Long Run vs. Short Run

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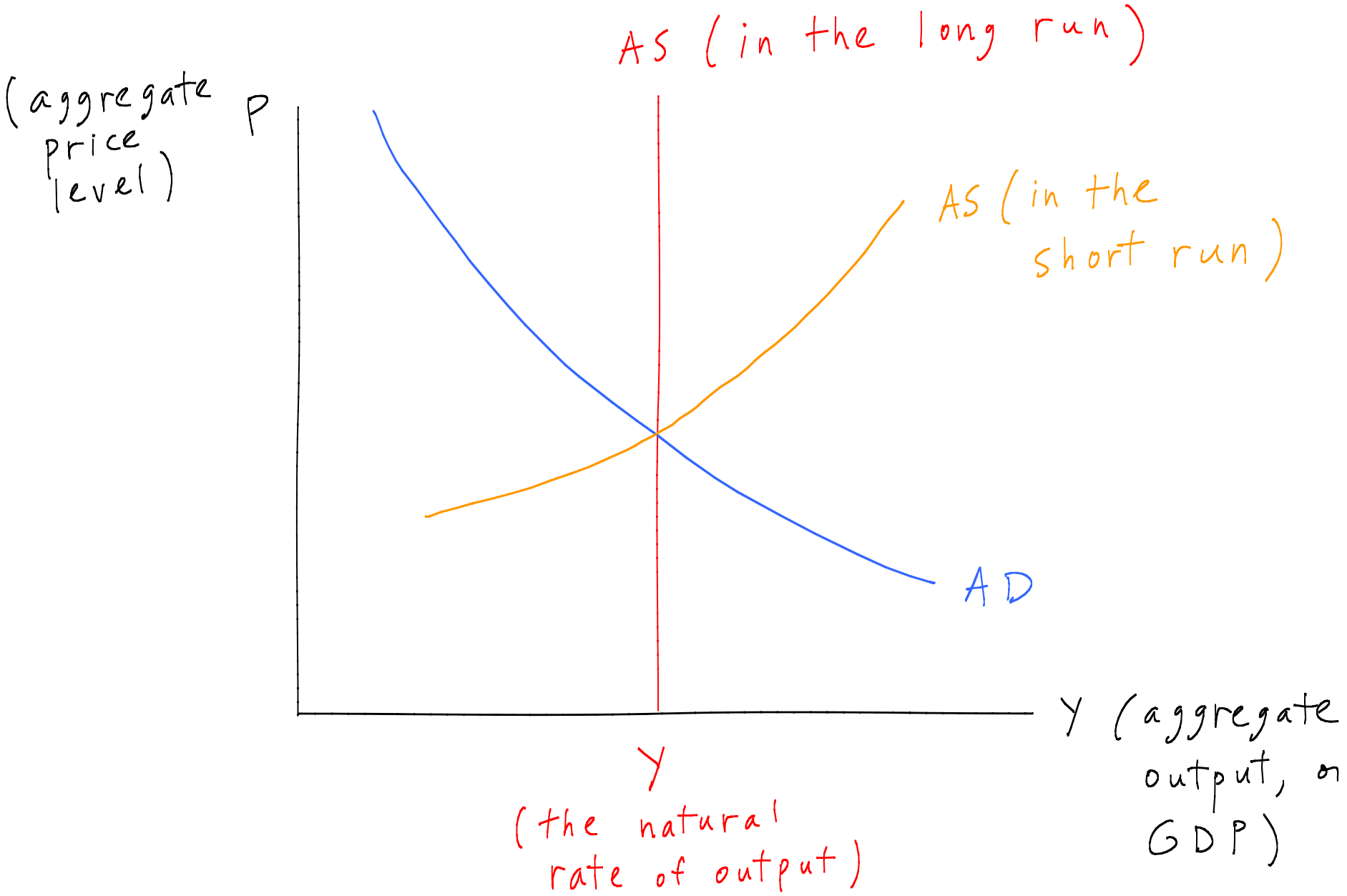
- The central framework for studying business cycles is the aggregate demand-aggregate supply (or AD-AS) model.


AS (in the long run)
(aggregate price level)
P
AS (in the short run)
AD
Y (aggregate output, or GDP)
Y
(the natural rate of output)

Growth vs. Business Cycles

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- These short-run movements in output are driven mainly by short-run movements in employment (and especially short-run movements in the unemployment rate).
- Let's look at the data on unemployment . . . .

Table 3.4 Employment Status of the U.S. Adult Population, February 2003

Category	Number (millions)	Share of labor force (percent)	Share of adult population (percent)
Employed workers	137.4	94.2	62.4 (employment ratio)
Unemployed workers	8.5	5.8 (unemployment rate)	3.9
Labor force (employed + unemployed workers)	145.9	100.0	66.3 (participation rate)
Not in labor force	74.3		33.7
Adult population (labor force + not in labor force)	220.2		100.0

Note: Figures may not add up because of rounding.
Source: The Employment Situation, February 2003, Table A.

