

Unemployment and Inflation

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Alcatel-Lucent Contributes to Unemployment



When total employment in the United States declined during 2001, Lucent contributed to the decline.

Learning Objectives

- 8.1 Define **unemployment rate** and **labor force participation rate** and understand how they are computed.
- 8.2 Identify the three **types** of **unemployment**.
- 8.3 Explain what **factors determine** the **unemployment rate**.
- 8.4 Define **price level** and **inflation rate** and understand how they are computed.
- 8.5 Use **price indexes** to adjust for the effects of inflation.
- 8.6 Distinguish between the **nominal interest rate** and the **real interest rate**.
- 8.7 Discuss the **problems** that **inflation** causes.

Recap:

In Previous Lecture:

Three types of unemployment:

Frictional Unemployment: **Short-term** unemployment that arises from the process of matching workers with jobs. Natural and Unavoidable. Increase economic efficiency.

Structural Unemployment: arises from a **persistent** mismatch between the skills and characteristics of workers and the requirements of jobs. Due to structural change in specific industry.

Cyclical Unemployment: Unemployment caused by business recession.

Full unemployment: when only remaining unemployment is frictional and structural unemployment. This rate is natural/normal unemployment rate

Explaining Unemployment

What determined the level of frictional and structural unemployment?

1. Government Policies and Unemployment Rate
 - (i) Unemployment Insurance and other payments to the unemployed
 - (ii) International Comparisons
 - (iii) Minimum Wage Laws
2. Labor Unions
3. Efficiency Wages

Explaining Unemployment

1. Government Policies and the Unemployment Rate

Unemployment Insurance and Other Payments to the Unemployed

In the United States and most other industrial countries, the unemployed are eligible for unemployment insurance payments from the government.

In the United States, these payments are equal to about half the average wage. The length is six month.

It's established by congress in 1930. Recession.

Unemployment insurance helps the unemployed maintain their income and spending, which lessens the personal hardship of being unemployed and also helps reduce the severity of recessions.

Explaining Unemployment

Government Policies and the Unemployment Rate

International Comparisons:

