Lecture 6

Development and Human Welfare

(Based on Chapter 4 of Perkins et al.)

Autumn 2004

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Growth and Development

- India …. Growth:
  - GDP growth 5.5-6.0% per annum
  - Savings rate nearly 25% of GDP.
  - Population growth rate well below 2% per annum.
  - One of the largest technically skilled workforce in the world (ICT, space etc).
- India …. Development:
  - About 25% percent of the population live below poverty level.
  - Illiteracy rate well above 33% of population.
  - Life expectancy about 61 years.

Inference

- Growth is a <u>necessary</u> but not a <u>sufficient</u> condition for development and human welfare.

- Reasons.
  - Governments not interested in redistribution.
    - Most less developed countries and even the USA.
  - Additional resources generated from growth may be invested rather than consumed.
    - Soviet Union.
  - One section of the population or labour force may gain more from growth than others.
    - Skilled labour in the modern world.

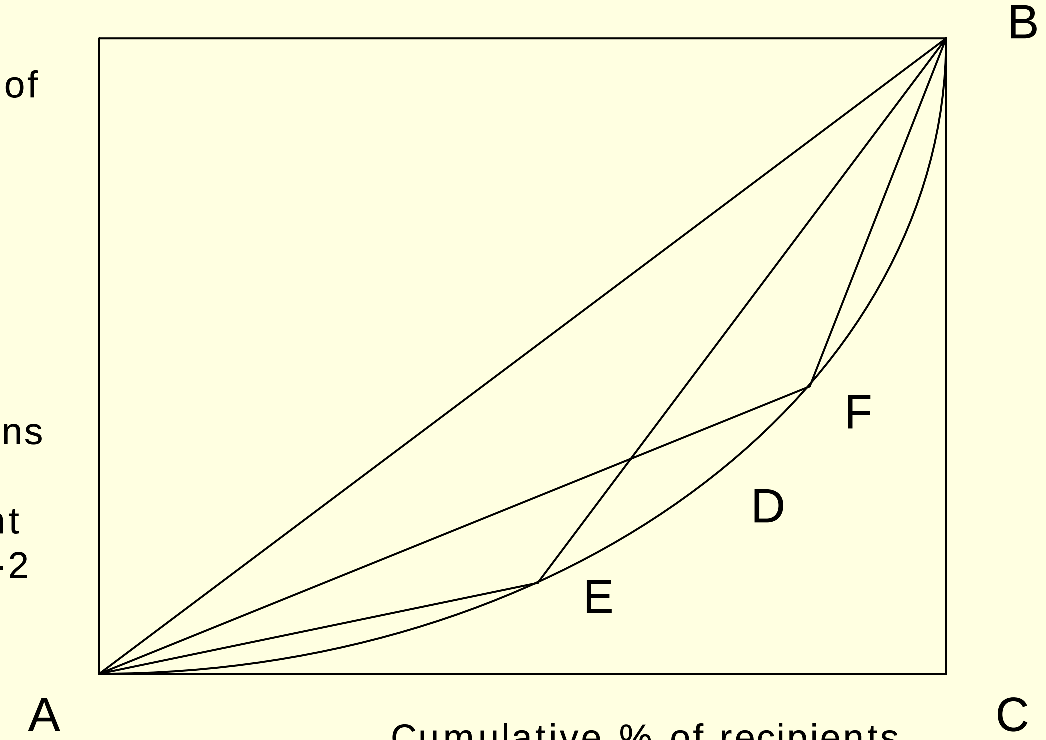
Income Inequality …. 1

- Lorenz curve
- Gini coefficient

Cumulative % of income

Gini = ABD/ABC

Problem:
Two income distributions with same Gini may represent very different distributions (Figure 4-2 on pp. 123).



Cumulative % of recipients

Income Inequality …. 2

- Alternative measures.
  - Range
    - $R = (1/\mu)(y_{max} - y_{min})$
  - Kuznet's ratio.
    - Ratio of income/wealth of bottom *x*% of the population to that of the top x% of the population.
  - Mean absolute deviation.
    - $$M = \frac{1}{\mu n} \sum_{i=j}^{m} n_j \mid y_j - \mu \mid$$
  - Coefficient of variation.

Growth and Inequality

- Kuznet's inverted-U hypothesis.
    - Kuznets (AER, v. 45, n. 1, p. 1-28)
  - inequality = a + by + cy^2 + dD + error
    - y = per capita income
    - D = dummy variable (value = 1 for socialist countries)

- Problems.
  - Controls for factors like government intervention.
  - Problem of Lorenz crossing.
  - Functional form of the regression specification.

Poverty Measurement …. 1

- Absolute or relative poverty?

- Poverty line.
  - Based on calorie requirements per capita per day.

- Problems.
  - Redistribution among the poor.
    - Poverty gap ratio.
    - Income gap ratio.
  - Mortality among the poor.

Poverty Measurement …. 2

- Poverty gap measurement.
  - Ratio of average income needed to take all poor people to the poverty line to the mean income of the society.
    - Measure of resources needed to eradicate poverty.

- Income gap measurement.
  - Ratio of <u>average</u> income needed to take all poor people to the poverty line to the <u>total</u> income required to bring every poor person to the poverty line.
    - Measure of acuteness of poverty.