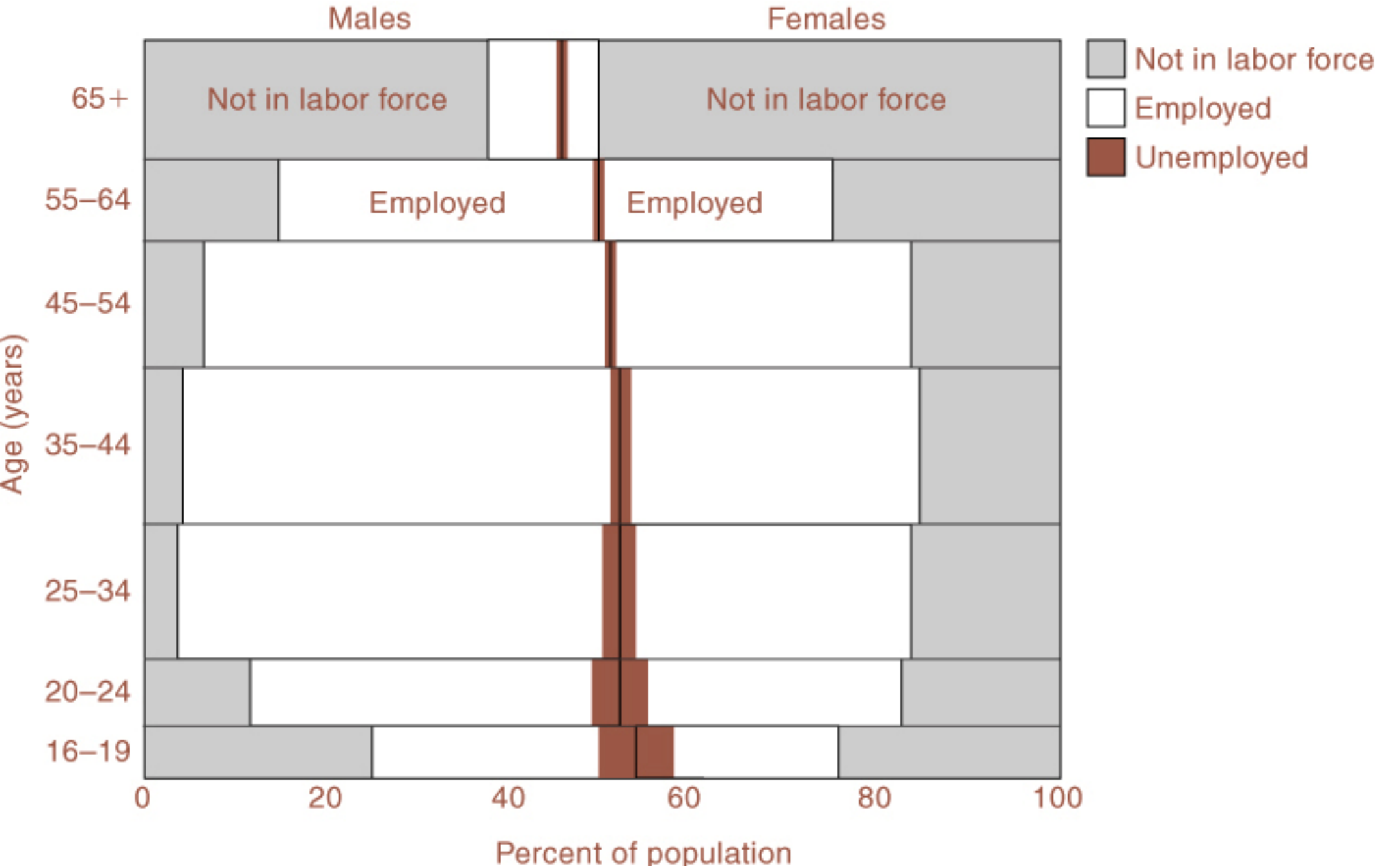
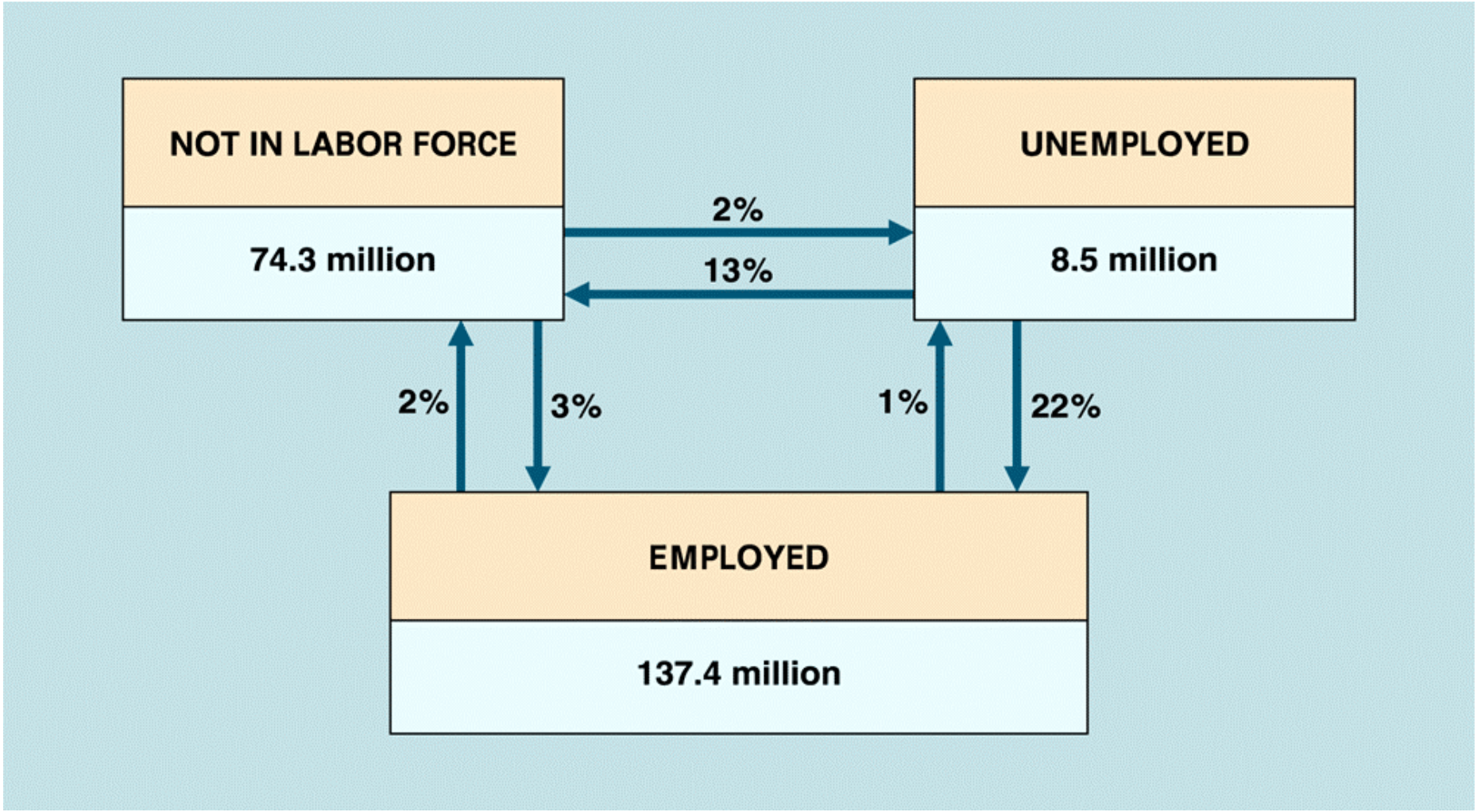

Males
Females
Not in labor force
Employed
Unemployed
65+
55–64
45–54
35–44
25–34
20–24
16–19
Not in labor force
Not in labor force
Employed
Employed
Age (years)
0
20
40
60
80
100
Percent of population

Figure 3.15 Changes in employment status in a typical month



Age	Unemployment Rate (% of labor force)	
	White	Black
16–17	15.2	31.1
18–19	11.1	27.8
20–24	6.9	16.2
25–34	4.1	8.1
35–44	3.2	6.4
45–54	2.8	4.8
55–64	2.9	3.9
65–69	2.9	4.8
70–74	2.8	3.1
Over 75	2.8	3.3

