



Econ 201: Introduction to Economic Analysis

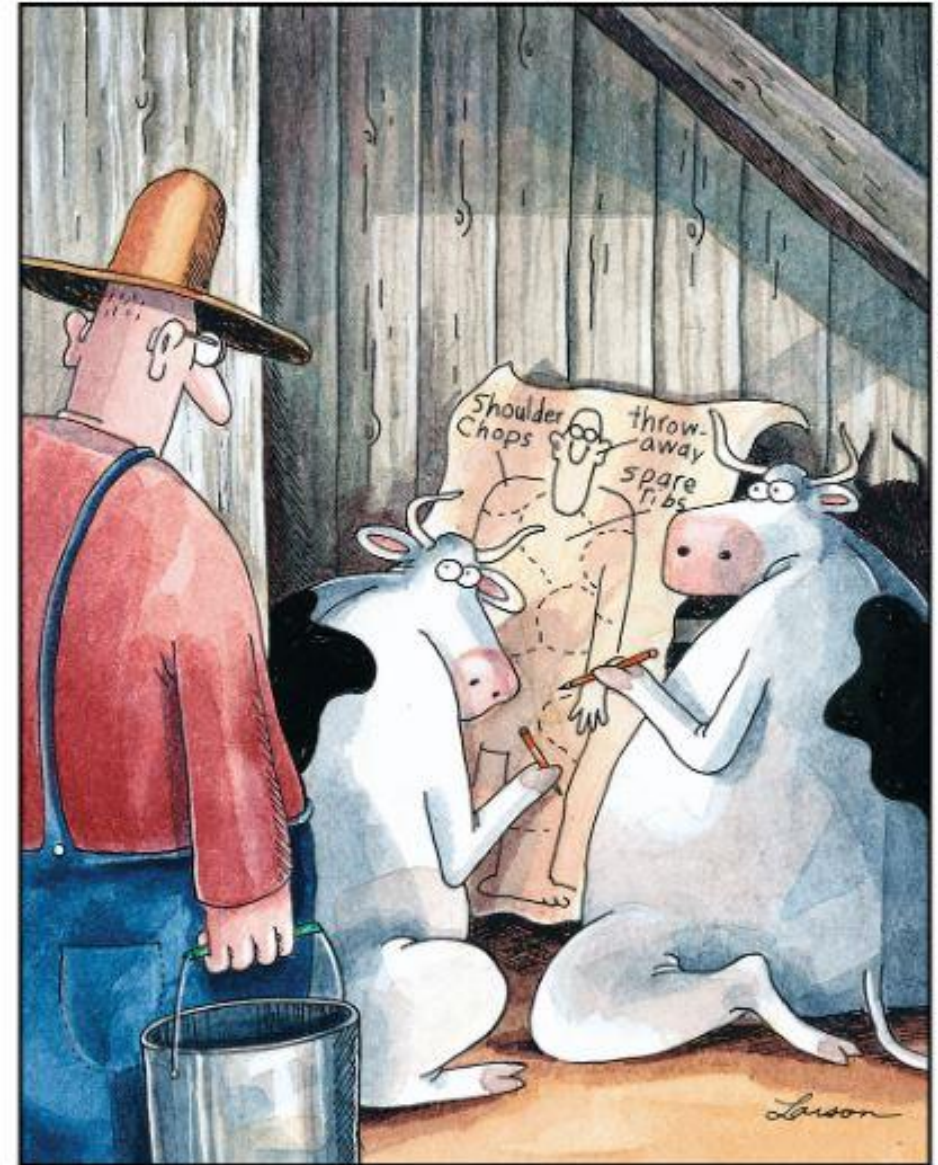
November 16 Lecture: Labor Markets and Unemployment



