Long Run Labor Markets

Understanding Unemployment
Unemployment

• Long run ("natural") rate of unemployment: a key determinant of the economic well-being of a society (together with growth)

• Ignore (temporarily) "business-cycle" deviations from trend; focus on trend

• Definition and measurement of unemployment involves search (not benefits!)
Modeling *Frictional* Unemployment

- Population divided into L(abor Force) and O(ut of LF), usually on the basis of non-economic considerations:
  \[ \text{Pop} = O + L \]
- Labor force is employed (E) or unemployed (U)
  \[ L = E + U \]
Graphically

Pop

LO

EU

Andrew Rose, Global Macroeconomics 4
Notes

• Some O are really U:
  – “discouraged workers” are really part of the unemployed (but have stopped searching)

• Part-time handled with full-time equivalents ("FTE")
Long-Run Trends

• *Leisure* has been rising steadily for decades
  – Falling Years/Lifetime in lifetime
  – Falling Weeks/Year
  – Falling Days/Week
  – Falling Hours/Day

• Simultaneous with rising income/wages
  – All very good news!
  – Valuable, but often ignored (e.g., national accounts)
Hall’s Model of Frictional Unemployment

• In steady state equilibrium, flows into unemployment ("separations") equal flows from unemployment ("finds") – use “bathtub theorem”

\[ fU = sE \]

• Can show in equilibrium, unemployment rate is

\[ \frac{U}{L} = \frac{s}{s + f} \]

• Either/both of a) faster job separation and b) slower job finding, raise unemployment rate
  – Often societies with high s also have high f
Graphically

Flow Separations (sE)

Stock of Employed (E)

Stock of Unemployed (U)

Flow of Job Finding (fU)
Frictional Unemployment

• Unemployment here the result of *differences* between jobs and people which create frictions
  – Both people and jobs vary on many dimensions

• *Search takes time*, hence entails unemployment; but *search improves match quality*, hence valuable

• “Matching” models are of generic interest
  – Markets for Love and Housing
Policies to Affect Matching

• *Better information* can lower frictional unemployment (both public and private)
  – Can lower cost of transition (industrial, occupational, geographic ...)

• *Unemployment insurance benefits* lower pain of unemployment, hence reduce job finding and speed separations
  – Benefits vary dramatically in many dimensions over countries
Problems with Frictional Model

• Not many unemployed people search full-time
• Many job transitions take place without unemployment
  – Separations: voluntary quits, involuntary layoffs (with/without cause)
  – Many quits are switches from one match straight into another, no intervening spell of unemployment
• Most unemployment is *concentrated* in a small number of unemployed people with *long spells* of unemployment
• Median spell of unemployment short
The Life Cycle of Matching

• For most people: numerous brief spells of unemployment and employment *early in life*, followed by longer spells of employment in good matches later on

  • Most “Churning” done by young
Structural ("Wait") Unemployment: An Alternative

- Wages are too high relative to equilibrium
- Unemployment is purely involuntary
- Identical workers treated differently
- An excess supply (of labor) dis-equilibrium which persists

\[ \text{Key: Why then don't wages fall (faster) to eliminate the gap?} \]
Graphically
Underlying Reasons for Inappropriate Wages

• Minimum wage laws for young, inexperienced
  – Especially in low-skill services

• Excess labor market regulations
  – Severance pay, plant closing laws

• Unions
  – "Outsiders" vs. "Insiders"
Efficiency Wages

• Firms find it profitable to pay “above equilibrium” wages to achieve objectives:

1. Reduce costly turnover
2. Attract quality labor
3. Penalize shirking
4. Discourage unionization/encourage labor flexibility
Key Takeaways

• Some unemployment is inevitable because matching people to jobs is difficult
• Some unemployment may be because wages are inappropriately high (either because of public policy or private decisions)