TABLE 31-4. Unemployment Rates at Different Ages, 2001

Figure 1.3 The U.S. unemployment rate, 1890–2002

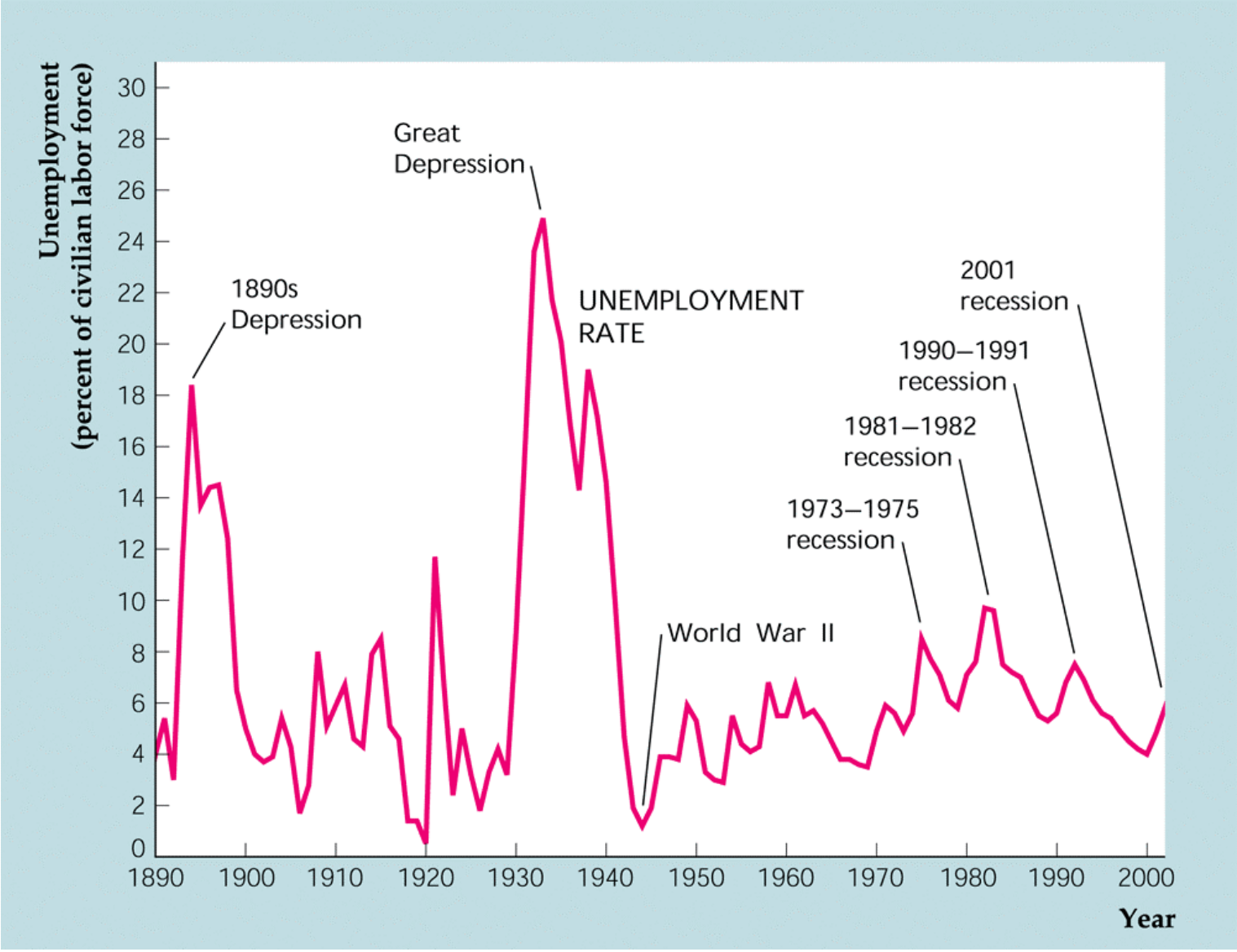


Figure 1.1 Output of the U.S. economy, 1869–2002

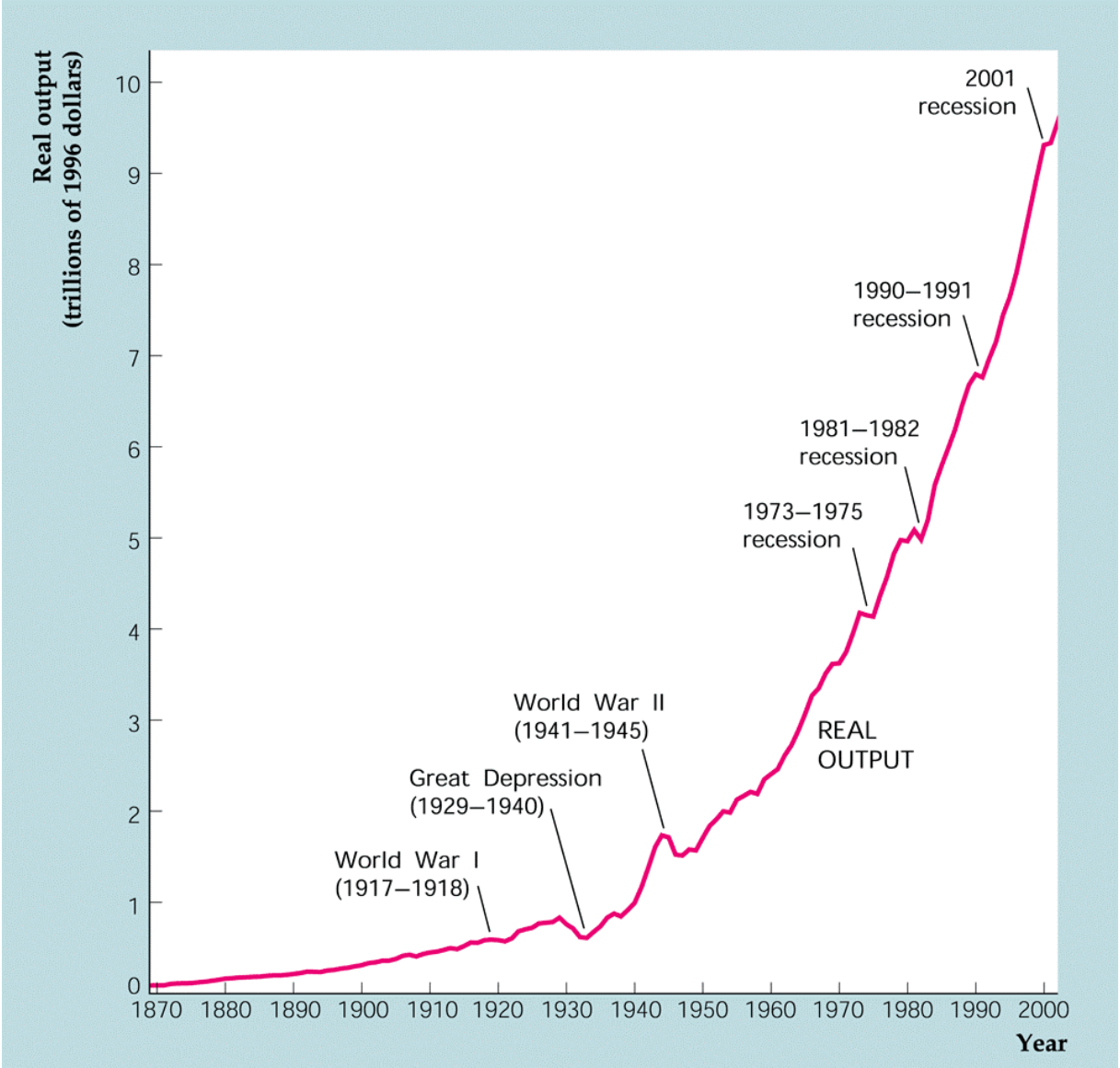


Figure 8.1 A business cycle

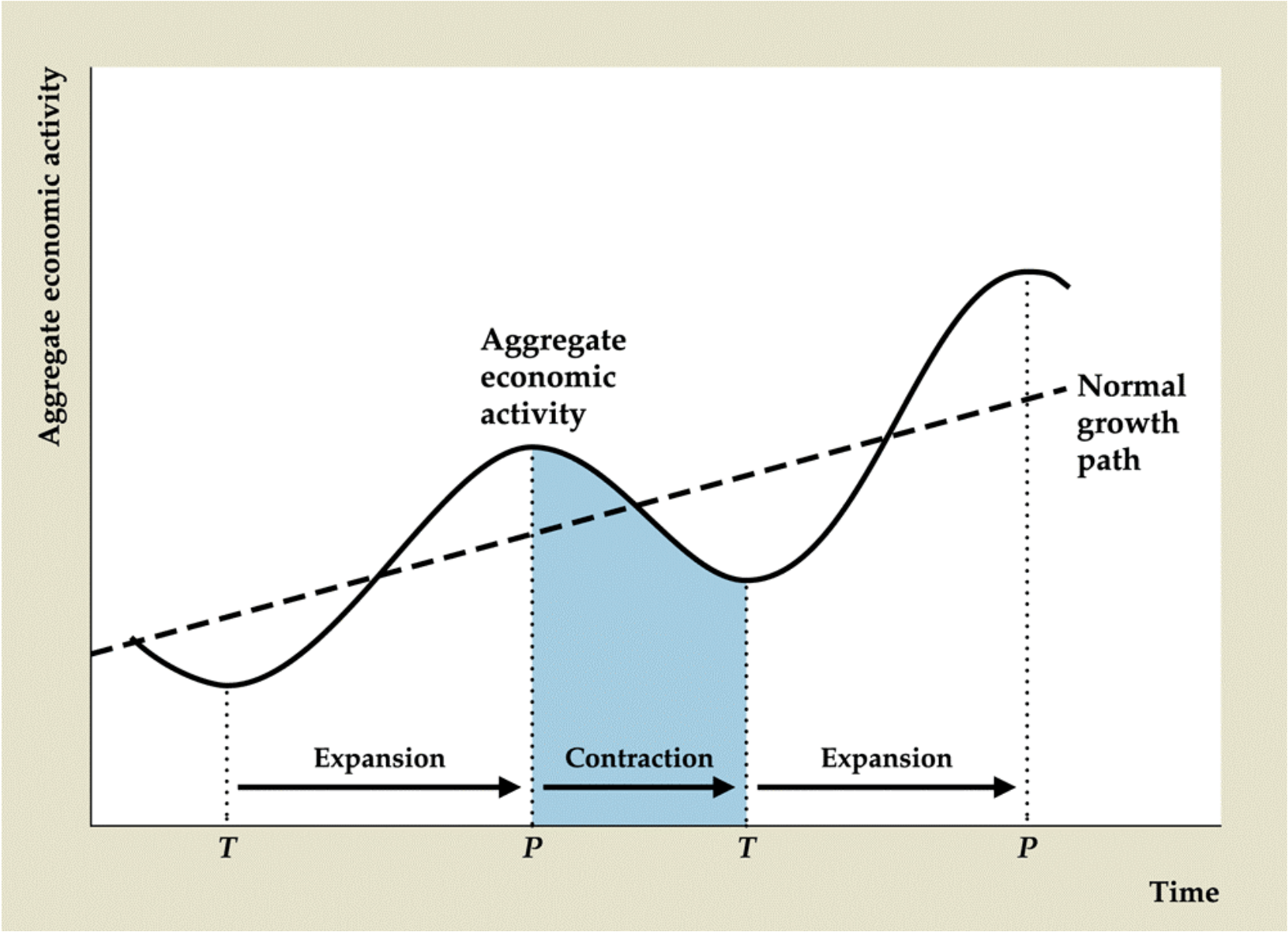


Table 8.1 NBER Business Cycle Turning Points and Durations of Post–1854 Business Cycles