Jeffrey Parker
Reed College

Daily dose of The Far Side

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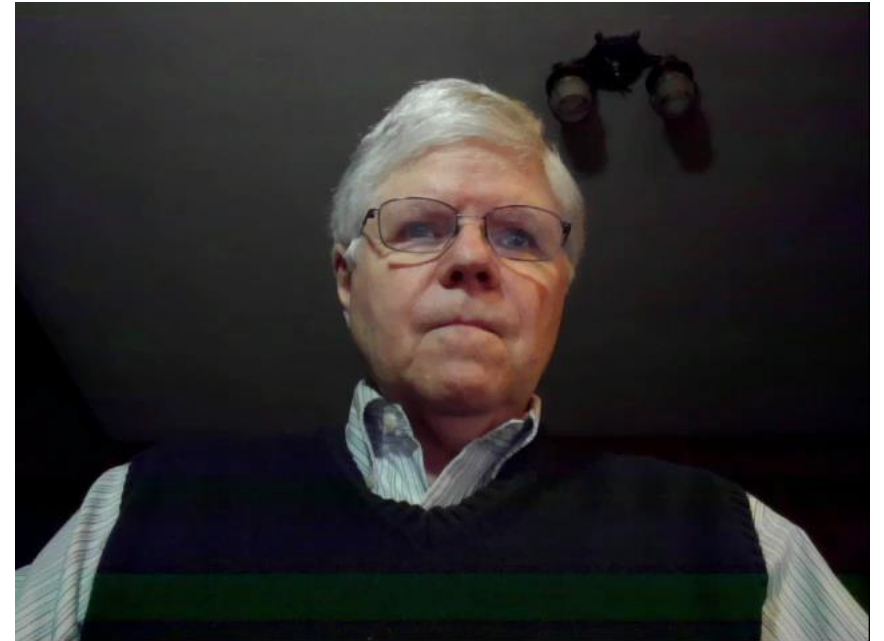
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Farmer Brown froze in his tracks; the cows stared wide-eyed back at him. Somewhere, off in the distance, a dog barked.

Preview of this class session

- Labor-market data
- Kinds of unemployment
- Search/matching models of natural rate of unemployment
- Theories of unemployment based on persistent excess supply
- Economic policies and unemployment





Labor-market variables

- Current Population Survey
 - Monthly survey of 64,000 households
- Working-age population (15 – 65)
- **Labor force**: Employed or seeking work
- **Employed**: Worked at least one hour during the reference week of survey
- **Unemployed**: Not employed but actively seeking work
- **Unemployment rate**: Number unemployed as percentage of labor force



Natural vs. cyclical unemployment

- Friedman first used the term **natural unemployment** (1968): “The ‘natural rate of unemployment,’ in other words, is the level that would be ground out by the Walrasian system of general equilibrium equations, provided there is [*sic*] embedded in them the actual structural characteristics of the labor and commodity markets, including market imperfections, stochastic variability in demands and supplies, the cost of gathering information about job vacancies and labor availabilities, the costs of mobility, and so on.”
- Natural rate is rate due to microeconomic imperfections
 - Can vary over time and across locations
- **Cyclical unemployment** = Actual rate – Natural rate
 - Macroeconomic unemployment



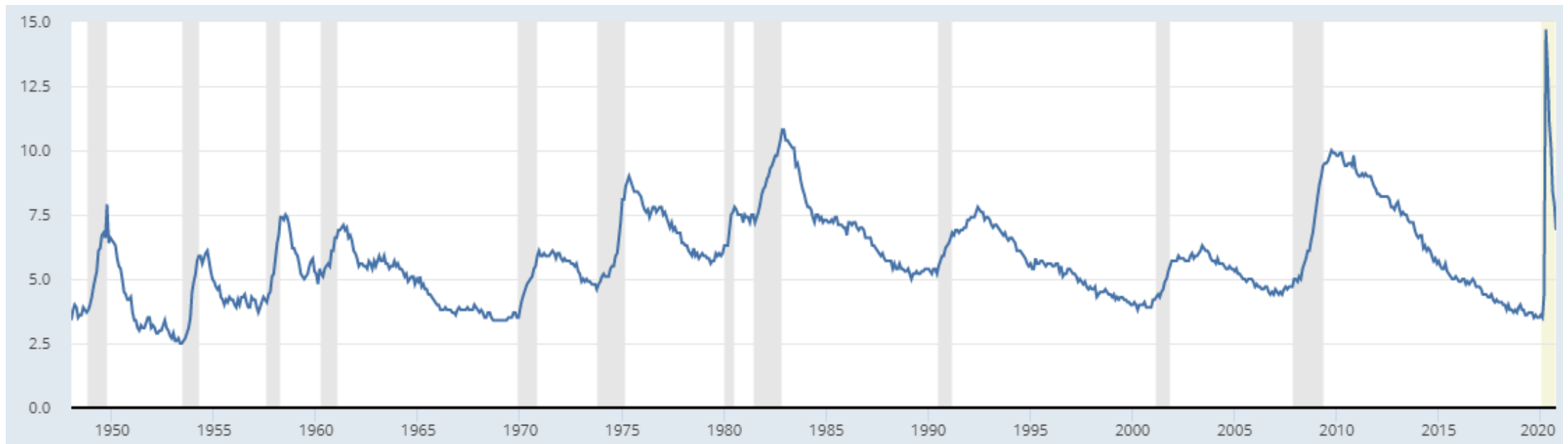
Kinds of natural unemployment

- **Frictional unemployment**
 - Time to match unemployed workers with vacant jobs
 - No excess supply here, but inevitable frictions of heterogeneous labor
- Structural unemployment due to **mismatch**
 - Bad fit between unemployed workers and vacant jobs
 - Skills
 - Location
 - Again, no aggregate excess supply, but excess supplies in some submarkets and excess demand in others
- Structural unemployment due to **chronic excess supply of labor**
 - Policies or institutions that prevent market from clearing



