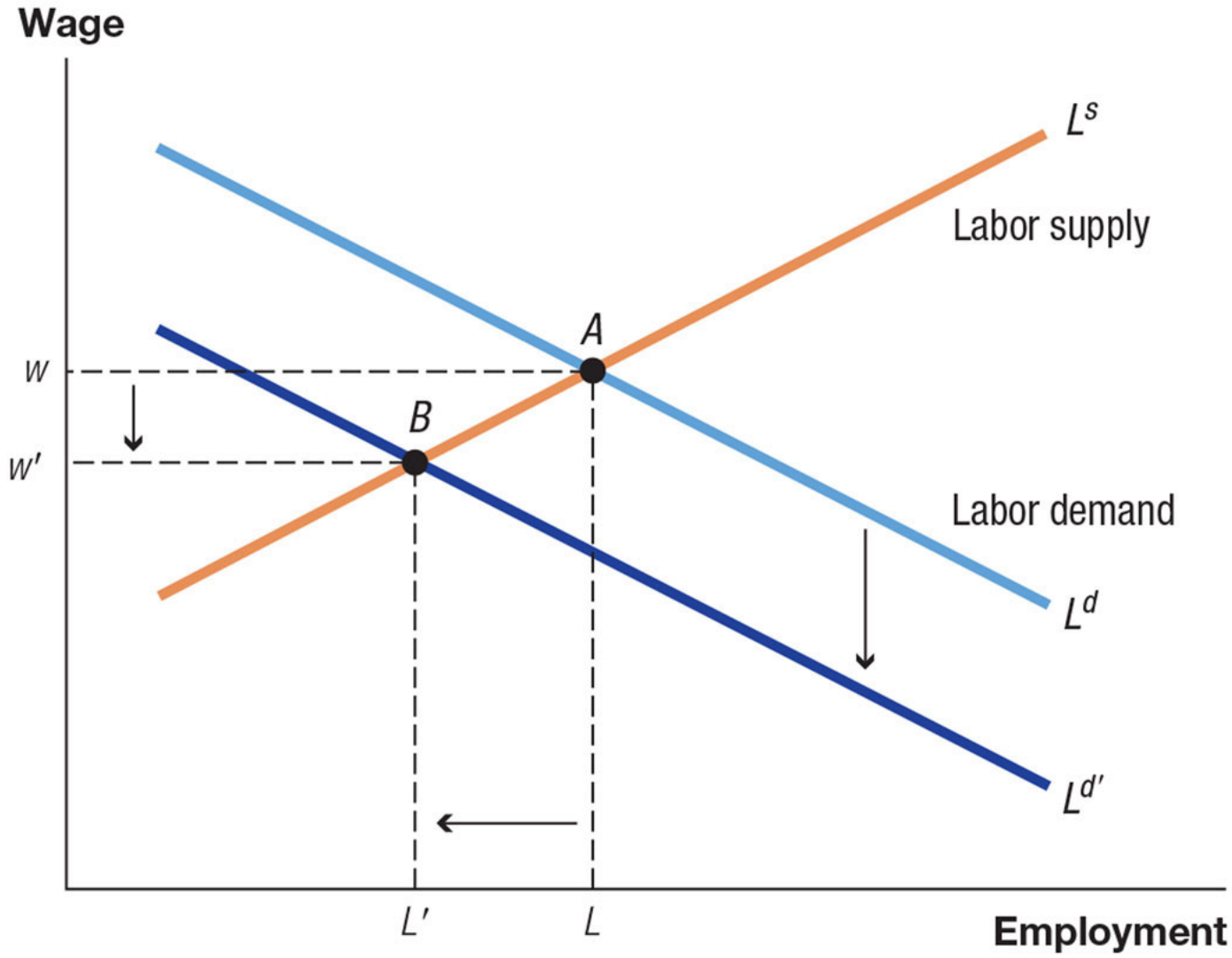
