The A to Z of economics

Economic terms, from "absolute advantage" to "zero-sum game", explained to you in plain English

A B C D E F G H I J K L M N O P Q R S T U V W Y Z

Absolute advantage
A concept that helps to explain international trade. If country A is better at making toasters than country B, and B is better at making kettles than A, it makes sense for each country to focus on the area where they have this advantage, and then trade toasters for kettles. But see, more importantly, comparative advantage.

Active management
A branch of investment management that attempts to outperform other investors by selecting a limited number of assets, and trading them regularly. See also passive management.

Activist investing
Fund managers who take a stake in a company and then agitate for a change of management, or strategy, in the belief that this will increase profits, and thus the share price.

Adverse selection
A risk associated with insurance, and linked to asymmetric information. People who are worried about their health will be more inclined to pay for health insurance than those who are fighting fit. One way to avoid the problem is to make insurance compulsory for all, as happens with car ownership. For more detail, see our Schools Brief.

Agency costs
The expense involved in using a third party to carry out a task. Examples include hiring a fund manager to look after an individual's investment portfolio, or the cost to shareholders of having professional managers run a business. See also principal-agent problem.

Aggregate demand
The flow of spending, across the economy, on goods and services. Demand can fall, even if people's income and wealth are unchanged, if they decide to save, rather than spend.

Agriculture
The cultivation of crops and the tending of animals for the purpose of supplying food. For millennia, this was mankind's primary economic activity.

Alpha
That part of an investment return that is due to the skill of the fund manager. This can be very hard to measure.

Amortisation
The gradual reduction in the value of an asset (or a debt) over time. A debt (such as a mortgage) is amortised via regular repayments. Companies use amortisation to steadily reduce the value of intangible assets on their balance-sheets.

Animal spirits
Term used by John Maynard Keynes to describe sentiment among businesspeople and consumers. If sentiment is depressed, economies may struggle to escape from recession. For more detail, read this article. See also Keynesian economics.

Antitrust
Term used to describe laws or regulations designed to stop firms from exploiting their monopoly positions in markets at the expense of consumers or rival businesses. To learn more, see our Schools Brief.

Appreciation
The rise in the value of an asset. In particular, currencies are often described as appreciating when they go up and depreciating when they go down.

Arbitrage
The practice of exploiting price differentials in different markets; for example, buying an asset cheaply in London and selling it for a higher price in New York. Thanks to the speed of modern information flows, risk-free arbitrage opportunities are rare. See also regulatory arbitrage.

Asset
Something that can be used to create economic value. An asset can be tangible, such as a building or machinery, or intangible, such as a patent or a brand name. Assets make up one side of a company's balance-sheet; the other is liabilities.

Asset stripping
The practice of buying a company and rapidly selling off the component parts with the aim of making a profit. This often leads to great disruption in the business and a loss of jobs.

Asset value
One measure used by investors to calculate the worth of a company. Normally, a company's debts are deducted to calculate a net asset value. Also known as book value.

Asymmetric information
This occurs when one party to a transaction knows more than the other. Asymmetry can lead to market abuse, as when those with inside information of a coming takeover buy shares in the target company. It can also lead to inefficiencies. Since buyers of used cars know less than sellers, they will be inclined to regard all cars as potential "lemons", leading to lower prices. See also adverse selection and moral hazard. To learn more, see our Schools Brief.

Auctions
These are usually associated with the sale of livestock, antiques and works of art. But in recent decades, they have been favoured by economists as a means of ensuring that sellers get the best price for a wider range of assets. For example, governments have used auctions to sell off parts of the electromagnetic spectrum to mobile telecoms companies. See this article for more detail.

Austerity
A term used to describe efforts to reduce the share of public spending in GDP, particularly in the 2010s. When the economy is already weak, Keynesian economists view austerity programmes as a mistake, because they reduce demand. But free-market economists worry that, without austerity, the government's role in the economy inexorably expands over time.

Austrian school
A group of libertarian economists, notably Friedrich Hayek and Ludwig von Mises, focused on the individual and deeply suspicious of state planning. The school developed in opposition to communism and social democracy, and believes in low taxes and a minimal state.

Autarky
Self-sufficiency. Authoritarian regimes sometimes pursue a policy of autarky in order to reduce their dependence on other countries. Economists generally regard this approach as inefficient since trade in goods and services allows a country to specialise in those activities which it is best at producing, exploiting comparative advantage.

Authoritarian capitalism
Usually applied especially to China and Russia, this describes economies in which big business co-exists with an authoritarian government. Businesses are allowed to make money but if they dare to criticise the government, or appear too independent, they may face criminal or financial sanctions.

B

Backwardation
A term used in the commodity market for when the price for delivering a product today (the spot price) is higher than for delivery in future. Normally, the future price is higher, a situation known as contango. Backwardation is normally the sign of a supply shortage, causing traders to compete to get the product immediately.

Balance of payments
A term used to describe a country's transactions with the rest of the world. The import and export of goods and services are captured in the current account, which also includes investment income and transfers (such as expatriate workers sending money home). The capital account captures financial transactions such as foreign direct investment or purchases of bonds and equities. These will balance in the sense that a current-account deficit (or surplus) must be offset by a capital-account surplus (or deficit).

Balance-sheet
In accounting, a statement of the assets and liabilities of a business. It must balance in the sense that assets equal liabilities. The assets such as cash or equipment or inventory are being used in the business; the liabilities show how those assets were funded, whether in the form of debt (owed to creditors) or equity (owed to shareholders).

Bank rate
Term used in Britain to describe the official rate set by the Bank of England when it pays interest to commercial banks. By manipulating this rate, the Bank of England affects the level of rates that businesses and consumers pay to borrow money.

Bank run
In a crisis, bank depositors may start to doubt they will get their money back. So they may demand to withdraw it. Since banks have lent out this money, it is impossible for them to repay all depositors instantly. The bank may fail. To avoid this, most countries have schemes of deposit insurance.

Banks
Institutions at the heart of the financial system. Commercial banks take in deposits and make loans, thereby creating money. In a crisis, banks may cease lending (or insist on the repayment of past loans) causing immense economic damage. Investment banks advise on transactions such as acquisitions and make markets in financial assets such as bonds and shares. Many institutions act as both commercial and investment banks.

Barter
The direct swap of goods and services for other goods and services, without the use of money. This is normally a less efficient form of trade, since the wants and needs of buyers and sellers rarely match exactly.

Basis point
One hundredth of a percentage point. The term is often used to describe interest rate changes. A quarter-percentage-point rise or fall in rates is described as 25 basis points.

Baumol's cost disease
In theory, workers should get higher pay because they get more productive. But an economist called William Baumol noticed this isn't always true; musicians take the same time to play a string quartet as they did in Mozart's day, but are paid

more nevertheless. The reason is competition for labour; musicians can take other jobs. So rising wages in productive parts of the economy (eg, manufacturing) lead to higher wages in less productive sectors. For more on the disease, read this article; for more on Baumol, read this one.

Bear
Investor who expects the price of an asset or assets in general to fall.

Behavioural economics
School of thought that believes that the economic decisions of individuals are often driven by psychological biases rather than the rational analysis of expected returns. One example is the endowment effect. Individuals value the goods they own more highly than they would pay for the same item in an open market. For more, see this article.

Beta
This ratio measures the sensitivity of an individual asset's price to that of the overall market. A stock that tends to go up even more rapidly than the market when it is rising, and drop more precipitously when it is falling, is described as "high beta"; one that moves less violently than the market is "low beta".

Big Mac index
A light-hearted guide to whether currencies are over- or undervalued, invented by *The Economist* in 1986. The index is based on the theory of purchasing-power parity—the notion that in the long run exchange rates should tend to equalise the prices of goods in different currencies. Fresh helpings of burgernomics are served up regularly. You can tuck into the latest—with a side of more details about the index—here.

Bill of exchange
A short-term financial instrument, originally used to finance international trade. The buyer of goods would give the seller a signed bill, equal to the value of the purchase, which the seller could then cash with a banker. In modern finance, bills are a catch-all term for short-term debt such as Treasury bills and commercial bills.

Blockchain
A distributed ledger used to make a digital record of the ownership of assets, in particular cryptocurrencies.

Bonds
IOUs issued by a borrower which normally promise repayment of the money on a set date (the maturity) with regular interest payments during the life of the bond. The more risky the issue, the higher the interest rate (or yield) on the bond. Governments issue bonds to cover the gap between the amount they receive in taxes and the amount they spend. Companies issue bonds to finance investment programmes.

Book value
Another term for asset value.

Boom
A state of rapid economic expansion, as opposed to bust.

Bounded rationality
A theory which assumes that, while individuals try to act rationally, there is a limit to the amount of information they may have, or can absorb. This may make their decisions look irrational (see also behavioural economics).

Bretton Woods
Location in New Hampshire of a conference in 1944 which decided the post-war economic order. It led to the establishment of the International Monetary Fund and the World Bank. And it agreed on a currency system that linked all currencies at fixed exchange rates to the dollar, which was convertible into gold at $35 an ounce.

Bubble
The concept that asset prices can rise far higher than can be justified by their fundamentals, such as the expected cashflows that will derive from them. A famous example is the South Sea bubble of the early 18th century. Economists

who believe in efficient markets are dubious that bubbles ever occur. Identifying bubbles at the time isn't always easy: see this article.

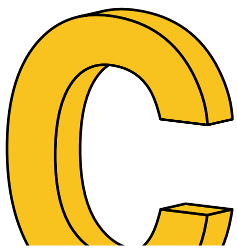
Budget
The annual process through which a government sets out its spending plans and tax measures. A balanced budget is when revenues are expected to match expenditure. More usually, spending outstrips revenues and the government runs a budget deficit. Creating or expanding a deficit can be a deliberate act to boost an economy (see Keynesian economics).

Bull
Investor who expects the price of an asset or assets in general to rise.

Business cluster
When companies in an industrial sector gather in a specific area, such as technology companies in Silicon Valley. When a cluster forms, companies will find it easier to attract high-skilled staff, workers have a wider choice of employers, innovations can circulate more quickly and start-up companies may find it easier to get finance.

Business cycle
Another term to describe the way that economies tend to expand and contract over time. Various economists have tried to calculate the length of a typical cycle but these have varied widely over history. Booms tend to be much longer than busts, particularly in recent decades. As this article explains, economists still lack a proper understanding of business cycles.

Bust
A sudden economic contraction, also known as a recession.



Capital
A word that serves a lot of purposes in economics. It is used to refer to the investment that an entrepreneur puts into a new project or business (hence capitalism); to any lump sum that has been saved; and more broadly to the people and institutions who invest in the world's financial markets. It can also refer to a bank's equity capital.

Capital account
In international trade, the component of the balance of payments that comprises financial transactions, such as foreign direct investment. On a company's balance-sheet, the capital account largely comprises the equity capital invested by the owners and retained profits.

Capital asset pricing model
A financial model that relates the return of an asset class to its riskiness. It is based on the idea of a risk-free asset (usually defined as government bonds). Investors in riskier assets (like equities) should demand a higher return than they get from government bonds to reflect the greater risk of loss. This risk relates to the beta of the asset concerned.

Capital controls
Regulations designed to prevent money from moving across borders. They are often used in regimes with a fixed exchange rate; by preventing money from flowing abroad, they protect the domestic currency from depreciation. Capital controls were a key component of the Bretton Woods system. For more detail, read our Explainer.

Capital flight
What happens when investors try to avoid high taxes, or the prospect of currency devaluation, by sending their money abroad. Governments try to prevent such flight by imposing capital controls but they need to act quickly. Investors will anticipate the introduction of capital controls by indulging in capital flight.

Capital gains tax

A tax levied when investors sell assets for more than the purchase price. Some economists argue that such taxes discourage risk-taking. But if capital gains are taxed at a lower rate than income, that creates a potential incentive; ingenious accountants will find ways to transform income into capital gains.

Capital goods

Physical assets that companies use in the manufacturing process.

Capital markets

Those markets where governments, companies and other institutions raise long-term money in the form of equities and bonds. By contrast, the term "money markets" is used for the places where short-term finance is raised.

Capitalism

A term coined to describe the use of private capital to finance economic activity. Investors and entrepreneurs use their money to create businesses, hiring workers, renting property and buying equipment as needed. Any surplus, or profit, belongs to the entrepreneur or investors. Communism is seen as the obverse of capitalism, as all economic activity is controlled by the state.

Carbon tax

A tax levied on carbon emissions. The aim is to penalise heavy emitters and encourage alternative approaches that do not contribute to global warming. For more on their design—and unpopularity—see this article.

Carry trade

An attempt to profit from the differing yields of two assets. Imagine a trader borrowing Japanese yen at a near-zero interest rate, for instance, then investing the proceeds in American Treasury bonds that yield 5%. They could pocket the profits—unless the yen strengthened before the debt came due, making it more expensive to pay back. Read our explainer on why borrowing cheaply to buy high-yielding assets is popular, but risky.

Cartel

Agreement where a group of producers collaborate to fix the price, or restrict the supply, of a good or service. Perhaps the best known example is the Organisation of the Petroleum Exporting Countries, or OPEC. Cartels among companies are often outlawed by government antitrust regulations because they restrict competition.