Cyclical unemployment

- Cyclical unemployment is fluctuations above and below natural rate due to business cycles in macroeconomy
- Should be zero on average, positive in recessions, negative in booms

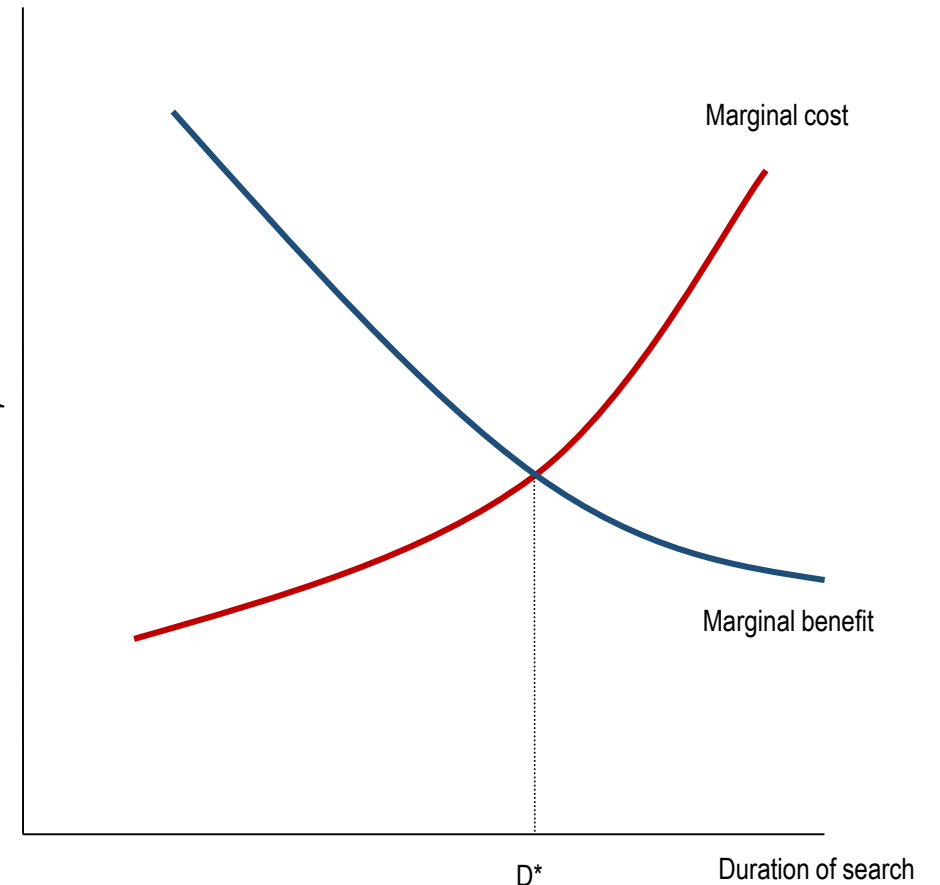




Optimal amount of search unemployment

- Marginal benefit of search
 - Better job match
 - Increased productivity once match is made
- Marginal cost of search
 - Loss of income to individual and society
- Optimal search is where marginal social cost of search = marginal social benefit
- Individual choice to accept job is where marginal private cost of search = marginal private benefit
- Are there externalities or distortions?