Trough	Expansion (months from trough to peak)	Peak	Contraction (months from peak to next trough)
Dec. 1854	30	June 1857	18
Dec. 1858	22	Oct. 1860	8
June 1861	46 (Civil War)	Apr. 1865	32
Dec. 1867	18	June 1869	18
Dec. 1870	34	Oct. 1873	65
Mar. 1879	36	Mar. 1882	38
May 1885	22	Mar. 1887	13
Apr. 1888	27	July 1890	10
May 1891	20	Jan. 1893	17
June 1894	18	Dec. 1895	18
June 1897	24	June 1899	18
Dec. 1900	21	Sept. 1902	23
Aug. 1904	33	May 1907	13
June 1908	19	Jan. 1910	24
Jan. 1912	12	Jan. 1913	23
Dec. 1914	44 (WWI)	Aug. 1918	7
Mar. 1919	10	Jan. 1920	18
July 1921	22	May 1923	14
July 1924	27	Oct. 1926	13
Nov. 1927	21	Aug. 1929	43 (Depression)
Mar. 1933	50	May 1937	13 (Depression)
June 1938	80 (WWII)	Feb. 1945	8
Oct. 1945	37	Nov. 1948	11
Oct. 1949	45 (Korean War)	July 1953	10
May 1954	39	Aug. 1957	8
Apr. 1958	24	Apr. 1960	10
Feb. 1961	106 (Vietnam War)	Dec. 1969	11
Nov. 1970	36	Nov. 1973	16
Mar. 1975	58	Jan. 1980	6
July 1980	12	July 1981	16
Nov. 1982	92	July 1990	8
Mar. 1991	120	Mar. 2001	8
Nov. 2001			

