

Economics Concepts: Reference Guide

Foundations

Scarcity

Definition: The fundamental economic problem that we have unlimited wants but limited resources (time, money, skills), so we cannot have everything we want.

Why it matters: Scarcity forces every person and every society to make choices about what to produce, what to consume, and what to give up.

Real-world example: You have \$50 and want both a new pair of trainers (\$60) and a meal out with friends (\$30). You cannot have both. Scarcity forces you to choose.

Opportunity Cost

Definition: The value of the next best alternative you give up when you make a choice.

Why it matters: Every choice has a cost, not just a price. Understanding opportunity cost helps you make better decisions by seeing what you are actually giving up, not just what you are spending.

Real-world example: If you choose to study for 2 hours instead of working a part-time shift that pays \$20 per hour, the opportunity cost of studying is the \$40 you did not earn. That is the true cost of studying, not just the electricity used.

Rational Consumer Model

Definition: An economic theory that assumes consumers have perfect information, stable preferences, and always choose the option that gives them the most satisfaction per dollar spent (utility maximization).

Why it matters: This model predicts how people should behave if they are making logical choices. Understanding it helps us see where real behaviour diverges from the theory, and why market failure happens.

Real-world example: The model says you should compare three phone plans, calculate which gives you the most data per dollar, and pick that one. In reality, you probably just pick the plan your friends use, or the one with the prettiest logo.

Market Structure

Perfect Competition

Definition: A market structure where many firms sell identical products, firms can freely enter and exit, consumers have perfect information, and no single firm can control the price.

Why it matters: Perfect competition is theoretically efficient. Prices reflect true scarcity, and resources flow to where they are most valued. But it rarely exists in reality.

Real-world example: A farmer's market where dozens of farmers sell potatoes. All potatoes are roughly the same, prices are visible to everyone, and if one farmer raises prices too high, buyers just go to another farmer.

Oligopoly

Definition: A market structure where only a few large firms dominate, each firm's actions affect the others, and barriers to entry are high (making it hard for new competitors to enter).

Why it matters: Oligopolies often result in higher prices and less choice for consumers than perfect competition. The firms can coordinate (tacitly or explicitly) to keep prices high.

Real-world example: The smartphone market is dominated by Apple, Samsung, and a handful of others. These three firms' actions (pricing, new features) shape each other's strategies. It is nearly impossible for a new smartphone company to compete because the barriers to entry (R&D costs, manufacturing scale, brand loyalty) are huge.

Market Failure

Definition: A situation where an unregulated, competitive market fails to allocate resources efficiently, meaning the outcome is worse for society than an alternative allocation would be.

Why it matters: Market failure is why government intervention (regulation, taxes, subsidies) sometimes exists. If markets always worked perfectly, there would be no need for rules.

Real-world example: A bank's overdraft fees. The market, without regulation, allows banks to charge \$35 overdraft fees to people living paycheck to paycheck, who are least able to pay them. This is inefficient. The fees do not reflect the true cost to the bank, and they push vulnerable people deeper into poverty. Government regulation requiring clear disclosure and limiting excessive fees can fix this market failure.

Information Asymmetry

Definition: A situation where one party in a transaction has significantly more information than the other party, and can use that advantage to their own benefit.

Why it matters: Information asymmetry allows one side to hide costs, exaggerate benefits, or exploit the other side's ignorance. It is a primary cause of market failure.

Real-world example: A car salesman knows the used car has a hidden mechanical problem. You do not. The salesman prices it as if the car is in good condition, and you pay full price for a "lemon." You have less information, so you make a worse choice than you would have with full information.

Moral Hazard

Definition: A situation where one party has an incentive to behave recklessly or take excessive risk because they know the other party will bear the cost if things go wrong.

Why it matters: Moral hazard creates incentive misalignment. People behave worse than they would if they had to face the full consequences of their actions. It causes market failure because prices and behaviour do not match up.

Real-world example: A bank knows it is "too big to fail" and that the government will bail it out if it collapses. So the bank takes huge, risky bets with borrowed money. If the bets pay off, the bank keeps the profit. If they fail, the government and taxpayers pay. The bank has an incentive to gamble recklessly because someone else bears the losses.

Adverse Selection

Definition: A situation where one party has hidden information about their risk level, and uses that information to their advantage, leaving the other party exposed to worse risks than they think.

Why it matters: Adverse selection means that the people (or companies) most likely to claim a product, like insurance, are the ones who are highest risk. The seller ends up with a worse pool of customers than expected. Prices have to rise to cover the actual, worse risk, which drives away even the low-risk customers.

Real-world example: An insurance company offers car insurance at a price calculated for an "average" driver's risk. High-risk drivers, people with bad driving records, know they are high-risk, so they buy this insurance to protect themselves. Low-risk drivers think the price is too high relative to their risk, so they skip it. The insurance company ends up with only high-risk drivers, loses money, and has to raise prices. Now even more low-risk drivers leave. The market shrinks or collapses.

Personal Finance

Credit Score

Definition: A numerical rating (typically 300 to 850 in most systems) that represents a person's creditworthiness, their likelihood of repaying borrowed money based on their payment history, debt levels, and length of credit history.

Why it matters: Your credit score determines the interest rate you will pay on loans. A lower score means you pay more interest. Credit scores are a way for lenders to manage information asymmetry and moral hazard. They identify risky borrowers and charge them higher rates.

Real-world example: Alex has a credit score of 750 (good) and qualifies for a car loan at 6% interest. Jordan has a credit score of 580 (poor) and qualifies for the same car loan at 18% interest. Both borrow \$5,000 over 5 years. Alex pays \$1,744 in interest. Jordan pays \$5,569. The 9-percentage-point difference in interest rate reflects the lender's assessment of who is riskier.

Compound Interest

Definition: Interest that is calculated not just on the original amount borrowed, but on the original amount plus all previously accumulated interest. The formula is:

$$A = P \times (1 + r/n)^{(n \times t)}$$

Where A is the final amount, P is the principal, r is the annual interest rate, n is the number of times interest compounds per year, and t is the number of years.

Why it matters: Compound interest means that small differences in interest rates create massive differences in total cost over time. A 1% difference might not seem big, but over 10 years it can cost thousands of dollars more.

Real-world example: Borrow \$5,000 at 6% interest over 5 years, compounded monthly. You pay back \$6,744 total (interest of \$1,744). Borrow the same \$5,000 at 15% interest over 5 years, compounded monthly. You pay back \$10,569 total (interest of \$5,569). The

9% difference in interest rate turned into a \$3,825 difference in total cost, more than tripling the interest you pay.

Productive Debt vs Destructive Debt

Definition:

Productive debt is borrowing to buy an asset that appreciates or generates income (for example, a student loan or a mortgage).

Destructive debt is borrowing to buy consumption goods that lose value immediately (for example, a credit card for holidays, or a payday loan for emergency rent).

Why it matters: The same interest rate can be "good" or "bad" depending on what you borrow for. Productive debt builds wealth over time. Destructive debt erodes it.

Real-world examples:

Productive: Borrow \$50,000 for a university degree at 6% interest. Over your career, the degree raises your earning potential by \$25,000 per year. Even after paying \$18,000 in interest, you have gained \$1 million in lifetime earnings. The debt was an investment.

Destructive: Borrow \$5,000 on a credit card at 18% to buy clothes and electronics. After 3 years of minimum payments, you have paid \$6,200 total but still owe \$2,000. You own nothing that generates income. The debt reduced your lifetime wealth.