Economic Inequality and Income Distribution

Lecture 2/2

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Inequality, capital markets, and development

- Markets cannot function unless there is a clear statement of the underlying social contract involved, and a clear and well-defined mechanism for punishing deviations from the norm.
- In credit markets, what you have as collateral and the perceived extent to which you value the future relative to the present determine the degree to which you have access to the credit market.
  - The poor may lack access to credit markets as they lack collateral since they cannot credibly convince their creditors that they will not default on their debt obligation.
- Why credit is important to the poor?
- A missing or imperfect credit market for the poor is a fundamental characteristic of unequal societies.

Occupational choice and the credit constraint

- A missing market might influence economic outcomes: by affecting the ability to freely choose occupations or investments, thereby the process of inequality and output.
- Suppose in a simple economy has 3 occupations:
  - subsistence producers can produce some fixed amount z with labor
  - industrial workers can earn a wage w
  - An entrepreneur runs a business that needs startup capital I (from the credit market), and hires m workers to produce an output q.
  - Loan is repaid at interest rate r
  - Profit for entrepreneur: $(q - wm) - (1+r)I$
- Suppose entrepreneur put wealth W up as collateral. If default, he will lose his collateral which is now worth $W(1+r)$.
- Expected cost of default: some fine (F), and a fraction λ of the profits from his business

Occupational choice and the credit constraint

- He will repay the loan if

$$(1+r)I \;\leq\; W(1+r) + F + \lambda\{q - mw(t)\} \qquad (1)$$

- Rearranging to get

$$W \geq I - \frac{F + \lambda\{q - mw(t)\}}{1+r} \qquad (2)$$

  – Banks or moneylenders will provide loans to an individual whose initial wealth is high enough

- Not everyone can become an entrepreneur.
- Market conditions also determine access to the credit market
  – What happen to the minimum wealth threshold if w is relatively low?

Wealth distributions and equilibrium

- At any date, wealth is unequally distributed in the economy.
- People receive wealth as bequests from their parents. This distribution determines the fraction of people who have access to entrepreneurship while the remainder join the other two sectors.
- These joint decisions determine the wage rate in the economy.
- At the end of that period, new wealth is created. Then, we move to the next date and repeat the whole process.
- For each wage w, eq (2) tells us the minimum wealth level that is required to have access to credit, and hence the fraction of people that is shut out of entrepreneurship.
  - The higher wage rate, the higher is the fraction of the population that is shut out of entrepreneurship

Wealth distributions and equilibrium

- Choices between subsistence and market labor depend on the wage rate w and z.
  - at higher wages than z, there are more labor supply as it a better choice and more people get shut out of entrepreneurship.
  - The process continues until a high enough wage $\overline{w}$ such that the profit from running a business become exactly the same as labor income.

$$(q - m\overline{w}) - (1 + r)I = \overline{w}$$

  - If wages exceed $\overline{w}$, labor income exceeds profit income, no one want to be an entrepreneur.
- From this process, we get a supply curve of labor: a description of the number of individual who enter the labor market as the wage rate changes.
  - this labor supply is related to the distribution of wealth and the way credit markets work.

Wealth distributions and equilibrium

- What's about the demand for labor?
  - No demand for labor at a wage rate higher than $\overline{w}$
  - As the wage falls, the demand for labor rises. Why?
- Equilibrium wages: 3 possible outcomes
  - case 1: the distribution of income (wealth) is highly unequal (very poor)

    $$w^* = z$$

  - case 2: there is a great deal of equality (very rich)

    $$w^* = \overline{w}$$

  - case 3: moderate inequality or average wealth

    $$z < w^* < \overline{w}$$

Wealth distributions and equilibrium

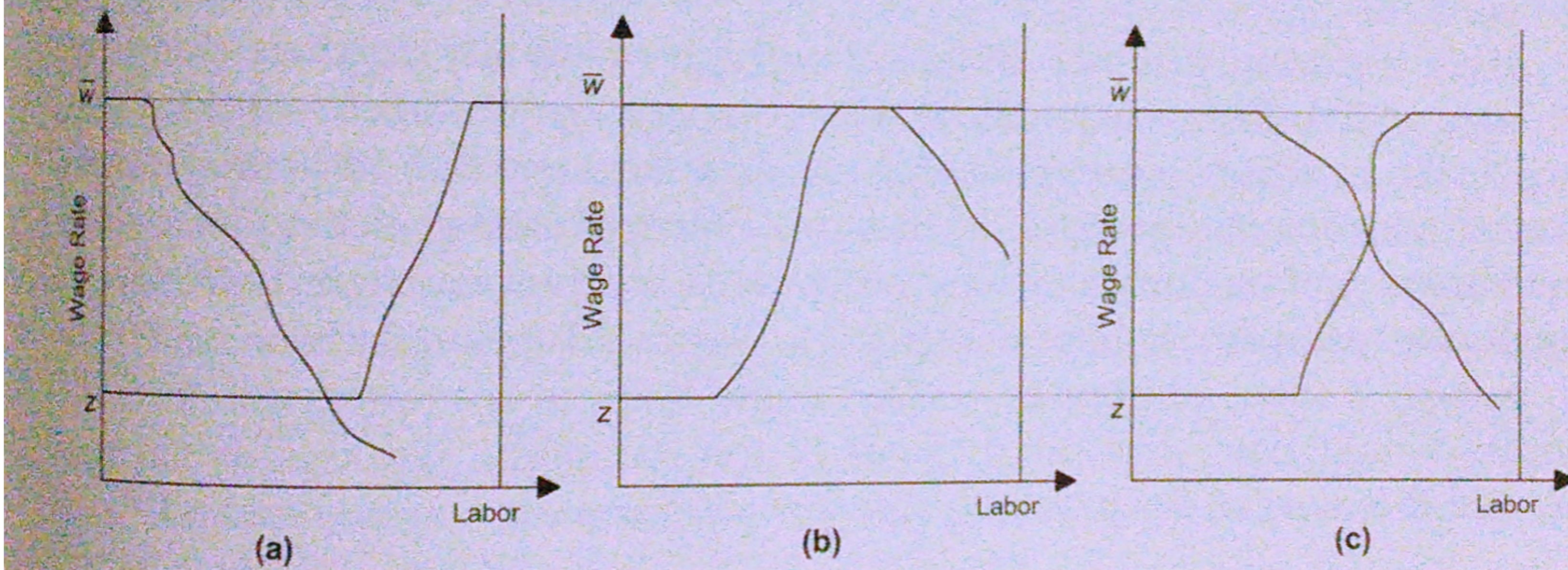

Figure 7.10. Determination of the equilibrium wage rate.

The inefficiency of inequality

- Market equilibrium under high inequality is inefficient
  - why?
  - What if in the moderate inequality regime?
- By hindering access to credit market, the inequality creates inefficiency in the economy as a whole
- Consider over time, Why can't people save and wealth will increase? Finally, everyone will be free of the credit constraint because they have sufficient collateral to be entrepreneurs if they want.
- wealth vs. startup costs
  - Startup costs are endogenous and will presumably increase as wealth is accumulated.
  - If startups keep pace with wealth accumulation, these inefficiencies can persist.