



Unemployment

Chapter #7

Introduction

- Unemployment and output are tightly linked – but the link is not perfect
- Unemployment is a lagging economic indicator
 - Can be a mistaken guide to policy
 - Rising GDP may be of little solace to those still without a job
- Costs of unemployment not equally distributed

The Beveridge Curve

- Finding a job takes time
- Job matching process illustrated by the Beveridge Curve
 - Shows unemployment rate vs. number of job openings
- During Great Recession and years following unemployment high, but job vacancies higher in period following recession

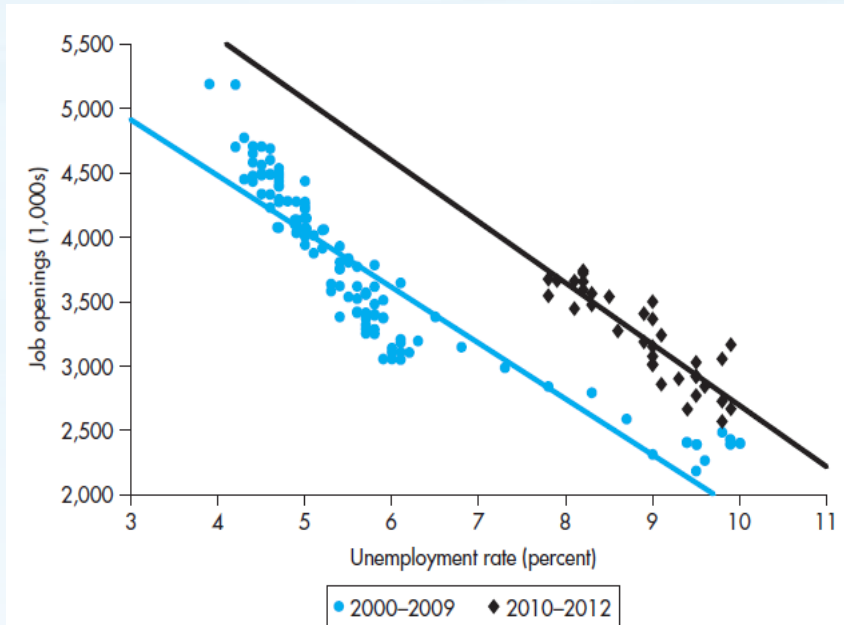


FIGURE 7-1 THE BEVERIDGE CURVE: THE RELATION BETWEEN JOB VACANCIES AND UNEMPLOYMENT.

The Anatomy of Unemployment

- Five key characteristics of unemployment in the U.S.
 1. There are large variations in unemployment rates across groups defined by age, race, or experience.
 2. There is high turnover in the labor market. Flows into and out of employment and unemployment are high relative to the numbers of employed or unemployed.
 3. A significant part of this turnover is cyclical: Layoffs and separations are high during recessions, and voluntary quits are high during booms.
 4. Most people who become unemployed in any given month remain unemployed for only a short time.
 5. Much of the U.S. unemployment consists of people who will be unemployed for quite a long time.

The Anatomy of Unemployment

- The size of the labor force is determined from surveys by the BLS
 - Labor force = unemployed (U) + employed (E)
- Unemployed is one who is out of work and who either
 1. Has actively looked for work during the previous 4 weeks OR
 2. Is waiting to be recalled to a job after having been laid off

TABLE 7-1 U.S. Labor Force and Unemployment, 2011
(Millions of Persons 16 Years and Over)

Working-age population	239.6
Labor force	153.6
Employed	139.9
Unemployed	13.7
Not in labor force	86.0

Source: Bureau of Labor Statistics.

