

Long-Run and Short-Run Concerns: Growth, Productivity, Unemployment, and Inflation

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Chapter Outline

Long-Run Output and Productivity Growth

Recessions, Depressions, and Unemployment

Defining and Measuring Unemployment

Components of the Unemployment Rate

The Costs of Unemployment

The Benefits of Recessions

Inflation

Defining Inflation

Price Indexes

The Costs of Inflation

Inflation: Public Enemy Number One?

Looking Ahead

LONG-RUN AND SHORT-RUN CONCERNS: GROWTH, PRODUCTIVITY, UNEMPLOYMENT, AND INFLATION

output growth The growth rate of the output of the entire economy.

per-capita output growth The growth rate of output per person in the economy.

productivity growth The growth rate of output per worker.

LONG-RUN OUTPUT AND PRODUCTIVITY GROWTH

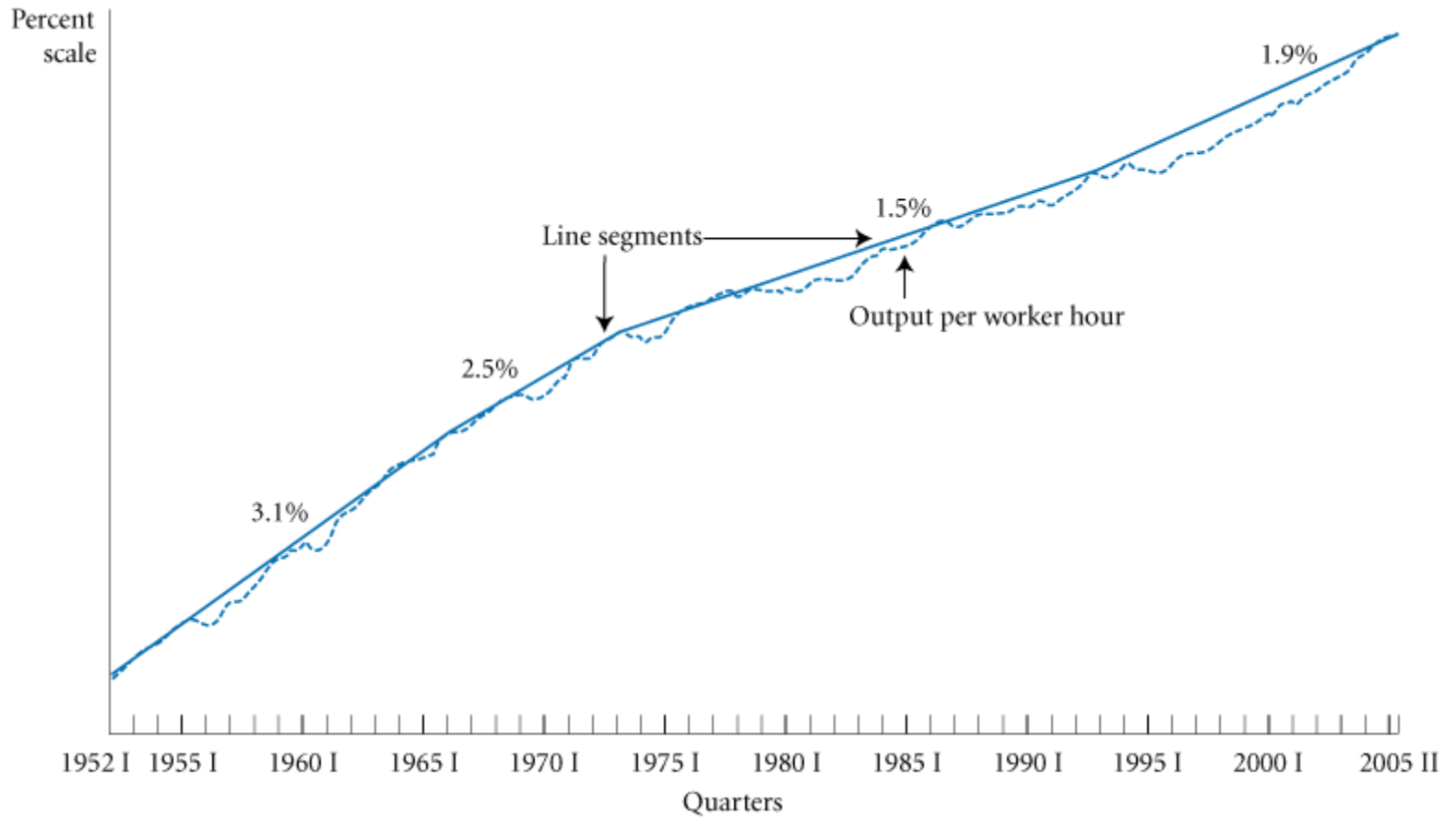


FIGURE 7.1 Output per Worker Hour (Productivity), 1952 I–2005 II

LONG-RUN OUTPUT AND PRODUCTIVITY GROWTH

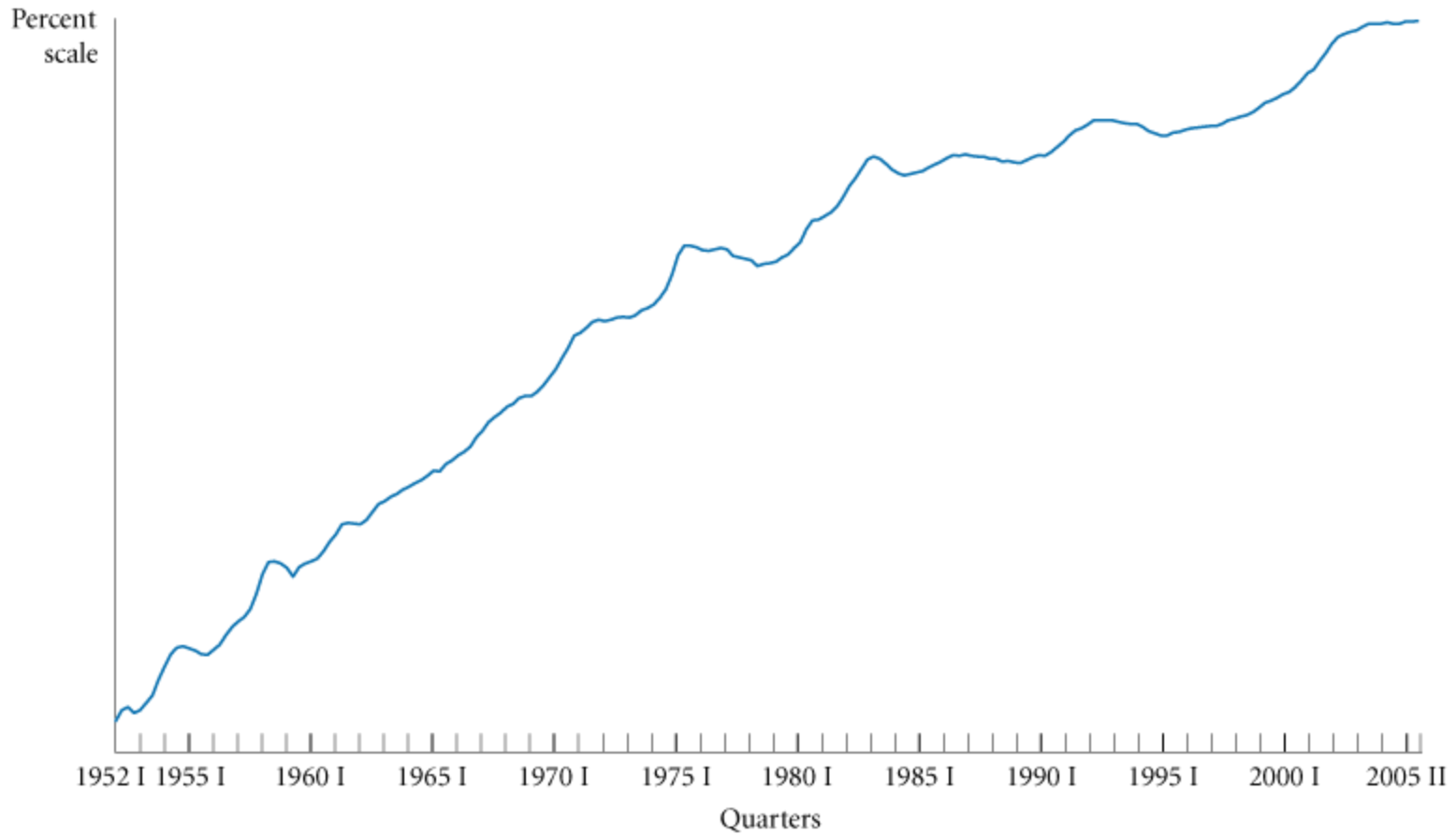


FIGURE 7.2 Capital per Worker, 1952 I–2005 II

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

recession Roughly, a period in which real GDP declines for at least two consecutive quarters. Marked by falling output and rising unemployment.