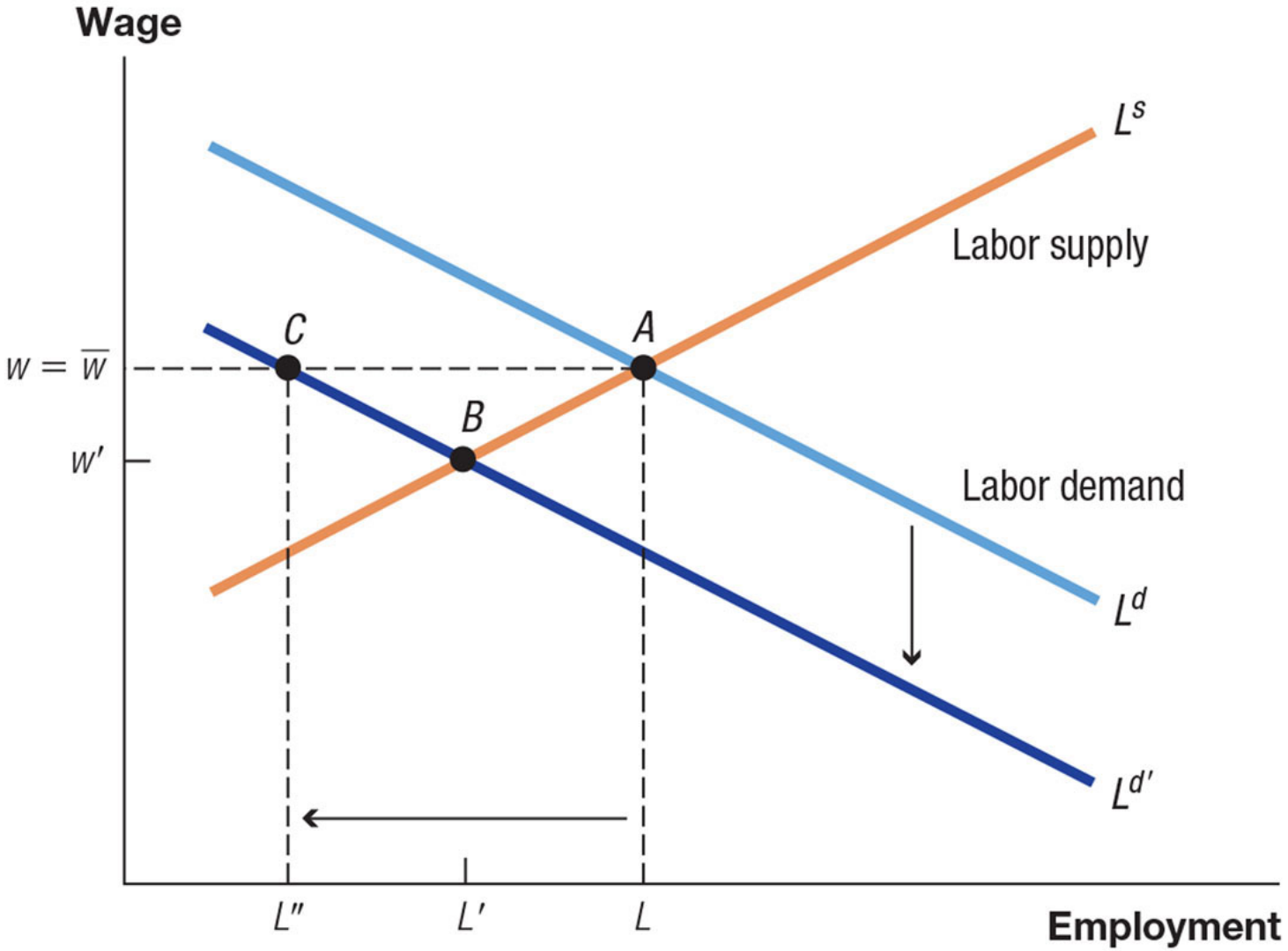


