Inequality

RIDLEY COLLEGE
SINCE 1889

Assessment Objectives

Specific Expectations	
AO2	Explain the relationship between equity and equality
AO2	Explain economic inequality as unequal distribution of income or wealth
AO2	Use the Lorenz curve and Gini Coefficient (index) to measure economic inequality
AO4	Draw Lorenz curve to show the distribution of income and changes in the distribution of income (redistribution)
AO4	Construct a Lorenz curve based on income quintile data

Equity and Equality

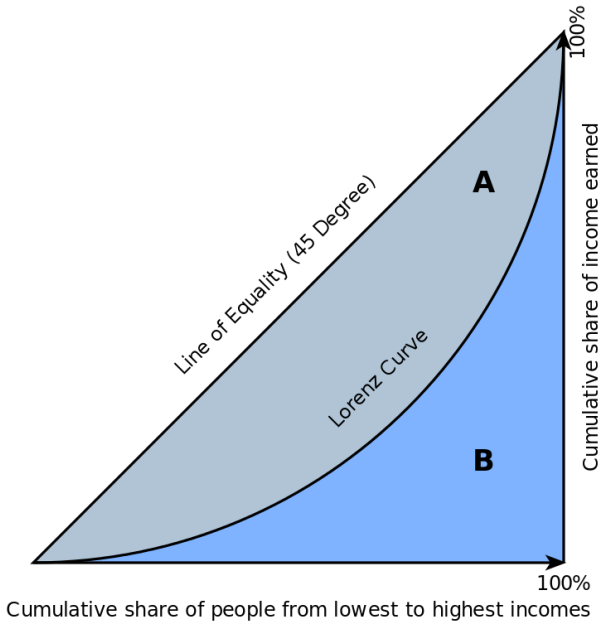
- **Equity** refers to the idea of being fair or just.
  - Fairness is a normative concept because ideas of what is fair vary according to beliefs, value judgements and ideologies.
  - Governments face a trade-off between equity and efficiency when intervening in markets.
- **Equality** refers to the state of being equal with respect to something.
  - Income equality means everyone receives the same income.
  - Equality is a positive concept because something may be equal or unequal on the basis of some measure.
  - Equity is interpreted as greater equality (less inequality)

Economic inequality

- **Economic inequality** the degree to which people in a population differ in their ability to satisfy their economic needs.
  - Economists focus on inequalities that result mainly from differences in income and wealth
  - **Income inequality** arises from differences in how evenly income is distributed in a population.
    - **Income** is the money received by owners of factors of production.
  - **Wealth inequality** arises from differences in the amount of wealth people own.
    - **Wealth** refers to the money, assets or things that people own.

Lorenz curve

- **Lorenz curve** a curve illustrating the degree of equality (or inequality) of income (or wealth) distribution in an economy.
  - It plots the cumulative percentage of income received by cumulative shares of the population.
  - The closer the Lorenz curve is to the diagonal line of perfect equality, the more equal the income distribution.