Central bank

The institution at the heart of a country's financial system. It has many roles. Traditionally, it sets the level of short-term interest rates through its interactions with commercial banks. It uses rate changes to control inflation (often under an inflation targeting regime) and affect the level of economic output. More recently, central banks have attempted to affect long-term interest rates through quantitative easing. The central bank acts as a lender of last resort to protect the financial system from collapse; some central banks also act as regulators. Central banks also control foreign exchange reserves and can use these to intervene in the currency markets.

Chicago school

A school of thought that emerged from the University of Chicago and was associated with belief in the free market, monetarism, and that people are rational, and act in their self-interest. Its leading exponents include Gary Becker, Ronald Coase and Milton Friedman. The school gained influence in the 1970s, as conservative politicians adopted its nostrums and the Keynesian post-war consensus broke down. See also monetarism and public choice theory.

Classical economics

The dominant school of thought in the late 18th and 19th centuries, as developed by Adam Smith and David Ricardo. It largely focused on the self-correcting nature of economies if left alone by governments and thus argued for a laissez faire approach and, thanks in part to the theory of comparative advantage, developed by Ricardo, a belief in free trade.

Coase theorem

A concept, developed by Ronald Coase (see article), that deals with externalities. Coase thinks of the problem in terms of conflicting property rights such as the right of a factory to operate noisy machinery and the right of its neighbours to enjoy peace and quiet. If property rights are clearly delineated then, in the absence of transaction costs, bargaining should lead to an efficient outcome, such as the factory compensating its neighbours for the noise. Coase's work on externalities, along with that on the theory of the firm, won him a Nobel prize in 1991.

Coase's theory of the firm (theory of the firm)
Ronald Coase, a British economist, tried to explain why companies exist in "The nature of the firm", a paper published in 1937. His answer was that markets can be expensive and fiddly to use, especially for non-standard goods. Rather than arrange contracts for each and every transaction, entrepreneurs set up firms and employ workers to do a range of tasks. This allows them to shift employees from one area to another as they see fit. The paper, along with his work on externalities and property rights, helped to win Coase the Nobel prize for economics in 1991. For more detail, read our Schools Brief.

Collateral
An item pledged as security against a loan. An obvious example is a house or flat, which homeowners used as collateral when taking out a mortgage. In financial markets, safe securities such as Treasury bonds are often used as collateral by traders and investors.

Commercial banks
Banks that focus on taking in money in the form of deposits and lending it out to individuals and businesses. Such banks have a weakness in that most deposits can be withdrawn instantly whereas it can take time to recall loans. This can lead to a bank run.

Commodity
A raw material, such as oil or copper, that is usually traded in bulk. Changes in commodity prices can have significant economic effects by, for example, feeding through into consumer prices. A sharp rise in energy prices can adversely affect consumer demand; because consumers have to spend more on energy, they have less to spend elsewhere. For more, read this Explainer.

Commodity cycle
A pattern of rising and falling commodity prices and production. Rising commodity prices cause consumers to cut back their use and producers to expand output. In the ensuing glut, prices fall and output falls until commodities are so cheap that their use rises again.

Communism
A system, devised by Karl Marx, in which the state controls virtually all economic activity. Private property is outlawed and income inequality is reduced. The theory is idealistic; in practice, communist regimes have been highly authoritarian.

Comparative advantage
This idea has been called one of the most profound insights in economics. If country A can make cars more cheaply than country B, and B can produce shirts more cheaply than A, it clearly makes sense to trade. Each has an absolute advantage in one area. But what if A is more efficient at producing everything than B? It still makes sense for them to trade, with B producing the goods where it is more competitive; if for example it is 90% as efficient as A in making shirts, and only 60% in car manufacturing, then it should specialise in making shirts and trade them for cars. Both countries will gain.

Competition
A concept at the heart of economics. Firms compete to sell the best goods and services to consumers, and to attract the best workers. The aim is to allocate resources in the most efficient manner.

Conglomerate
A large company that has diversified across a range of countries and business areas, normally through making acquisitions.

Consumer confidence
A measure, taken from a survey, of the public's attitude towards the economic outlook. If people are worried about their jobs, or political unrest, or a pandemic, they will be less likely to spend money.

Consumer prices index
A measure of the cost of a "typical" assortment of goods and services, used to calculate the rate of inflation. Statisticians first calculate the composition of the basket of goods and services bought by the average consumer: eg, bread, petrol and electrical goods. They then compare the cost of those goods in one period with that in another, weighting the goods and services to reflect the amount the average consumer spends. The change in this consumer prices index over the period (eg, a year) is the inflation rate. For more detail, read our explainer.

Consumption
The spending of money on goods and services by households. Consumers can either spend their income, or save it. When consumers are cautious, they spend less and save more. This can have adverse economic effects as consumption is usually the largest component of aggregate demand, ahead of public spending and investment.

Contango
When the futures price of a commodity is higher than the spot price. See also backwardation.

Cost-benefit analysis
A process of assessing the feasibility and profitability of a public-sector project or business decision. As the name suggests, all the potential costs are compared with the potential revenues and other benefits. Although the idea is sound, the estimates are subject to a lot of uncertainty. Building projects are notorious for running over time and over budget. Quantifying non-monetary factors (eg, the value of life or the environment) is difficult—and controversial: see this Explainer and this article.

Coupon
Term given to the interest rate on a bond, which stems from a time when physical coupons were attached to bond certificates. On a fixed-rate bond, the coupon does not change but the price of the bond does; the yield of the bond is determined by the relationship between the coupon and the price, plus any

capital gain or loss that would result in holding the bond until it matures.

Crawling peg
An exchange-rate system in which a currency is tied to another, but can fluctuate within a range, or band, depending on certain conditions. See also currency peg and fixed exchange rate.

Creative destruction
A concept, developed by Joseph Schumpeter, to explain economic innovation. Old inefficient companies must go out of business to release capital and workers so they can be used in new, more innovative ways.

Credit
A catch-all term for the extension of loans to individuals, companies or organisations. The term is also used more generally to refer to the total amount of debt in an economy, as in credit crunch and credit expansion. More narrowly, a credit is a sum added to a bank account, as opposed to a debit.

Credit crunch
A sudden reduction in the willingness of banks and others to lend money. This usually has adverse economic consequences.

Credit default swap
A derivative contract between two parties in which one insures the other against the default of a bond or loan. One of the products at the heart of the 2007-09 financial crisis. See also swaps.

Credit expansion
An increase in the willingness of banks and others to lend money. This normally happens in the course of an economic boom. If credit expands too fast, this can be a sign of excessive speculation, often in the property market.

Credit ratings
See ratings.

Creditor

A person or institution that is owed money.

Crony capitalism

An economic system in which businesses thrive because of their connections with political leaders rather than prowess in a competitive market. *The Economist* devised a crony-capitalism index, ranking several big economies, in 2014 (see article). See also rent-seeking.

Crowding out

The notion that actions by the state might restrict the options of the private sector. It usually applies to credit. If the government borrows a lot, and pushes up interest rates, then investors may not have enough capital to supply the investment needs of businesses.

Cryptocurrency

Tokens created digitally and at the moment privately, although some central banks have created their own (see this article). Enthusiasts see the currencies as a way of avoiding fiat currency and hence the oversight of governments and banks; ownership and transfer are recorded in a distributed ledger, called the blockchain. The value of cryptocurrencies has been highly volatile, making it difficult for them to be either a store of value or medium of exchange, two essential functions of a conventional currency.

Currency

The monetary unit of a nation state, or group of states. Examples are the American dollar, the euro and the Japanese yen. In the modern era, most currencies are allowed to rise and fall in value against each other and are traded in the foreign exchange market.

Currency peg

A system in which a national currency is fixed in relation to another currency (usually the American dollar). In the modern era, this tends to be done by a developing country with a history of inflation and currency depreciation; the peg is supposedly a way of imposing some discipline. Often, however, maintaining the peg leads to pain in the form of high interest rates and recession, so the link is abandoned. (See also: fixed exchange rate.)

Current account
This measures all the non-financial transactions between a country and the rest of the world—chiefly its imports and exports of goods and services—and transfers such as remittances and financial aid. Since the balance of payments must balance, a current account deficit necessitates a capital account surplus (an inflow of money) to balance it.

D

Debt
Money borrowed from someone else, whether a bank, a company or a person.

Default
When a borrower fails to repay a debt. Widespread defaults are problematic since they can lead to a collapse in the banking system.

Deflation
Falling prices across an entire economy. Deflationary years were quite common under the gold standard when prices were stable over the long run, with some up and some down years. But deflation tends to be a problem in the modern era since it is often associated with falling nominal incomes. Since debt repayments are fixed in nominal terms, deflation often leads to a crisis as debtors struggle to repay their loans. Not to be confused with disinflation. For more, see this Explainer.

Demand

See aggregate demand.

Demographics
Characteristics of a population, such as size or composition by age. Demographics and demographic change can have an effect on economic growth; if there are more people of working age, growth is likely to be stronger.

Dependency ratio
The proportion of the population that is not of working age, compared with that which could work, if it chose to. Conventionally, dependants are defined as those aged up to 14 or over 65. Sometimes the figures are separated into youth dependency and old-age dependency. The higher the ratio, the greater the tax burden that is likely to fall on the working population; this is a problem for many developed economies, given the numbers now surviving into old age. See also economically inactive.

Deposit insurance
A scheme whereby a government agrees to compensate depositors if a bank goes bust. This can help prevent bank runs, when depositors panic.

Depreciation
In the foreign exchange markets, this means a decline in the value of a currency; eg, "the pound depreciated by 10% against the dollar". (See also devaluation.) In accounting, this relates to the gradual decline in the value of an asset, due to wear and tear. Companies depreciate their assets over their lifetime; this will show up as a deduction on the income account and a reduction in the value of assets on the balance-sheet.

Depression
A prolonged and sharp fall in economic output, associated with a high level of unemployment. The Great Depression of the 1930s is the most notable example.

Deregulation
It is a staple of conservative thought that there are too many regulations which hold back economic growth. So every few years, governments announce a policy

of deregulation to cut back the red tape. It turns out, however, that public opinion often demands that governments act to ban things that are bad, or that are disliked. And so more regulations are introduced.

Derivatives
Financial assets whose value "derives" from something else, such as a stockmarket index or a commodity price. Examples include futures, options and swaps. Derivatives are often used to insure against a sudden change in the value of a key variable, such as a sharp rise in the oil price. But they can also be used to speculate on price movements which is why Warren Buffett, a veteran investor, described them as "financial weapons of mass destruction".

Devaluation
A formal reduction in the value of a currency. This occurs when a country has a fixed exchange rate and decides to alter the rate; for example, sterling was devalued in 1949 and 1967. Depreciation, in contrast, is a day-to-day currency decline.

Developed countries
A term used for nations where incomes per person are high, relative to the global average. These countries tended to industrialise early and are mainly based in Europe, and in former European settler colonies in North America and Australasia. Many Asian nations such as Japan and South Korea are also classified as developed. For more, see this article.

Developing countries
A term used to describe countries where income per person is lower than in "developed nations". These countries will usually have industrialised later than those in Europe or America. There is no official designation of developing countries and the World Bank uses the terms "lower-middle" and "low-income".

Diminishing returns
Production involves certain inputs; labour, machinery, raw materials. At first, adding more inputs will improve productivity substantially; using fertilisers on crops for example or adding waiters in a restaurant to serve more diners. But

eventually the marginal gains from adding more inputs will reduce; the waiters will have fewer people to serve. This is the law of diminishing returns,

Direct taxes
Taxes collected directly by the government. Examples include income tax and corporate profits tax. See also indirect taxation.

Discount rate
The rate the Federal Reserve charges for lending to commercial banks (like the bank rate in Britain). In addition, a discount rate is used by any investor or company trying to calculate the present value of a series of future cashflows. Since money in the future is worth less than money today, these cashflows must be reduced or discounted. The chosen discount rate, usually related to current interest rates or bond yields, can make a big difference to the net present value. For more, see this article. See also time value of money.

Discouraged workers
See economically inactive.

Disinflation
A situation where prices across the economy are rising, but more slowly than before—eg, a fall in the annual inflation rate from 10% to 5%. Not to be confused with deflation.

Disintermediation
Cutting out the middleman, or connecting customers directly with producers. In theory, this should reduce costs. In practice, middlemen emerge in a new form; high-street travel agents may have declined in importance but many people use online versions such as Expedia or Booking.com.

Diversification
The practice of spreading one's interests widely. In investment, diversification is considered best practice: a big pension fund will own shares in a wide range of companies, across many nations, and will own bonds and property as well. Companies will also diversify across nations. Diversifying across business

activities to form a conglomerate is more controversial; many commentators think that focusing on a small range of activities is more efficient.

Dividend

A regular payment made by a company to its shareholders. The payment comes from a company's profits. Normally companies try to increase dividends over time; when they cut the dividend, this is a sign of trouble.

Dividend discount model

A way of valuing shares, based on the future stream of dividends that an investor will receive, discounted to allow for the time value of money.

Division of labour

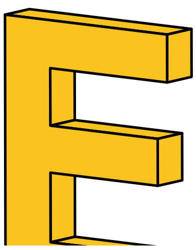
One of the fundamental principles of economics, described by Adam Smith in "The Wealth of Nations". Work can be undertaken more efficiently if broken up into discrete tasks. It is also more efficient for individuals to focus on their own jobs and use their wages to purchase goods and services, rather than attempt to grow their own food or make their own electrical devices. See also specialisation.

