Glossary

A

Absolute price The number of dollars that can be exchanged for a specified quantity of a given good.

Accounting profit Total revenue minus those costs that an accountant would consider.

Adverse selection The problem that arises when people know more about their own risk characteristics than others do.

Autarkic relative price The relative price that would prevail if there were no trade with foreigners.

Average cost, or **average total cost (AC)** Total cost divided by the quantity of output.

Average product of labor (APL) Total product divided by the number of workers.

Average variable cost (AVC) Variable cost divided by the quantity of output.

B

Bertrand model A model of oligopoly in which firms take their rivals' prices as given.

Bond A promise to pay at some time in the future.

Break-even price The price at which a seller earns zero profit.

Budget line The set of all baskets that the consumer can afford, given prices and his or her income.

C

Cap-and-trade A system of tradable permits to produce goods that create externalities.

Capital Physical assets used as factors of production.

Capital asset pricing model A model that assumes that investors care only about expected return and risk, where risk is measured by standard deviation.

Cartel A group of firms engaged in collusion.

Clarke tax A tax designed to elicit information about the demand for public goods.

Coase theorem In the absence of transactions costs, all externalities are internalized; therefore, social gain is maximized.

Collusion An agreement among firms to set prices and outputs.

Common law The system of legal precedents that has evolved from court decisions.

Common property Property without a well-defined owner.

Comparative advantage The ability to perform a given task at a lower cost.

Compensated demand curve A curve showing, for each price, what the quantity demanded would be if the consumer were income-compensated for all price changes.

Compensating differential A wage adjustment that comes about in equilibrium to compensate for a particularly pleasant or unpleasant aspect of a job.

Competitive equilibrium A point that everyone will choose to trade to, for some appropriate market prices.

Competitive industry An industry in which all firms are competitive.

Complements Goods for which the cross elasticity of demand is negative.

Complements in production Two factors with the property that an increase in the employment of one raises the marginal product of the other.

Composite-good convention The lumping together of all goods but one into a single portmanteau good.

Consequentialist moral theories Moral theories that assert that the correctness of an act can be judged by its consequences.

Constant-cost industry A competitive industry in which all firms have identical cost curves, which do not change as the industry expands or contracts.

Constant returns to scale A condition where increasing all input levels by the same proportion leads to a proportionate increase in output.

Consumer's surplus The consumer's gain from trade; the amount by which the value of his purchases exceeds what he actually pays for them.

Consumption All goods other than leisure.

Consumption goods (or **outputs**) Goods that individuals want to consume.

Contestable market A market in which firms can enter and exit costlessly.

Contract curve The set of Pareto-optimal points.

Contributory negligence A plaintiff's failure to take precautions whose cost is less than the damage caused by an accident multiplied by the probability that the accident will occur.

Convex Bowed in toward the origin, like the curves in panel A of Exhibit 3.6.

Corner solution An optimum occurring on one of the axes when there is no tangency between the budget line and an indifference curve.

Cost A forgone opportunity.

Cost-benefit analysis Analysis of the costs and benefits of various public policies.

Coupon bond A bond that promises a series of payments on different dates.

Cournot model A model of oligopoly in which firms take their rivals' output as given.

Creative response A response to a regulation that conforms to the letter of the law while undermining its spirit.

Cross elasticity of demand The percent change in consumption that results from a 1% increase in the price of a related good.

D

Deadweight loss A reduction in social gain.

Decreasing-cost industry A competitive industry where the break-even price for new entrants falls as the industry expands.

Decreasing returns to scale A condition where increasing all input levels by the same proportion leads to a less than proportionate increase in output.

Default risk The possibility that the issuer of a bond will not meet his obligations.

Demand A family of numbers that lists the quantity demanded corresponding to each possible price.

Demand curve A graph illustrating demand, with prices on the vertical axis and quantities demanded on the horizontal axis.

Derived demand Demand for an input, which depends on conditions in the output market.

Diminishing marginal returns to labor The circumstance in which each unit of labor has a smaller marginal product than the last.

Discount The face value of a bond minus its current price.