Source: NBER Web site, *www.nber.org/cycles.html.*

Figure 8.6 Cyclical behavior of civilian employment

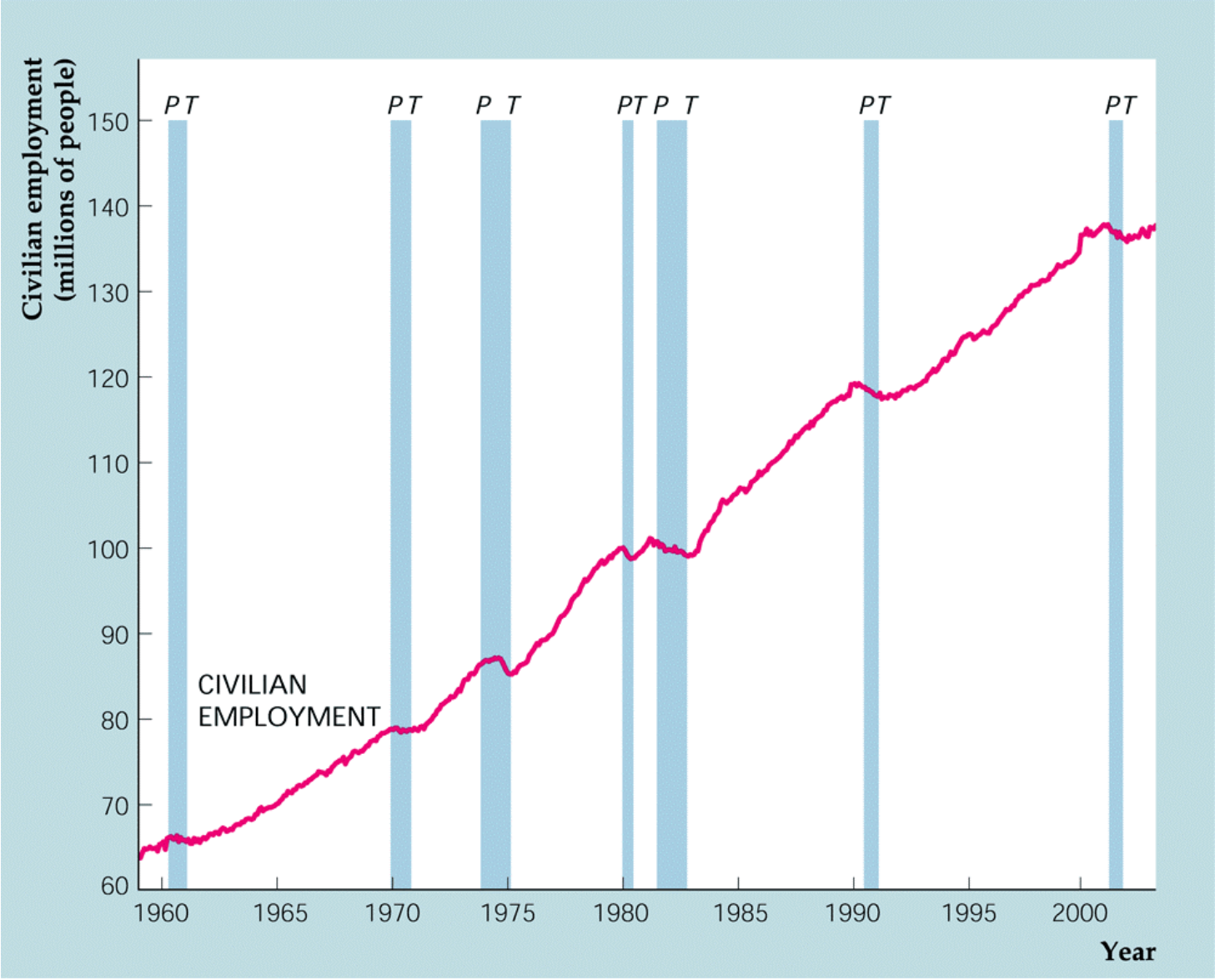
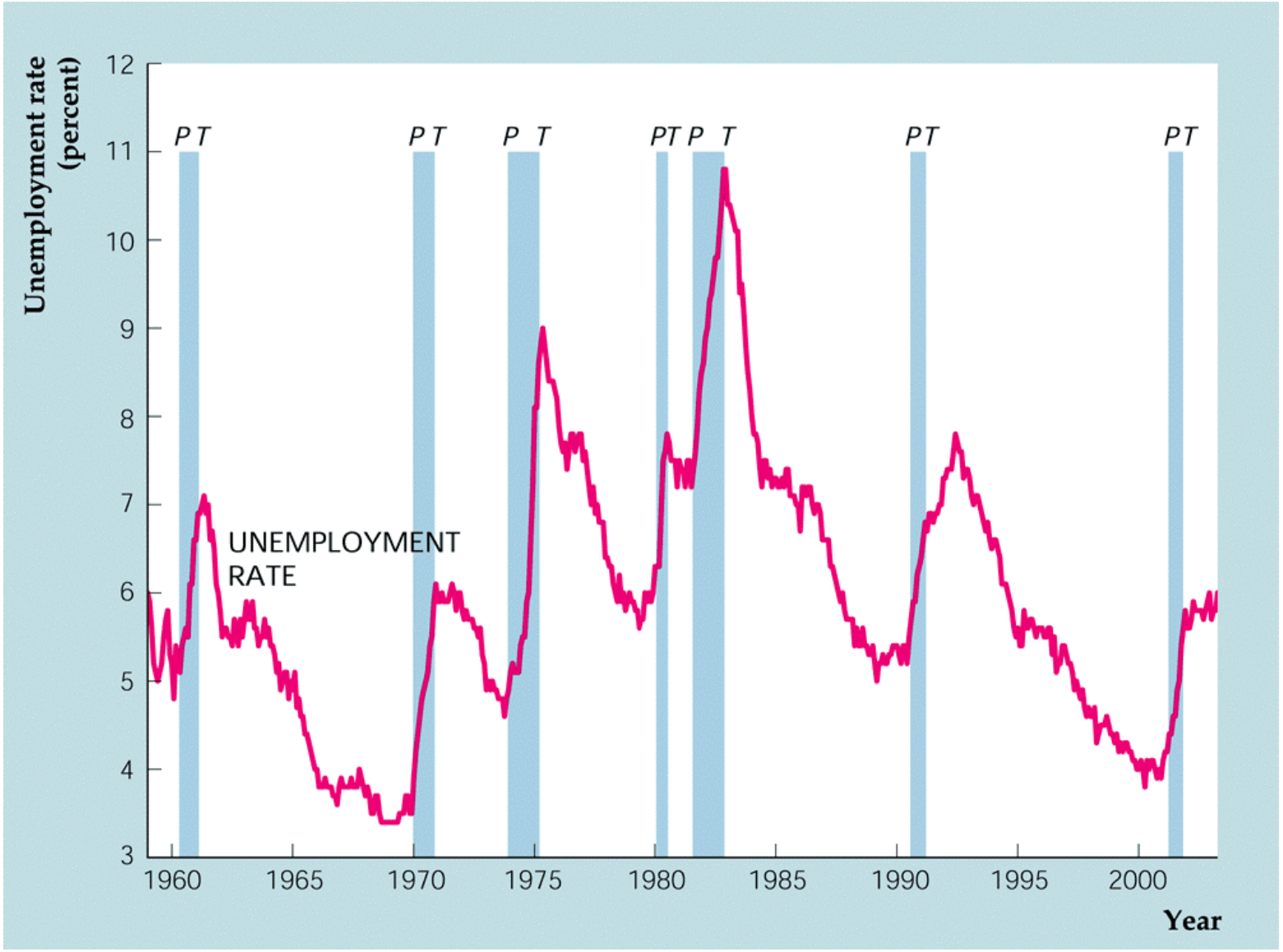
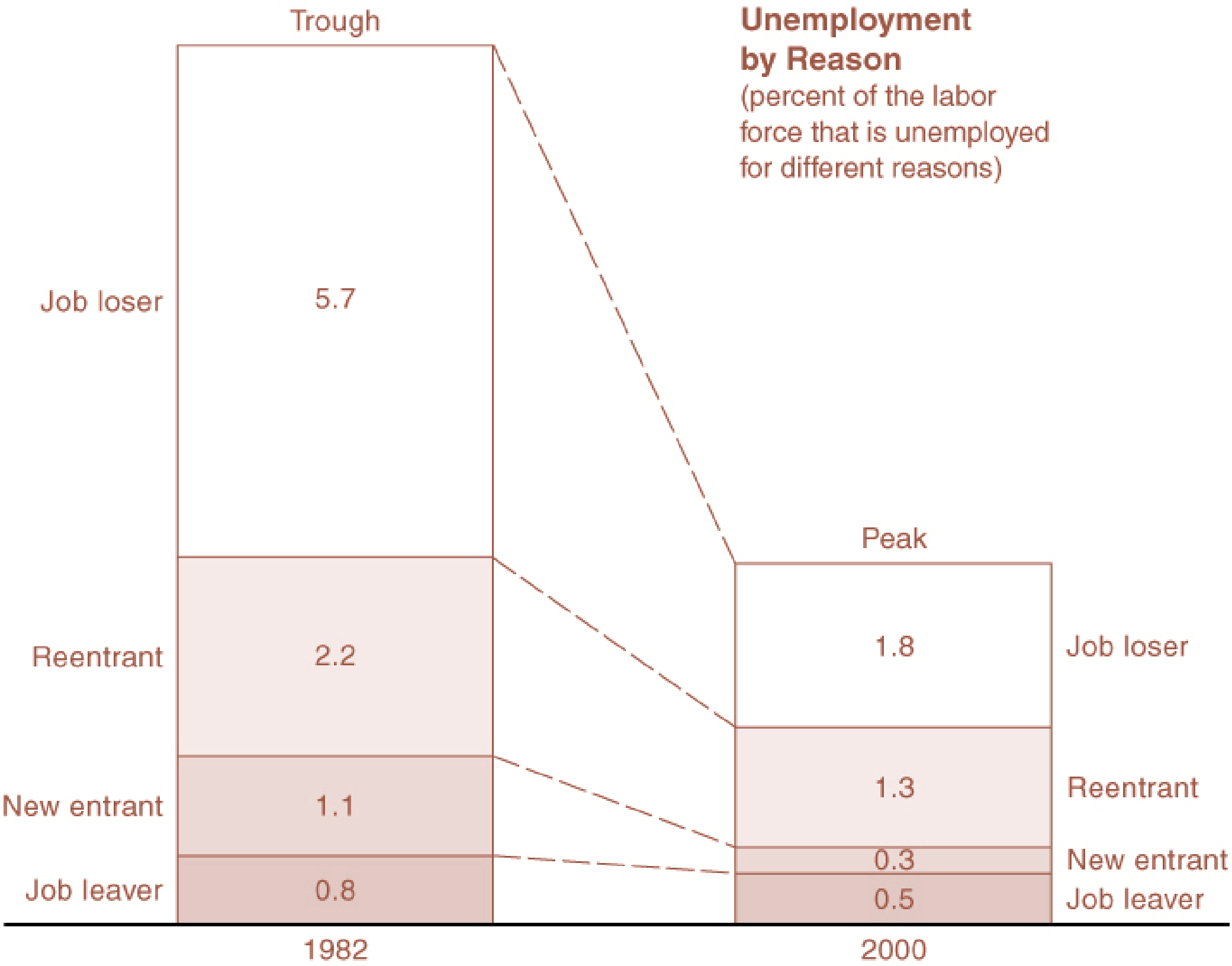