The Anatomy of Unemployment

- Employed person is one who during the reference week:
 1. Did at least one hour of work for pay in the last week
 2. Worked at least 15 hours as an unpaid worker for an enterprise owned by a family member OR
 3. Was not working, but only temporarily absent from work (ex. vacation or maturity leave)

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The Unemployment Pool

- At any point in time there is a given number (pool) of unemployed people
- There are flows in and out of the unemployment pool.
- A person can become unemployed for one of four reasons:
 1. He/she may be a new entrant or reentrant into the LF
 2. The person may quit a job in order to look for other employment and may register as unemployed while searching
 3. The person may be laid off
 4. The worker may lose a job (fired or firm closes)

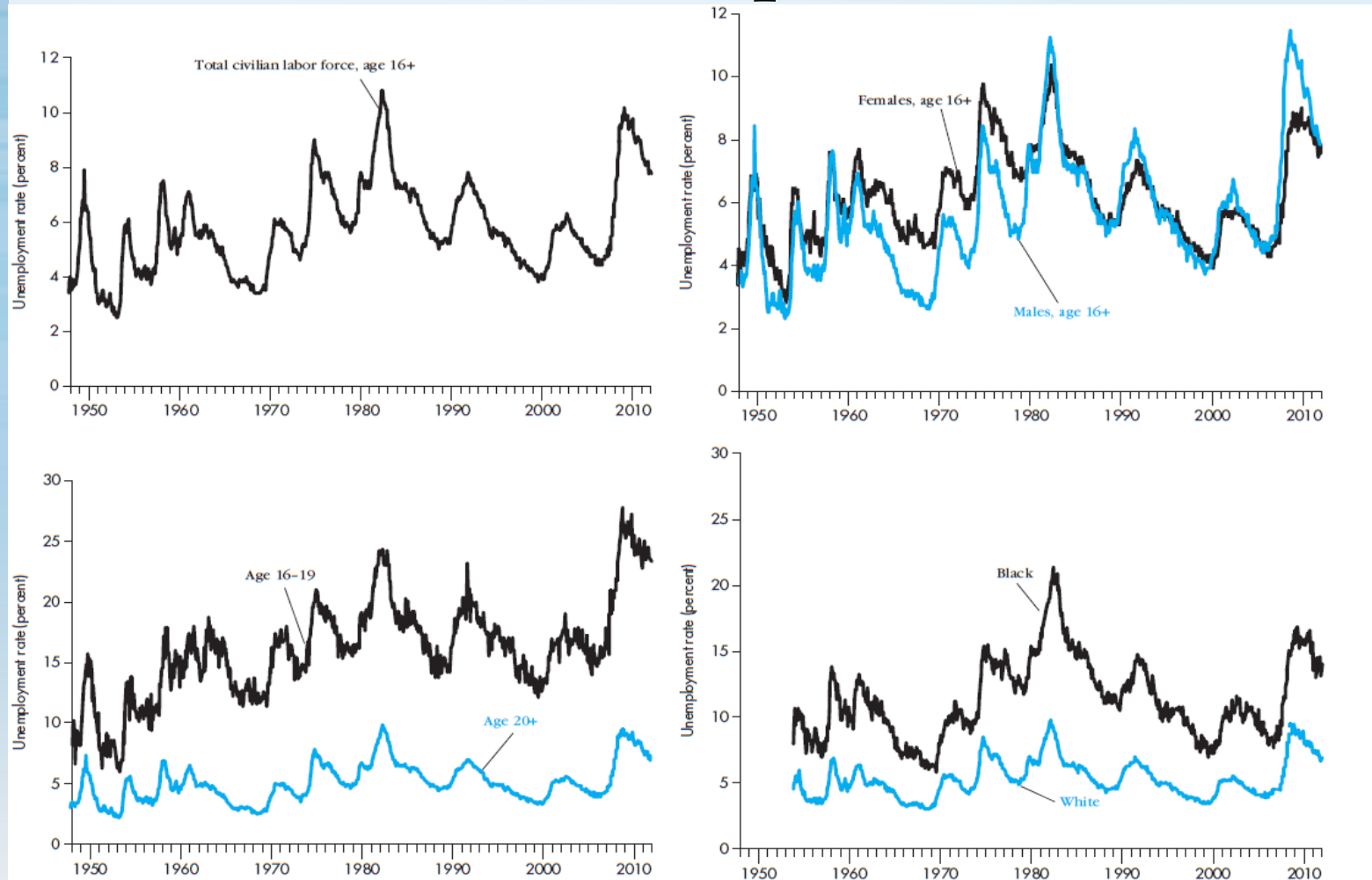
The Unemployment Pool

- There are three ways of moving out of the unemployment pool:
 1. A person may be hired into a new job
 2. Someone laid off may be recalled
 3. An unemployed person may stop looking for a job, and thus move out of the labor force
- Unemployment is rising when more people are entering the pool than leaving
 - Job losses account for half of new unemployment; voluntary separations, new entrants, and reentrants into the LF account for the other half

Variation in Unemployment Across Groups

- The aggregate unemployment rate tells us the share of the labor force that is unemployed
 - The aggregate number conceals wide variations across various segments of the population
 - Teenagers have much higher unemployment rates than older workers
 - Black unemployment is higher than that of their white cohorts
 - Female unemployment was higher than male unemployment through the 1970s, but now lower than male unemployment
- The relationship between the aggregate unemployment rate, u , and that of groups is: $u = w_1u_1 + w_2u_2 + \dots + w_nu_n$ (1), where w_i are the fraction of the civilian LF that falls within a specific group

Variation in Unemployment Across Groups



Cyclical and Frictional Unemployment

- Frictional unemployment is the unemployment that exists when the economy is at full employment

- Results from the structure of the labor market, including:
 - The nature of jobs in the economy
 - Social habits
 - Labor market institutions

→ *Frictional unemployment rate = natural rate of unemployment*

- Cyclical unemployment is unemployment in excess of frictional unemployment
 - Occurs when output is below the full employment level