FIGURE 7.6

A Reduction in Labor Demand with Wage Rigidity



Two Kinds of Unemployment

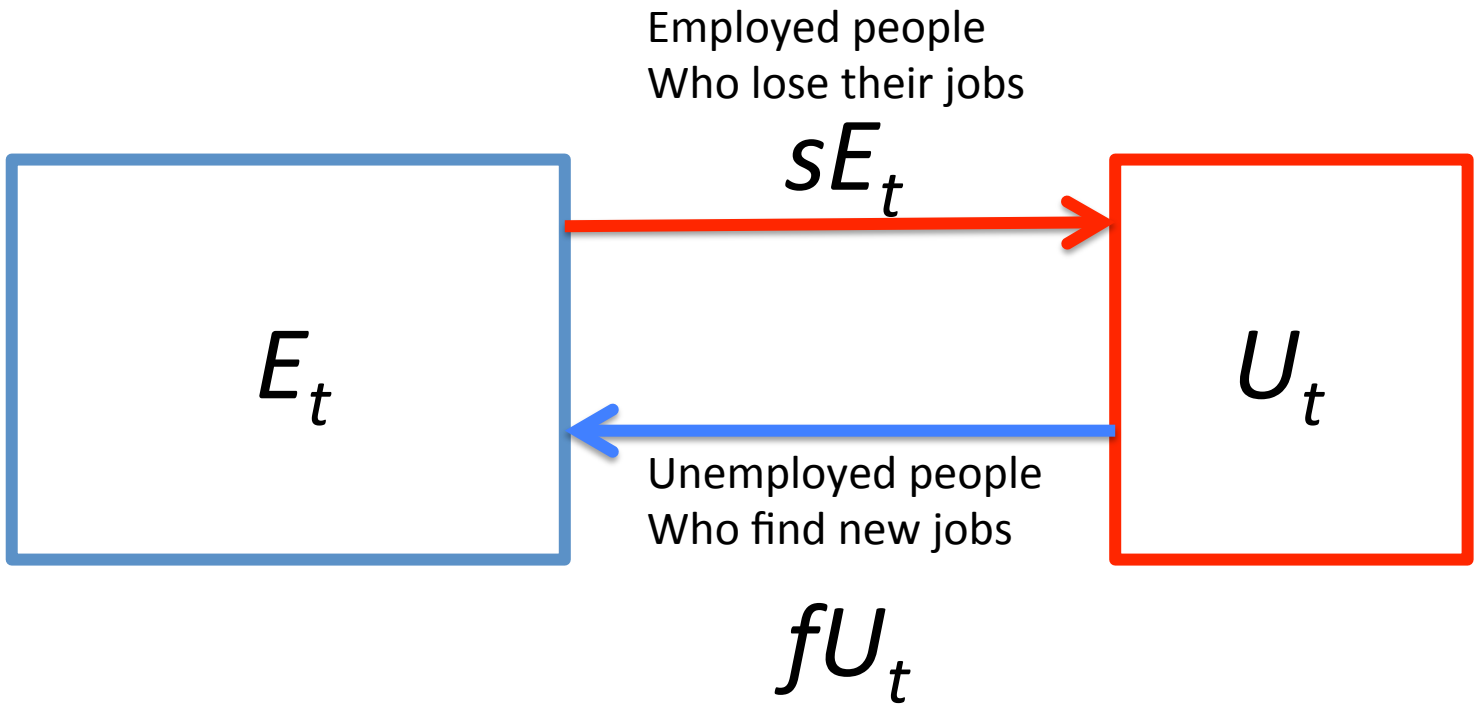
- The natural rate of unemployment
  - Rate that would prevail if the economy were in neither a boom nor a bust

- Cyclical unemployment
  - The difference between the actual rate and the natural rate
  - Associated with short-run fluctuations in output

Two Kinds of Unemployment continued

- The natural rate of unemployment includes two components:
  - Frictional unemployment
    - workers being between jobs in the dynamic economy
  - Structural unemployment
    - labor market failing to match up workers and firms in the market