Dumping

Selling something for less than the cost of producing it. This practice may be adopted by a dominant supplier in an industry in the hope of driving competitors out of business. More commonly, countries argue that producers in other nations are "dumping" goods and gaining market share; this can be used as an excuse to adopt protectionist measures such as tariffs.

Duopoly

A situation where two producers control a market. See also monopoly, oligopoly and cartel.



Econometrics
The use of statistical analysis to quantify economic relationships.

Economic rent
The extra income that accrues to the owner of a limited asset or resource. So a skilled worker may be able to earn far more than the lowest wage he or she would be willing to accept; a landlord may earn higher rent on a property if the local authority builds a railway station nearby.

Economically inactive
A term generally used to cover people of working age (generally 15 to 64 years old) who are not seeking a job, nor in full-time education. This includes people who are caring for relatives, those who are too sick to work, those who have retired before the state pension age and "discouraged workers" who have given up trying for a job. See also voluntary unemployment.

Economies of scale
The owner of a firm needs to buy machinery, rent property, and so on. Some of these costs are fixed. As the firm produces more, these costs are spread over more units; the average cost of production falls. These economies of scale mean that mass production tends to result in cheaper goods.

Efficient market hypothesis
The theory that market prices reflect all public information. Trading, or investing, on the basis of that information will thus not offer any advantage. The hypothesis explains why so many fund managers fail to beat the market, after costs, and has led to the popularity of low-cost index funds, which simply buy all the securities in the index. For more, see this article.

Elasticity
A measure of the responsiveness of one variable to changes in another. For example, if a good rises in price by 10%, then demand could fall by less than 10%

(it is price-inelastic) or more than 10% (price-elastic). Demand for essential goods like food and fuel tends to be price-inelastic.

Emerging markets

A term, largely used in investment circles, for developing countries. Investors might put their capital into emerging markets because they believe the growth prospects for such countries (and thus the returns on equities) will be higher. But emerging markets tend to be risky, and can suffer from capital flight when investors become risk-averse.

Endogenous growth theory

A hypothesis, put forward by Paul Romer, that economic growth does not simply arise from exogenous factors (such as the creative insights of inventors) but also from government policies, such as investment in research and development and laws that protect intellectual property. Gordon Brown, Britain's former prime minister, was mocked for referring to "post-neoclassical endogenous growth theory" in a speech. Mr Romer's work earned a Nobel prize, but economists still don't fully understand how and why economies grow.

Endowment effect

A psychological bias that causes people to be more willing to retain an object than acquire the same object if they don't own it. Put another way, they value an object they won more highly than the market value. This may explain behaviour that is not "rational" in economic terms. See behavioural economics.

Entrepreneur

Individual who puts together the factors of production (labour, machinery, business) to found a new business. Entrepreneurs tend to be much praised as risk-takers who boost economic growth.

Equilibrium

One of the commonest concepts in economics. At its simplest, equilibrium means a balance between the supply of and demand for a good at a market-clearing price. But economists also study equilibria across the entire economy ("general equilibrium") or in which markets do not clear (see involuntary unemployment).

Unhelpfully, equilibria need not be stable (see the commodity cycle) or socially optimal. See also Nash equilibrium. Some economists think too much attention has been given to equilibrium: see this article.

Equity
Long-term capital raised from investors in the form of shares. The shareholders are the owners of the company and share in its assets and profits; to take over a company, a rival must make an offer that satisfies its shareholders. In normal circumstances, equity is never repaid (unlike debt). Shareholders have voting rights (over issues such as the appointment of directors) and will sometimes receive income in the form of dividends.

ESG investing
The initials stand for "environmental", "social" and "corporate governance". The amount of money devoted to ESG investing increased substantially in the second decade of the 21st century, and is linked more broadly to belief in stakeholder capitalism. Supporters said that companies which neglected these issues would eventually come a cropper in the face of regulation, consumer backlash or scandal; opponents argued that the criteria for ESG investing were often woolly and that companies simply paid lip service to the issues involved. For (much) more detail, read our Special Report.

Euro zone
Those countries within the European Union (20 at the time of writing) that have adopted the euro as their currency. In addition, six non-EU countries (Andorra, Kosovo, Monaco, Montenegro, San Marino and the Vatican City) use the currency. Monetary policy in the euro zone is set by the European Central Bank.

Eurobond
A bond issued by a government or company in a foreign currency. The first eurobond raised $15m for Autostrade, operator of Italy's motorway network, in 1963.

European Central Bank
The monetary authority for the euro zone. The bank is based in Frankfurt and

describes its main task as to "maintain price stability". It also supervises banks in the euro area. Its governing council comprises six members of the executive board plus the governors of the central banks of euro-zone countries.

Exchange rate
The rate at which one currency is exchanged for another. Generally, this is either a fixed exchange rate or a floating exchange rate although halfway houses (such as a crawling peg) have been attempted.

Exports
Goods and services sold to foreign buyers. When a foreign tourist buys a meal in Spain, that counts as a Spanish export.

Externality
An externality is a cost or benefit to a third party as a result of someone else's actions. Externalities lie outside the market system. Polluted air, caused by a chemical plant's emissions, is a negative externality. A common textbook example of positive externalities involves beehives next door to an orchard: the nectar feeds the bees, which in turn pollinate the trees. See also Coase theorem, free rider, Pigouvian taxes and public goods.

F

Factors of production
The ingredients necessary for economic activity: land, labour, capital and entrepreneurship, which is needed to bring the other three elements together.

Fair trade
An approach which argues that consumers should not simply focus on the cost of

the goods they buy but on the working conditions and wages of the workers that supply them. Various schemes offer to certify that a product (such as coffee) has been made in a fair-trade fashion.

Fat tails

A situation when more extreme events occur more frequently than in a normal distribution. In 2007, during the financial crisis, David Viniar, the chief financial officer of Goldman Sachs, said the firm had experienced "25 standard deviation events, several days in a row". This was a sign that the firm's models were wrong, as they had not anticipated fat tails.

Federal Reserve System

The most powerful actor in the global financial system. Set up in 1913, America's central bank actually divides the country into 12 Reserve districts, each with its own regional Federal Reserve bank. These are overseen by the Federal Reserve Board, consisting of seven governors based in Washington, DC. The key decisions on monetary policy are made by the Federal Open Market Committee or FOMC. For more detail, see this Explainer.

Fiat currency

A currency declared to be legal tender in a country by a government. Such a currency is not backed by gold or another asset; the government simply issues an order (or fiat) that it is legal tender, and can insist it be used to pay taxes. Most countries have fiat currencies and they achieve widespread acceptance as a medium of exchange because of their convenience.

Financial markets

The places where money is invested, in the form of short-term loans, bonds, equities and derivatives. Often anthropomorphised in the media (eg, "The markets were unhappy with the government's budget plans").

First mover advantage

The benefit that can, but does not always, accrue to the first company to introduce a product, or an innovation. Consumers may come to associate the product with the company name and other firms may be discouraged from entering the market. More broadly, first mover advantage can apply in any adversarial game: see game theory.

Fiscal drag

A way in which inflation can boost tax revenues. In most tax systems, workers must earn a certain amount before they pay income tax, or pay it a higher rate. If those allowances are not uprated every year in line with inflation, workers end up paying more in tax in real terms when their wages rise.

Fiscal policy

Decisions relating to the amount a government raises in taxes and spends on public services. Fiscal tightening means the government is raising taxes, or cutting spending (or both) and thus taking demand out of the economy. Fiscal easing means the government is lowering taxes, or raising spending (or both) and thus adding demand. A fiscally neutral budget would neither add nor subtract demand by, say, raising taxes and spending by the same amount.

Fixed costs

Costs of production that do not change when output changes, for example the rent paid on a factory. See also economies of scale and variable costs.

Fixed exchange rate

When the value of one currency is tied to that of another or (in the past) to gold. Fixed exchange rates were common until the 1970s as they offered certainties; importers knew the cost of goods bought from abroad; exporters knew the value of the revenues they would receive for selling goods to foreigners. But they proved difficult to maintain as capital flowed more freely across national boundaries. Before the creation of the euro zone its founding members maintained fixed exchange rates with one another. See also floating exchange rate and gold standard.

Fixed rate

When the interest rate on a bond, or other financial instrument, is invariable.

Floating exchange rate

When a currency's value moves freely against that of other countries. Floating rates have been widespread since the 1970s after the weakening of capital controls. In theory, the exchange rate bears the burden of economic adjustment; a currency with a trade deficit can let its currency decline in order to make its goods more competitive, rather than slash workers' wages.

Floating rate note
Financial instrument where the interest rate varies over time according to a set formula.

Flotation
The term used when a company lists its shares on a stockmarket for the first time. This is also known as an initial public offering, or IPO.

Foreign direct investment (FDI)
When a foreign investor sets up a new operation in a country, or buys an existing business. FDI is distinct from portfolio investment, the purchase of a small stake in a business by a pension fund or sovereign wealth fund. FDI can boost productivity, by bringing new technology and upgrading the skills of domestic workers. It expanded rapidly at the end of the 20th century. But governments can be suspicious if a foreign company takes over an industry in an area (like technology or defence) which is perceived to be strategically important.

Foreign exchange market
The forum where currencies are traded. Often abbreviated to FX or forex.

Foreign exchange reserves
Assets, normally held by a central bank, that can be used in a financial crisis or to influence the country's exchange rate. Central banks tend to hold their reserves in major currencies like the dollar or euro, as well as gold. Reserves were vital under the gold standard and other fixed exchange rate systems, since the central bank could sell the reserves and buy the domestic currency to support its price. In the modern era, the scale of daily currency trading is so great that it is hard for any country to hold enough reserves to combat the markets.

Forward exchange rate

A rate agreed between two parties for trading currencies in a few months' or a year's time. The difference between the forward rate and the spot rate is driven by the interest rate differentials between the two countries concerned.

Forward rate agreement

Contract between two parties that determines the rate of interest to be paid in the future. May be used by borrowers to fix their interest costs in advance.

Framing

In behavioural economics, the idea that how a proposition is framed can affect the reaction of individuals. So expressing the cost of an annual subscription at $72 a year will attract fewer customers than describing it as $6 a month.

Free rider

A free rider benefits from a good or service without paying the full price, or anything at all. The term derives from those who ride on a bus or train without paying. More generally, free-rider problems relate to positive externalities, especially those associated with public goods such as clean air or water. See also tragedy of the commons.

Free trade

The cause that led to the founding of *The Economist* in 1843. Free-trade enthusiasts believe that the unfettered international exchange of goods and services leads to more efficient economies (see comparative advantage) and thus, in the long run, greater prosperity for all: see this Explainer. Opponents argue that workers in domestic industries lose their jobs when exposed to international trade, and this leads many governments to adopt tariffs and protectionist policies.

Free trade area

Region which has dropped tariffs, quotas and other controls on imports and exports. The best-known examples are the European Union, which also embodies much deeper economic integration, and NAFTA (now the USMCA).

Free-market economists

Those who believe that the market is better at allocating resources than governments and that excessive regulation and high public spending tend to diminish growth in the long run. See also Austrian school, Chicago school, laissez-faire and neoliberalism.

Frictional unemployment
The joblessness that results from people quitting their jobs in search of better opportunities or that occurs as struggling firms shed labour and rising firms hunt for new workers. For more detail, read this Explainer.

Full employment
When everyone who wants a job at prevailing wages can find one. Zero unemployment is not possible since companies go bust, or shed labour, and it can take time for workers to find a new job (see frictional unemployment). Central banks and governments may aim to achieve full employment but it is hard to define the rate (2%? 3%?) at which it is achieved. See also the Nairu and this Explainer.

Future
A contract, traded on an exchange, to trade a commodity, or a financial instrument, at a future date. Futures can be used to hedge against a price change (for example, a farmer might sell his crop in advance) or to speculate on a future price change.

G

Game theory
A technique for analysing how people, firms and governments behave in situations they must take into account what others are likely to do and might

respond to what they do. For instance, competition among firms can be analysed as a game in which they strive for long-term advantage; game theory has also been applied to nuclear deterrence (see this article). See also Nash equilibrium; and for more detail, read our Schools Brief.

GDP
See Gross Domestic Product.

Gearing
See leverage.

General Agreement on Tariffs and Trade
The General Agreement on Tariffs and Trade or GATT was signed in 1947 and aimed to eliminate the protectionism that had dogged the global economy in the 1930s. It was followed by several rounds of negotiations which gradually reduced trade barriers and was eventually superseded in the 1990s by the World Trade Organisation or WTO.

Giffen goods
A basic product for which the normal relationship between supply and demand does not apply: when the price goes up, so does demand because the hit to real incomes from the higher price causes more expensive products to be shunned. Very few examples have been observed in practice, although staple products such as bread and rice can occasionally have Giffen characteristics. See also Veblen goods.

Gig economy
A term given to workers whose jobs are part-time or temporary, and who thus lack job security. Many work for the new wave of platform companies that have emerged in the 21st century such as Uber, a ride-sharing company, or Deliveroo, a food-delivery group. As contractors, gig-economy workers have few rights such as holiday pay or pensions, although courts have ruled that some must be treated as conventional employees. See also precariat.