depression A prolonged and deep recession. The precise definitions of prolonged and deep are debatable.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

TABLE 7.1 Real GDP and Unemployment Rates, 1929–1933 and 1980–1982

THE EARLY PART OF THE GREAT DEPRESSION, 1929–1933

YEAR	PERCENTAGE CHANGE IN REAL GDP	UNEMPLOYMENT RATE	NUMBER OF UNEMPLOYED (MILLIONS)
1929		3.2	1.5
1930	−8.6	8.9	4.3
1931	−6.4	16.3	8.0
1932	−13.0	24.1	12.1
1933	−1.4	25.2	12.8

Note: Percentage fall in real GDP between 1929 and 1933 was 26.6 percent.

THE RECESSION OF 1980–1982

YEAR	PERCENTAGE CHANGE IN REAL GDP	UNEMPLOYMENT RATE	NUMBER OF UNEMPLOYED (MILLIONS)	CAPACITY UTILIZATION (PERCENTAGE)
1979		5.8	6.1	85.2
1980	−0.2	7.1	7.6	80.9
1981	2.5	7.6	8.3	79.9
1982	−1.9	9.7	10.7	72.1

Note: Percentage increase in real GDP between 1979 and 1982 was 0.1 percent.

Sources: *Historical Statistics of the United States* and U.S. Department of Commerce, Bureau of Economic Analysis.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

DEFINING AND MEASURING UNEMPLOYMENT

employed Any person 16 years old or older (1) who works for pay, either for someone else or in his or her own business for 1 or more hours per week; (2) who works without pay for 15 or more hours per week in a family enterprise; or (3) who has a job but has been temporarily absent, with or without pay.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

unemployed A person 16 years old or older who is not working, is available for work, and has made specific efforts to find work during the previous 4 weeks.

not in the labor force A person who is not looking for work, because he or she either does not want a job or has given up looking.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

labor force The number of people employed plus the number of unemployed.

$$\text{labor force} = \text{employed} + \text{unemployed}$$

$$\text{population} = \text{labor force} + \text{not in labor force}$$

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

unemployment rate The ratio of the number of people unemployed to the total number of people in the labor force.

$$\text{unemployment rate} = \frac{\text{unemployed}}{\text{employed} + \text{unemployed}}$$

labor force participation rate The ratio of the labor force to the total population 16 years old or older.

$$\frac{\text{unemployed}}{\text{employed} + \text{unemployed}}$$

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

TABLE 7.2 Employed, Unemployed, and the Labor Force, 1953–2004

	(1)	(2)	(3)	(4)	(5)	(6)
	POPULATION 16 YEARS OLD OR OVER (MILLIONS)	LABOR FORCE (MILLIONS)	EMPLOYED (MILLIONS)	UNEMPLOYED (MILLIONS)	LABOR FORCE PARTICIPATION RATE	UNEMPLOYMENT RATE
1953	107.1	63.0	61.2	1.8	58.9	2.9
1960	117.2	69.6	65.8	3.9	59.4	5.5
1970	137.1	82.8	78.7	4.1	60.4	4.9
1980	167.7	106.9	99.3	7.6	63.8	7.1
1982	172.3	110.2	99.5	10.7	64.0	9.7
1990	189.2	125.8	118.8	7.0	66.5	5.6
2000	212.6	142.6	136.9	5.7	67.1	4.0
2004	223.4	147.4	139.3	8.1	66.0	5.5

Note: Figures are civilian only (military excluded).