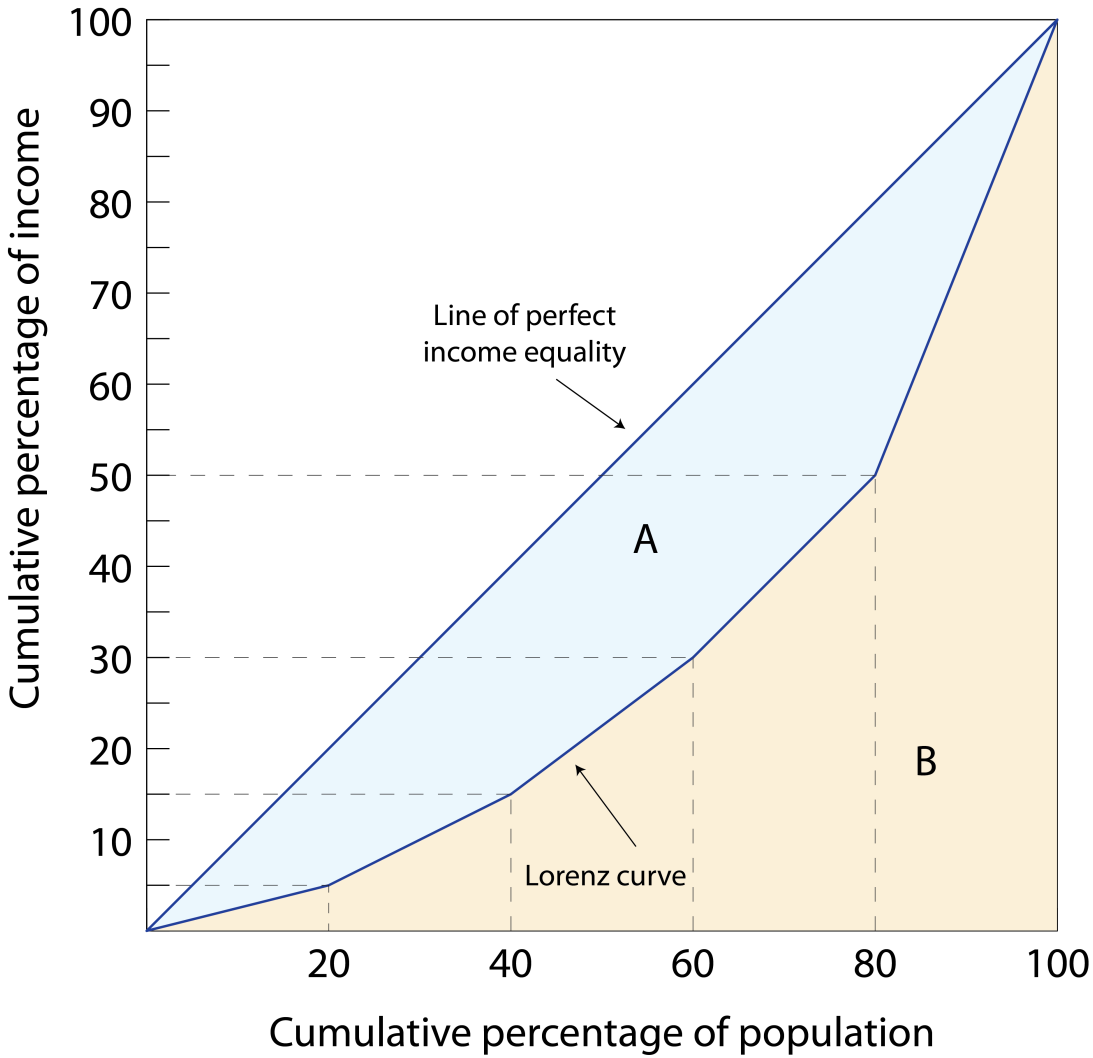


Lorenz Curve: Numerical example

- The data show how income is distributed by quintiles of the population.
  - **Quintile** is a 20% portion of a country's population.
  - We can divide the population into five quintiles, ranging from the lowest (the poorest 20% of the population) to the highest (the richest 20%).

Household quintiles	**Percentage of total household income earned by each quintile**
Lowest 20%	5%
2nd lowest 20%	10%
3rd lowest 20%	15%
2nd highest 20%	20%
Highest 20%	50%

Lorenz Curve: Numerical example



Gini Coefficient

- **Gini coefficient (Gini index)** is a summary measure of income inequality and the information contained in the **Lorenz curve** of an economy.
  - Defined as the area between the diagonal and the Lorenz curve, divided by the entire area under the diagonal.

$$\text{Gini Coefficient} = \frac{\text{Area between diagonal and Lorenz curve}}{\text{Entire area under diagonal}} = \frac{A}{A+B}$$

  - The Gini coefficient has a value between 0 and 1.
  - The closer the value is to 0, the greater the income equality.
  - The larger the Gini coefficient, and the closer it is to 1, the greater is the income inequality.

Wealth inequality

- The distribution of wealth is generally far more unequal than the distribution of income in most countries in the world.
  - Everything for income inequality applies also to wealth inequality.
  - Limited growth in wages makes it difficult for low-income and middle-income people to save and accumulate wealth.
  - High-income people tend to consume a smaller fraction of their income than lower-income people therefore have greater possibilities of saving and accumulating wealth.
  - The greater the income, the more possibilities for accumulating wealth.

Income and wealth redistribution

- Income and wealth may be redistributed to make their distribution more equal.
  - Graphically, this appears as a shift of the Lorenz curve closer to the diagonal line, and is reflected in a lower Gini coefficient.