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Principles of Microeconomics

Some Definitions (in approximate order of use in the class.)

Economics: The study of how individuals and societies should best use their limited resources to try to satisfy their material wants.

Cost-Benefit Analysis: Evaluating the merit of a proposed action by weighing its predicted benefits against its predicted costs.

Resources (a.k.a. *inputs*, or *factors of production*):
Land: Gifts of nature used in the production process
Labor: Human talents used in the production process
Capital: Manufactured aids to production

Opportunity Cost: The next best alternative surrendered when a choice is made.

Laissez-faire (Free Market) Economy: An economy in which buyers and sellers can operate with little government intervention.

Command Economy: An economy in which government controls virtually all allocation, production, and distribution.

Mixed Economy: An economy with moderate government involvement in markets.

Production Possibilities Frontier (PPF): A graph illustrating the maximum possible output combinations of an economy.

Marginal Rate of Transformation (MRT): The number of units of 1 good that must be sacrificed in order to increase production of another good.

Market: An institution or mechanism allowing buyers and sellers to make exchanges.

Demand: Willingness to buy

Ceteris Paribus: Latin, meaning "All else remaining constant"

Law of Demand: Ceteris paribus, if the price of an item falls, then buyers are willing to buy more of it.

Substitutes: 2 goods that serve roughly the same purpose to buyers

Complements: 2 goods which are often consumed together.

Inferior good: A good whose demand falls when buyers' incomes rise.

Normal good: A good whose demand rises when buyers' incomes rise.

Law of Supply: Ceteris Paribus, if buyers are willing to pay a higher price for an item, then sellers are willing to sell more of it

Excise tax: A tax on a good or service.

Equilibrium: A stable situation in which quantity demanded equals quantity supplied

Price ceiling: A legal maximum price

Price floor: A legal minimum price

Shortage: When quantity demanded exceeds quantity supplied

Surplus: When quantity supplied exceeds quantity demanded

Price elasticity of demand: percentage change in quantity demanded, divided by percentage change in price:

$$= \frac{Q_A - Q_B}{(Q_A + Q_B)/2} \div \frac{P_A - P_B}{(P_A + P_B)/2}$$

Income elasticity of demand: percentage change in quantity demanded, divided by percentage change in income.

Cross-price elasticity of demand: Percentage change in quantity of good A demanded, divided by percentage change in price of good B.

Market period: Period of time too short for sellers to alter their quantity supplied.

Short run: Period of time in which a producer has at least 1 fixed resource.

Long run: Period of time in which all of a producers resources are variable

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Budget constraint: A graph showing the maximum affordable combinations of 2 goods for a household.

Income-leisure constraint: A graph showing the combinations of income and leisure (non-paying activity) possible for a household.

Intertemporal budget constraint: A graph showing the maximum affordable combinations of present consumption (say, in year 1) and future consumption (say, in year 2).

Utility: The satisfaction that a product provides when consumed by a household.

Util: A numerical measure of utility

Total utility: the total amount of satisfaction that a household receives when consuming a good (or goods).

Marginal utility: The additional utility gained from consuming 1 additional unit of a good.

Law of diminishing marginal utility: As additional units of a single good are consumed, the marginal utility derived from the good decreases.

Utility-maximizing rule: A household should purchase units of items which provide it with the highest marginal utility per dollar, so that when its spendable income is exhausted the marginal utility per dollar for all goods consumed is equal.

Or

$$\frac{MU_a}{P_a} = \frac{MU_b}{P_b}$$ for all goods a,b consumed

Indifference curve: A curve comprising a set of points, each representing a combination of some amount of good A and some amount of good B, that all yield the same amount of total utility.

Total product (total output, Q): Total number of units of a product that a firm has produced.

Marginal Product: The increase in total product when an additional unit of a resource is employed.

Law of diminishing returns: As successive units of a variable resource are employed (together with a fixed resource), eventually the marginal product of the variable resource declines.

(Total) Fixed costs: The sum of a firm's short run costs that do not increase as a firm's total product increases.

Total variable costs: The sum of a firm's costs that increase as its total product increases.

Total cost = total fixed cost + total variable cost

Average fixed cost = total fixed costs / total product

Average variable cost = total variable cost / total product

Average (total) cost = total cost / total product

Marginal cost: The increase in total cost when 1 additional unit of output is produced.

Increasing returns to scale (economies of scale): Technological forces which cause some firms' long run average costs to fall as total product increases.

Decreasing returns to scale (diseconomies of scale): Technological forces which cause some firms' long run average costs to rise as total product increases.

Constant returns to scale : Technological forces which cause some firms' long run average costs to remain constant as total product increases.

Total revenue: The total dollar value of a firm's sales

Marginal revenue: The change in a firm's total revenue that occurs when its sales rise by 1 unit.

Profit-maximizing rule (#1): Any firm (which is not shut down) will maximize profits (or minimize losses) by producing the quantity of total product at which marginal revenue equals marginal cost.

Shut down rule: Any firm in the short run should shut down if its price is less than its average variable costs.

These next 7 items are not definitions; they are mere observations:

P>ATC: Firm makes a profit

ATC>P>AVC: Firm loses money but continues to operate.

ATC>AVC>P: Firm shuts down; its loss is its total fixed costs.

Total revenue = P x Q Total cost = ATC x Q

Total profit = (P x Q) - (ATC x Q)

Game theory: Analyzes oligopolistic behavior as a complex series of strategic moves and reactive countermoves among rival firms.

Strategic behavior: When a firm manager makes decisions based in part on the anticipated reactions of the firm's rivals.

Price leadership: A form of oligopoly in which the dominant firm sets prices, and the smaller firms follow its pricing policy.

Kinked demand curve: Model of oligopoly which assumes that rival firms will match any price reduction, but will not match any price increase.

Cartel: A group of firms that colludes, jointly setting price and output.

Contestable markets: Model of oligopoly that assumes that oligopolies act as perfectly competitive firms, even if little 'real' competition exists, because existing firms fear new competition if they set prices too high.

Cost-plus pricing: Theory of oligopoly that assumes that firms set product prices by marking them up by a certain percentage over their average cost.

Marginal Revenue Product: The additional revenue made possible by employing an additional unit of a resource.

Marginal Resource Cost: The cost of employing an additional unit of a resource.

Profit-maximizing rule #2: A firm maximizes profits by hiring units of a resource where its marginal revenue product equals its marginal resource cost

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Social Efficiency Rule: Any activity should be undertaken in an amount at which its marginal benefit equals its marginal cost. (In production of a good, this means where P=MC.)

Externalities: Benefits of cost of an activity that are borne by people not directly involved in the activity.

Public good: A non-rival and non-excludable good or service.

Means-tested transfer payments: Government payments to individuals who must fall below a specified income (and wealth) level to qualify.

Rawls Maximin: Philosophy of equity, stating that society should maximize the utility of its worst off person.

Utilitarian: Philosophy of equity stating that society should maximize the sum of citizens' utilities.

From each according to his ability, to each according to his want: Marxist theory of equity.