

ECO111: Lecture 14

2 September 2024

ANNOUNCEMENT

1. The first quiz will be on 5 September 2024, Thursday
2. The syllabus will be all that was covered in class till 30 August 2024
3. The quiz will be during class hours in LH16

Unit 4: Work, Wellbeing, and Scarcity

TOPICS

- Consumption
- Utility maximization
- Decision Making and Scarcity
- Work and Economic Growth
- Changes in Working Hours
- Differences between countries
- Work and Wellbeing as a Social Dilemma

Few Key Ideas in Economic Models

- *Ceteris paribus* : meaning ‘other things equal.’ In an economic model it means an analysis ‘holds other things constant.’
- *Opportunity cost* : The opportunity cost of some action A is the foregone benefit that one would have enjoyed if instead they had taken some other action B.
- By choosing A one gives up the opportunity of choosing B.
- It is called a cost because the choice of A costs one the benefit they would have experienced had one chosen B.

Economic and accounting cost

- Economic cost : The out-of-pocket cost of an action plus the opportunity cost
- Accounting cost : Only the out-of-pocket cost
- Economic rent : A payment or other benefit received above and beyond what the individual would have received in their next best alternative

Economic rent = Benefit of the action – Economic cost of the action

- Decision making involves more than just accounting cost
- Example: Going to a concert of \$25 and going to a free concert

Consumer Preferences

- BUNDLES : A list of goods and services
- PREFERENCES : Pro-and-con evaluations of the possible outcomes of the actions we may take that form the basis by which we decide on a course of action
- $A \succ B$: the individual ‘strictly prefers’ bundle A to B
- $A \sim B$: the individual is indifferent between bundles A and B
- $A \succcurlyeq B$: the individual ‘weakly prefers’ bundle A to B

Properties of Preference Relations

1. Completeness : A preference relation is complete if the consumer has the ability to compare every two bundles A and B. i.e, $A \succ B$ or $A \sim B$ or $B \succ A$
2. Transitivity : For every three bundles A, B, and C, if the consumer prefers A to B ($A \succ B$), and B to C ($B \succ C$), then they must also prefer A to C ($A \succ C$)

3. Strict monotonicity : Consider an initial bundle A and a new bundle B, where bundle B has the same amount of good x as bundle A ($x_B = x_A$), but it contains more units of good y ($y_B > y_A$). We say that a consumer's preferences satisfy strict monotonicity if she strictly prefers B to A ($B \succ A$)

4. Monotonicity : Consider an initial bundle A and new bundles B and C, where bundle B has the same amount of good x as bundle A ($x_B = x_A$), but it contains more units of good y ($y_B > y_A$), whereas bundle C has more units of both goods than bundle A does ($x_C > x_A$, $y_C > y_A$). A consumer's preference satisfy monotonicity if she weakly prefers B to A ($B \succsim A$) but strictly prefers C to A ($C \succ A$)

- Strict monotonicity  Monotonicity

5. Nonsatiation : Preferences satisfy nonsatiation, if for every bundle A, we can find another bundle B for which the consumer is strictly better off.

• Monotonicity  Nonsatiation

Utility functions

- Mathematically represent consumer preferences
- The level of satisfaction an individual enjoys from consuming a bundle of goods
- Example : Suppose the consumer consumes two good A and B in quantities x_A and x_B and her utility function is $u(x_A, x_B) = 3x_A + 5x_B$
- Marginal Utility of a good : The rate at which utility changes as consumption of a good increases
- **Diminishing Marginal Utility** : Marginal utilities are decreasing in the amount of good that the individual consumes. That is

$$\frac{\partial MU_x}{\partial x} \leq 0$$