Gilts

Bonds issued by the British government. At one stage, the debt certificates had a gilt edge but the term "gilt-edged" came to refer to the quality of the government's credit: investors could be assured of repayment.

Gini coefficient
An indicator designed to measure inequality of income and wealth. It ranges from zero, which indicates perfect equality, with every household earning or owning exactly the same, to one, which implies absolute inequality, with a single household earning a country's entire income or owning all its wealth. African countries tend to have high Gini coefficients; European countries tend to have low ones. Among rich countries, America has a relatively high coefficient (see this article for more detail). Despite being a notionally communist country, China has a higher coefficient than many rich countries (for more, read this article).

Globalisation
The tendency for national economies to become integrated with each other, through the movement of goods and services, capital and people. The first modern wave of globalisation in the late 19th century was brought to an end by the first world war. A second stage emerged during the late 20th century as China, and the ex-communist countries of eastern Europe, joined the global trading system.

Gold
Precious metal that was once a central part of the global monetary system (see gold standard). Central banks still hold gold as part of their reserves. Some see the metal, which is limited in supply, as a hedge against inflation, although its record in that respect is patchy.

Gold standard
International system, used in the late 19th and early 20th centuries, that linked the amount of domestic currency in circulation (and the exchange rate) to a country's gold reserves. Since these reserves grew slowly, so did the money supply and there was little long-term inflation. This protected the interests of creditors but it meant that any competitive adjustment in the economy involved painful deflation. As a result, the world abandoned the standard in the Great Depression of the

1930s.

Government bonds
Debt issued by governments is often the most important instrument in a country's financial markets. Because most governments can be relied upon to repay the debt, it is regarded as a risk-free asset and is a core part of the portfolios of insurance companies and pension funds. The government bond yield also drives the cost of borrowing for companies, which will usually pay a higher yield because of the greater risk of default.

Gravity model of trade
The theory that the intensity of trade between two countries is dependent on two factors; their economic size and their distance from one another. In 2023 America's top three trading partners were Mexico and Canada (its nearest neighbours) and China (the world's second-largest economy).

Great Compression
A period from in the mid-20th century when income differentials narrowed in the face of the growth of the welfare state and high rates of marginal taxation.

Great Depression
The era in the 1930s when economic output and volumes of international trade collapsed. The depression was a challenge to classical economics which held that market forces would eventually bring the economy back to growth and eventually led to the adoption of Keynesian economics after the second world war.

Great Moderation
A period from the mid-1980s to 2007 when recessions in the developed world were rare, inflation was mostly low, interest rates steadily fell and asset markets soared. Came to a halt with the financial crisis of 2007, in what could be described as a Minsky moment.

Gresham's Law
The idea that bad money drives out good. Suppose that some coins in circulation are pure gold, and others are only 90% metal but both have the same par value (eg,

a dollar or a pound). Traders will keep the pure coins for themselves and hand over the debased coinage. Eventually only the debased coins will be in circulation.

Gross domestic product (GDP)
The main measure of an economy's size. GDP is calculated from the market value of all the finished goods and services within a country's borders over a set period of time. It has its critics; if a vandal breaks a window, the cost of its repair is an addition to GDP even though human welfare has hardly improved. (For more detail, see this Explainer.) It is also hard to calculate and initial GDP figures are often revised later.

Gross national product (GNP)
An alternative to GDP, GNP is the value of all goods and services produced by citizens of a country, both domestically and internationally. Income earned by foreign residents is deducted. The difference can sometimes be dramatic. Thanks to Ireland's low corporate-tax rate, so many multinationals are based in the country that its GDP is much higher than its GNP.

H

Haircut
When financial institutions like banks borrow money, creditors often ask for collateral to protect themselves against default (just as homeowners use their houses as security for a mortgage). Often this collateral will be in the form of financial securities, such as bonds. The creditors face the risk that the collateral might fall in value at the very time the borrower defaults. So they will not accept the collateral at its value, but will apply a discount, or haircut (for example, securities with a market value of $100m might only count as collateral of $90m). The more risky the securities, the greater the haircut.

Hedge funds
Investment vehicles that attract money from institutions (such as endowments and pension funds) and from wealthy individuals. They follow a wide range of strategies, often using leverage and going short (betting on falling prices). As well as an annual management fee, they charge a performance fee; individual hedge-fund managers can become very wealthy themselves. For more, see this Explainer.

Hedging
This occurs when individuals, companies and institutions try to protect themselves against adverse market movements, such as changes in commodity prices, currencies or interest rates. See also insurance.

Hedonic adjustment
The change made to recorded inflation rates to reflect improvements in the quality of goods, such as personal computers.

Hot money
Short-term capital that flows into a country in search of quick returns. Hot money tends to flow through the banks, leading to a lending spree that causes speculation in the property market. It also drives up the country's currency, making life more difficult for its exports. When sentiment turns, hot money flows out, causing the currency to slump, bursting any speculative bubbles and leading to a banking crisis. Nations prefer to rely on foreign direct investment, which is more permanent.

Human capital
The skills and brainpower of workers. Improving human capital through training and education is often seen as a way of improving productivity, although the effectiveness of such programmes can be hard to measure. For more detail, read our Explainer and Schools Brief.

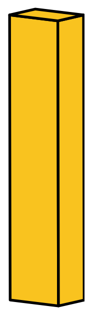
Hybrid working
A term that emerged during the pandemic to describe employees who work part of the time in the office and part of the time at home. This appeals to many workers, as it reduces commuting time, while also being acceptable to companies,

since employees still come in to attend meetings and interact with their managers and colleagues. For more, see this article.

Hyperinflation
When inflation gets out of control—as happened, for example, in Germany in 1923. A loaf of bread cost 200bn marks in November 1923 and workers were paid twice a day because their wages fell in value during the day. Such high rates of inflation are fuelled by rapid expansion of the money supply. To learn more, read this Explainer and this article.

Hypothecated taxes
The earmarking of tax revenues for a specific purpose, such as road-building or the health service. Hypothecation can be a way of making tax rises more politically acceptable but governments often find a way of diverting the revenues to other departments.

Hysteresis
A term borrowed from physics, where it refers to a lagged effect. In economics, it is used to describe persistent phenomena, such as the continuation of high levels of unemployment, even when an economy has recovered; workers may have lost enthusiasm or seen their skills decline. For more, read this Explainer.



Illiquid assets
Assets that cannot readily be turned into cash or can only be sold quickly at a substantial discount. Illiquid assets are often the cause of financial crises when entities like banks have a mismatch between their liabilities (customers' deposits, which can be instantly withdrawn) and their assets (long-term loans, which are

illiquid). Illiquid assets will often offer a higher return because of their greater risk.

Imports
Goods and services acquired from outside the country. When a German tourist buys a meal in Spain, that counts as a German import.

Income
The (fairly regular) flow of money to the factors of production. Labour receives wages; land receives rent; capital receives profits, interest and dividends.

Income tax
One of the most reliable ways of raising revenue for governments. In many systems, income tax is deducted by the employer before workers receive their pay. Most governments don't levy tax until individual incomes have reached a minimum level and tax higher incomes at higher rates. See also: progressive taxation; fiscal drag.

Indexation
This term is most commonly used to describe the linking of a variable to the inflation rate. Some governments link benefits to inflation, and others link prices such as rail fares to the same measure. Several governments have issued government bonds of which the coupon and repayment value rise in line with inflation; these are known as index-linked bonds. Indexation also refers to a field of fund management that attempts to replicate the performance of a stock-market index; see passive management.

Indirect taxation
Tax collected by an entity other than the government. Examples include sales tax (collected by retailers), levies on alcohol and tobacco, and taxes on tourism (collected by hotels and airlines). Governments can favour these as a way of increasing revenues without changing the headline rate of direct taxes like income tax.

Industrial policy

The promotion of what a government considers to be strategic industries, often using an "infant industry" justification (see article). The disruption of supply chains during and after the covid-19 pandemic, concerns about the rise of Chinese economic power, and the Russian invasion of Ukraine have given industrial policy a new lease of life in the West. The widespread adoption of subsidies, tariffs and other measures to promote favoured industries raises the danger of renewed protectionism (see article).

Inequality
A subject of perennial debate among economists is how much inequality is "normal" and which changes in economic policy are likely to decrease or increase it? Inequality is often measured by the Gini coefficient but other gauges include the share of income and wealth taken by the top 1% or 10% of the population. One hypothesis, the Kuznets curve, suggested that industrialisation initially increases inequality, then decreases it. This seemed plausible during the Great Compression from 1940 to 1980 but inequality in the developed world has increased since then. This Briefing explores a debate among economists about whether inequality is increasing and this Explainer examines the relationship between inequality and economic growth.

Infant industry
A young sector that a government nurtures with protection from foreign competition, in the form of tariffs, subsidies and other barriers. Usually associated with developing economies hoping to kickstart industrialisation and accelerate economic growth—but developed economies also resort to the infant-industry argument for protectionism (see article).

Inflation
A general rise in the price level. This is normally calculated by comparing the price of a basket of goods (measured by a consumer price index) at different times, and can be used as a measure of the cost of living. But consumers can substitute cheaper products for more expensive ones (eg, chicken for beef) and a hedonic adjustment needs to be made to reflect the improved quality of goods. Central banks often have a mandate to control inflation and may look at a wide range of gauges to understand the underlying trend; for example, measures of

"core" inflation that exclude volatile items such as food and energy. In this article, we ask whether inflation really matters.

Inflation targeting
In the modern era, governments in many countries have asked central banks to target a specific rate of, or range for, inflation and given them independence from political control of their operations. Inflation-targeting central banks have used various tools of monetary policy, such as changes in interest rates or quantitative easing. This article looks at the question of whether central banks' inflation targets should be raised and this one at central banks' independence.

Informal economy
Activities that have economic value but are not registered with the country's authorities; this may include teenagers who babysit for neighbours, hawkers who sell tourist souvenirs in big cities and ticket touts. The International Labour Organisation has estimated that 2bn people may have occasional involvement in the informal economy.

Infrastructure
The plumbing of the economy. Roads, railways, airports and container ports are all vital for an economy's operation. But they take up a lot of land and can have negative externalities, such as noise. Democracies can thus struggle to build infrastructure as quickly as autocracies such as China, which faces no democratic constraints (see article). Some infrastructure is built privately but roads, in particular, suffer from the free rider problem and tend to be built by the public sector. For more, see this article.

Inheritance taxes
Levies on the assets of those who die. In theory, this can help to ensure that societies stay meritocratic. But they tend to be unpopular with middle-class voters who hope to pass on their assets (usually in the form of houses) to their children. Governments also create exemptions to prevent small business and farms from being broken up on the owner's death. Accordingly, the OECD calculated in 2021 that only 0.5% of all government tax revenues came from this source, on average. See also wealth tax.

Initial public offering (IPO)
See flotation.

Innovation
Innovation is a key element in improving productivity, which in turn is a big driver of economic growth. In the modern era, innovation tends to be associated with new gadgets and disruptive technology (see this Explainer) but it can be a new way of organising work, such as Henry Ford's mass production line or the shift in agriculture from a two-field to a three-field rotation system, which increased yields substantially. Innovation can arise from the insight of entrepreneurs or from investment in research and development, which can be done by the government; the internet and the global positioning system were first developed by nation states.

Insider trading
The use of non-public information to gain an advantage in financial markets. It is illegal in many countries because it discriminates against other investors and can cause confidence in the probity of financial markets to fall.

Institutional investors
A catch-all term to describe some of the major investors in the financial markets: insurance companies, pension funds, sovereign wealth funds, charitable endowments and the like.

Insurance
The act of protecting yourself against the financial impact of risk. Traditionally, insurance was developed to cover fire, the sinking or seizure of a ship, or the death of the family breadwinner. Insurance companies attempted to calculate the likelihood of such risks occurring and protected themselves by diversification. In the modern era, insurance is also widely used to protect, or hedge, against risks such as changes in market prices or interest rates. Sometimes the other side of the risk is assumed by speculators hoping to make a profit.

Intangible asset
Something without physical form that can create value. Examples include patents

and brand names. See also intellectual property. You can read more about intangible assets in this article.

Intellectual property
An asset created solely by human intelligence and creativity. Examples include copyrights, patents and trademarks.

Interest on reserves
The return paid by central banks on reserves held by commercial banks. These interest payments help to keep market interest rates at the desired level.

Interest rates
The return for lending money, and the cost of borrowing it. The level of interest rates depends on the time value of money, the credit risk of the borrower, the level of inflation and other factors. Short-term rates are generally set by, or are closely linked to, the decisions of the country's central bank. Long-term interest rates, including long-term bond yields, are affected by the balance between the supply of savings and the demand for credit.

Internal rate of return
A measure used by businesses to calculate the profitability of a potential investment. Broadly speaking, the higher the internal rate of return the better. Businesses will usually set a minimum rate before commencing a project. See also rate of return.

International Monetary Fund (IMF)
One of the institutions set up after the Bretton Woods agreement of 1944. Its initial aim was to help countries suffering balance-of-payments crises. It is the international body that countries turn to when in financial difficulties. Its advice has often been controversial because of the perception that it imposes austerity on workers in order to benefit rich creditors. Its prescriptions in times of crisis, which include deregulation, privatisation and openness to international trade, have been dubbed the "Washington consensus" after the city where the IMF has its headquarters.