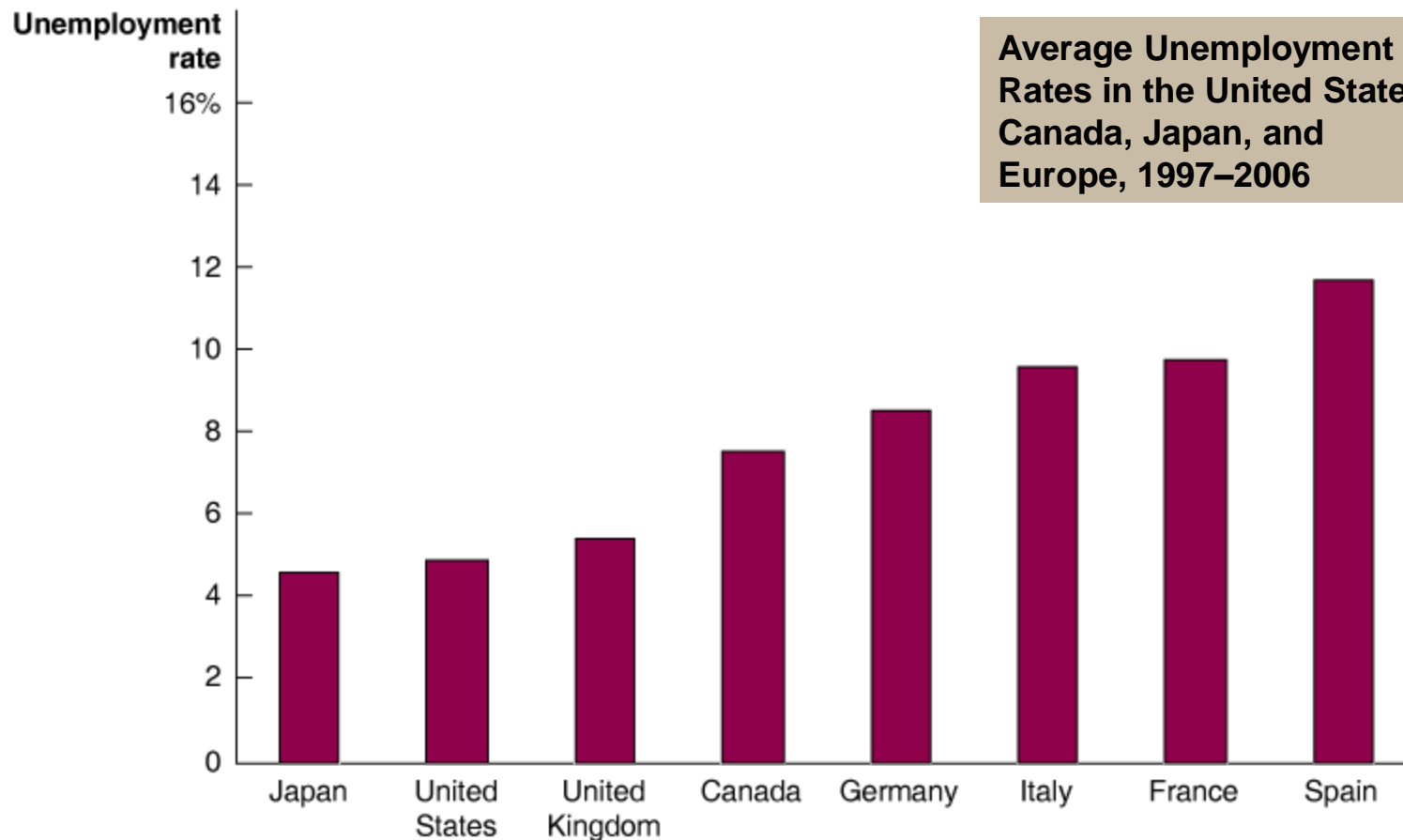


FIGURE 8-5

Average Unemployment Rates in the United States, Canada, Japan, and Europe, 1997–2006

Explaining Unemployment

Government Policies and the Unemployment Rate

International comparison:

- In Canada and Western Europe, people are eligible for unemployment insurance for up to 1 year and 70% to 80% of their previous average wage.
- Besides, the unemployed are eligible for social insurance programs after one year.
- European countries also have laws that make it difficult for companies to fire workers which creates disincentives for firms to fire workers.
- US don't make social payments to the unemployed except the Temporary Assistance for Needy Families program which allows single parents to receive payments for up to 5 years.
- Therefore, the unemployment rate in those countries are higher than US and Japan.

Explaining Unemployment

Government Policies and the Unemployment Rate

Minimum Wage Laws

In 1938, the federal government enacted a national minimum wage law. In 1938, \$0.25; In 2009, \$7.25

California: \$8; San Francisco: \$9.36;

If the minimum wage is set above the market wage determined by the demand and supply of labor, the quantity of labor supplied will be greater than the quantity of labor demanded.

Economists agree that the current minimum wage is above the market wage for some workers, but they disagree on the amount of unemployment that has resulted.

Explaining Unemployment

Labor Unions

Labor unions are organizations of workers that bargain with employers for higher wages and better working conditions for their members. Wages are higher than market wage in these industries which results in employers hire fewer workers.

Only 9% of workers outside government sector are unionized. It remain in a few industries such as airlines, steel, automobiles, telecommunications.

Efficiency Wages

Efficiency wage A higher-than-market wage that a firm pays to increase worker productivity.

Making the Connection

Why Does Costco Pay Its Workers So Much More Than Wal-Mart Does?



Costco's relatively high wages and health benefits reduce employee turnover and raise morale and productivity.

Wal-mart:

- 1.3 million workers
- Average wage: \$10.50/hr
- Benefit: 50% covered by medical insurance

Costco:

- Minimum wage: \$11
- Average wage: \$17
- Benefit: 90% covered by medical insurance

CEO of Costco: Paying good wages and keeping your people working for you is a very good business

Measuring Inflation

Define Price level, inflation rate.

How they are computed?

1. Measures: CPI, PPI

CPI= Consumer Price Index

PPI= Producer Price Index

2. Is CPI accurate?

Measuring Inflation

Fact: Prices of goods and services are rise over time so that the cost of living rise continuously.

1914:

1. Henry Ford paid workers \$5 /day, which is more than twice as much as other producers paid. Middle class income.
2. Ford Model T, the best selling car, is priced at \$600
3. Man's suit was \$15
4. Movie ticket: \$0.15

Measuring Inflation

Price level : A measure of the average prices of goods and services in the economy.

Inflation rate : The percentage increase in the price level from one year to the next.

GDP deflator= Nominal GDP/Real GDP

Measures the price level. More prices increase relative to the increase in production, the higher the value of GDP deflator.

This is the broadest measure of price level because it includes every single final good or service in the economy.

Measuring Inflation

Too wide measure?

For example:

It is way to wide to measure the impact of inflation on typical household. Because GDP deflator includes prices such as giant electricity generator those are included in I (investment) component of GDP and not consumed by household.

Therefore,

here comes another two price levels:

CPI and PPI !

CPI: Consumer Price Index

1. BLS performs survey with an sample size 30,000 nationwide on spending habits
2. Using the survey results, construct a **Market Basket** of 211 types of goods and services purchased by typical urban family of four.
3. Goods and Services are categorized into 8 groups. See the pie chart in next slide.
4. Each month, BLS employees visit 23,000 stores in 87 cities and record prices of goods and services in market basket.
5. Using these prices, CPI is an average of the prices of the goods and services purchased by typical urban family of four.