Dissipation of rents or **tragedy of the commons** The elimination of social gains due to overuse of common property.

Diversify To reduce risk.

Dividends Streams of benefits.

Dominant strategy A strategy that a player would want to follow regardless of the other player's behavior.

E

Econometrics A family of statistical techniques used by economists.

Economic incidence The division of a tax burden according to who actually pays the tax.

Economic profit Total revenue minus all costs, including the opportunity cost of being in another industry.

Economies of scope Efficiencies resulting from producing multiple products at a single firm.

Edgeworth box A certain diagrammatic representation of an economy with two individuals, two goods, and no production.

Effective price ceiling A price ceiling set below the equilibrium price.

Efficiency criterion A normative criterion according to which your votes are weighted according to your willingness to pay for your preferred outcome.

Efficiency wage A wage higher than market equilibrium, which employers pay in order to make workers want to keep their jobs.

Efficient market A market in which prices fully reflect all available information.

Efficient portfolio A portfolio in the efficient set.

Efficient set The northwest boundary of the set of all portfolios.

Elasticity of supply The percent change in quantity supplied resulting from a 1% increase in price.

Endowment The basket of goods that somebody starts with, before any trading.

Endowment point The point representing the initial holdings of an individual in an Edgeworth box.

Engel curve A curve showing, for fixed prices, the relationship between income and the quantity of a good consumed.

Entry price The minimum price that would cause a firm to enter a given industry.

Envy-free allocation An outcome in which nobody would prefer to trade baskets with anybody else.

Equilibrium point The point where the supply and demand curves intersect.

Equimarginal principle The principle that an activity should be pursued to the point where marginal cost equals marginal benefit.

Ex ante Determined before the state of the world is known.

Ex post Determined after the state of the world is known.

Excise tax In this book, a tax that is paid directly by suppliers to the government.

Exit A firm's decision to leave the industry entirely. Firms that exit no longer incur any costs.

Expansion path The set of tangencies between isoquants and isocosts.

Expected return The expected value of returns.

Expected value The average value over all states of the world, with each state weighted by its probability.

External costs and benefits, or **externalities** Costs and benefits imposed on others.

F

Face value The amount that a bond promises to pay.

Factor-price effect The effect that an expansion of industry output has on the price of a factor of production, thereby raising marginal costs in the industry.

Factors of production (or **inputs**) Goods that are used to produce outputs.

Fair odds Odds that reflect the true probabilities of various states of the world.

Fall in demand A decision by demanders to buy a smaller quantity at each given price.

Fall in supply A decrease in the quantities that suppliers will provide at each given price.

Firm An entity that produces and sells goods, with the goal of maximizing its profits.

First-degree price discrimination Charging each customer the most that he would be willing to pay for each item that he buys.

First stage of production Production with relatively few workers, so that each additional worker increases the productivity of his colleagues. Therefore, the average product of labor is increasing and the marginal product exceeds the average product.

Fishery Common property.

Fixed costs Cost that don't vary with the quantity of output.

Fixed factor of production One that the firm must employ in a given quantity.

Free riders People who benefit from the actions of others and therefore have reduced incentives to engage in those actions themselves.

Free riding Reaping benefits from the actions of others and consequently refusing to bear the full costs of those actions.

Futures contract A contract to deliver a specified good at a specified future date for a specified price.

Futures market The market for futures contracts.

G

Game matrix A diagram showing one player's strategy choices across the top, the other player's along the left side, and the corresponding outcomes in the appropriate boxes.

General average The rule of law that dictates the division of losses when cargo is jettisoned to prevent a disaster at sea.

General equilibrium analysis A way of modeling the economy so as to take account of all markets at once and of all the interactions among them.

Giffen good A good that violates the law of demand, so that when the price goes up, the quantity demanded goes up.

Good Samaritan rule A bystander has no duty to rescue a stranger in distress.

Goods Items of which the consumer would prefer to have more rather than less.

H

Horizontal integration A merger of firms that produce the same product.

Human capital Productive skills.

I

Income effect When the price of a good changes, that part of the effect on quantity demanded that results from the change in real income.