Internet
The internet, a system which connects electronic devices such as personal computers, has clearly transformed the global economy, changing the way many people work, communicate and shop. However, its rise has coincided with a slowdown in productivity growth in the developed world. Economists debate whether this is related to measurement issues or whether the internet is a less transforming technology than previous breakthroughs such as electrification and the internal combustion engine.

Investment
This term is used in two linked ways, both referring to putting money to work, usually for the long term. Business investment occurs when companies buy new machines, or build new factories, or conduct research and development, with the aim of increasing profits. Portfolio investment occurs when individuals or institutions put money into long-term assets such as bonds, equities and property.

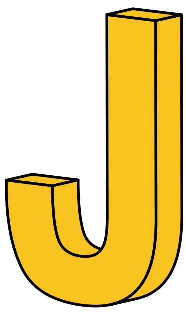
Investment banks
Institutions that make their money from advising corporate clients, and from trading assets, rather than from taking in deposits and making loans (like a commercial bank). America's Glass-Steagall act of 1933, a response to the Great Depression, drew a rigid distinction between commercial and investment banks, but now the two are often combined.

Investment management
A sector that focuses on managing the money of others. Most charge an annual fee but some also add a performance fee. See also active management, passive management, hedge funds, pension funds and private equity.

Invisible hand
A metaphor used by Adam Smith to describe how an individual may be "led by an invisible hand to promote an end which was no part of his intention". This has been interpreted in the modern era to suggest that individuals who act in their own self-interest may end up promoting the good of society as a whole.

Invisible trade
Trade in non-physical things, particularly services such as banking and insurance.

Involuntary unemployment
The unemployment that results when not everyone who is willing to work at the prevailing wage can find a job. Causes can include a shortfall in aggregate demand or some rigidity in the labour market. A central idea in Keynesian economics. For more, see this Explainer.



J-curve
This describes the normal pattern of a country's balance of payments after the devaluation or sharp depreciation of its currency. Initially imports are more expensive and exports are cheaper, so the balance deteriorates (the deficit widens). Eventually, foreigners buy more of the country's exports while domestic consumers buy fewer imports and the balance improves.

Job vacancies
A measure of slack in the labour market. In an expansionary phase, job vacancies will increase, and this may lead to upward pressure on wages. In a contractionary phase, vacancies will contract. See also quit rate.

Joint supply
When the process of producing one product leads to the production of another. For example, the distillation of crude oil yields gasoline, kerosene, asphalt and more.

Junk bonds

Bonds that are deemed to be highly risky where the borrower might stop paying interest or default on repayment altogether. They offer a high yield as compensation for that risk. See ratings.

Just-in-time manufacturing
A process that aims to keep down costs and reduce waste by producing items only when ordered (rather than in advance) and by keeping inventory levels down. The risk of the approach is that companies can be caught out by disruptions in their supply chain, caused for example by natural disasters or the covid-19 pandemic. See also lean manufacturing.

K

Keynesian economics
John Maynard Keynes, a British academic and government official, changed the field of economics. Under classical economics, governments did little to manage the economic cycle, which they believed would right itself. But Keynes argued, in the face of the Great Depression, that a recession could dent the "animal spirits" of businesspeople and discourage consumers from spending. Governments, rather than balance their budgets, could borrow to spend money and this spending would revive demand. After 1945, many governments adopted a Keynesian approach and used fiscal policy to manage the economic cycle.

Knightian uncertainty
A concept, developed by Frank Knight, an American economist and a founder of the Chicago School of economics—to describe the problem faced by economic actors who are unable to quantify risk, because there is not enough information to assess the probability of the various potential outcomes. The probability distribution is only clear in a very limited set of circumstances; betting on a

number in the game of roulette, for example.

L

Labour

A term used for both a factor for production and for the organised representatives of the working classes (trade unions and some political parties). The supply of labour is an important determinant of economic growth, and the shrinking of the working-age population in developed countries—and China—may be a limiting factor on growth in coming decades. Improving the skills of the workforce and enticing reluctant workers back into jobs may be vital.

Labour market flexibility

Making it easier to hire and fire workers. Those in favour of flexibility argue that giving workers too much job security discourages employers from taking on new labour, and results in a "two tier" market, comprising secure workers and a large number of long-term unemployed. Flexibility also helps with the process of creative destruction, allowing workers to move from old, unproductive industries to new, innovative ones. Opponents argue flexibility leads to a precariat of insecure, low-paid employees.

Labour theory of value

The idea, mentioned by Adam Smith and championed by Karl Marx, that the value of a good depends on the labour put into it. The problem is that the value of a good is also dependent on demand; someone might put an enormous amount of effort into assembling a model of the Eiffel Tower from old pencils, but it will have little market value if no one wants to buy it.

Laffer curve

Named after Arthur Laffer, an American economist, this curve shows tax revenues increasing as tax rates rise from zero but starting to fall when tax rates reach a certain level, because high taxes discourage work and enterprise. The argument is often cited by conservative politicians in America and Britain, and is probably true in principle. But it is not clear where the bend in the curve occurs (see this article), and it may be at tax rates much higher than current levels.

Lagged effect
The time taken for economic policy changes to affect the economy. Changes in interest rates, for example, can take as much as 18 months to have their full impact, as rates may only change when loan terms are renegotiated. The danger is that, by the time the policy starts to work, economic circumstances have changed.

Lagging indicators
Economic data that are more important for revealing the economic past than pointing to the future. Gross domestic product numbers are released well after a quarter has ended (and are often revised later); unemployment tends to be slow in falling when an economy recovers. See also leading indicators and real-time indicators.

Laissez-faire
This French term refers to the idea that governments should leave the economy alone as much as possible, and should allow free trade. Associated with the classical school of economics.

Land
One of the factors of production. Land is in fairly fixed supply (a little can be reclaimed from the sea, and some is lost to coastal erosion and desertification). Before the industrial revolution, expansion in land use and changes in the productivity of agricultural land were among the most important drivers of growth. Today, planning restrictions may be an important restraint on productivity improvements. Taxes on land values are popular with economists but not politicians: this article explains why.

Leading indicators

Economic data that are examined for clues to coming trends. Surveys of consumer confidence, for example, may provide a pointer to the outlook for retail sales; inflation in producer prices may herald changes in consumer inflation. Some view the stockmarket as a leading indicator of the economic outlook, although it is far from infallible. See also lagging indicators and real-time indicators.

Lean manufacturing
A concept, associated with the Toyota motor company, associated with the elimination of waste and the continuous improvement (*kaizen* in Japanese) of the production process. See also just–in-time manufacturing.

Lemons
An example used by George Akerlof, an American economist (and winner of a Nobel prize) to explain why markets might not operate efficiently because of adverse selection. There is information asymmetry in the used-car market, he pointed out, as sellers know a lot more about the condition of the vehicle than buyers. Buyers will be suspicious of purchasing a dud car, or lemon, and will thus reduce the price they are willing to pay. If sellers are unwilling to agree, there may be no deal at all. For more detail, read our Schools Brief.

Lender of last resort
A crucial role played by central banks during financial crises. There can be moments when depositors and creditors lose faith in the banking system, with the risk that the banks will collapse. By acting as lender of last resort to banks that would be solvent in the medium term, a central bank can reduce the economic damage.

Leverage
Investing, or speculating, with borrowed money or by putting down only a small part of the purchase price. For example, a company may buy another using a small amount of its own cash, and a larger amount of debt in the form of bank loans or bonds; the greater the proportion of debt, the higher the leverage, or gearing. See leveraged buyout. Another use of leverage is to buy shares on margin; if the investor puts up just 10% of the cost, and the share price rises by 10%, they have doubled their money. But if the share price falls by 10%, their investment is wiped

out. Perhaps the commonest instance of leverage is associated with buying houses: most people pay a small proportion of the price at first and borrow the balance. Financial crises often have excessive leverage at their heart.

Leveraged buyout
A corporate takeover, usually undertaken by a private equity group, using a lot of borrowed money. The aim is to cut costs and sell assets at the target company, thereby bringing down the debt, and making it possible for the private equity group to make a profit for its investors.

Liabilities
Something owed to others, and the other side of the balance-sheet from assets. Often, this is in the form of money, such as a debt. But it could be a warranty to repair or replace a product that the company has sold or the legal costs involved in compensating customers for a defective product.

Liberalisation
In economic terms, this usually refers to reducing the role of the government, and the restrictions on the private sector, by privatising business and cutting regulations. See also neoliberalism.

Life-cycle hypothesis
Most people see their incomes improve as their career progresses. But their need to spend is less variable than their incomes. So the life-cycle hypothesis, proposed by Franco Modigliani, an Italian-American economist and Nobel laureate, suggests that they will borrow to fund their spending (or to buy a house) at the start of their careers, save as they approach retirement and run down their savings after they stop working. See also permanent income hypothesis.

Limited liability
One of the most important concepts in modern capitalism. Limited liability means that investors who own the equity of a company can only lose their initial stake if the business collapses; creditors cannot pursue their other assets, such as their homes. By limiting liabilities in this way, more entrepreneurs are willing to take the risk of setting up businesses, and more investors are willing to back

them.

Liquidity
The quality of being easily turned into cash. This can depend on the nature of the instrument; Treasury bills, short-term debt issued by the American government, are cash-like instruments. Or it can depend on the volume of trading in the market; government bonds are easier to sell quickly than debt issued by a small company. In times of crisis, investors tend to have a strong preference for liquidity; when asset markets are booming, illiquid assets seem more attractive. See liquidity trap.

Liquidity trap
A concept, introduced by John Maynard Keynes, that monetary policy has a limited effect when animal spirits are depressed. Cutting interest rates will not cause more businesses to invest, or consumers to spend rather than save, because they will prefer the liquidity of cash. In such circumstances, fiscal policy has to do the work of reviving the economy. See also zero lower bound.

Loss aversion
A psychological trait, discussed in behavioural economics, that dislikes the acceptance of losses. Investors may hold on to losing positions, rather than sell them, because they are unwilling to recognise their mistake. Depending on how a proposition is framed, people may act differently; a discount for paying taxes early will be less effective as an inducement for early payment than a penalty for paying late. See also framing and sunk cost syndrome.

Lump of labour fallacy
The assumption that there is a fixed amount of work to go round, so that letting new entrants into the job market will penalise existing workers. It was once used to argue against women joining the workforce and is still used against immigrants. But the fallacy ignores an obvious point; that new workers earn wages and then spend those wages on goods and services produced by other workers. Indeed, the global population has increased enormously over the past century, yet most people have found jobs.

M

Macroeconomics
The analysis of how the overall economy works; how the decisions of consumers, business, investors and governments affect key measures such as inflation, unemployment and gross domestic product. Economists try to use macroeconomic analysis to forecast economic indicators but human behaviour is hard to predict, especially as forecasts can affect individual decisions. But macroeconomic policy tools include fiscal policy, monetary policy and changes in laws and regulations designed to change behaviour. See also microeconomics.

Macroprudential regulation
Setting rules for the financial system to try to prevent a widespread collapse, on the lines of the 2007-09 crisis. Examples might include getting banks to have minimum amounts of equity capital or requiring home buyers to put up a larger deposit when they take out a mortgage. See also systemic risk.

Manufacturing
The process of making physical products from raw materials through the use of labour and machinery. Once dominant in developed economies, it now takes a smaller share of GDP than services. That is unlikely to be reversed: see this Explainer.

Margin
The term crops up quite often in economics and finance. In the stockmarket, investors and analysts often focus on profit margins; the difference between the revenues from selling a product and the costs of producing it, often expressed as a percentage of the latter. Investors can also buy shares on margin; putting up only a fraction of the overall cost (an example of leverage). The marginal product of labour is how much extra output a firm would get by employing an extra

worker, or by getting an existing worker to put in an extra hour. See also marginal cost, marginal propensity to consume, marginal tax rate and marginal utility.

Marginal cost
The cost of producing an extra unit of something. When production is increased, the marginal cost of producing an extra item can be significantly lower than the average cost of production (see economies of scale).

Marginal propensity to consume
The proportion of an extra earned dollar that an individual would spend rather than save. People with lower incomes have a higher marginal propensity to consume than the rich. This means that attempts to ease fiscal policy are best targeted at those who are not well off.

Marginal tax rate
The proportion of an extra earned dollar that will be taken by tax. High marginal tax rates can reduce incentives to work. This occurs at both ends of the income scale. At the lower end, marginal tax rates can be high as welfare benefits are withdrawn once individuals' incomes pass certain levels. At the upper end, many societies impose higher marginal tax rates on those with high incomes. See also progressive taxation.

Marginal utility
The added (or lost) satisfaction or benefit gained by consumers from the increase (or decrease) of one unit. The usual assumption is that marginal utility declines as consumption increases: for a hungry person, the first slice of toast is very satisfying but they may stop eating before their seventh or eighth.

Mark-to-market
The practice of recording the value of an asset in a set of accounts at the current price, rather than the price at which it was bought. Though logical in theory, the practice has been criticised for encouraging short-termism. If the market value is hard to ascertain, then the company can exploit the uncertainty to manipulate the figures: mark-to-market accounting was at the heart of the Enron scandal.