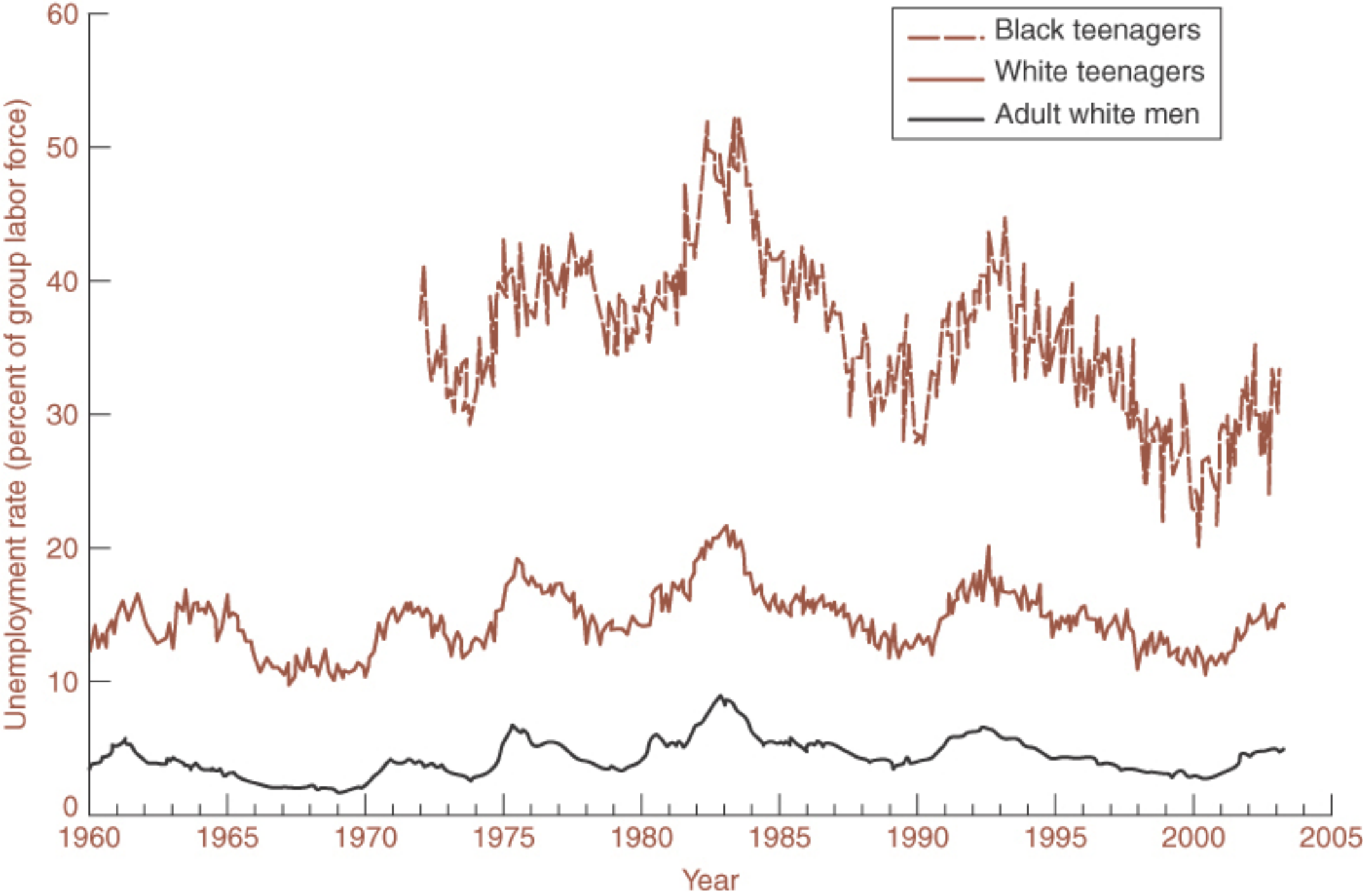
Figure 8.7 Cyclical behavior of the unemployment rate



Labor market group	Unemployment Rate of Different Groups (% of labor force)		Distribution of Total Unemployment across Different Groups (% of total unemployed)	
	Trough (1982)	Peak (March 2000)	Trough (1982)	Peak (March 2000)
By age:				
16–19	23.2	13.3	18.5	20.2
20 years and older	8.6	3.3	81.5	80.0
By race:				
White	8.6	3.6	77.2	77.6
Black and other	17.3	7.3	22.8	22.4
By sex (adults only):				
Male	8.8	3.8	58.5	50.5
Female	8.3	4.3	41.5	49.5
All workers	**9.7**	**4.1**	**100.0**	**100.0**

TABLE 31-3. Unemployment by Demographic Group


Trough
Unemployment
by Reason
(percent of the labor
force that is unemployed
for different reasons)
Job loser
5.7
Reentrant
2.2
New entrant
1.1
Job leaver
0.8
Peak
1.8
Job loser
1.3
Reentrant
0.3
New entrant
0.5
Job leaver
1982
2000


Black teenagers
White teenagers
Adult white men
Unemployment rate (percent of group labor force)
60
50
40
30
20
10
0
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
Year

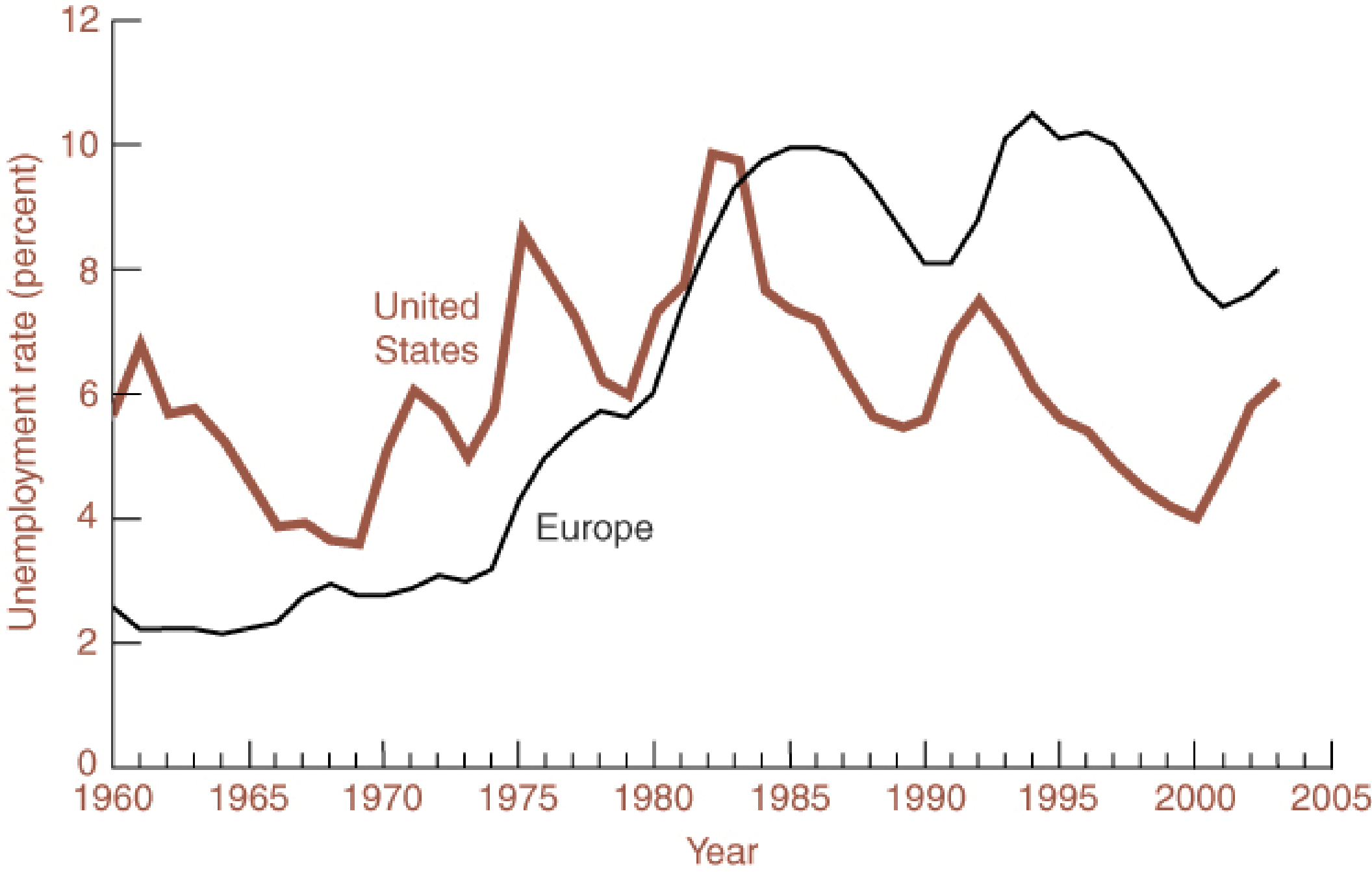
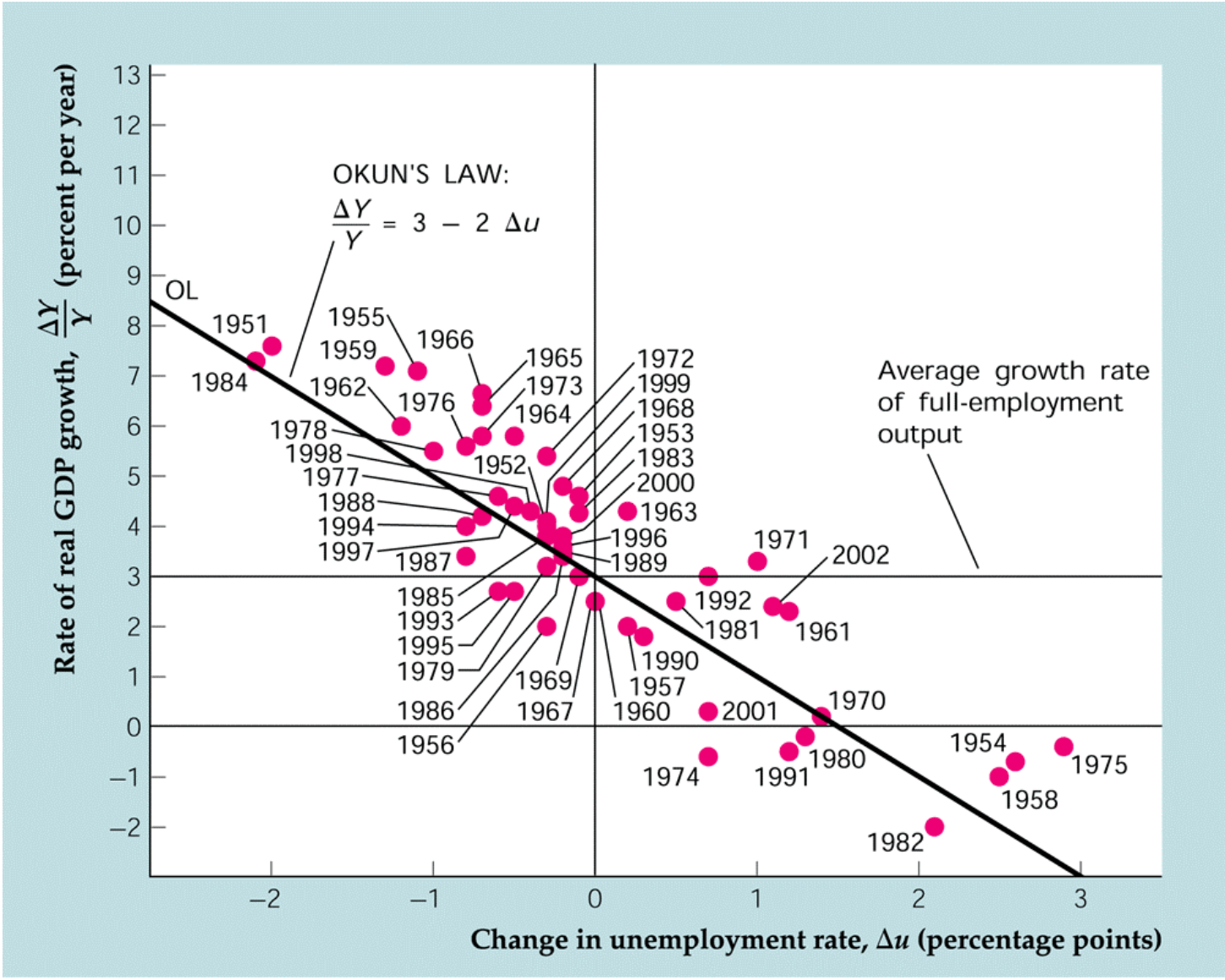

