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The Labor Market in the Macroeconomy

CHAPTER OUTLINE

The Labor Market: Basic Concepts
Define fundamental concepts of the labor market.

The Classical View of the Labor Market
Explain the classical view of the labor market.

Explaining the Existence of Unemployment
Discuss four reasons for the existence of unemployment.

Explaining the Existence of Cyclical Unemployment
Discuss four reasons for the existence of cyclical unemployment.

The Short-Run Relationship Between the Unemployment Rate and Inflation
Analyze the short-run relationship between unemployment and inflation.

The Long-Run Aggregate Supply Curve, Potential Output, and the Natural Rate of Unemployment
Discuss the long-run relationship between unemployment and output.

DETAILED CHAPTER OUTLINE

I. Introduction

A. Wages and the *AS* curve

1. Sticky wages cause the short-run *AS* curve to slope upward.

b. If wages are completely flexible and synchronized with the price level, the short-run *AS* curve will be vertical.

B. Remember, unemployment is one of the main concerns of macroeconomics. Therefore labor markets are the focus of a lot of our research.

II. The Labor Market: Basic Concepts

A. On the first Friday of every month the BLS releases the employment and unemployment report for the previous month. This report includes data on each of the variables defined here.

B. The labor force (*LF*) equals the number of people employed (*E*) plus the number of people unemployed (*U*): $LF = E + U$

C. The *unemployment rate* is the ratio of the number of people unemployed to the total number of people in the labor force (*U/LF*).

1. To be unemployed a person must be out of a job and actively looking for work. When people stop looking for work they are no longer in the labor force (discouraged workers and others marginally attached to the labor force).

2. Frictional unemployment and structural unemployment are inevitable and in many ways desirable. Movement among jobs is a sign the economy is functioning well.

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

b. *Structural unemployment* is 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.

c. *Cyclical unemployment* is the increase in unemployment that occurs during recessions and depressions.

3. We are most concerned with cyclical unemployment.

D. Employment tends to fall when aggregate output falls and to rise when aggregate output rises.

E. A decline in the demand for labor does not necessarily mean that unemployment will rise. If the quantity of labor demanded and the quantity of labor supplied are brought into equilibrium by rising and falling real wage rates there should be no persistent unemployment above the frictional and structural amount. This was the classical view.

F. Virtually every economist believed the classical model of the labor market before 1930. Even today you can find a number of economists who still subscribe to the classical doctrine.

III. The Classical View of the Labor Market

A. Introduction

1. The wage rate adjusts quickly to make the quantity of labor demanded equal the quantity of labor supplied. Therefore cyclical unemployment cannot exist.

2. The *labor demand curve* is a graph that illustrates the amount of labor that firms want to employ at each given wage rate.

3. The *labor supply curve* is a graph that illustrates the amount of labor that households want to supply at each given wage rate.

4. Like any other market, the labor market will achieve the socially optimal result if left to its own devices.

a. Individuals who stay out of the labor force place a higher value on their time than do potential employers.

b. There is always full employment in the sense that the quantity of labor demanded will equal the quantity supplied.

B. The Classical Labor Market and the Aggregate Supply Curve

1. Wages respond quickly to price changes.

2. The short-run *AS* curve is therefore vertical.

3. Monetary and fiscal policies have no effect on output and employment.

C. The Unemployment Rate and the Classical View

1. How do classical economists explain long periods of high unemployment?

a. The unemployment rate may not be a good measure of how well labor markets are working.

b. Classical economists argue that virtually all unemployment is voluntary.

2. According to the classical view cyclical unemployment is caused by the stubborn refusal of workers to accept lower paying jobs quickly.

3. Unfortunately, classical economists have to deal with the facts of the Great Depression. When the unemployment rate is 25 percent it's very hard to argue that high unemployment is caused by workers' reluctance to accept lower wage offers.

IV. Explaining the Existence of Unemployment

A. *Efficiency Wage Theory* is an explanation for unemployment that holds that the productivity of workers increases with the wage rate. If this is so, firms may have an incentive to pay wages above the market-clearing rate.

1. Efficiency wages are wage rates employers pay to workers above the market-clearing wage. From the outside the wage looks higher than the market wage but in fact from the firm's perspective the higher wage is worth it.

2. The higher wage reduces turnover and "shirking," and improves morale.

3. While the efficiency wage theory is attractive, it is unlikely to account for much of the observed large cyclical fluctuations in unemployment over time.

B. Imperfect Information

1. Firms and workers do not know the actual current labor demand and supply curves, so they do not know the current equilibrium wage.

2. Since wages are set by trial and error the current wage may not be the equilibrium wage.

3. In this view, unemployment is merely an efficient means for gathering information about the state of the labor market. On the other hand, gathering the new information should not take more than a couple of months.

C. *Minimum Wage Laws* set a floor for wage rates—that is, a minimum hourly rate for any kind of labor.

1. Minimum wage laws explain some fraction of unemployment, especially among teenagers.

2. However, the minimum wage in the United States is set in nominal terms. Inflation reduces the real minimum wage. The minimum wage only affects the labor market if the real minimum wage is above equilibrium. This may not always be true. (See Extended Application 1 on page **Error! Bookmark not defined.** for data on the nominal and real minimum wage in the United States.)