Market failure
This occurs when a market fails to allocate resources efficiently, or fails to account for real-world costs. This can occur because of externalities, such as the pollution emitted by a chemical plant which is a cost that falls on people with no economic connection to the chemical company. Some goods (public goods), such as defence or roadbuilding, can only (or mainly) be supplied by the public sector since they are subject to the free rider problem. Market failures can occur if an industry is dominated by a monopoly or monopsony, or in the presence of asymmetric information.

Marxism
See communism.

Mass production
One of the breakthroughs in 20th-century manufacturing was the development of mass production, normally associated with the Ford Motor Company. Mass production usually involved the division of labour, specialised machinery and standardised products. The economies of scale involved allowed manufacturers to lower their prices and vastly expand the potential market for their goods.

Maturity
A term which applies to debt, and refers to the amount of life before the debt needs to be repaid and thus refinanced.

Medium of exchange
One of the important functions of a currency is that it is easy to use to buy and sell goods. Modern fiat currencies achieve this feat but cryptocurrencies have yet to do so.

Mercantilism
An economic school of thought, common in the 17th and 18th centuries, which argued that countries should focus on building up their supplies of gold and silver. This required nations to restrict imports and attempt to boost exports, and to restrict free trade. Mercantilists believed trade was a zero-sum game. Adam Smith's arguments against state intervention were linked to his belief that

mercantilism was misguided.

Mergers and acquisitions (M&A)

This term, often abbreviated to M&A, concerns corporate takeovers. Genuine mergers, in which two companies of roughly equal size combine, are much rarer than acquisitions, in which a larger company buys a smaller one. And hostile acquisitions, in which the smaller company resists the deal, are rarer than agreed takeovers. The deals are very lucrative for investment banks, and other advisers, who are thus understandably happy to recommend them. But the buying company faces the risk of overpaying for the target and the danger that the culture of the two businesses is incompatible, leading to disappointing returns.

Microeconomics

The branch of economics that studies the decision-making of individual entities, such as individuals and businesses. Microeconomists look at how these agents will respond to incentives, or to changes in prices, regulations or taxes. By contrast, macroeconomics looks at the behaviour of the economy in aggregate.

Middle income trap

A problem that can affect developing countries as they get stuck at a certain level of GDP per person. Such countries can have success in manufacturing low-value goods but then supposedly struggle to develop higher value-added sectors in services or technology. For a sceptical view, see this article. And on China's prospects of escaping it, see this one.

Minimum wage

An hourly pay rate for workers, set by law, with the aim of reducing poverty and protecting workers from exploitation. Many economists were historically dubious about the benefits of a minimum wage (see Explainer), believing it would reduce demand for labour and thus drive up unemployment. The evidence in practice is that there has been relatively little impact on employment, perhaps because higher wages attract better-skilled workers and reduce staff turnover, or because, in many sectors, using minimum-wage labour is still cheaper than using machinery. For more detail, see our Schools Brief.

Minsky moment
A sudden collapse in market sentiment. Named after Hyman Minsky, an economist, who developed a financial instability hypothesis. As asset prices rise, investors become more and more confident and use leverage to finance their positions. By the end, they will be buying regardless of underlying valuations. At some point, confidence will falter and investors will rush to sell and repay their debts, causing prices to collapse. For more, read our Schools Brief.

Misery index
The sum of the rates of inflation and unemployment. Created in the 1970s by Arthur Okun, an American economist, to gauge the cost of stagflation.

Mixed economy
An economic system that combines elements of free enterprise and state planning. Few economies are not mixed to some degree, with the possible exception of North Korea. Even communist Cuba allows some market activity.

Models
A description of economic relationships in mathematical or graphical form, designed to allow hypotheses to be tested. Inevitably, models have to simplify the incredibly complex nature of relationships in the real world. Although models can add clarity and mathematical rigour to statements about the economy, some are criticised for their unrealistic assumptions (such as perfect information and rational expectations). And a fondness for complex mathematical equations has led economists to be accused of "physics envy"; trying to create precise rules in a social science.

Modern monetary theory (MMT)
A school of economic thought which argues that a government, which can borrow in its own currency, can issue as much debt, and run as large a deficit, as it likes, subject only to the constraint of higher inflation. The government does not have to worry about financing its deficit, since the central bank can buy the extra debt, or indeed just create the required money. Only if the economy is at full capacity will this credit creation lead to inflation. Adherents to MMT tend to believe that the business cycle should be managed with fiscal policy rather than interest rates.

Orthodox economists are dismissive of MMT: see this article and our Schools Brief.

Monetarism
The belief that changes in the money supply are the main determinant of changes in inflation, associated especially with Milton Friedman, an American economist. Cases of hyperinflation have indeed been associated with the rapid printing of money. But when governments adopted monetarist policies in the late 1970s and early 1980s, they found money supply hard to control and also struggled to decide which measure of money supply was best to target. Monetarist policies were abandoned in favour of inflation targeting.

Monetary financing
The direct financing of government spending by the central bank. This happened during the hyperinflation in Germany in 1923 and was thus regarded as anathema for a long period afterwards. As a result, some commentators viewed quantitative easing after the financial crisis of 2007-09 with great suspicion. Technically, however, QE is not monetary financing, because central banks only buy government bonds in the secondary market and because they pay interest on reserves (the money they create).

Monetary policy
The use, normally by the central bank, of interest rates and other tools to try to influence the economy. Interest rates are raised when the bank is trying to control inflation and lowered when inflation is low and it is trying to revive the economy. The financial crisis of 2007-09 led central banks to face the zero lower bound. This prompted many of them to use a new tool, quantitative easing, which was designed to bring down long-term rates or bond yields.

Money
The oil that greases the economy's wheels, and acts as the unit of account for economic activity. Money can be any token that is accepted as payment; past examples have included seashells and the giant stones on the island of Yap. For a while, money was linked to precious metals but modern money is largely fiat currency and is electronic in form. Whatever its form, money needs to be a

reasonably stable store of value and an acceptable medium of exchange.

Money illusion
Failing to take account of the effect of inflation. Employers may find workers more willing to agree to a pay rise of 4% when inflation is 6% than to accept a pay freeze when prices are falling. Savers should be happier about earning a return of 2% when inflation is zero than the prospect of earning 4% when inflation is 6%. See also real terms.

Money markets
A term used to describe the borrowing and lending of money on a short-term basis (generally for less than a year). Banks need to finance themselves with short-term borrowing on a regular basis, so when the money markets freeze (as they did in 2008) a crisis usually follows.

Money supply
The total amount of money in an economy. This is very hard to define; notes and coins are only a small part of the money we use. Current-account balances, unused credit-card balances and holdings of money-market funds can all be added to the mix. Measuring all these, and deciding which are the most important, dogged the application of monetarism in practice.

Monopoly
A company with a controlling position in an industry or sector. Traditionally, the main fear was that monopolies would exploit their position to overcharge customers. But in the internet age, concerns have shifted to the idea that technology companies with strong franchises will strangle competition by denying new firms access to their platforms, or by simply acquiring them to add the product to their range, thereby increasing their dominance. See antitrust.

Monopsony
Whereas a monopoly is a seller with a dominant position, a monopsony is a dominant buyer. An example could be a food producer which is the main buyer of coffee beans or fresh chickens from farmers. A monopsonist can exploit its position by insisting on low prices.

Moral hazard
The risk that providing insurance might alter the behaviour of those being insured. Homeowners or car drivers may take more risks if they know that an insurance company will cover their losses. This is also a problem for central banks when they act as a lender of last resort for banks; knowing they will be rescued in a crisis, bank executives may take more risks and investors may be less choosy about the banks with which they do business. See asymmetric information.

Most favoured nation
A core principle of the World Trade Organisation (WTO) and the GATT, this requires countries to treat the imports and exports of all other WTO members in the way that they treat the "most favoured nation" among their trading partners. In other words, there is no special treatment for any one country.

Multiplier effect
This concept, central to Keynesian economics, relates to the proportional increase, or decrease, in demand that can arise from an injection, or withdrawal, of spending. So a government increase in spending on, say, roadbuilding will mean more jobs for workers who spend their wages on other goods and services, which encourages the employment of more workers, and so on. For more detail, see our Explainer and Schools Brief.

N

NAFTA (North American Free Trade Agreement)
A deal signed in 1993 by America, Canada and Mexico to eliminate tariff barriers between the three countries by creating a free trade area. The agreement was disliked by many on both the left and the right of American politics and President Donald Trump renegotiated it during his first term in office, renaming it the US-

Mexico-Canada Agreement (USMCA). The main change was that a greater proportion of a car or truck's components had to be manufactured in America to qualify for tariff exemption.

Nairu (Non-Accelerating Inflation Rate of Unemployment)
The lowest rate of unemployment that does not lead to a jump in wages and inflation. It is a development of the "natural rate of unemployment", a concept developed by Milton Friedman. This holds that a certain level of unemployment is inevitable, as workers switch jobs or take time to upgrade their skills. Trying to force unemployment below this level does nothing but stoke inflation. However, calculating the Nairu at any given moment is very tricky; it clearly varies over time. See also frictional unemployment, Phillips curve. For more detail, read our Schools Brief.

Nash equilibrium
A definition of equilibrium, devised by John Nash, an American mathematician, in the late 1940s, that has become one of the most powerful ideas in economics. Every agent chooses their optimal strategy, taking the strategies of everyone else as given. Nash equilibrium is thus the best everyone can do, but need not be the best for society. The idea won Nash a share of the Nobel prize for economics in 1994. For more, see our Schools Brief.

National debt
The sum of government debt, usually expressed as a proportion of GDP. The debate over whether this proportion has any real significance has sharpened in recent years, particularly in the light of quantitative easing, which has led to central banks owning large chunks of government bonds. Clearly, it matters what interest rate is payable, the maturity of the debt, the currency of denomination and who the creditors are. Governments struggle most if they have a lot of short-term debt to refinance in a foreign currency.

National income
See gross domestic product and gross national product.

Nationalisation

The takeover by the state of private businesses. Under communism, all large businesses are state-owned and the previous private owners are rarely compensated. In a social democracy, the state tends to focus on certain industries, notably utilities (power generation, water etc), those deemed to be strategically important (steel, coal) and loss-making businesses that employ a lot of workers. Nationalisation was common after 1945 but was reversed under the privatisation programmes of the 1980s and 1990s.

Natural experiment

Unlike scientists in a laboratory, economists do not, as a rule, carry out controlled experiments on real economies (see, however, randomised control trials). But sometimes circumstances throw up similar opportunities, known as natural experiments—eg, a rise in the minimum wage in one place but not another. The pioneering work in this field was carried out by David Card, who shared the Nobel prize in 2021 (see article) and the late Alan Krueger (see this appreciation).

Natural rate of unemployment

See Nairu.

Negative equity

This arises when a borrower buys a property and the price falls sharply, so that the size of the loan is greater than the value of the property. This was a big problem in the American housing market in the mid-2000s. Negative equity meant, at best, borrowers would be unable to move and at worst, they would default, with resulting losses for the lenders as well as themselves.

Negative income tax

A payment made to people on low incomes as a way of reducing poverty. The approach can be an alternative to welfare payments, which can be complex to administer and carry social stigma. Instead the state just makes a payment to those whose incomes are below a certain level.

Negative interest rates

A modern development that would have surprised economists from earlier eras, negative rates mean that investors are in effect charged for lending, or depositing, their money. They emerged in the wake of the 2007-09 financial crisis, as central banks found new ways to ease monetary policy. Investors had a number of reasons for tolerating negative yields on government bonds; they might face bigger losses investing elsewhere; falling prices could make negative rates positive in real terms; and holding their money in cash (banknotes) was impractical. See also zero lower bound. And see this article for more.

Neoclassical economics

A school of thought, associated with Alfred Marshall, an English economist, that developed in the late 19th and early 20th centuries. Rather than focus on the cost of production as the most important element in determining the price of a good or service (as did the classical school), neoclassical economists focused on the preferences of consumers, and the utility they attach to the product. The focus on both producers and consumers in maximising utility allowed the neoclassicists to build models of how the economy works.

Neoliberalism

A term, often used by opponents, applied to the economic reforms pursued by Margaret Thatcher and Ronald Reagain in the 1980s. Broadly, the reforms included lower taxes, constraints on public spending, privatisation and deregulation. Neither politician used the term to refer to their own policies. See also supply-side economics.

Net present value

A standard approach used in business investment. A firm estimates all the future revenues that will flow from a project and then discounts them to reflect their value in today's money. The calculation is highly sensitive to the assumptions about future revenue growth and the discount rate applied; the risk is overoptimism. See also time value of money.

Network effect

The benefits that accrue to consumers and producers when more customers buy a product; it is little use being the only person to own a telephone, for example. Network effects have been significant in the development of the internet; platforms such as eBay and Airbnb benefit from network effects as consumers are attracted by a plethora of suppliers and suppliers flock to platforms with many consumers. See also first mover advantage.

Nobel prize for economics
This award was first awarded in 1969, well after Alfred Nobel's death, and was set up in his memory, with Sweden's central bank funding the prize. Notable winners have included Paul Samuelson, Simon Kuznets and Milton Friedman.

Nominal interest rates
The stated level of interest rates, taking no account of inflation. A nominal return of 5% might sound good, but if inflation is 8%, then the purchasing value of the saver's money is declining (by about 3%). Real interest rates adjust for actual, or expected, inflation.