Poverty Measurement …. 3

- Criteria.
  - Anonymity
    - Extent of poverty does not depend on the identity of the poor person.
  - Population independence
    - Extent of poverty does not depend on the size of the population.
  - Monotonicity
    - If income is added to one person below the poverty line, *ceteris paribus*, poverty should be no greater than before.
  - Distributional sensitivity
    - If income is transferred from a poorer person to a richer person, the economy will be deemed strictly poorer.

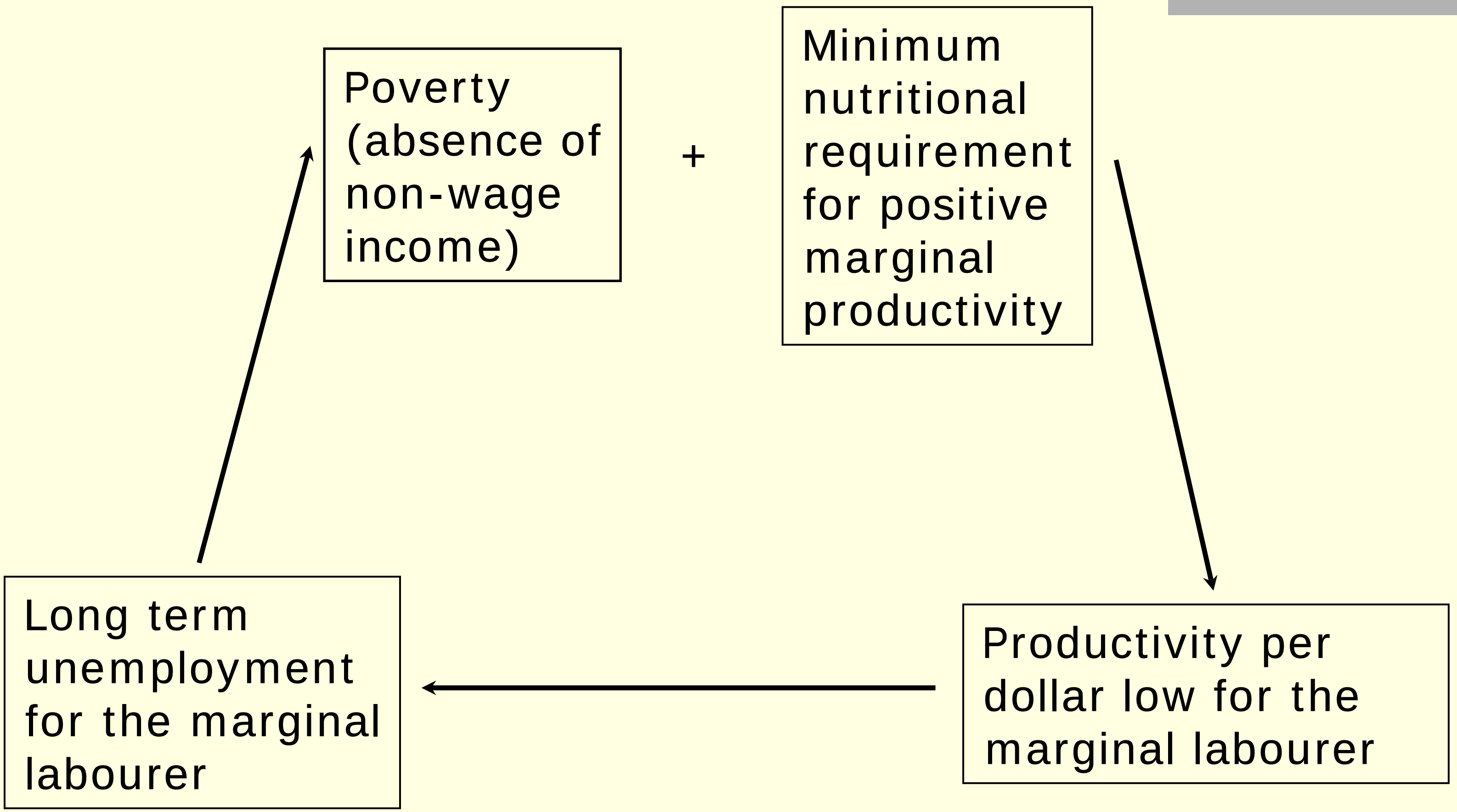
Poverty Measurement …. 4

- Foster-Greer-Thorbecke measure.

$$P_\alpha = \frac{1}{N}\sum_{i=1}^{H}\left(\frac{Y_p - Y_i}{Y_p}\right)^\alpha$$

  - $\alpha = 0 \Rightarrow P_\alpha$ = Head count ratio
  - $\alpha = 1 \Rightarrow P_\alpha$ = Normalised poverty gap ratio
  - $\alpha = 2 \Rightarrow P_\alpha$ = Measure used by World Bank

Vicious Circle of Poverty



Theories of Inequality and Poverty

- Neoclassical theory.
  - Returns to a factor of production equals its marginal productivity.

- Labour-surplus (Lewis-Fei-Ranis) model.
  - Inequality increases at first and then declines as labour becomes scarce.
  - Inequality is essential for growth because it facilitates investment.

Government Policies

- Short term.
  - Progressive tax system.
    - Europe.
  - Redistribution of assets like land.
  - Public provision of consumption goods.
    - Europe and the USA.
  - Abolishing regulations that make labour expensive to hire.
    - UK vs. Germany/France.
  - Intervention in product markets.

- Long term.
  - Investment in health and education.
    - Skills shortage in EU.
  - Reduce possibility of market or <u>entitlement failure</u>.