Cost/benefit of search



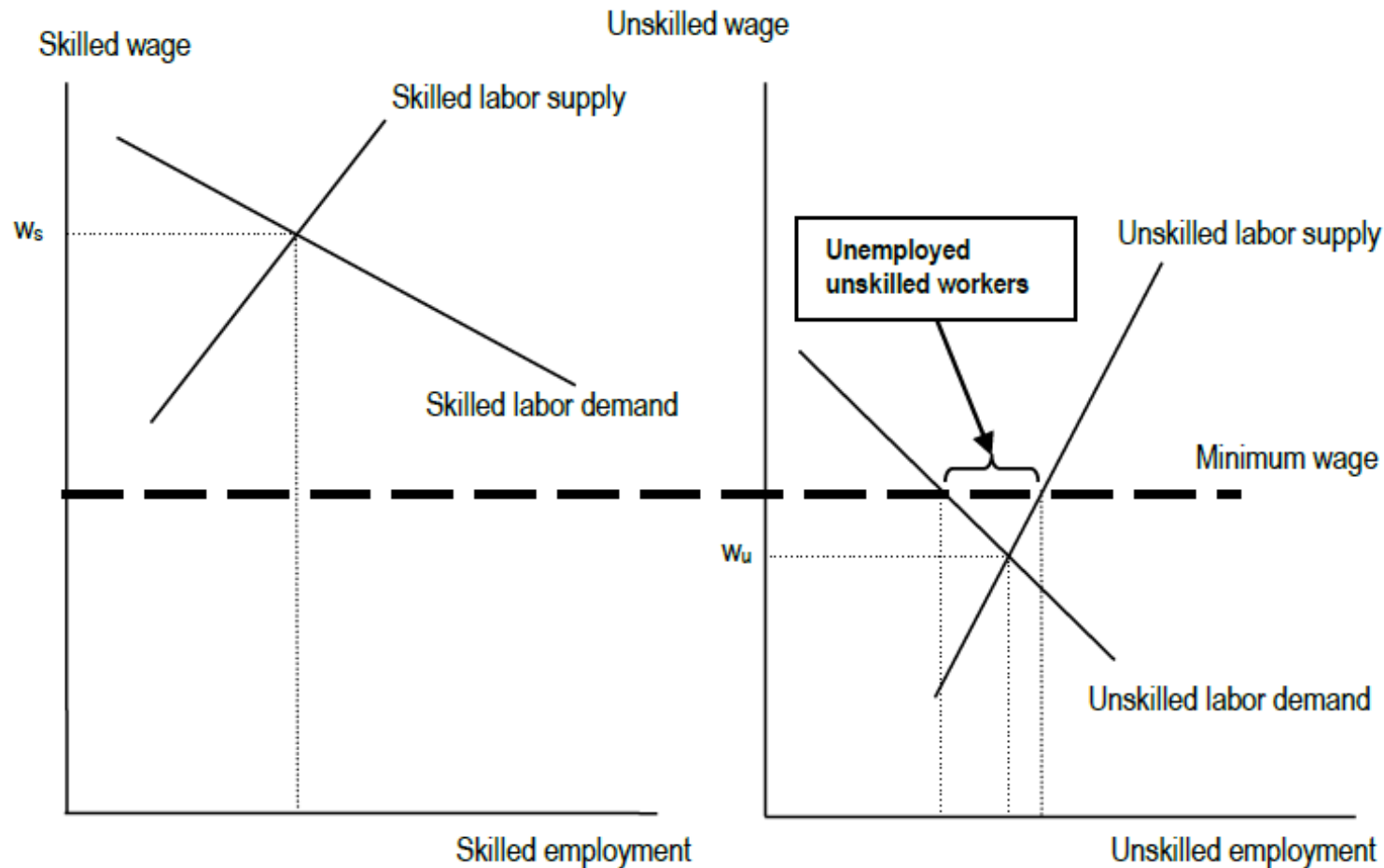


Matching models of natural rate

- Marginal benefits to workers
 - Better job match
 - Higher wage offer (productivity)
- Marginal costs to workers
 - Forgone compensation from best offer in hand
- Marginal benefits to firms
 - Better job match
 - Higher productivity
- Marginal costs to firms
 - Search costs
 - Forgone production from best candidate already found
- Possible externalities
 - Unemployment insurance: Worker's MC < Social MC
 - Desperation on either side: Private MC > Social MC
 - Could have too much or too little search



Minimum wage and natural unemployment



- **Price floor** mostly affects unskilled workers/jobs
- Possible **spillovers** in demand and supply
- Possibility of **discrimination** with excess supply
 - Teens?
 - Minorities?
- Effect on unemployment seems small



Unions and unemployment

- **Unions** choose point on labor demand curve
 - Often tend to favor raising wages as opposed to employment
- Excess supply in union sector
 - “Queue unemployment”
- **Spillovers** from union to nonunion sector in demand or supply
 - Demand: High union wages may lead to greater use of nonunion labor
 - Supply: Lack of union jobs may push workers to nonunion sector
 - Nonunion employment goes up, but conflicting effects on nonunion wage