 - The presence of cyclical unemployment indicates a downturn in the economy

Labor Market Flows

- Labor market turnover, flows into and out of unemployment and employment and between jobs, is large
- Table 7-2 shows the average of monthly flows in 2012 into and out of employment within the manufacturing sector
 - Added 2.1 individuals per 100 employees to payrolls
 - Removed 2.0 individuals per 100 employees from payrolls

TABLE 7-2 Labor Turnover Rates in Manufacturing, 2012
(Per 100 Employees; Average of Monthly Data)

ACCESSIONS		SEPARATIONS		
HIRES	QUITS	LAYOFFS*	OTHER	TOTAL
2.1	0.9	0.9	0.2	2.0

*Includes involuntary separations.

Source: Bureau of Labor Statistics, Job Openings and Labor Turnover Survey.

Duration of Unemployment

- Another issue to consider when examining unemployment is the duration of unemployment spells
 - A spell of unemployment is a period in which an individual remains continuously unemployed
 - The duration of unemployment is the average length of time a person remains unemployed

TABLE 7-3 Unemployment by Duration

LENGTH OF UNEMPLOYMENT, WEEKS	PERCENT OF UNEMPLOYED	
	2000	2009
Less than 5	44.9	22.2
5–14	31.9	26.8
15–26	11.8	19.5
27 and over	11.4	31.5
Mean number of weeks	12.6 wk.	24.4 wk.
Unemployment rate	4.0	9.3

Source: Bureau of Labor Statistics.

Determinants of the Natural Rate

- The determinants of the natural rate of unemployment, u^* , can be thought of in terms of the duration and frequency of unemployment
 - The duration of unemployment depends on cyclical factors and on the following structural characteristics of the labor market:
 - The organization of the labor market, including the presence or absence of employment agencies, youth employment services, etc.
 - The demographic makeup of the labor force
 - The ability and desire of the unemployed to keep looking for a better job, which depends in part on the availability of unemployment benefits

Determinants of the Natural Rate

- The determinants of the natural rate of unemployment, u^* , can be thought of in terms of the duration and frequency of unemployment
 - The frequency of unemployment is the average number of times per period that workers become unemployed
 - Two basic determinants of the frequency of unemployment:
 - Variability of the demand for labor across different firms in the economy
 - The rate at which new workers enter the labor force, since new potential workers begin as unemployed workers
- The determinants of duration and frequency of unemployment are the basic determinants of the natural rate of unemployment

