Chapter 7: Employment and Unemployment

Key points:
- Understand the natural rate of unemployment
- Search-matching model of the labor market
- What makes wages rigid?
- Comparative labor market experiences of US and Europe

Unemployment: A Model:
- DRAW flows: Employed $\rightarrow$ job separation(s) $\rightarrow$ unemployed $\rightarrow$ job finding(s) $\rightarrow$ employed
- Think of the economy in the long run
  - $L$, $\#$ in the labor force, is fixed
  - Focus on “steady-state”
    * Unemp neither rising or falling
- By definition, $L = U + E$ (unemp + emp)
- Let $s =$ the rate of job separation
  - Fraction of employed who lose/quit job in a year
- Let $f =$ the job finding rate
  - Fraction of unemployed who find a job in a year
- SS implies that unemployment rate doesn’t change:
  - $\frac{fU}{L} = \frac{sE}{E}$
    # leaving unemp    # enterering unemp
  - Know that $L = U + E \Rightarrow E = L - U$
  - $\Rightarrow fU = s(L - U)$
  - Now put in terms of unemployment rate $= \frac{U}{L}$
  - $\Rightarrow f\frac{U}{L} = s(1 - \frac{U}{L})$
  - Now solve for unemp rate:
    - $\frac{U}{L} = \frac{s}{s+f} = \frac{1}{1+f}$
  - $\Rightarrow$ steady-state unemp depends upon job separation and job finding
  * $f \uparrow= \frac{U}{L} \downarrow$
  * $s \uparrow= \frac{U}{L} \uparrow$
  * Any policy affecting steady-state unemp must affect $f$ and/or $s$
  * This steady-state level of unemp is called the “natural rate of unemp”
- Show graph from Fig 7-1 with unemp over time and natural rate

**Frictional Unemployment: Job Search and Matching:**

- Frictional unemp: unemp caused by the time it takes for workers to find a job and for employers to find a worker

- Workers separate because:
  - Preference for another job/location
  - Sectoral shifts
    - \( \Delta \) in labor demand for sector/region
  - Firm failures
  - Poor performance
  - Many other reasons...

- Main idea:
  - Some workers are better at particular jobs
  - Workers search for a job that is a good match for their interests/skills
  - Employers search for workers who are a good match for their needs
  - It takes time to find those jobs/workers

- Policies affecting frictional unemp:
  - Unemployment insurance
    - \( \uparrow \) b/c take more time (compared to if have no benefits)
    - \( \downarrow \) b/c find better job (so less likely to separate later)
  - Training programs
    - \( \downarrow \) b/c better match for more jobs (so less likely to separate)

**Structural unemployment:**

- Idea: Wages rigid - don’t fall to clear labor market

- Result: “Structural unemp”

- Usually: DRAW labor market that clears - note no unemp

- Structural unemp: DRAW labor market with wage fixed above market clearing wage - Note unemp

- Why are wages rigid/sticky?
  1. Min wage laws
  2. Unions
    - Monopoly on labor supply \( \Rightarrow \) price (wage) too high (i.e., above competitive mkt eq’m rate)
  3. Efficiency wages
    - Pay people greater than their marginal product of labor (demand curve) b/c:
    - \( \rightarrow \) reduces turnover
    - \( \rightarrow \) reduced adverse selection (get better employees)
– → reduces moral hazard (shirking on job)
– NOTE: last two above rely on asymmetric info better employer and employee - employer
doesn’t know if hard worker/good match or not

Unemp in the US:
• Duration:
  – Most are out of the workforce for a short time (60%<1 month)
  – Most of the aggregate time out of work from the few long spell of unemp (69% of time out of work
    by those with unemp > 2 months)

• Demographic Differences:
  – Young have higher unemp rates
  – Those with lower education have higher unemp rates

• SHOW graphs of unemp by age, race, gender. Point out recession diffs

• Trends
  – < 5% in the 1950’s and 60’s
  – > 6% in the 1970’s and 80’s
  – < 5% in the 1990’s to 2007
  – > 7% 2008-2013
  – ~ 5% since 2013
  – Why?
    * Demographics
      * → baby boom ⇒ lots of workers so more unemp in the 70’s and 80’s
      * → this doesn’t completely hold up when you see that w/in age group unemp rates also changed
    * Sectoral shift
    * → more job separations during the turbulent 70’s and 80’s and late 2000’s
    * Productivity
      * → slowing productivity in the 70’s and 80’s and rigid wages?
      * → Not consistent with the late 2000’s where productivity increases, but high unemployment

The labor market in Europe:
• On avg, higher unemp than in US

• The Rise in Unemp
  – SHOW figure with unemp rates by different countries. e.g. https://twitter.com/justinwolfers/status/367652797497352193/photo/1
  – Fall in demand for low-skill labor + large unemp benefits = high unemp
  – Most recent rise as result of recession a combination of sectoral shifts in countries and monetary
    policy not able to respond fully

• The Rise in Leisure
  – Europeans work about 20% less than Americans
• e.g. in US work about 25.1 hours per person of working age
• Germany it’s about 18.6 hours (or about 25% less)
• e.g. US workers work 46.2 weeks per year on avg.
• In France, it’s 40 wks per year

— Why?

• Taxes: higher and increasing tax in Europe (DRAW labor market and who points along Labor supply curve for diff after tax wages)
• Union bargaining for shorter hours and more holidays (e.g. limitations on workweek)
• Tastes (may be exacerbated by coordination - e.g. you want time off, but only if friends also off)