Unemployment

Chapter 3.1 – 3.4

Outline

1. Measuring Employment and Unemployment
2. Flows Into and Out of Unemployment
3. The Natural Unemployment Rate
4. Unemployment in Recessions and Booms

3.1 Measuring Unemployment

- The labor force is the number of people 16 years old or over who are either working or looking for work.
- The unemployment rate is the percentage of the labor force that is unemployed.
- People out of the labor force can be retired, in school, sick, or not looking for work.
- Labor force participation rate is the % of working-age population in the labor force.

3.1 Measuring Unemployment

- Unemployment is measured in a national survey of households
- When the labor market is in balance there is still some unemployment – natural rate of unemployment
- The natural rate of unemployment is between 5 and 6 percent in the U.S.

3.2 Flows Into and Out of Unemployment

- Definitions

  l = job-losing rate

  f = job-finding rate

  u = unemployment rate (fraction of the labor force that is unemployed)

  l - uf = flow of increasing unemployment

  For a normal condition the flow is zero

  - l = uf
  - u = l/f

Flows Into Unemployment

- Sources of unemployment:
  1. Job destruction
     - Result of an employer's decision to terminate a position without refilling the job
  2. Job loss without destruction
     - A worker loses a job but the employer does not reduce total employment
     - Over 5% of workers lose their jobs every month, out of which probably half of the job losses are without destruction
  3. Personal transitions
     - Cause people to quit their jobs
     - Only 13% of the newly unemployed have quit jobs

Flows Out of Unemployment

- The major determinant of the flow of unemployment is the Job-Finding rate.
  - In normal times, the flow of job creation equal to the jobs destroyed (2% per month)
  - Flow of new hires that occur without job creation similar to job losses without job creation
  - Jobs available are fewer than the number of people available to work

Search Theory

- Assumption – wages and working conditions vary across jobs
- Balance the benefit of taking a job right away against the benefit of waiting for a better job later
- We can establish links between the economic environment of job seekers and their job finding rates.

3.3 The Natural Rate of Unemployment

- Unemployment is not zero in normal times
- It equals the natural rate in normal times
- Natural Unemployment rate = l/f
  - It is high in labor market that has high rates of inflow and low rates of outflow
- It is high in an economy or market with a low job finding rate

Efficiency Wages

- Best employment relationship is when the employee feels that their current job is valuable.
  - The salary is higher than what the worker could earn at another job
  - If employers pay higher wages:
    - The employed people will be satisfied
    - The unemployed will have a hard time finding jobs because having a job is more valuable and there are fewer positions available
    - Lower job finding rates

Wage Premiums / Minimum Wages

- Can influence the natural rate
- Higher wages and better working conditions if unions are involved
  - Also higher natural rate
- Government will intervene to increase the minimum wage
  - Minimum wage may not rise by much

Unemployment Insurance

- The insurance softens the loss of wages during unemployment
- Helps workers deal with sudden loss of income

Why Does the Natural Rate Change over Time?

- If an unusual restructuring of the economy is in progress
  - Maybe due to high defense spending
- Minimum wage did not increase as fast as wages
- Unionization declined
- All this suggests that the natural rate is declining slightly

European Unemployment

- Unemployment rises during recessions and falls during booms
- U.S. – short-run fluctuations and long-run trends; rose in the 80s and fell during 90s
- In Europe –
  - continued to rise during 80s and 90s;
  - it started to decline in the early 2000s

3.4 Unemployment in Recessions and Booms

- Booms:
  - Low unemployment due to high real GDP relative to potential GDP
  - Today's unemployment rate is a result of the history of inflows and outflows

Changes in the Unemployment Flows

- Most important source of changes:
  - Job destruction – sharp changes in manufacturing
  - Inflows – high after a burst of job destruction
  - Outflows – decline in the same scenario
  - How it happens --
    - Burst of job destruction oil price shock/crisis)
    - Unemployment jumps upward (higher than natural state)
    - Unemployment remains above natural rate
    - Job-finding rates are lower several years after the shock

Okun's Law

- Formula approximating the relationships between real GDP and unemployment

$$(Y-Y^*) / Y^* = -3 (U-U^*)$$

  - Y = real GDP
  - Y* = potential GDP
  - U = unemployment rate
  - U* = natural rate of unemployment