Income elasticity of demand The percent change in consumption that results from a 1% increase in income.

Increasing-cost industry A competitive industry where the break-even price for new entrants increases as the industry expands.

Increasing marginal cost The condition where each additional unit of an activity is more expensive than the last.

Increasing returns to scale A condition where increasing all input levels by the same proportion leads to a more than proportionate increase in output.

Indifference curve A collection of baskets, all of which the consumer considers equally desirable.

Inferior good A good that you consume less of when your income rises.

Inflation An ongoing rise in the average level of absolute prices.

Internalize To treat an external cost as a private cost.

Intertemporal substitution Working additional hours during temporary periods of high productivity.

Investors Buyers of risky assets.

Isocost The set of all baskets of inputs that can be employed at a given cost.

L

Labor theory of value The assertion that the value of an object is determined by the amount of labor involved in its production.

Laspeyres price index A price index based on the basket consumed in the earlier period.

Law of demand The observation that when the price of a good goes up, people will buy less of that good.

Law of large numbers When a gamble is repeated many times, the average outcome is the expected value.

Law of supply The observation that when the price of a good goes up, the quantity supplied goes up.

Legal incidence The division of a tax burden according to who is required under the law to pay the tax.

Leisure All activities other than labor.

Lerner Index The excess of price over marginal cost, expressed as a fraction of the price.

Liable Legally responsible to compensate another party for damage.

Long run A period of time over which all factors are variable.

Long-run average cost Long-run total cost divided by quantity.

Long-run marginal cost That part of long-run total cost attributable to the last unit produced.

Long-run supply curve A curve that shows what quantity the firm will supply in the long run in response to any given price.

Long-run total cost The cost of producing a given amount of output when the firm is able to operate on its expansion path.

M

Marginal benefit The additional benefit gained from the last unit of an activity.

Marginal cost The additional cost associated with the last unit of an activity.

Marginal labor cost (*MLC*) The cost of hiring an additional unit of labor.

Marginal product of labor (MPL) The increase in total product due to hiring one additional worker (assuming that capital is held fixed).

Marginal rate of substitution, or **MRS, between X and Y** The value of a consumer's last unit of *X*, measured by the number of additional units of *Y* that would just compensate for its loss.

Marginal rate of technical substitution of labor for capital ($MRTS_{LK}$) The amount of capital that can be substituted for one unit of labor, holding output constant.

Marginal revenue The additional revenue earned from the last item produced and sold.

Marginal revenue product of labor (MRP_L) The additional revenue that a firm earns when it employs one more unit of labor.

Marginal tax rate The amount of income tax you pay on the last dollar that you earn.

Marginal utility of *X* (MU_X) The amount of additional utility derived from an additional unit of *X* when the quantity of *Y* is held constant.

Marginal value The maximum amount a consumer would be willing to pay to acquire one additional item.

Marginal value of *X* in terms of *Y* The number of *Y*s for which the consumer would be just willing to trade one *X*.

Market failure An occasion on which private markets fail to provide some good in socially efficient quantities.

Market line The line through a risk-free asset and tangent to the efficient set.

Market portfolio The point of tangency between the market line and the efficient set.

Market power or **monopoly power** The ability of a firm to affect market prices through its actions. A firm has monopoly power if and only if it faces a downward-sloping demand curve.

Maturity date The date on which a bond promises a delivery.

Mixed strategy A strategy that involves a random choice among pure strategies.

Monopolistic competition The theory of markets in which there are many similar but differentiated products.

Monopsonist A buyer who faces an upward-sloping supply curve.

Moral hazard The incentive for an individual to take more risks when insured.

More efficient Able to perform a given task at lower cost; having a comparative advantage.

N

Nash equilibrium An outcome from which neither player would want to deviate, taking the other player's behavior as given.

Natural monopoly An industry in which each firm's average cost curve is decreasing at the point where it crosses market demand.

Negative externalities External costs.

Negligence A defendant's failure to take precautions whose cost is less than the damage caused by an accident multiplied by the probability that the accident will occur.

Nominal Measured in terms of money.

Nominal interest rate The relative price of current dollars in terms of future dollars, minus 1.