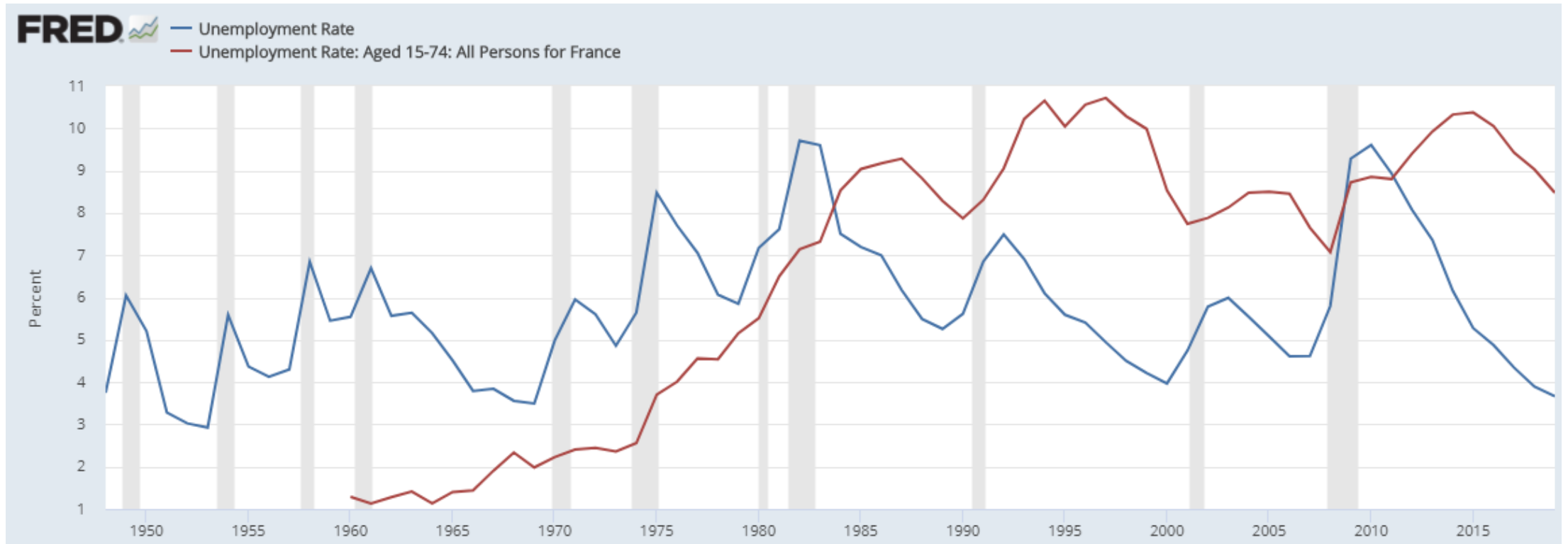


Efficiency wages

- Higher wage → high productivity
- Firms may pay **efficiency wage** > equilibrium wage to attract and motivate workers
- One firm paying efficiency wage
 - Better pool of workers
 - Low turnover, high motivation due to wage advantage at firm
- All firms paying efficiency wage
 - Aggregate wage is set above equilibrium
 - Excess supply of labor = higher natural unemployment rate



Natural rates change!



- U.S.: Natural rate is quite stable
- France: Natural rate was low before 1973, high since



Institutions affecting unemployment

- **Policies**

- Minimum wages
- Unemployment insurance: duration and replacement rate
- Employment-protection legislation
- Active labor-market policies

- **Institutions**

- Pattern of unionization and collective bargaining
- Wage flexibility
- Mobility of population



Review

- Natural unemployment rate is due to microeconomic structure of labor market
- Cyclical unemployment is deviations around natural rate
- Unemployment is search; optimal unemployment balances costs and benefits of search
- Structural characteristics of labor market have effects on natural unemployment (minimum wages, unions, unemployment insurance, etc.)
- Natural unemployment has been relatively stable in the U.S., but has increased in continental Europe since the 1960s



Daily diversion

Alfred Marshall's rules of using mathematics in economics:

“(1) Use mathematics as a shorthand language, rather than as an engine of inquiry. (2) Keep to them until you have done. (3) Translate into English. (4) Then illustrate by examples that are important in real life. (5) Burn the mathematics. (6) If you can't succeed in 4, burn 3. This last I did often.”

Quoted in Caroline Postelle Clotfelter, *On the Third Hand*

What comes next?

- On Wednesday we discuss money, banking, and the Federal Reserve
- No case for Wednesday due to Problem Set #7, which is due