V. Explaining the Existence of Cyclical Unemployment

A. *Sticky Wages* is the term economists use to describe the downward rigidity of wages as an explanation for the existence of unemployment.

1. Wages tend to be sticky downward. This explains unemployment because wages will not adjust quickly to clear the labor market. However, there is no clear explanation as to why wages are sticky.

2. *Social or Implicit Contracts* are unspoken agreements between workers and firms that firms will not cut wages. A related argument is the *relative-wage explanation of unemployment*, an explanation for sticky wages (and therefore unemployment): If workers are concerned about their wages relative to other workers in other firms and industries, they may be unwilling to accept a wage cut unless they know that all other workers are receiving similar cuts.

3. *Explicit Contracts* are employment contracts that stipulate workers' wages, usually for a period of 1 to 3 years. Wages set in this way do not fluctuate. Firms and workers are willing to bind themselves because the cost of negotiating wages is high. Some contracts include *cost of living adjustment* (*COLA*) clauses tying wages to changes in the cost of living. The greater the inflation rate, the more wages are raised.

B. An Open Question

1. There are many possible explanations of high unemployment.

2. It seems likely that each of the theories contributes somewhat to high unemployment. The theories are complements not substitutes.

VI. The Short-Run Relationship between the Unemployment Rate and Inflation

1. The relationship (if any) between these two variables has been debated for over 50 years. Most macroeconomists are now convinced that there is a short-run tradeoff between the unemployment rate and inflation.

2. In the short run a lower unemployment rate can only be achieved by accepting a higher inflation. However, the definition of "short run" depends strongly on the speed of adjustment of inflation expectations.

3. Output and Unemployment

    a. An increase in output (*Y*) usually means an increase in employment.

    b. More employment means less unemployment. The unemployment rate (*U*) usually falls.

    c. Thus when output rises the unemployment rate falls. When output falls the unemployment rate rises.

4. Output and the Price Level

    a. The upward sloping short-run *AS* curve implies output rises when the price level rises.

    b. The slope of the *AS* curve depends on how close the economy was to full employment at the current position of the *AD* curve. The slope of *AS* determines how much of a given shift in *AD* will go to increased output and how much to a higher price level.

    c. As output increases the unemployment rate falls. Therefore, an increase in the price level should be associated with a decrease in the unemployment rate.

    d. Reminder: The *inflation rate* is the percentage change in the price level; it is not the price level itself.

5. Unemployment and Inflation

    a. So far we have derived a relationship between the unemployment rate and the price level.

    b. However we wanted a relationship between unemployment and inflation. The *Phillips Curve* is a graph showing the relationship between the inflation rate and the unemployment rate.

B. The Phillips Curve: A Historical Perspective

1. In the 1950s and 1960s there was a remarkably smooth negative relationship between the unemployment rate and the inflation rate.

2. The apparently stable relationship between inflation and unemployment became unstable in the 1970s and 1980s.

C. Aggregate Supply and Aggregate Demand Analysis and the Phillips Curve

1. The relationship between the unemployment rate and the inflation rate is affected by whether it is the *AD* curve shifting along *AS* or *AS* shifting along *AD*. If both shift then there is no systematic relationship.

2. The Role of Import Prices: Changes in the price of imports (especially oil and certain other raw materials) can shift *AS*.

    a. During the 1950s and 1960s input prices remained fairly constant. Since it was mainly the *AD* curve shifting, the Phillips Curve sloped downward and was stable.

b. During the 1970s and 1980s both *AD* and *AS* shifted frequently causing the Phillips "curve" to become a jumbled line.

D. Expectations and the Phillips Curve

1. Expectations can be self-fulfilling. If firms expect prices to rise they may raise prices today to beat the rest of the market.

2. The Phillips Curve shifts when inflation expectations change.

a. Inflation expectations were very stable in the 1950s and 1960s because the inflation rate itself was low and stable.

b. When inflation began to heat up in the 1970s people and businesses became sensitized to inflation. They began to adjust their expectations more frequently, causing the Phillips Curve to shift more frequently.

E. Inflation and Aggregate Demand

1. Changes in *AD* still affect the inflation rate.

2. What we've learned over the last 45 years is the importance of other factors that influence short-run inflation.

VII. The Long-Run Aggregate Supply Curve, Potential Output, and the Natural Rate of Unemployment

A. If the AS curve is vertical at potential GDP in the long run, logic dictates that the long-run Phillips Curve is also vertical at the natural rate of unemployment (the rate of unemployment that is consistent with the notion of a fixed long-run output at potential GDP). The *natural rate of unemployment* is unemployment that occurs as a normal part of the functioning of the economy. It is sometimes taken as the sum of frictional unemployment and structural unemployment.

B. The Nonaccelerating Inflation Rate of Unemployment (NAIRU)

1. *NAIRU* is the unemployment rate that keeps the inflation rate constant.

2. In the late 1990s economists frequently revised their estimates of NAIRU. This led others to ask what good the theory was if a key part had to be changed often. This issue remains unresolved.

3. The 2015–2017 period also saw declining unemployment rates with no increase in the inflation rate, further evidence against the NAIRU theory.