12
10
8
6
4
2
0
Unemployment rate (percent)
United States
Europe
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
Year

Figure 3.16 Okun's law in the United States: 1951–2002



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- There is a lot of churning in the labor market: every month thousands of jobs are created and destroyed. In addition, in every month thousands of workers enter the labor force for the first time and leave it for the last time (retirement).
- Lesson: Search and matching is a costly, time-consuming process, leading to frictional unemployment even in a well-functioning, healthy economy.

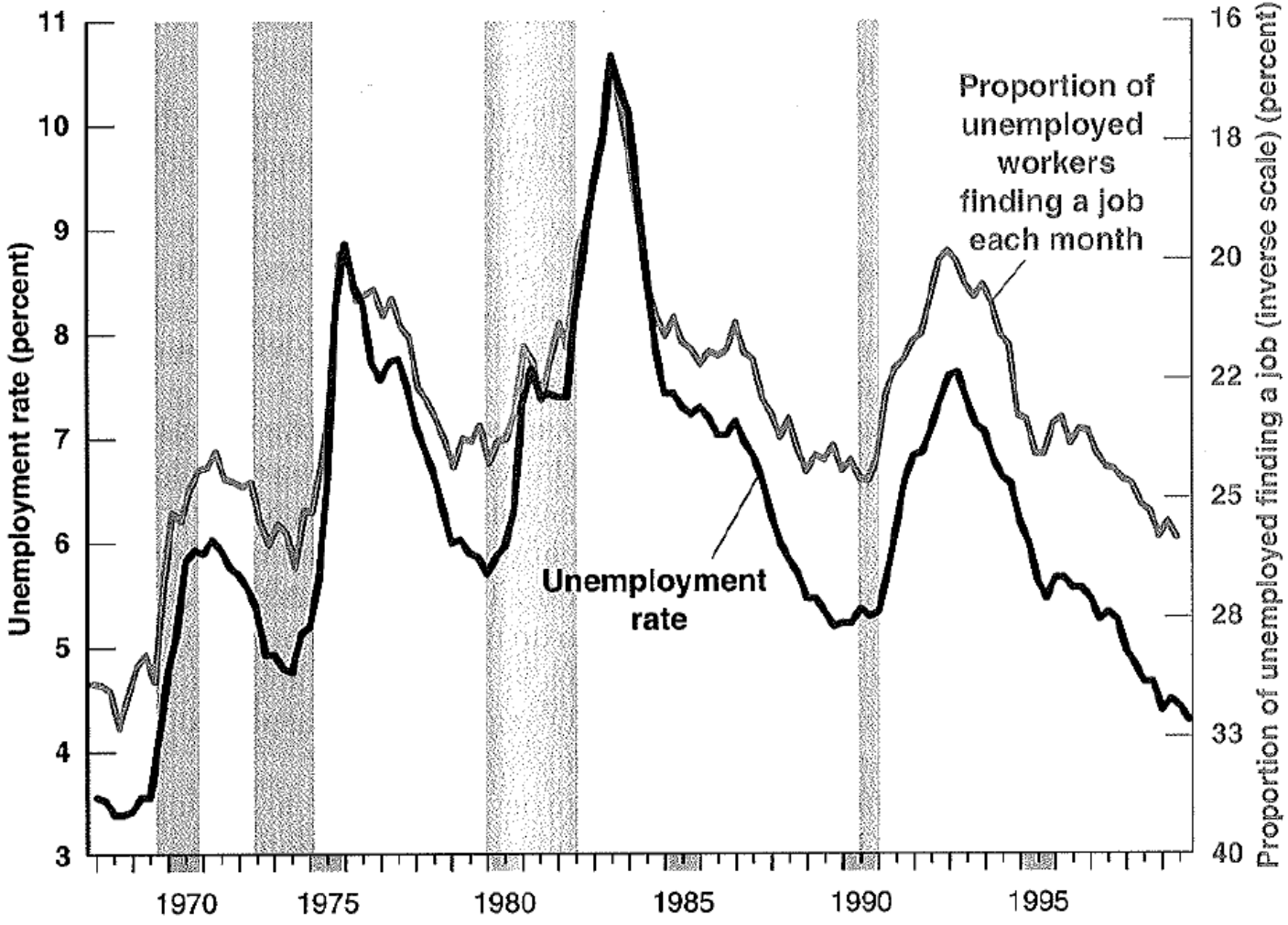

Figure 6-4

The Unemployment Rate and the Proportion of Unemployed Finding Jobs, 1968–1999

When unemployment is high, the proportion of unemployed finding jobs is low. Note that the scale on the right is an inverse scale.