Nonexcludable good A good that, if consumed by one person, is automatically available to others.

Nonlabor income Income from sources other than wages.

Nonrivalrous good A good that, if consumed by one person, can be provided to others at no additional cost.

Normal good A good that you consume more of when your income rises.

Normative criterion A general method for choosing among alternative social policies.

Normative question A question about what *ought* to be.

O

Oligopoly An industry in which individual firms can influence market conditions.

Open economy An economy that trades with outsiders at prices determined in world markets.

Optimum (plural: optima) The most preferred of the baskets on the budget line.

Ordinary good A good that obeys the law of demand: When the price goes up, the quantity demanded goes down.

P

Paasche price index A price index based on the basket consumed in the later period.

Pareto criterion A normative criterion according to which one policy is better than another when it is preferred unanimously.

Pareto improvement or **Pareto-preferred outcome** A change to which nobody objects.

Pareto-optimal outcome An outcome that allows no possibility of a Pareto improvement.

Perfectly competitive firm One that can sell any quantity it wants to at some going market price.

Perpetuity A bond that promises to pay a fixed amount periodically forever.

Pigou tax or **Pigovian tax** A tax equal to the amount of an externality.

Point of diminishing marginal returns The point after which the marginal product curve begins to decrease.

Portfolios Combinations of risky assets.

Positive externalities External benefits.

Positive question A question about what *is* or *will be.*

Potential Pareto criterion A normative criterion according to which any proposal that can be unanimously defeated—even by a candidate not under consideration—should be rejected.

Predatory pricing Setting an artificially low price so as to damage rival firms.

Present value Relative price in terms of current consumption.

Price ceiling A maximum price at which a product can be legally sold.

Price discrimination Charging different prices for identical items.

Price elasticity of demand The percent change in consumption that results from a 1% increase in price.

Price index A measure of the cost of living, based on changes in the cost of some basket of goods.

Price level The price of goods in terms of money.

Price to demanders Price plus sales tax.

Price to suppliers Price minus excise tax.

Principal–agent problem The inability of the principal to verify the behavior of the agent.

Private cost The sum of those costs of a decision that are borne by the decision maker.

Producer's surplus The producer's gain from trade; the amount by which his revenue exceeds his variable production costs.

Product differentiation The production of a product that is unique but has many close substitutes.

Production function The rule for determining how much output can be produced with a given basket of inputs.

Production possibility curve The curve displaying all baskets that can be produced.

Profit The amount by which revenue exceeds costs.

Property right The right to decide how some resource shall be used.

Public good A good where one person's consumption increases the consumption available for others.

Punitive damages Additional charges levied against one who commits a tort as punishment for his behavior.

Pure strategy A single choice of row (or column) in the game matrix.

Q

Quantity demanded The amount of a good that a given individual or group of individuals will choose to consume at a given price.

Quantity supplied The amount of a good that suppliers will provide at a given price.

Quasi-rents Producers' surplus earned in the short run by factors that are supplied inelastically in the short run.

R

Rational expectations Expectations that, when held by market participants, lead to behavior that fulfills those expectations on average.

Real interest rate The relative price of present consumption goods in terms of future consumption goods, minus 1.

Region of mutual advantage The set of points that are considered at least as good as the initial endowment.

Regressive factor A factor with the property that an increase in its wage rate lowers the firm's long-run marginal cost curve.

Relative price The quantity of some other good that can be exchanged for a specified quantity of a given good.

Rent Payments to a factor of production in excess of the minimum payments necessary to call it into existence. In other words, the producer's surplus earned by the factor.

Rental rate The price of hiring capital.

Representative agent Someone whose tastes and assets are representative of the entire economy.

Resale price maintenance or **fair trade** A practice by which the producer of a product sets a retail price and forbids any retailer to sell at a discount.

Respondeat superior The liability of an employer for torts committed by his employees.

Returns Gains to the holder of a financial asset, including dividends and increases in the asset's value.

Revenue The proceeds collected by a firm when it sells its products.

Ricardian Equivalence theorem The statement that government borrowing has no effect on wealth, consequently no effect on the demand for current consumption, and consequently no effect on the interest rate.

