Lecture 9

Unemployment in the Long Run

Eric Doviak

Economic Growth and Economic Fluctuations

Quick History of Macroeconomics

- **Prior to the Great Depression of the 1930's, the term "economics" referred entirely to what we now call "microeconomics"**
- **Economists were concerned almost exclusively with the decision-making of individuals, households and firms**
- **To the extent that they studied economy-wide problems** (such as the Great Depression)**, they always used micro analysis**
- **For example, they explained the phenomenon of unemployment as an excess supply of labor induced by a <u>real</u> <u>wage</u> that was set above the market-clearing level** (i.e. the prevailing wage was set too high and not justified by the price of output, yet unemployed workers stubbornly refused to accept the lower wage at which employers would hire them)**.**
- **Such models failed to explain the persistently high unemployment that occurred during the Great Depression.**
- **It's not realistic to assume that workers endure unemployment over long periods of time because they're unwilling to accept a lower wage**
- **Economists also argued that high <u>interest</u> <u>rates</u> discouraged firms from investing in new capital during the Great Depression**

The Keynesian Revolution

General Theory of Employment, Interest and Money (Keynes, 1936)

- **John Maynard Keynes was the first economist to analyze the problem of unemployment using a framework other than the price/wage rate framework discussed above.**
- **Keynes argued that prices and wages don't determine the level of employment in the short run**
- **Keynes argued that:**
  - **if wages fell, employers would be able to hire more workers, but**
  - **employed workers would have to consume less and**
  - **the <u>net</u> effect would be a reduction in aggregate demand for the economy's output**
  - **which would worsen the unemployment problem**
- **He was also skeptical that lower interest rates would stimulate investment in times of depression**
- **Instead he argued for demand management:**
  - **in times of recession, the government should increase its purchases and lower taxes to stimulate aggregate demand**
  - **to balance the budget, the government would have to reduce its purchases and raise taxes during economic expansions**

M. Friedman and Monetarism

A Monetary History of the U.S.… (Friedman and Schwartz, 1963)

- **In contrast to Keynes, Milton Friedman argued that money, prices and interest rates can affect aggregate demand in the short run**
- **He stressed that money is a commodity:**
  - **just as you can substitute a commodity** (like orange juice) **for another commodity** (like a box of cookies)
  - **you can substitute money for a wide range of other commodities**
  - Ex.: after being paid, people living in a country with an extremely high inflation rate purchase commodities (US dollars, food … anything!) as soon as possible in order to store the value of the money they received
- **Since money is a commodity, monetary policy** (how much money a central bank injects into the economy) **can affect aggregate demand**
  - **If a central bank suddenly injects more money into the economy and thus increases the inflation rate, a firm that borrows at a fixed nominal interest rate will find it easier to pay back the loan**
  - **thus firms will want to undertake more investment projects**
  - **the resulting increase in investment increases aggregate demand**
- **The central bank must however control the amount of money that it injects into the economy otherwise inflation will get out of control**

a synthesis

- **Although the topics discussed above were once the subject of vigorous debate, most economists now believe that the conflicting points of view can be reconciled with each other**
- **In the long run, any unemployment will be eliminated by falling wages and/or higher aggregate demand**
- **In the short run however, there may be nominal rigidities that keep the wage rate above the market-clearing level**

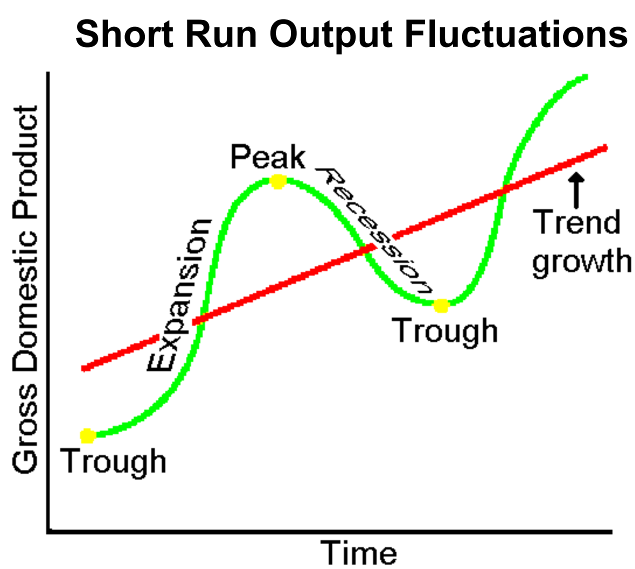
- **Most economists have accepted Keynes' aggregate demand framework**
- **Most believe that in the short run, both fiscal policy and monetary policy can affect the level of output, the price level and employment**

the main concerns of macro

- If you don't understand everything that I wrote in the "Quick History…," **don't worry!** You will by then end of the course.
- The "Quick History…" is just a preview of what we will be discussing in the remaining lectures: output growth, unemployment, money and inflation

output growth

- **output growth is increase in the total qty. of goods and services produced in given period**
- **Short Run output growth is subject to fluctuations – called the business cycle**
    - **Expansions** – aggregate output is increasing
    - **Recessions** – aggregate output is decreasing
- **Long Run output growth**
    - **sustained increase in real output per worker**
    - **shifts out economy's PPF**