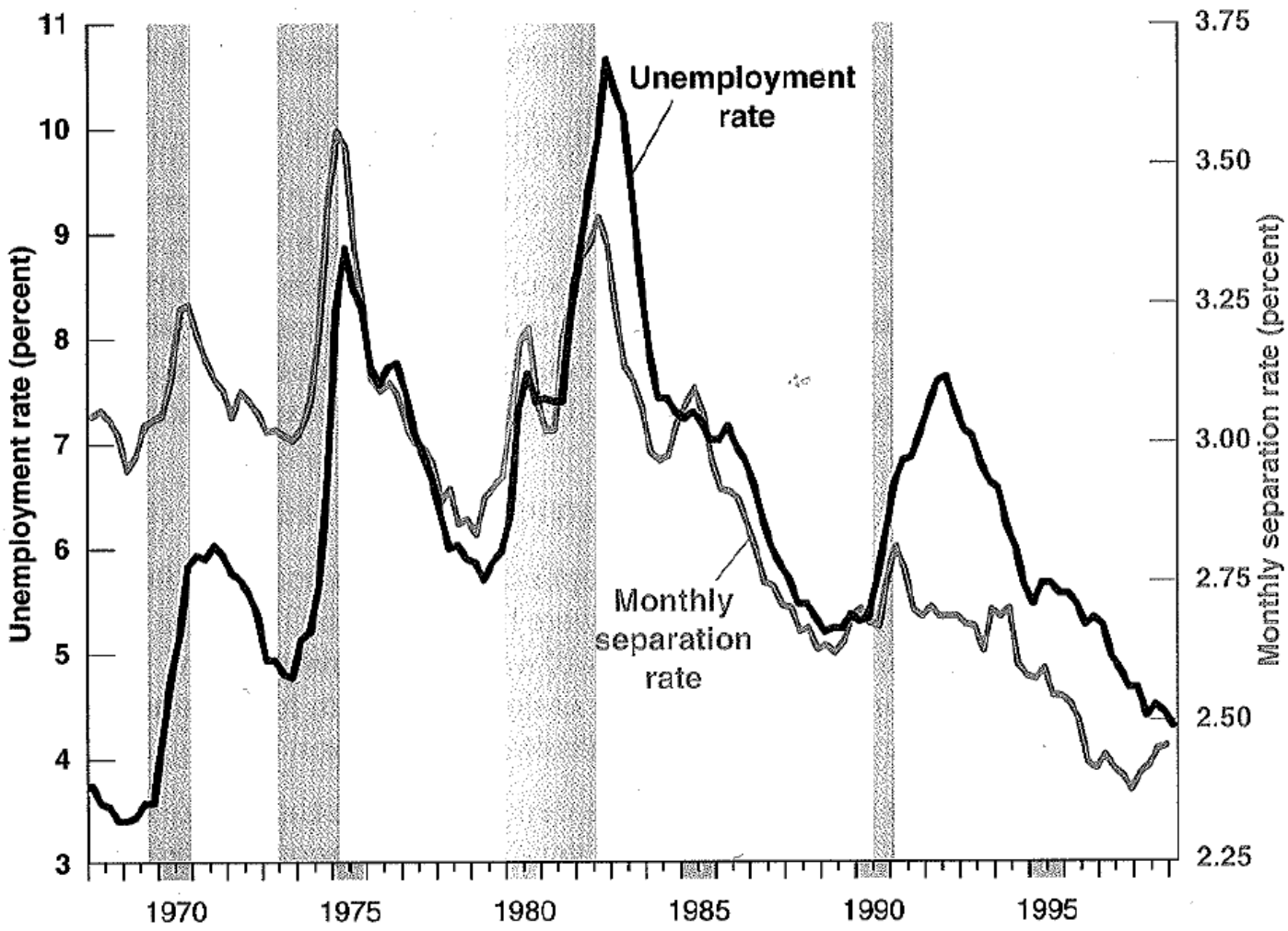

Figure 6-5

The Unemployment Rate and the Monthly Separation Rate from Employment, 1968–1999

When unemployment is high, a higher proportion of workers lose their jobs.

Structural Unemployment

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- Structural unemployment arises when wages do not adjust to clear the labor market.

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- Why might this happen?

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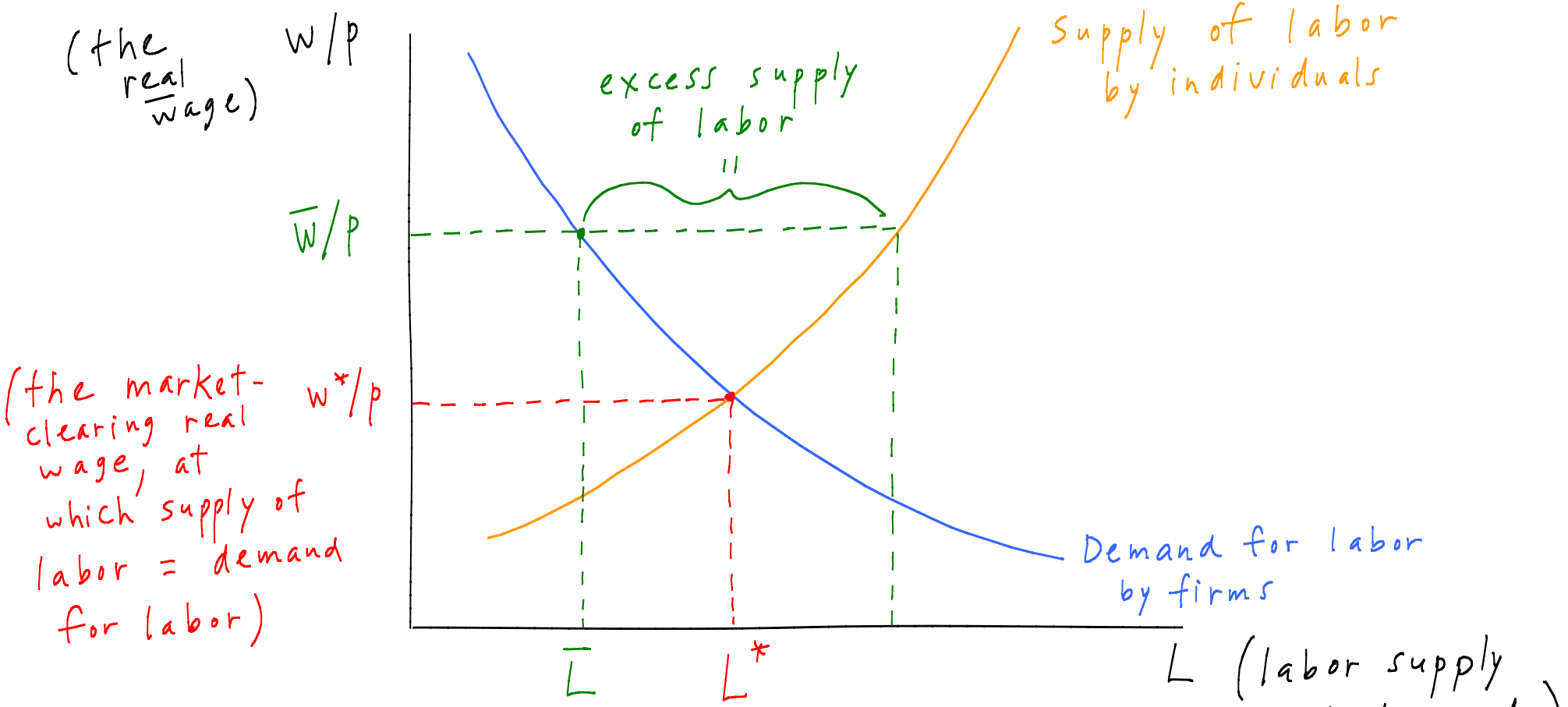
  3. Efficiency wages
  4. Morale
- Minimum wage laws restrict the market wage from dropping below a specified minimum wage.
- This minimum wage could be above the wage that clears the labor market (i.e., the wage that eliminates excess supply in the labor market).

A Non-Clearing Labor Market



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- Workers in unions tend to earn higher wages than workers not in unions.
- If the union wage is above the market-clearing wage, then there is an excess supply of labor (or unemployment), just as there would be under a minimum wage law.

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4. Increase morale (Truman Bewley). Firms would rather fire employees than cut wages for all employees because wage cuts reduce morale (thereby lowering worker effort).