Rise in demand A decision by demanders to buy a larger quantity at each given price.

Rise in supply An increase in the quantities that suppliers will provide at each given price.

Risk-averse Always preferring the least risky among baskets with the same expected value.

Risk-free Having the same value in any state of the world.

Risk-neutral Caring only about expected value.

Risk-preferring Always preferring the most risky among baskets with the same expected value.

Risk premium Additional interest, in excess of the market rate, that a bondholder receives to compensate him for default risk.

Riskiness Variation in potential outcomes.

S

Sales tax In this book, a tax that is paid directly by consumers to the government. Other texts use this phrase in different ways.

Satisfied Able to behave as one wants to, taking market prices as given.

Scale effect When the price of an input changes, that part of the effect on employment that results from changes in the firm's output.

Second-degree price discrimination Charging the same customer different prices for identical items.

Short run A period of time over which some factors are fixed.

Short-run production function The function that associates to each quantity of labor its total product.

Short-run supply curve A curve that shows what quantity the firm will supply in the short run in response to any given price.

Shutdown A firm's decision to stop producing output. Firms that shut down continue to incur fixed costs.

Shutdown price The output price below which the firm could no longer cover its average variable costs and would therefore shut down.

Signal An activity that does not directly produce anything socially productive but that conveys information about one's talents, so that it is privately rewarding.

Signaling equilibrium A Nash equilibrium in which signals are employed.

Social cost The sum of all of the costs of a decision, including the private costs and the costs imposed on others.

Social gain or **welfare gain** The sum of the gains from trade to all participants.

Solution concept A rule for predicting how games will turn out.

Speculative bubble A situation in which expectations of rising prices cause prices to rise.

Speculator One who attempts to earn profits in the futures market by predicting future changes in supply or demand.

Spot market The market for goods for immediate delivery.

Spot price Price in the spot market.

Stackelberg equilibrium An equilibrium concept that arises when one player announces his strategy before the other.

Standard deviation A precise measure of risk.

State of the world A potential set of conditions.

Stock option The right to buy a share of stock at some future date at a price specified in advance.

Strict liability Liability that exists regardless of whether the defendant has been negligent.

Substitutes Goods for which the cross elasticity of demand is positive.

Substitutes in production Two factors with the property that an increase in the employment of one lowers the marginal product of the other.

Substitution effect When the price of an input changes, that part of the effect on employment that results from the firm's substitution toward other inputs.

Sunk cost A cost that can no longer be avoided.

Supply A family of numbers giving the quantities supplied at each possible price.

T

Technologically inefficient A production process that uses more inputs than necessary to produce a given output.

Theory of games or **game theory** A system for studying strategic behavior.

Third-degree price discrimination Charging different prices in different markets.

Tort Acts that injure others.

Total cost The sum of fixed costs and variable costs.

Total product (TP) The quantity of output produced by the firm in a given amount of time. Total product depends on the quantity of labor the firm hires.

Total revenue The same thing as "revenue." It can be computed by the formula Revenue = Price × Quantity.

Total value The maximum amount a consumer would be willing to pay to acquire a given quantity of items.

Tournament Competition to dominate an industry by being slightly better than one's rivals.

Transactions cost Any cost of negotiating or enforcing a contract.

Two-part tariff An entry fee that allows you to purchase goods or services.

U

Uninsurable risk A risk that cannot be diversified.

Unit isoquant The set of all technically efficient ways to produce one unit of output.

Utilitarianism The belief that utility, or happiness, can be meaningfully measured and that it is desirable to maximize the sum of everyone's utility.

Utility A measure of pleasure or satisfaction.

V

Value The maximum amount that a consumer would be willing to pay for an item.

Variable costs Costs that vary with the quantity of output.

Variable factor of production One that the firm can employ in varying quantities.

Versioning Offering an inferior product to facilitate price discrimination.

Vertical integration A merger between a firm that produces an input and a firm that uses that input.

W

Wage rate The price of hiring labor.

World relative price The relative price that prevails in the presence of trade with foreigners.