Source: Economic Report of the President, 2005, Table B-35.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

COMPONENTS OF THE UNEMPLOYMENT RATE

Unemployment Rates for Different Demographic Groups

TABLE 7.3 Unemployment Rates by Demographic Group, 1982 and 2005

	YEARS	NOVEMBER 1982	JULY 2005
<u>Total</u>		<u>10.8</u>	<u>5.2</u>
White		9.6	4.4
Men	20+	9.0	3.4
Women	20+	8.1	4.3
Both sexes	16–19	21.8	13.4
African-American		20.2	10.2
Men	20+	19.3	8.3
Women	20+	16.5	8.9
Both sexes	16–19	51.1	36.4

Source: U.S. Department of Labor, Bureau of Labor Statistics. Data are not seasonally adjusted.

There are large differences in unemployment rates across demographic groups.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

Unemployment Rates in States and Regions

TABLE 7.4 Regional Differences in Unemployment, 1975, 1982, 1991, and 2003

	1975	1982	1991	2003
U.S. avg.	8.5	9.7	6.7	6.0
Cal.	9.9	9.9	7.5	6.7
Fla.	10.7	8.2	7.3	5.1
Ill.	7.1	11.3	7.1	6.7
Mass.	11.2	7.9	9.0	5.8
Mich.	12.5	15.5	9.2	7.3
N.J.	10.2	9.0	6.6	5.9
N.Y.	9.5	8.6	7.2	6.3
N.C.	8.6	9.0	5.8	6.5
Ohio	9.1	12.5	6.4	6.1
Tex.	5.6	6.9	6.6	6.8

Sources: Statistical Abstract of the United States, various editions.

The national unemployment rate does not tell the whole story. A low national rate of unemployment does not mean that the entire nation is growing and producing at the same rate.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

Discouraged-Worker Effects

discouraged-worker effect The decline in the measured unemployment rate that results when people who want to work but cannot find jobs grow discouraged and stop looking, thus dropping out of the ranks of the unemployed and the labor force.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

The Duration of Unemployment

TABLE 7.5 Average Duration of Unemployment, 1979–2004

	WEEKS		WEEKS
1979	10.8	1992	17.7
1980	11.9	1993	18.0
1981	13.7	1994	18.8
1982	15.6	1995	16.6
1983	20.0	1996	16.7
1984	18.2	1997	15.8
1985	15.6	1998	14.5
1986	15.0	1999	13.4
1987	14.5	2000	12.6
1988	13.5	2001	13.1
1989	11.9	2002	16.6
1990	12.0	2003	19.2
1991	13.7	2004	19.6

Sources: U.S. Department of Labor, Bureau of Labor Statistics.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

THE COSTS OF UNEMPLOYMENT

Some Unemployment Is Inevitable

When we consider the various costs of unemployment, it is useful to categorize unemployment into three types:

- Frictional unemployment
- Structural unemployment
- Cyclical unemployment

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

Frictional and Structural Unemployment

frictional unemployment The portion of unemployment that is due to the normal working of the labor market; used to denote short-run job/skill matching problems.

structural unemployment The portion of unemployment that is due to changes in the structure of the economy that result in a significant loss of jobs in certain industries.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

natural rate of unemployment The unemployment that occurs as a normal part of the functioning of the economy. Sometimes taken as the sum of frictional unemployment and structural unemployment.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

Cyclical Unemployment and Lost Output

cyclical unemployment The increase in unemployment that occurs during recessions and depressions.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

Social Consequences

In addition to economic hardship, prolonged unemployment may also bring with it social and personal ills: anxiety, depression, deterioration of physical and psychological health, drug abuse (including alcoholism), and suicide.

RECESSIONS, DEPRESSIONS, AND UNEMPLOYMENT

THE BENEFITS OF RECESSIONS

TABLE 7.6 Inflation Rates, 1974–1976 and 1980–1983

RECESSION BEGINS	INFLATION RATE
→ 1974	11.0
1975	9.1
1976	5.8
→ 1980	13.5
1981	10.3
1982	6.2
1983	3.2

Source: See Table 17.8.

Recessions may help to reduce inflation.

INFLATION

TABLE 7.7 Inflation During Three Expansions

	INFLATION RATE
1972	3.2
1973	6.2
1974	11.0
1976	5.8
1977	6.5
1978	7.6
1979	11.3
1980	13.5
1984	4.3
1985	3.6
1986	1.9
1987	3.6
1988	4.1
1989	4.8

Source: See Table 7.8.

INFLATION

DEFINING INFLATION

inflation An increase in the overall price level.

deflation A decrease in the overall price level.

sustained inflation An increase in the overall price level that continues over a significant period.