Determinants of the Natural Rate

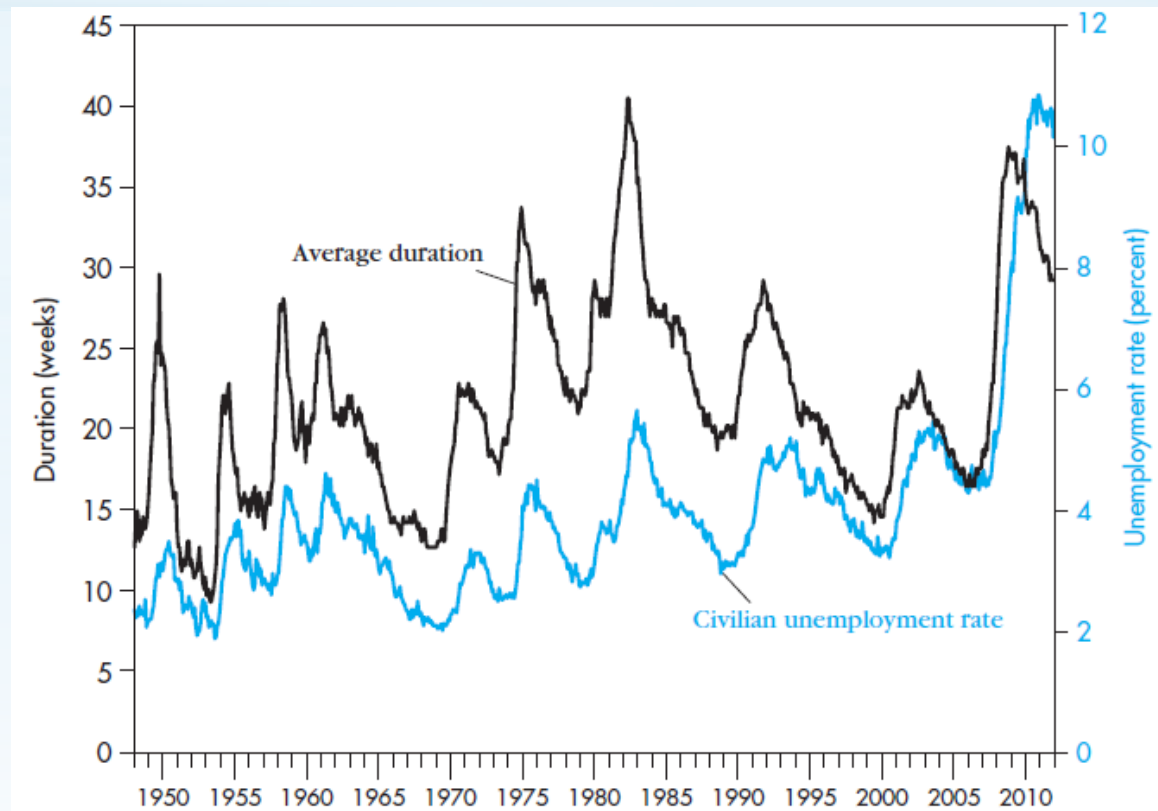


FIGURE 1 UNEMPLOYMENT RATES AND DURATION, 1948–2012.

(Source: Bureau of Labor Statistics.)

Estimates of the Natural Rate

- The equation for the natural rate of unemployment is similar to equation (1): $u^* = w_1 u_1^* + w_2 u_2^* + \dots + w_n u_n^*$ (2)
 - Equation (2) says that the natural rate is the weighted average of the natural rates of unemployment of the subgroups in the LF
 - Several adjustments are needed to account for:
 - Changing composition of the LF, including increasing share of teenagers
 - Changes in the fundamental determinants of the natural rate, including unemployment benefits

Estimates of the Natural Rate

- The Congressional Budget Office (CBO) provides an official full-employment-unemployment rate estimate
- If actual unemployment rate is above natural rate, $u > u^*$, $Y < Y^*$
- If actual unemployment rate is below natural rate, $u < u^*$, $Y > Y^*$

