

Lecture 15: Welfare economics

15.1 The Edgeworth Box Economy

- Two goods, x, y . Two consumers, no production. Initial endowments (\bar{x}, \bar{y}) .
- Allocation: $((x^1, y^1), (x^2, y^2))$ with

$$\begin{aligned}x^1 + x^2 &= \bar{x} \\ y^1 + y^2 &= \bar{y}\end{aligned}$$

- Representation of allocations as points in the Edgeworth box.
- Drawing indifference curves in the EB. Slopes.

15.2 Efficiency in the Edgeworth Box Economy

- Define inefficiency.
- Efficiency as constrained optimization.
- The marginal conditions for efficiency.
- Generalization to m consumers, n commodities.
- The problem of coordination. The role of prices.

15.3 Efficiency in the Robinson Crusoe Economy

- Add labor/leisure and production.
- Revise definition of allocation.
- Efficiency with production.
- Generalize.
- Efficiency as constrained optimization.
- The marginal conditions for efficiency.
- The problem of coordination. The role of prices.

15.4 Private Property Economies

- Ownership.
- Prices, income and budgets.
- Accounting. Walras' Law.

15.5 Walrasian Equilibrium

- Prices. Excess demand.
- Marginal conditions.
- Existence.

15.6 Monopoly and Inefficiency

- Price and marginal cost.
- Diagrammatic representation of inefficiency in the Robinson Crusoe economy.

15.7 The First Welfare Theorem

- The role of budget exhaustion.

15.8 The Second Welfare Theorem

- The marginal approach.
- Arrow–Enthoven.
- Generalizations in 121b.

15.9 The Arrow Impossibility Theorem

- The efficiency domination order is incomplete. Can we complete it.
- The paradox of voting..

References