Chapter

8

Unemployment and Inflation

Prepared by:

Fernando & Yvonn Quijano

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.

Measuring Inflation

Is the CPI Accurate?

It is important that the CPI be as accurate as possible, but there are four biases that make changes in the CPI overstate the true inflation rate:

- *Substitution bias.*
- *Increase in quality bias.*
- *New product bias.*
- *Outlet bias.*

Measuring Inflation

The Producer Price Index

Producer price index (*PPI*)
An average of the prices received by producers of goods and services at all stages of the production process.

Using Price Indexes to Adjust for the Effects of Inflation

$$\text{Value in 2006 dollars} = \text{Value in 1980 dollars} \times \left(\frac{\text{CPI in 2006}}{\text{CPI in 1980}} \right)$$

For some purposes, we are interested in tracking changes in an economic variable over time rather than in seeing what its value would be in today's dollars.

In that case, to correct for the effects of inflation, we can divide the nominal variable by a price index and multiply by 100 to obtain a *real variable*.

Solved Problem | **8-5**

Calculating Real Average Hourly Earnings

YEAR	NOMINAL AVERAGE HOURLY EARNINGS	CPI (1982-1984 = 100)
2004	$15.69	188.9
2005	16.13	195.3
2006	16.76	201.6

YEAR	NOMINAL AVERAGE HOURLY EARNINGS	CPI (1982-1984 = 100)	REAL AVERAGE HOURLY EARNINGS (1982-1984 DOLLARS)
2004	$15.69	188.9	$8.31
2005	16.13	195.3	8.26
2006	16.76	201.6	8.31

Interest Rates

1. What is Interest Rate? Examples?

   The cost of borrowing funds.

2. Causes of interest rates?

   Deferred consumption; Inflationary expectations

Real versus Nominal Interest Rates

Nominal interest rate The stated interest rate on a loan.

- The nominal interest rate is the amount, in money terms, of interest payable.
- For example, suppose a household deposits $100 with a bank for 1 year and they receive interest of $10. At the end of the year their balance is $110. In this case, the nominal interest rate is 10% per annum.
- Measure nominal interest rate as the interest rate of 3 month US Treasury bills.

Real interest rate :

which measures the purchasing power of interest receipts, is calculated by adjusting the nominal rate charged to take inflation into account.

If inflation in the economy has been 10% in the year, then the $110 in the account at the end of the year buys the same amount as the $100 did a year ago. The real interest rate, in this case, is zero.

Real versus Nominal Interest Rates

Nominal interest rate The stated interest rate on a loan.

Real interest rate The nominal interest rate minus the inflation rate.

$$\text{Real interest rate} = \text{Nominal interest rate} - \text{Inflation rate}$$

Deflation A decline in the price level.

Real versus Nominal Interest Rates

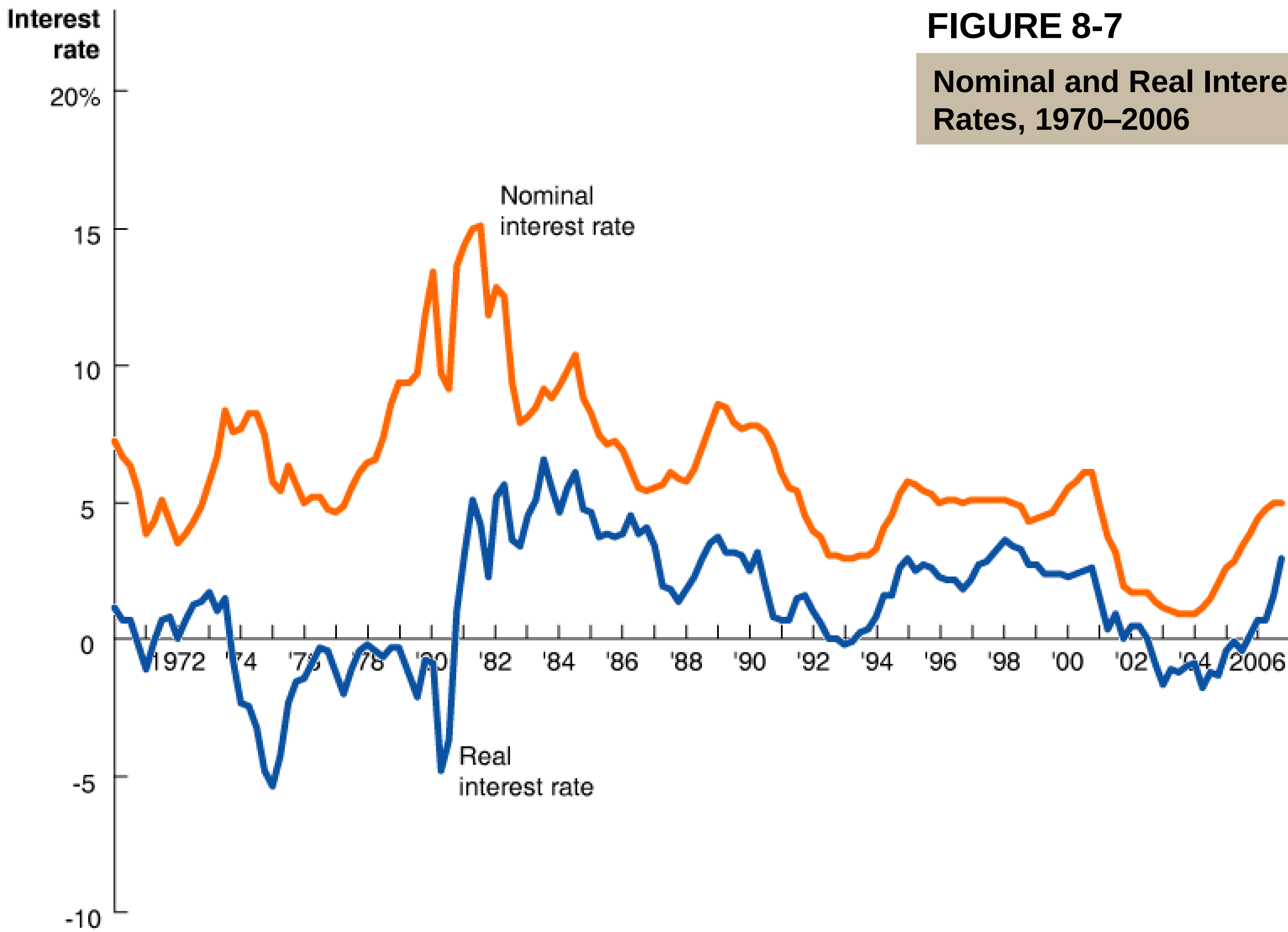

FIGURE 8-7

Nominal and Real Interest Rates, 1970–2006

Inflation:

Zimbabwe Inflation 1:

http://www.youtube.com/watch?v=mM3_z2RB3YU&feature=player_embedded

Zimbabwe Inflation 2:

http://www.youtube.com/watch?v=I20UNlC6qWY

Zimbabwe Inflation 3:   an article

Does Inflation Impose Costs on the Economy?

Inflation Affects the Distribution of Income

The extent to which inflation redistributes income depends in part on whether the inflation is *anticipated*—in which case consumers, workers, and firms can see it coming and can prepare for it— or *unanticipated*—in which case they do not see it coming and do not prepare for it.

The Problem with Anticipated Inflation

Menu costs The costs to firms of changing prices.

The Problem with Unanticipated Inflation

Like many of life's other problems, inflation is easier to manage if you see it coming.

Even when inflation is perfectly anticipated, however, some individuals will experience a cost.