Bathtab Model of Unemployment



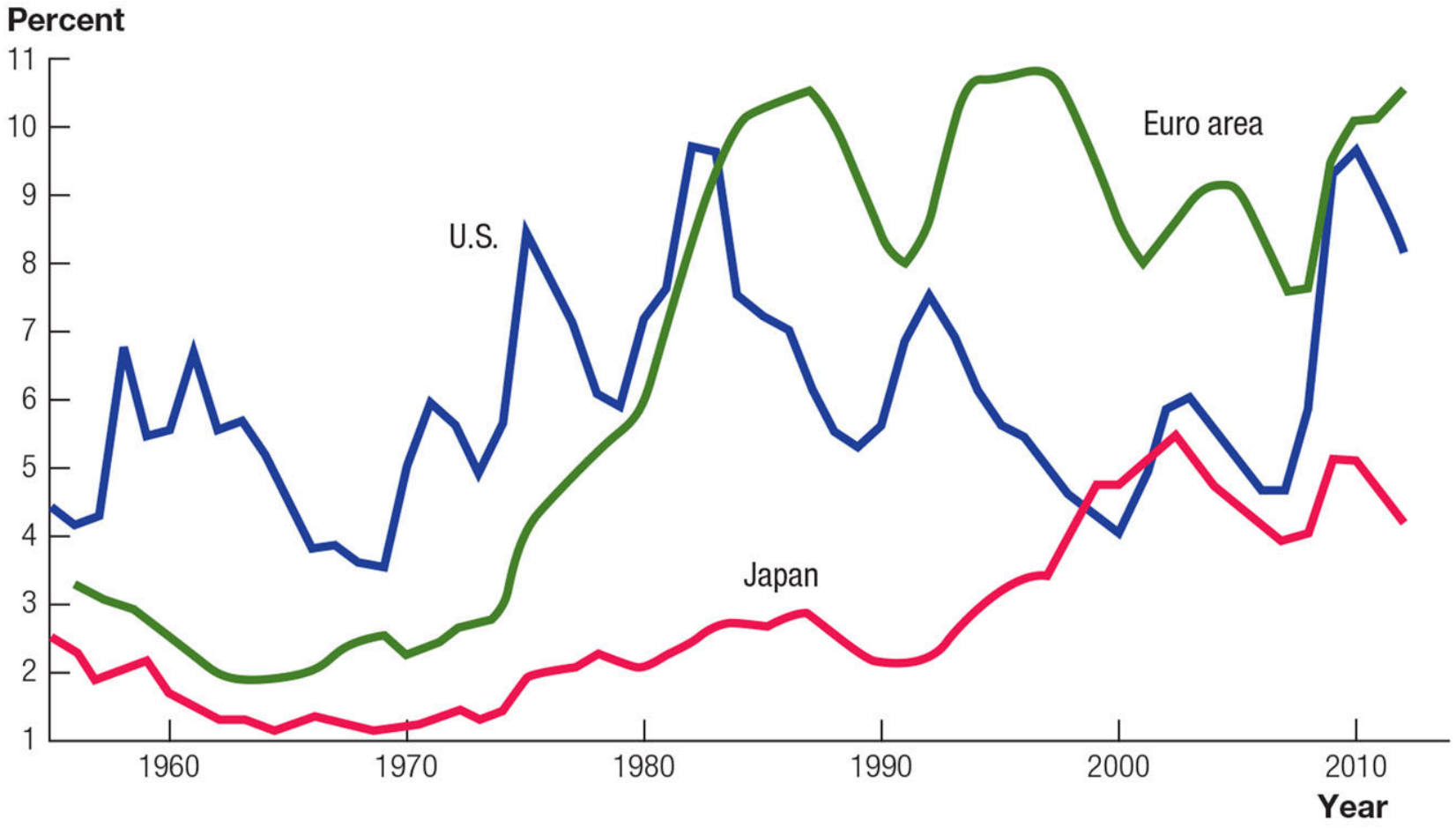
$E_t + U_t = L$ *and* $sE_t = fU_t$ ⇨ $U = sL/(f + s)$

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

Labor Markets around the World

FIGURE 7.7

Unemployment in the United States, Europe, and Japan, 1955–2012



Labor Markets around the World

TABLE 7.2

Hours Worked per Person Aged 16–64 (U.S. = 100)