INFLATION

PRICE INDEXES

consumer price index (CPI) A price index computed each month by the Bureau of Labor Statistics using a bundle that is meant to represent the “market basket” purchased monthly by the typical urban consumer.

INFLATION

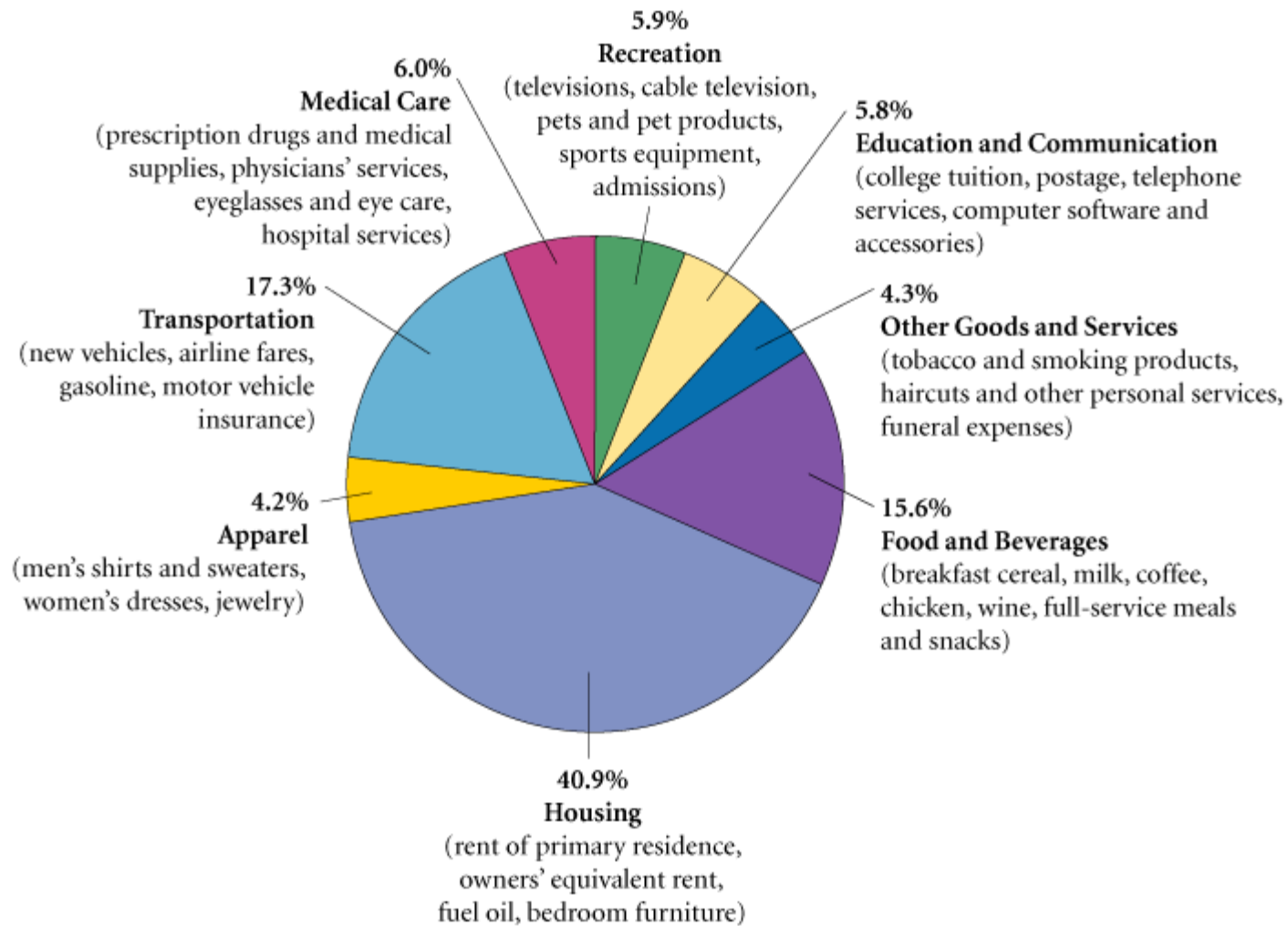


FIGURE 7.3 The CPI Market Basket

INFLATION

TABLE 7.8 The CPI, 1950–2004

PERCENTAGE CHANGE IN CPI			PERCENTAGE CHANGE IN CPI			PERCENTAGE CHANGE IN CPI		
		CPI			CPI			CPI
1950	1.3	24.1	1968	4.2	34.8	1986	1.9	109.6
1951	7.9	26.0	1969	5.5	36.7	1987	3.6	113.6
1952	1.9	26.5	1970	5.7	38.8	1988	4.1	118.3
1953	0.8	26.7	1971	4.4	40.5	1989	4.8	124.0
1954	0.7	26.9	1972	3.2	41.8	1990	5.4	130.7
1955	-0.4	26.8	1973	6.2	44.4	1991	4.2	136.2
1956	1.5	27.2	1974	11.0	49.3	1992	3.0	140.3
1957	3.3	28.1	1975	9.1	53.8	1993	3.0	144.5
1958	2.8	28.9	1976	5.8	56.9	1994	2.6	148.2
1959	0.7	29.1	1977	6.5	60.6	1995	2.8	152.4
1960	1.7	29.6	1978	7.6	65.2	1996	3.0	156.9
1961	1.0	29.9	1979	11.3	72.6	1997	2.3	160.5
1962	1.0	30.2	1980	13.5	82.4	1998	1.6	163.0
1963	1.3	30.6	1981	10.3	90.9	1999	2.2	166.6
1964	1.3	31.0	1982	6.2	96.5	2000	3.4	172.2
1965	1.6	31.5	1983	3.2	99.6	2001	2.8	177.1
1966	2.9	32.4	1984	4.3	103.9	2002	1.6	179.9
1967	3.1	33.4	1985	3.6	107.6	2003	2.3	184.0
						2004	2.7	188.9

Sources: Bureau of Labor Statistics, U.S. Department of Labor.

Changes in the CPI somewhat overstate changes in the cost of living.

INFLATION

producer price indexes (PPIs)

Measures of prices that producers receive for products at all stages in the production process.

The three main categories are *finished goods*, *intermediate materials*, and *crude materials*, although there are subcategories within each of these categories.

INFLATION

THE COSTS OF INFLATION

People's income from wages and salaries, profits, interest, and rent increases during inflations. The wage rate is the price of labor, rent is the price of land, and so on. During inflations, most prices—including input prices—tend to rise together, and input prices determine both the incomes of workers and the incomes of owners of capital and land.