CPI: Consumer Price Index

6. A base year is chosen and the CPI of base year is set to be 100. In any other year,

$$\text{CPI} = \frac{\text{Expenditures in the current year}}{\text{Expenditures in the base year}} \times 100$$

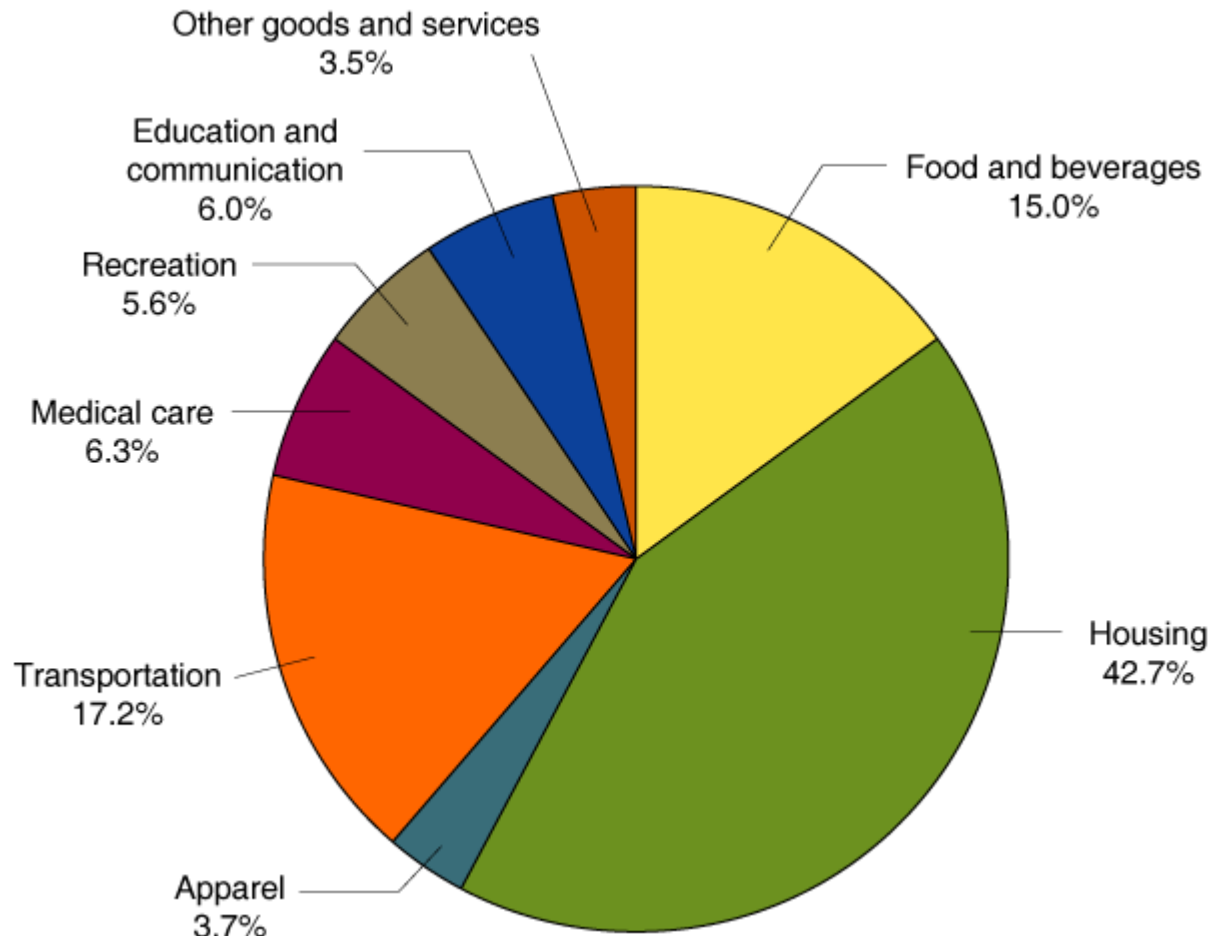
7. Sometime, CPI is called cost-of-living index

Measuring Inflation

The Consumer Price Index

FIGURE 8-6

The CPI Market Basket, December 2006



Measuring Inflation

The Consumer Price Index

BASE YEAR (1999)				2008		2009	
PRODUCT	QUANTIT Y	PRICE	EXPENDITURES	PRICE	EXPENDITURES (ON BASE-YEAR QUANTITIES)	PRICE	EXPENDITURE S (ON BASE- YEAR QUANTITIES)
Eye examinations	1	\$50	\$50	\$100	\$100	\$85	\$85.00
Pizzas	20	10	200	15	300	14	280.00
Books	20	25	500	25	500	27	550.00
Total			\$750		\$900		\$915.00

Measuring Inflation

The Consumer Price Index

FORMULA	APPLIED TO 2008	APPLIED TO 2009
$\text{CPI} = \frac{\text{Expenditures in the current year}}{\text{Expenditures in the base year}} \times 100$	$\left(\frac{\$900}{\$750} \right) \times 100 = 120$	$\left(\frac{\$915}{\$750} \right) \times 100 = 122$

$$\left(\frac{122 - 120}{120} \right) \times 100 = 1.7\%$$

Don't Let This Happen to YOU!
Don't Miscalculate the Inflation Rate