2.1 Microeconomic foundations of unemployment

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Models with long term contracts

- In those models, the presence of unemployment is explained by the presence of long term collective agreements in the economy.
- **References:**

  - Fischer, S. (1977), Long-Term Contracts, Rational Expectations and the Optimal Money Supply Rule, *Journal of Political Economy*, 85, 191-205.
  - Taylor, J.B. (1979), Staggered Wage Setting in a Macro Model, *American Economic Review*, 69, 108-113.
  - Taylor, J.B. (1980), Aggregate Dynamics and Staggered Contracts, *Journal of Political Economy*, 88, 1-23.

Models with long term contracts

- Fischer uses the assumption that workers and employers sign long term collective agreements that specify the level of nominal wages in the future.
- In the bargaining process from which those nominal wages are determined, the agents have in mind an expected price level for future period.
- If the price level is different than the expected price level, then the real wage is not equal to what was anticipated and this may create unemployment.
- Workers and employers have to wait the end of the collective agreement to adjust nominal wages.

Models with long term contracts

- Taylor adds the assumption that those collective agreement are not signed at the same time.
- The staggered nature of those contract implies that at the end of a contract, two factors determine the new level of nominal wages:
  - Labor market conditions
  - The nominal wages of similar workers (wage emulation process)
- The wage emulation process slows down nominal wage adjustment implying that the impact on unemployment lasts more.

Efficiency wage models

- In standard microeconomic models, wages are set to equal the value of labor's marginal productivity.
- In those models, the logic is inverted, it is the wage level that explains labor's marginal productivity.
- In this setting, firms have an incentive to pay a wage rate that is higher than the market clearing wage rate creating unemployment in the economy.

Nutritional models

- Those models may explain unemployment in poor countries.
- Assumptions:
  - At the market clearing wage rate, workers cannot afford a healthy diet.
  - A higher wage rate increases the quality of food intake. (This higher quality of nutrition increases worker's health and productivity.)
- In this setting, firms have an incentive to pay a wage rate that is higher than the market clearing wage rate to increase their labor productivity.
- All the firms have the same incentive, they all pay a wage rate higher than the market clearing wage rate. This creates unemployment in the economy.

Labor turnover models

- **Reference:** Salop (1979), A Model of the Natural Rate of Unemployment, *American Economic Review*, 69, 117-125.
- Assumptions:
  - When hiring a worker, a firm incur a training cost.
  - If the worker quits his job, this training cost is lost.
- In this setting, firms have an incentive to pay a wage rate that is higher than the market clearing wage rate. This higher wage rate acts as an incentive for the worker to keep his job because he can only find another job at a lower wage rate on the labor market.
- All the firms have the same incentive, they all pay a wage rate higher than the market clearing wage rate. This creates unemployment in the economy and the risk of unemployment plays the role of incentive for the workers to keep their job.

Shirking models

- **Reference:** Shapiro, C. and J. Stiglitz (1984), Equilibrium Unemployment as a Worker Discipline Device, *American Economic Review*, 74, 433-444.
- Assumptions:
  - Workers can choose their level of effort on the job.
  - This effort is not observable with precision by the firm.
  - However, if a worker is caught shirking, he is fired.
- In this setting, firms have an incentive to pay a wage rate that is higher than the market clearing wage rate. This higher wage rate acts as an incentive for the worker to choose a high level of effort because if he is caught shirking, he looses his job and can only find another job at a lower wage rate on the labor market.
- All the firms have the same incentive, they all pay a wage rate higher than the market clearing wage rate. This creates unemployment in the economy and the risk of unemployment plays the role of incentive for the workers.

Sociological models

- **Reference:** Akerlof, G. (1982), Labor Contract as Partial Gift Exchange *Quarterly Journal of Economics*, 97, 543-569.
- Assumptions:
  - Wage rigidity may be due to social conventions and principles of appropriate behavior that are not entirely individualistic in origin.
  - In Akerlof's model, firms pay to their employee a wage that is higher than the market clearing wage rate.
  - This higher wage is perceived as a "gift". Il return, employees give a gift to the firm that takes the form of a higher effort.
- This implies that the wages in the economy are higher than the market clearing wage rate. This creates unemployment in the economy.