Normal distribution
Also known as the bell curve, this describes phenomena where most data points cluster around the average and there are few outliers; human heights are a classic example. When bankers use the normal distribution in financial models, however, they can be caught out by extreme events or fat tails.

O

OECD
The Organisation for Economic Co-operation and Development was created in 1961 and has acted as a club for developed nations, compiling reports on individual economies and serving as a hub for research on policy options and economic data. For more, see this Explainer.

Offshore haven

A jurisdiction which imposes little or no tax on transactions or profits and thus is chosen by financial and multinational companies as a hub for some of their activities. Rich individuals also hold money offshore, to reduce their tax bills. The IMF has estimated that governments worldwide lose around $500bn to $600bn a year through the use of offshore havens. For more, see this Explainer.

Oligopoly
When a few firms control a market. This can lead to agreements (tacit or explicit) to fix prices or exclude new entrants. Adam Smith famously wrote: “People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.” See cartel.

OPEC
The Organisation of Petroleum Exporting Countries is a producers’ cartel which attempts to influence both the supply and the price of oil. It was most effective in the 1970s, quadrupling the oil price and contributing to the stagflation of the era. Its influence waned after that era as new producers like Norway emerged and America developed its shale oil reserves. But OPEC’s decisions (these days taken after consultation with Russia and other producers, in a forum known as OPEC+) still matter.

Opportunity cost
The cost of something may not just be its price but the alternative; what was given up to get it. So the opportunity cost of spending the afternoon at a bar is the wages you might have earned had you stayed at work. Money spent on a fancy meal could have been spent on a training course to enhance your skills.

Optimal currency area
A theoretical assessment of the geopolitical regions where it would be most efficient, in economic terms, to share a currency. The criteria, developed by Robert Mundell (winner of a Nobel prize), include the existence of highly integrated economies, with flexible labour markets, and the potential for fiscal transfers between nations.

Option
A derivative contract that gives the right, but not the obligation, to undertake a transaction at a set price for a set period. A call option is the right to buy and a put option the right to sell. In return, the option holder pays a premium to the person who grants the option. See also share options.

Output
The result of economic activity. GDP is the total output of a nation's economy.

Output gap
The extent to which an economy is operating above potential. In theory, the economy will overheat, driving inflation, only if the output gap is positive, meaning that businesses are chasing scarce workers and resources. But assessing the level of potential output is very difficult, so estimates of the output gap are imprecise.

Over-the-counter markets
Forums where financial instruments are traded, but are not a recognised exchange (like the New York Stock Exchange). Trillions of dollars' worth of currencies are traded this way every day.

Overheating
If an economy is growing too fast, companies may face bottlenecks in acquiring resources or hiring labour. This will lead to higher costs and wages, and thus rising inflation.

Overshooting
When financial markets take a trend too far. For example, when a currency depreciates, investors may lose confidence and sell, driving the currency to an undervalued level. Investors may also overreact when central banks start to tighten monetary policy, driving up rate expectations further than the authorities intend. But overshooting is not always irrational or mistaken. Rudi Dornbusch, a German economist, showed that exchange rates naturally overshoot under certain conditions.

P

Pareto distribution
Vilfredo Pareto, an Italian economist, noticed that 80% of Italian land was owned by 20% of the population. This distribution, also known as a power law, crops up in a wide variety of circumstances; one study found that 80% of health-care expenses were linked to just 20% of patients.

Pareto efficiency
Another idea named after Vilfredo Pareto. It describes a situation in which resources are distributed so that it is not possible to make anyone better off without making someone else worse off. In theory, if Pareto efficiency is not achieved, this is a case of market failure since it is possible to improve the allocation of resources.

Passive management
The purchase of a portfolio that replicates the broad market in an asset class (usually equities). Passive management emerged in the 1970s when it was noticed that many active managers failed to beat the index after fees (this is inevitable, because the index does not reflect costs).

Pension funds
Institutional investors that run portfolios on behalf of current and future retirees. Final-salary (or defined-benefit) funds offer a pension that is linked to employees' salaries; these are increasingly confined to the public sector. In the private sector, younger employees are only offered defined-contribution pensions, where the retirement income is dependent on market performance.

Perfect competition
A model that describes a market where buyers and sellers are numerous and well-

informed and thus there is no scope for monopoly, monopsony or oligopoly. The model requires a number of idealised assumptions (such as no transaction costs) that do not apply in the real world.

Permanent income hypothesis

A theory of consumption, developed by Milton Friedman, that suggests people try to spread their spending evenly over their lifetimes. A sudden windfall will not be spent entirely; a significant part will be saved. And those savings will be used to top up spending in the event of a loss of income; for example, losing a job. Thus a person's spending will be less volatile than their income. See also life-cycle hypothesis.

Phillips curve

This concept, developed by William Phillips, an economist, suggests that inflation and unemployment are inversely related; when inflation is high, unemployment is low and vice versa. Phillips had discovered the link in data from the British economy between 1861 and 1957. In the 1970s, however, both inflation and unemployment were high (see stagflation) and in the 2000s, both were low by historical standards. This suggests the relationship is far from stable. Our Schools Brief explains in more detail.

Physics envy

See models.

Pigouvian tax

Named after Arthur Pigou, a 20th-century British economist, a Pigouvian tax is imposed on activities that have negative side-effects, or externalities. Examples might include taxes on pollution, tobacco or the sales of plastic bags. For more detail, read our Schools Brief, and this article on carbon taxes.

Platform company

A new type of firm that emerged with the internet and links together suppliers and consumers. For example, Airbnb connects homeowners with properties to rent and holidaymakers who need somewhere to stay. Platform companies benefit from network effects: a large number of suppliers attracts consumers and vice versa.

Positional goods
Products that confer status and are thus both limited in supply and carry premium prices. Examples include properties in highly desirable residential areas, fancy sports cars and upmarket hotels. The existence of positional goods helps explain why rising living standards have not been accompanied by a substantial reduction in working hours; people work hard so they can feel a cut above the rest. For more, see this article.

Post-neoclassical endogenous growth theory
See endogenous growth theory.

Poverty
Measures of poverty can be absolute or relative. In the former case, individuals or households have insufficient income to afford the basics of life: food, shelter, heat, clothing. In the latter, poverty is measured against a proportion (say, 50% or 60%) of median income. At the global level, extreme poverty is defined by the World Bank as an income of less than $2.15 a day, in 2017 purchasing-power parity prices, at the time of writing. On this measure, the proportion of the world population in extreme poverty has dropped from more than 35% in 1990 to less than 10%.

Poverty trap
A term used when people find it impossible to improve their circumstances thanks to institutional barriers. One example is the workings of the tax and benefits system. High effective marginal tax rates—combining taxes on earnings and withdrawal of benefits as incomes rise—may mean that their employment earnings will make them barely any better off. Another is access to the highest level of education and health services, which may prevent people from realising their full potential.

Power law
See Pareto distribution.

Precariat

A term given to workers in low-paid jobs, often part-time or on zero-hours contracts, who struggle to make ends meet, and often rely on welfare payments to top up their incomes. Left-leaning politicians blame the existence of the precariat on the promotion of labour market flexibility since the 1980s. See also gig economy.

Precautionary motive

Holding a proportion of assets in cash, so that the individual can bear the cost of an unexpected event. Keynes suggested there were three reasons to hang on to cash: the other two are the speculative motive and the transactions motive.

Price

The cost of a good or service to the customer, which should be set by the balance of supply and demand. How this relates to the cost of production depends on the nature of the product or the structure of the market; positional goods may be sold well above their production cost and monopolies can also charge a premium. See also sticky prices.

Price elasticity

See elasticity.

Price-earnings ratio

An oft-used valuation method for individual shares and for the stockmarket as a whole. It compares the share price with the company's after-tax profits. This can be based on historic or forecast profits. Robert Shiller of Yale University (a winner of a Nobel prize) has developed a method for valuing the entire market, based on an average of the past ten years' profits (adjusted for inflation), called the cyclically adjusted price-earnings ratio or CAPE.

Primary balance

The gap between a government's revenues and expenditure in a given year, excluding interest payments on its existing debt. This is sometimes used as a measure of the sustainability of a country's finances. Much depends on the size of the government's existing debt and the level of interest rates. But a country that can run a primary surplus is likely to reduce its ratio of debt to GDP over time.

Primary market

The forum where new money is raised either in the form of equity (the flotation, or listing, of a company) or a bond. In a crisis, the primary market may freeze, making it impossible to raise new money. See also secondary market.

Principal-agent problem

Many economic activities involve the use of agents: selling a house, for example. But the risk is that the interests of the principal and the agents are not exactly aligned; and the agents are likely to be better informed than the principal. When shareholders hire managers to run a company, the latter may focus on increasing their salaries, or their perks, rather than maximising the returns of investors. See also agency costs and asymmetric information, and, for more detail, our Schools Brief.

Private equity

A specialist branch of investment management that focuses on companies that are not quoted on a stock market. Private-equity firms will often take over a quoted company, using borrowed money, and then incentivise the management with share options. The aim will be to refocus the business by cutting costs with the hope of selling for a profit in a few years.

Private sector

Those economic activities that are not controlled by the government, ranging from a one-man window cleaning business to giant corporations.

Privatisation

The transfer of assets or firms from the public sector to the private sector. There was much enthusiasm for this in the 1980s and 1990s, not least because it raised money for governments in a relatively painless fashion. Some sectors, such as telecoms and airlines, clearly benefited in terms of operating efficiency from being privatised. But the evidence is less clear when it comes to utilities, such as water companies, which are natural monopolies.

Productivity

One of the most important concepts in economics, productivity measures the level of output for a given level of inputs. This is most commonly expressed as output per worker hour. Boosting productivity is the key to long-term economic growth, which is why there has been much concern about the sluggish performance of productivity in the developed world since the financial crisis of 2007-09. See also total factor productivity.

Profits
The difference between a company's revenues and its costs. Profits lie at the heart of the capitalist system and are one of the key motives for business formation. They will either be reinvested in the business or distributed to shareholders in the form of dividends or share buy-backs. See also windfall tax. Profit is also the term used when an asset is sold for a gain.

Progressive taxation
A system in which higher marginal rates of taxation apply to higher incomes. In the past, these rates have been very high. In America, a rate of 94% was imposed on the highest incomes in 1944. The top rates were lowered significantly in America and Britain under Ronald Reagan and Margaret Thatcher.

Property
Ownership of private property is the essence of all economic systems, bar communism. Those who own property (defined broadly as all assets) have an incentive to use it productively and to invest it for future gains. These incentives are reduced without property rights; hence the quip "no one ever washed a rented car". See also tragedy of the commons. In narrow terms, the word is also used to describe land and buildings as an asset class.

Protectionism
A policy that attempts to promote companies based in the home country and discriminate against those from abroad. This can be done via taxes or tariffs or via regulations that exclude or hobble imports. Protectionism is often politically popular because it appears to safeguard workers' jobs, and many companies will lobby politicians to exclude foreign competitors. But believers in free trade argue that the effect of protectionism is to reward inefficient domestic companies and

to increase the prices paid by consumers. For more, see this Explainer.

Public choice theory
A branch of economics that studies how those involved in government (politicians, bureaucrats etc) might behave. The theory suggests that those in the public sector might act in line with their self-interest; building up their departments to enhance their power and status, or framing regulations to favour the localities they represent. Thus there can be government failures as well as market failures.

Public goods
Things that, if they exist, can only exist for everyone in a society. If one person consumes a public good, that does not stop another person from doing so too. Among the commonest examples are clean air, radio broadcasts and national defence. Because public goods are subject to the free-rider problem they tend to be provided by governments and paid for by taxation.

Public sector
That part of the economy which is controlled by, or owned by, the government.

Public spending
The amount that the government spends is a significant part of most economies, ranging from 30% to 50% of GDP across OECD countries. Periodic efforts to reduce it through programmes of austerity have generally been followed by prolonged rebounds, as the need to spend money on health, pensions and welfare creeps upwards (for more detail, see this Briefing). Keynes argued that public spending should be increased during recessions as a way of boosting demand. See also fiscal policy.

Purchasing-power parity (PPP)
A method of adjusting exchange rates to take account of the different levels of prices in different countries. In the absence of barriers to trade, theory suggests that the prices of goods and services in different countries should be roughly equivalent (allowing for transport costs). In practice, this is rarely the case. But economists calculate PPP exchange rates as a way of assessing whether currencies

are under- or over-valued; *The Economist* does this in a light-hearted way with its Big Mac index (see this article), which uses the prices of McDonald's burgers.

Quantitative easing (QE)
A policy introduced to alleviate the effects of the 2007-09 financial crisis. Central banks slashed interest rates but the effect of such cuts seemed to diminish as they approached the zero lower bound. Quantitative easing (QE) involved banks buying government bonds (and some other assets) in the secondary market and creating new money to pay the sellers (see this Explainer). This had the double effect of injecting liquidity into the economy and pushing down bond yields, cutting the cost of borrowing for the corporate sector. Critics argue that QE is hard to reverse (see this article) and is perilously close to monetary financing.

Quantitative tightening
The opposite of QE. This involves shrinking the central bank's bond portfolio—either by selling bonds back to the private sector or by letting them mature and not reinvesting the proceeds—thereby removing liquidity from the economy and adding to the upward pressure on bond yields. At the time of writing, quantitative tightening is in its early stages and it seems likely that it will be a long while before QE is reversed. For more detail, see this article.

