Household Behavior and Consumer Choice

Chapter Outline

Household Choice in Output Markets
1. Determinants of Household Demand
2. The Budget Constraint
3. Utility
   a. Definitions
   b. Law of Diminishing Marginal Utility
   c. Utility-Maximization Rule
4. Income and Substitution Effects
   a. Income Effect
   b. Substitution Effect

Household Choice in Input Markets (example: Labor Supply Decision)
5. Price of Leisure
6. Income and Substitution Effect of Wages

Determinants of Household Demand
• Price of the product
• Income of household
• Household’s wealth
• Prices of other products
• Tastes / preferences
• Expectations of future income, wealth, and prices

The Budget Constraint
Budget Constraint – the limits on household choices because of income, wealth, and prices of products. (Choice SET)

• The budget constraint has the quantities of a good on each axis. The end-points on the budget constraint are (Income / Price of good).
• The budget constraint is ALWAYS a straight line.
• Anything on or inside the budget constraint is part of the choice set. Anything outside the budget constraint is unavailable.
• The budget constraint shifts when the price of a product changes or the households income changes.

Utility
Utility – the satisfaction a product yields.
Total Utility – the total amount of satisfaction derived from the consumption of a good or service.
Marginal Utility – the additional satisfaction derived from the consumption of one more unit of a good or service.
\[ MU = \frac{\Delta TU}{\Delta Q} \text{ and } TU = \sum MU \]

Law of Diminishing Marginal Utility
The more of a good (or service) that is consumed in a given period, then the (MU) additional satisfaction from consumption of each additional unit falls.

Utility-Maximization Rule
\[ \frac{MU_x}{P_x} = \frac{MU_y}{P_y} \text{ and } I = P_xQ_x + P_yQ_y \]

Income Effect
Income Effect – the change in consumption of a product because of a change in (well-being) purchasing power.

\[ \uparrow P_x \rightarrow \downarrow \text{purchasing power} \rightarrow \downarrow \text{purchases of all goods} \rightarrow \downarrow Q_x \text{ and } \downarrow Q_y \]

Substitution Effect
Substitution Effect – the change in consumption of a product because of a change in relative prices.

\[ \uparrow P_x \rightarrow X \text{ is relatively more expensive} \rightarrow \text{buy less } X \text{ and more everything else} \rightarrow \downarrow Q_x \text{ and } \uparrow Q_y \]

Household Choice in Input Markets (example: Labor Supply Decision)
Price of Leisure = value of next best alternative (working) = wages

Income and Substitution Effect of Wages
Income Effect
\[ \uparrow \text{wages} \rightarrow \uparrow \text{purchasing power} \rightarrow \uparrow \text{purchases of all goods} \rightarrow \uparrow Q_{\text{Leisure}} (\downarrow Q_{\text{Work}}) \]

Substitution Effect
\[ \uparrow \text{wages} \rightarrow \text{Leisure is relatively more expensive} \rightarrow \text{buy less leisure} \rightarrow \downarrow Q_{\text{Leisure}} (\uparrow Q_{\text{Work}}) \]