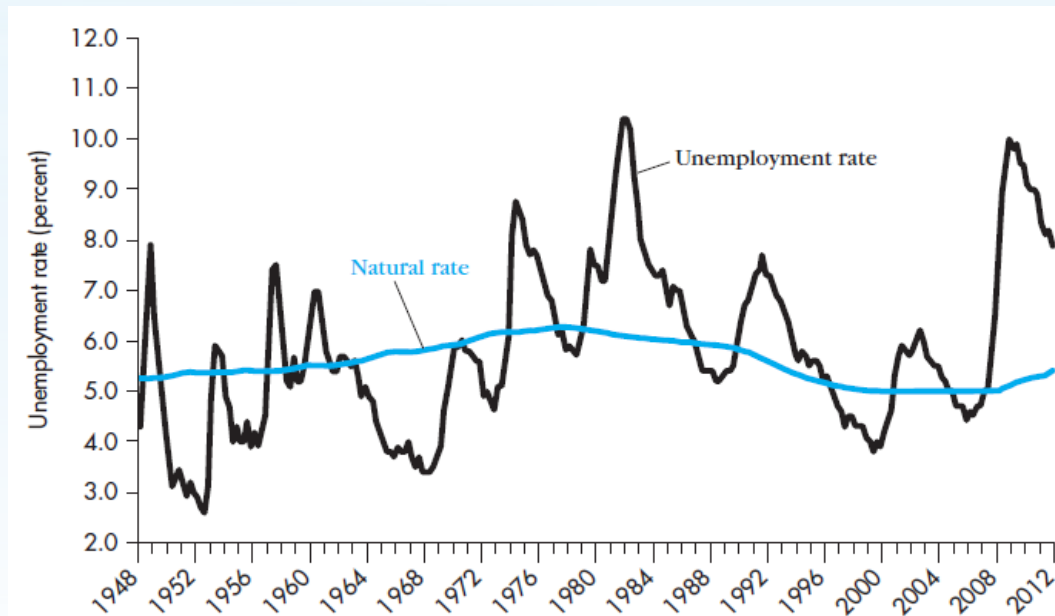


FIGURE 7-4 THE NATURAL AND ACTUAL RATES OF UNEMPLOYMENT, 1948–2012.

Hysteresis and the Rising Natural Rate of Unemployment

- Between 1973 and 1988 the U.S. unemployment rate stayed well above the natural rate estimated using the demographic adjustment method
- Some economists argue that the unemployment rate over long periods cannot move too far from the natural rate → the natural rate must have increased over this time period

WHY?

Hysteresis and the Rising Natural Rate of Unemployment

- One explanation is unemployment hysteresis: extended periods of high unemployment raise the natural rate
 - Unemployed might become accustomed to not working
 - Unemployed could become discouraged and not vigorously seek work
 - Long unemployment spells might signal to firms that a worker is undesirable, and the firms might avoid hiring such workers

Unemployment Benefits

- Unemployment benefits increase the rate of unemployment in two ways:
 1. Unemployment benefits allow for longer job searches
 2. Lessens the severity of being in and out of jobs
- Unemployment benefits increase the measured unemployment rate through reporting effects
 - In order to collect unemployment insurance, a person must be considered “in the labor force,” or actively seeking work → some seek work even if they do not really want the job to be counted as unemployed
 - One estimate suggests that reporting effects raise the unemployment rate by about half a percentage point

The Costs of Unemployment

- Unemployed persons suffer both from their income loss and from the related social problems that long periods of unemployment cause
 - Costs of cyclical unemployment:
 - Okun's law tells us that every 1 point increase in unemployment reduces output by 2 % points
 - Distributional impact of unemployment may be more dire for some groups than others (Ex. Teenagers vs. older workers)
 - In addition to lost output from unemployment, there is reduced tax revenues
 - Social costs of unemployment:
 - Include increased divorce rates, suicide rates, and depression