

EE211

PRINCIPLES OF MICROECONOMICS

Topic 6:

The Theory of Consumer Choice

Topics

- Utility Theory (Cardinal Approach)
 - Utility
 - Marginal utility
 - Law of diminishing marginal utility
- Indifference Curve Theory (Ordinal Approach)
 - Indifference curve
 - Marginal rate of substitution
 - Budget line
 - Consumer equilibrium
- Applications

Part I: Utility Theory (Cardinal Approach)

- **Utility** is the *satisfaction* or *well-being* that a consumer receives from *consuming some good or service*.
 - Economists assume that, in making their choices, consumers are motivated to maximize their utility.
- **Total utility** is the total satisfaction resulting from consumption of a given commodity by a consumer.
- **Marginal utility** is the *additional satisfaction* obtained by a consumer from consuming one *additional unit* of a commodity.

Example: Utility Schedules

Number of Coffee Tom Drinks per day	Tom's Total Utility	Tom's Marginal Utility
0	0	
1	30	30
2	50	20
3	65	15
4	75	10
5	83	8
6	89	6

Example: Utility Graphs

- Total Utility

TU



- Marginal Utility

MU



Total utility rises, but marginal utility decreases, as consumption rises.

Diminishing Marginal Utility

- ***Law of diminishing marginal utility***

“The utility that any consumer derives from *successive* units of a particular product consumed over some period of time *diminishes* as total consumption of the product increases, if the consumption of all other products is unchanged.”

Maximizing Utility

- The consumer's decision:

A **utility-maximizing consumer** allocates expenditures so that the **utility obtained from the last dollars** spent on each product is equal.

Mathematically,

$$\frac{MU_X}{P_X} = \frac{MU_Y}{P_Y}$$

Alternatively,

$$\frac{MU_X}{MU_Y} = \frac{P_X}{P_Y}$$

Example

Case	Price of X (\$)	Marginal Utility of X (Utils)	Price of Y (\$)	Marginal Utility of Y (Utils)
A	10	2	5	3
B	12	4	4	2
C	3	1	6	2
D	4	2	4	2
E	8	4	4	3

In each of the cases above, should the consumer's expenditure on each product rise or fall in order to maximize her utility?