INFLATION

Inflation Changes the Distribution of Income

If your income is fixed and prices rise, your ability to purchase goods and services falls proportionately.

Effects on Debtors and Creditors

real interest rate The difference between the interest rate on a loan and the inflation rate.

Inflation that is higher than expected benefits debtors; inflation that is lower than expected benefits creditors.

INFLATION

Administrative Costs and Inefficiencies

- Inflation creates administrative costs and inefficiencies. Without inflation, time could be used more efficiently.
- The opportunity cost of holding cash is high during inflations. People therefore hold less cash and need to stop at the bank more often.
- People are not fully informed about price changes and may make mistakes that lead to a misallocation of resources.

INFLATION

Increased Risk and Slower Economic Growth

When unanticipated inflation occurs regularly, the degree of risk associated with investments in the economy increases.

INFLATION

INFLATION: PUBLIC ENEMY NUMBER ONE?

- Some people consider inflation to be our public enemy number one. Elected leaders have vigorously pursued policies designed to stop inflation.
- The recessions of 1974 to 1975 and 1980 to 1982 were the price we had to pay to stop inflation. Stopping inflation is costly.

REVIEW TERMS AND CONCEPTS

consumer price index (CPI)

cyclical unemployment

deflation

depression

discouraged-worker effect

employed

frictional unemployment

inflation

labor force

labor force participation rate

natural rate of unemployment

not in the labor force

output growth

per-capita output growth

producer price indexes (PPIs)

productivity growth

real interest rate

recession

structural unemployment

sustained inflation

unemployed

unemployment rate

1. Labor force = employed + unemployed

2. Population = labor force + not in labor force

3. Unemployment rate = $\frac{\text{unemployed}}{\text{employed} + \text{unemployed}}$

4. Labor force participation rate = $\frac{\text{labor force}}{\text{population}}$