- **We already discussed long run output growth at length and we'll discuss short run output fluctuations later, so this lecture and the next one will focus on unemployment, money and inflation in the long run.**

Unemployment

- **Cyclical unemployment** refers to the year-to-year fluctuations in unemployment around its natural rate.
- **Cyclical unemployment** is a **short run** phenomenon associated with short-term ups and downs of the business cycle

- Every economy normally experiences some amount of unemployment
- The **natural rate of unemployment** is unemployment that does not go away on its own even in the **long run**

How Is Unemployment Measured?

- Based on responses to the Current Population Survey, the Bureau of Labor Statistics (BLS) places each adult into one of three categories:
  - **Employed** – if he or she has spent most of the previous week working at a paid job
  - **Unemployed** – if he or she is on temporary layoff, is looking for a job, or is waiting for the start date of a new job
  - **Not in the labor force** – a person who is neither employed nor unemployed, such as a full-time student, homemaker or retiree

- The **labor force** is the sum of the employed and the unemployed.
- The **unemployment rate** is the percentage of the labor force that is unemployed.
- The **labor-force participation rate** is the percentage of the adult population that is in the labor force.

Labor-Market Experiences by Race and Gender

2010	unemployment rate	labor-force participation rate
Adults (age 20-64)		
Asian female	6.4	71.3
Asian male	6.7	89.3
black female	12.3	76.2
black male	16.3	82.2
white female	7.0	75.5
white male	8.5	90.5
Teenagers (age 16-19)		
Asian female	23.7	22.0
Asian male	25.8	22.1
black female	40.5	25.1
black male	45.4	25.8
white female	20.0	38.0
white male	26.3	37.4

Source: Bureau of Labor Statistics, Current Population Survey

- **The table above implies discrimination, but it does NOT prove that discrimination exists.**
- **A better measure of discrimination examines wage differentials.**

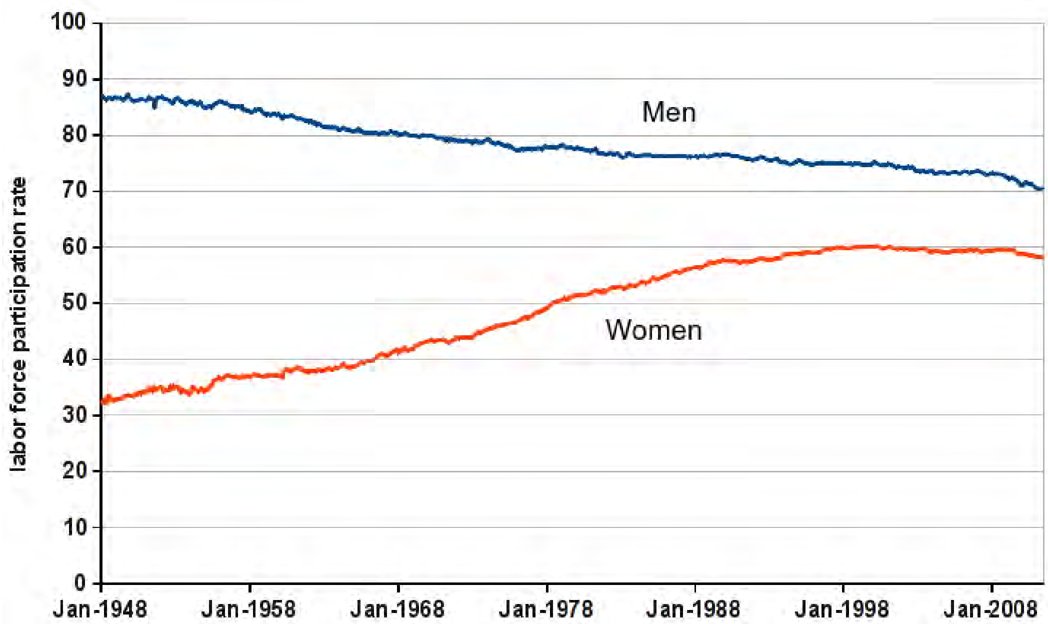
Does Discrimination Exist?