	1970–1974	1993–1996
Italy	82	64
France	105	68
Germany	105	75
Canada	94	88
United Kingdom	110	88
United States	100	100
Japan	127	104

The Rising Return to Education

FIGURE 7.8

College versus High School Wages and Employment, 1960–2005

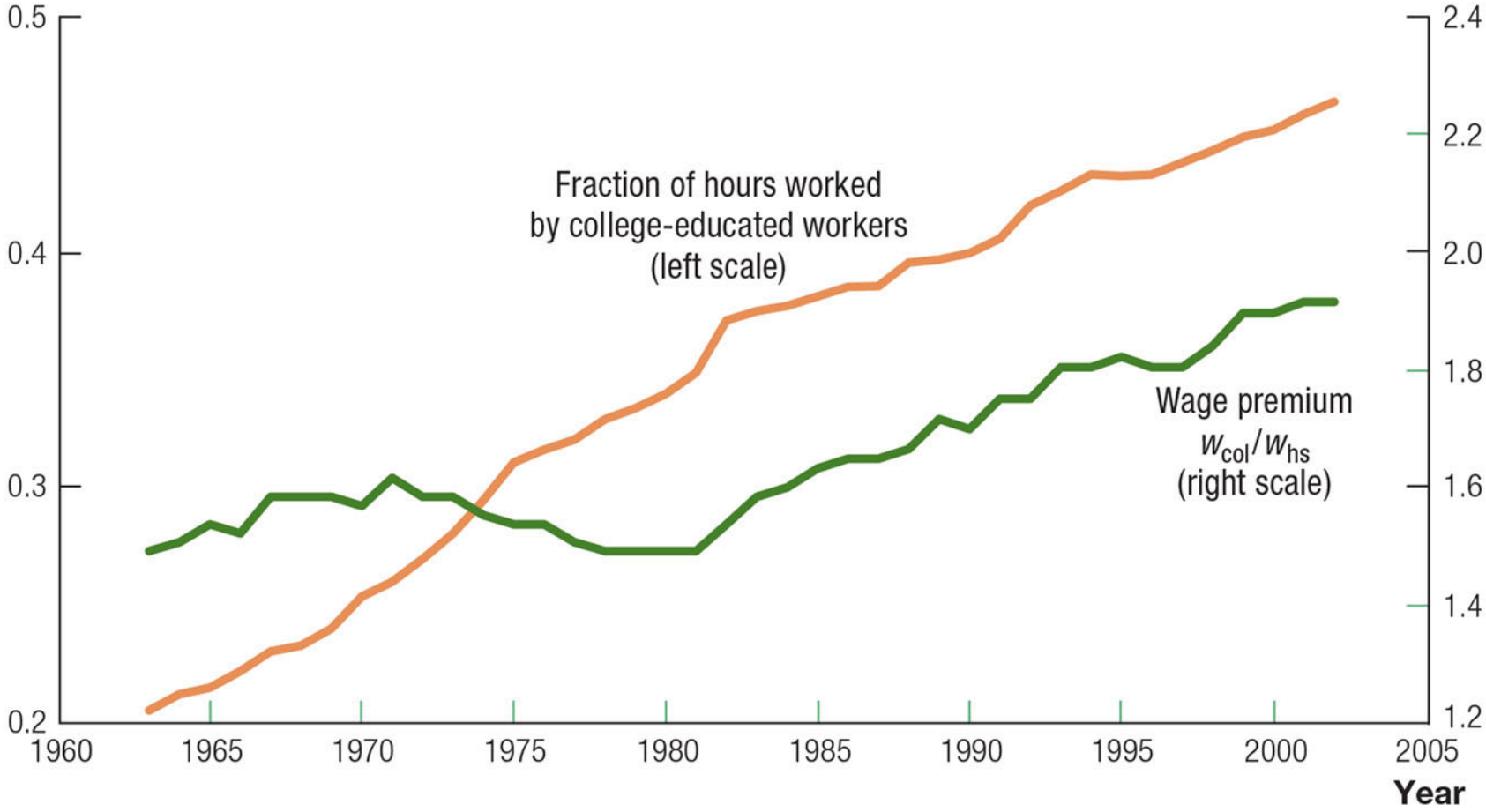
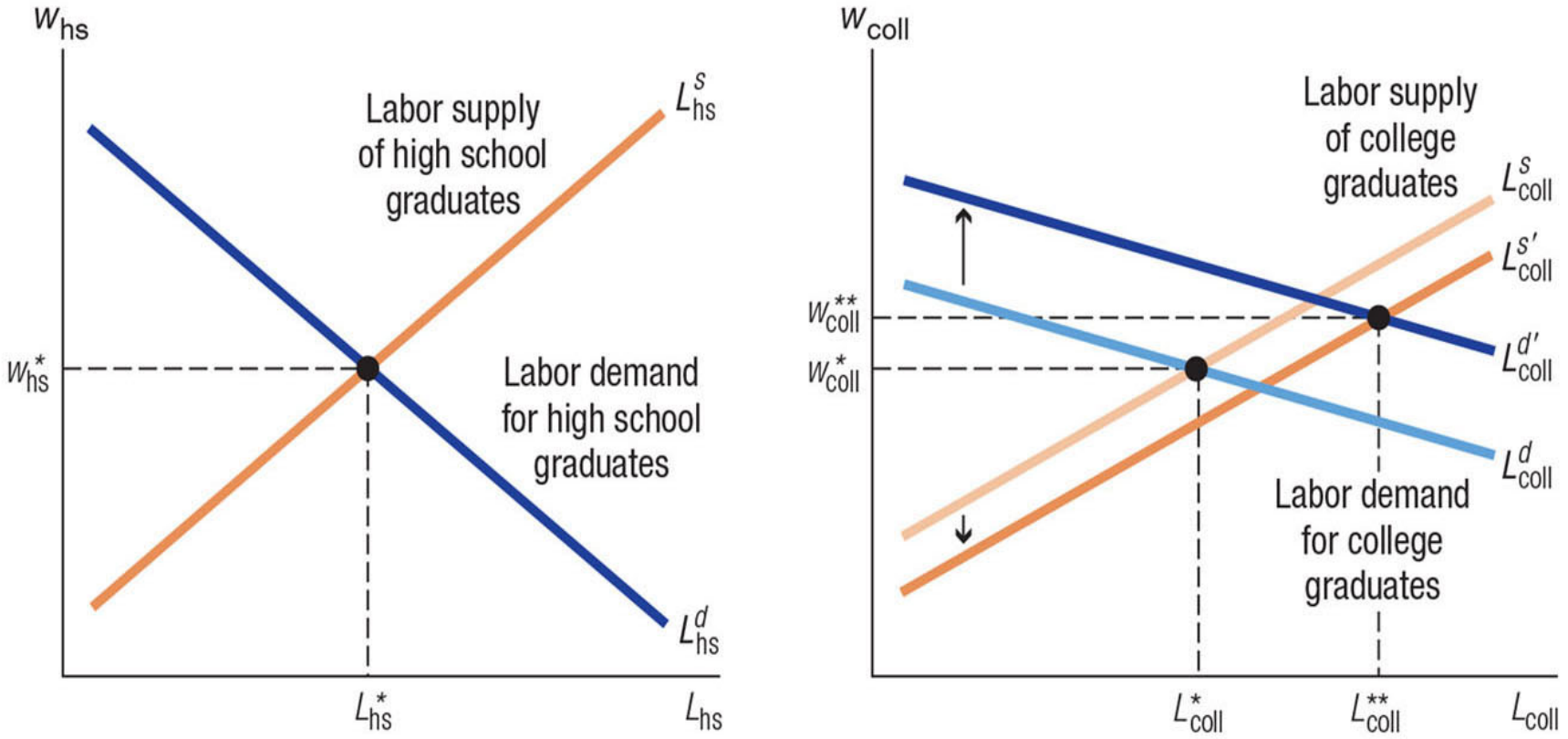


FIGURE 7.9

Understanding the Rising Return to Education



Explanation for a large shift in demand for highly educated workers

- Skill-biased technical change?

- Globalization?