- **The data above does not compare "apples to apples," because the groups may differ in more than just skin color and gender.**
- **To see if discrimination exists we can use data from the Current Population Survey to examine wage differentials while accounting for differences in each survey recipient's:**
  - level of schooling
  - work experience
  - hours worked
  - occupation
  - industry
  - region of the country
  - city size and
  - location (urban, suburban or rural)
- **By one estimate:**

Asian females earn	**12.8%**	**less than white males**	std. err.: 1.5%
Asian males earn	**8.2%**	**less than white males**	std. err.: 1.1%
black females earn	**8.8%**	**less than white males**	std. err.: 0.9%
black males earn	**11.1%**	**less than white males**	std. err.: 0.7%
white females earn	**19.9%**	**less than white males**	std. err.: 0.4%

- **The estimates above are comparisons between comparable individuals** (i.e. they take account of differences in the factors listed above)
- **The estimates above indicate that racism and sexism do indeed exist**

Why do Increasingly More Women Work?



- **Do more women work today because they have more employment opportunities?**
- **Do more women work today because it is more expensive to maintain a certain standard of living?**

Does the Unemployment Rate Measure What We Want It To?

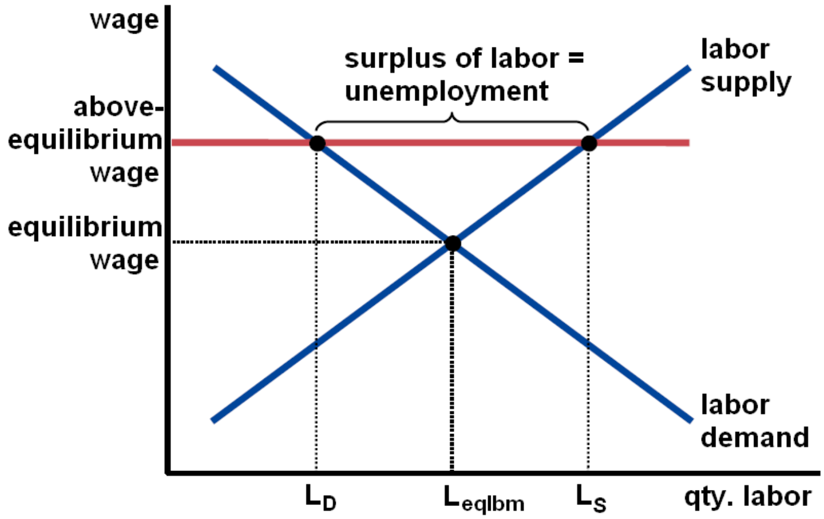
- **It is difficult to distinguish between a person who is unemployed and a person who is not in the labor force.**
- **Discouraged workers**, people who would like to work but have given up looking for jobs after an unsuccessful search**, don't show up in the unemployment statistics.**
- **Other people may claim to be unemployed in order to receive financial assistance, even though they aren't looking for work.**

How Long Are the Unemployed without Work?

- **Most spells of unemployment are short.**
- **Most unemployment observed at any given time is long-term.**
- **Most of the economy's unemployment problem is attributable to relatively few workers who are jobless for long periods of time.**

Why Are There Always Some People Unemployed?

- **In an ideal labor market, wages would adjust to balance the supply and demand for labor, ensuring that all workers would be fully employed.**
- **Structural unemployment is the unemployment that results because the number of jobs available in some labor markets is insufficient to provide a job for everyone who wants one.**
    - **occurs when the qty. of labor supplied exceeds the qty. demanded**
    - **explains longer spells of unemployment**



- **Structural unemployment could be caused by:**
    - **Minimum-wage laws** – create unemployment when the minimum wage is set above the equilibrium level since the labor supplied at that wage rate exceeds the labor demanded at that wage rate
    - **Unions** – By acting as a cartel with ability to strike or otherwise impose high costs on employers, unions usually achieve above-equilibrium wages for their members.
    - **Efficiency wages** – above-equilibrium wages paid by firms in order to increase worker productivity.

Efficiency Wage Theory

- **Firms may pay an** (above-equilibrium) **efficiency wage if the marginal product of workers depends in part on the wages they are paid.**
    - **Turnover Model –** A higher paid worker is less likely to look for another job.
    - **Shirking Model –** if a firm pays a higher wage rate and fires poorly performing workers, then workers will work hard to keep their jobs
    - **Superior Job Applicant Pool –** If a firm cannot discern which of its applicants are the most productive, it may offer a higher wage to encourage the most productive to apply (and leave other firms), so that on average it will recruit a more productive workforce.

Why Are There Always Some People Unemployed?

- **Frictional unemployment – the unemployment that results from the time that it takes to match workers with jobs**
- **During a job search it takes time for qualified individuals to be matched with appropriate jobs given their tastes and skills**

- **Frictional unemployment is different from the other types since it is NOT caused by an above-equilibrium wage rate**
- **It is caused by the time spent searching for the "right" job.**

- **The economy's composition of labor demand among industries or regions is always changing.**
- **Such sectoral shifts make some frictional unemployment inevitable because it takes time for workers to search for and find jobs in new sectors.**