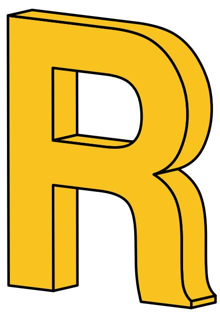
Quantity theory of money
A tenet of monetarism which holds that the money supply is the main driver of inflation. The crucial equation is MV=PT which states that the money supply multiplied by the velocity with which it changes hands is equal to the price level multiplied by the number of transactions. However, increases in the money supply do not always translate directly into higher prices. One reason is that the velocity

can also vary; people can have more cash but sit on it when they are worried about the economic outlook.

Quit rate
A measure of how many people leave their jobs voluntarily, rather than being laid off or fired. A rising quit rate implies that workers are more confident about finding new jobs, and thus the economy is expanding. See also job vacancies.

Quota
A trade barrier that limits the number, or monetary value, of goods that a country imports. See also protectionism.

Quoted company
A business which has listed its shares on a stock exchange.



R*
The real (after inflation) interest rate that would prevail when the economy is operating at potential. Models of the macroeconomy say monetary policy is delivering stimulus if and only if the prevailing real interest rate set by the central bank is lower than r*. Unfortunately, this crucial variable cannot be observed directly.

Randomised control trials (RCT)
Experiments in which a policy change is applied to a randomly selected subset of people, in order to isolate its economic effects. Most examples have been in developing countries. Abhijit Banerjee, Esther Duflo and Michael Kremer shared the 2019 Nobel prize for their work on RCTs (for more details, see this article and

this book review). Some have questioned the ethics of such trials (see article).

Rate of return

The annual gain (profit, income and increase in value) from a project, expressed as a proportion of the capital invested. See also internal rate of return.

Ratings

Measures of the riskiness of a financial instrument, provided by a ratings agency (such as Standard & Poor's, Moody's and Fitch). The higher the credit rating, the lower the risk, and when applied to debt instruments, the lower the interest rate the borrower has to pay. Ratings below a certain level are regarded as high-risk (see junk bonds). The ratings agencies came in for heavy criticism during the financial crisis of 2007-09, when financial instruments that had been rated highly plunged in value.

Rational expectations

The idea that people base their decisions on the best information available to them and learn from their mistakes. In particular, this led free-market and monetarist economists to argue that consumers would anticipate government policy changes and adjust their behaviour accordingly. So if the government runs a big budget deficit to stimulate demand, consumers will anticipate that taxes will rise in the long run, and save some of the windfall to meet their future tax bills (an idea known as Ricardian equivalence). Thus Keynesian fiscal policy will be self-defeating in the long run.

Raw materials

Basic commodities—eg, oil, metals and cotton—that firms need to manufacture products.

Real terms

An adjustment for inflation. A pay increase of 5% represents a cut in real terms if inflation is 10% but a gain in real terms if inflation is 2%. Real interest rates and real exchange rates are adjusted for inflation. See also money illusion and nominal interest rates.

Real-time indicators
Much economic data is only published after a lag and thus tells policymakers about the previous state of the economy. So statisticians are looking increasingly at real-time data such as the number of online job adverts, traffic activity on the roads, credit-card spending and so on. To learn more about the growing importance of real-time data, read our Briefing.

Recession
A period of falling economic output. This is often defined as two consecutive quarters of declining gross domestic product. However, the National Bureau of Economic Research, which is the authority on American recessions, simply regards them as "a significant decline in economic activity that is spread across the economy and that lasts more than a few months". It looks at measures such as real incomes, employment and industrial production. This Explainer tells you more.

Redlining
The discriminatory practice of refusing financial services (such as loans or insurance) to people living in certain areas, usually based on ethnicity. The American government has passed regulations to try to stop redlining, but cases are still discovered.

Reflation
Policies designed to stimulate the economy. This may involve fiscal policy (cutting taxes and/or increasing public spending) or monetary policy (cutting interest rates and/or quantitative easing). Both approaches are likely to send the inflation rate higher, although this is not a problem if the economy is experiencing low inflation or deflation.

Regressive taxes
Levies that take a larger proportion of the income of poor people than of the wealthy. Sales taxes are generally regressive, whereas income taxes are not. Any flat-rate levy, such as the "poll tax" introduced by Margaret Thatcher to finance local government in Britain in the late 1980s, is regressive. See also progressive taxation.

Regulatory arbitrage
The practice of shifting the location of, or structure of, a company so that it can benefit from more favourable rules. A classic example was the shadow banking system, which avoided many of the regulations that applied to commercial banks; the lack of scrutiny of the sector contributed to the 2007-09 financial crisis.

Regulatory capture
When the regulator gets too close to the sector it is overseeing. This may occur because the industry will spend a lot of effort lobbying for its cause, and will have more spending power than consumer groups on the other side of the argument. Or it may happen because the regulator recruits staff from the sector or because the regulator's employees hope to get lucrative jobs in the sector in subsequent years.

Remittances
Money sent by migrants back to their home country, usually to support their families. They are an important source of income for some developing nations; the World Bank estimated that low- to middle-income countries received $656bn via this route in 2023.

Rent
The income paid to a landowner for the use of land or buildings. Economists also use the word in a different sense; see economic rent.

Rent-seeking
A broad term used to describe the practice of grabbing a bigger slice of the cake without adding more value. A company might lobby the government to grant it profitable contracts on sweetheart terms, or to impose regulations that stifle competitors. See crony capitalism (and our index). The most basic private-sector example of rent-seeking is a protection racket, in which criminals demand a cut of (say) a bar-owner's or shopkeeper's revenue.

Repo
See repurchase agreement.

Repurchase agreement

In a repurchase agreement, or repo, one party sells a security (usually a government bond) to another and agrees to buy it back for a slightly higher price at a future date (usually the following day). This is a form of borrowing and the difference between the two prices is essentially the interest rate on the debt. The repo market is huge, with an estimated size of more than $4trn in America alone. It is the way many market participants finance themselves in the short term.

Rescheduling

The rearrangement of the terms of a debt, when the borrower is struggling to repay. This will usually involve reducing the interest payments in the short term and extending the life of the loan or bond. Rescheduling often requires lengthy negotiations between the borrower and the creditors.

Research and development

Often shortened to R&D, this is the vital work that helps to create innovation and boosts productivity in the economy. Governments can directly fund R&D themselves (particularly in wartime) or encourage it through tax breaks. Countries in the OECD spend around 2.5% of GDP each year at the time of writing, although some countries (eg, Israel, South Korea and Taiwan) spend much more.

Reservation wage

The lowest wage at which a worker will accept employment. Looked at in another way, this is a measure of potential workers' valuation of their leisure time.

Reserve currency

A currency held by a central bank for use in emergencies. The central bank might need reserves to defend the currency of its home nation (by selling the foreign currency and buying the domestic one). Or it might lend its reserves to domestic banks should they need them. The dominant reserve currency is the American dollar (around 60% of global reserves at the time of writing) but the euro and Japanese yen are also used.

Reserve requirements

Reserves are electronic money held in accounts at the central bank. Usually only commercial banks can hold reserves. The overall amount in existence is determined by the central bank, though individual commercial banks can lend them to one another or convert them into physical cash. In the past some central banks have set minimum reserve requirements and the authorities sometimes changed the level of required reserves as a way of tightening or loosening monetary policy; China still does this today. Since 2008 the quantity of reserves has grown significantly because of quantitative easing, leading the Federal Reserve and other central banks to pay interest on reserves. This sets a floor under interest rates in the interbank market.

Resource curse
A problem that afflicts some countries with an abundance of natural resources, such as oil, gas or minerals. The profits from such activities are so large that politicians indulge in rent-seeking activities, building up their personal wealth and crushing opposition. In such countries, other industries can find it hard to establish themselves, leaving the economy dependent on the commodity cycle.

Ricardian equivalence
The idea, suggested by David Ricardo, that debt-financed expansion of the public sector will not boost demand. This is because citizens will recognise that government debt will have to be repaid in the form of future taxes, and thus they will save money to meet that future tax bill. Thus Keynesian stimulus programmes will not work. See also rational expectations.

Risk
The possibility that events might not turn out as expected. Risk faces all economic participants; workers might not get paid, or might lose their jobs; customers may overpay or purchase a shoddy product; producers may find that demand is much lower than they hoped; investors may lose money; and so on. Some risks can be quantified: actuaries have a pretty good idea how many people will die in a normal year. But much risk is subject to Knightian uncertainty; there is not enough information to assess all the probabilities.

Risk premium
The extra return investors demand for holding risky assets such as equities,

compared with the return they get on risk-free assets such as cash or government bonds. The risk premium needs to reflect two factors; the potential for absolute loss (if the company goes bust or defaults on a debt) and the volatility of the asset (that is, the variability of its price). In a crisis, risky assets plunge in price, meaning that investors may have to sell them at a loss.

Risk-adjusted return
A calculation that reflects the greater risks of some portfolios compared with others. A fund manager might achieve a 20% return over a year, compared with a market return of just 10%. But if the manager owned just a few stocks, that portfolio was a lot riskier than the market as a whole. There is no guarantee that the manager's luck will hold in subsequent years.

Risk-averse
A state of caution which can lead to subdued economic activity. Businesses are unwilling to invest in new production facilities; banks are unwilling to lend; investors prefer the safety of government bonds to equities. Analysts sometimes refer to conditions of financial uncertainty as "risk-off" markets. See also animal spirits.

Risk-free return
The return on assets deemed to be safe, such as cash or government bonds. This concept is the basis for financial models in which investors demand a risk premium over the risk-free rate. However, such assets are not really risk-free, as investors can suffer real losses if the returns are below inflation and, in the case of government bonds, capital losses when yields rise. In the late 2010s, when government bonds in some countries traded on negative yields, some commentators quipped they offered "return-free risk".

Rules of origin
Regulations that determine where a product is sourced or made and thus how it will be treated for trade purposes, in particular whether they qualify for tariff-free treatment within a free-trade area.

S

Sales tax

A much-used and lucrative source of government finance, sales taxes are a form of indirect taxation, as they are collected by retailers and other middlemen. In Europe, the sales tax comes in the form of a value added tax, which is levied at each point of the supply chain.

Sanctions

Defined by Benjamin Coates, a historian, as "a collective denial of economic access designed to enforce global order". Sanctions might include trade embargoes, bans on travel and investment, and asset freezes. They have become a widely used tool of foreign policy, not least after Russia's invasion of Ukraine in 2022. For more about their use, history and effectiveness, read our Briefing and this article.

Savings

Income that, instead of being consumed, is set aside for future use. Keynes suggested three reasons for this decision: the precautionary motive, speculative motive and transactions motive. Across the economy, a sudden increase in saving leads to a fall in aggregate demand, and thus increases the potential for a recession. But savings are also vital for long-term economic growth since they provide the funds for investment. In the world economy—or in a theoretical economy closed to trade—saving and investment must be equal.

Say's law

The idea, coined in the 19th century by Jean-Baptiste Say, a French economist, that supply creates its own demand. Say was referring to aggregate demand, rather than that for individual products. In producing a good, a business will have paid wages to workers, bought raw materials from suppliers and so on. These wages and revenues will be used to buy other products. Say's law was used by classical economists to argue that recessions would right themselves without government intervention. For more, see our Schools Brief.

Seasonal adjustment
Some economic activity varies depending on the time of the year. Retail sales surge in the run-up to Christmas, for example. Statisticians adjust economic data to take account of these variations.

Secondary market
The forum where existing securities (such as bonds or equity) are traded. Turnover in the secondary market is vast, running at many trillions of dollars a day. When the media report on "nervous markets", it is the secondary market to which they refer. See also primary market.

Securities
A catch-all term used to describe tradable financial instruments, such as bonds and equities.

Securitisation
The practice of bundling together certain types of assets so they can be repackaged as interest-bearing securities. The assets in question tend to be those that are not normally tradable: residential mortgages, commercial mortgages, car loans etc. Securitisation was highly popular in the early 2000s, when investors were looking for assets that yielded more than government bonds. But the bundling of subprime mortgages led to the financial crisis of 2007-09.

Seigniorage
The difference between the face value of money and the cost of producing it. Over history, this has been a nice little earner for governments. However, small coins, such as the American penny, can cost more to make than they are worth.

Seniority
The order in which creditors are entitled to be repaid in the event of a company going bankrupt. Senior debt must be paid off before junior debt and is thus less risky, carrying a lower yield.

Services
Economic activities that, unlike manufacturing, do not create a physical product. These make up the greater part of the GDP of most developed economies and include everything from architecture to zookeeping.

Shadow banks
Financial services companies that are not part of the regulated banking system but are still involved in lending and derivatives trading. The expansion of shadow banks in the early 2000s resulted in the credit expansion that eventually triggered the 2007-09 financial crisis. See also subprime mortgages.

Share options
One of the main ways in which executives at big companies are incentivised. Options give people the right, but not the obligation, to buy shares at a set price. The idea is to reduce the principal-agent problem by aligning the incentives of managers and owners, who want to see the share price rise. Executives have certainly prospered since options became more widely used in the 1980s, thanks to a long bull market in equities. But options have been criticised for encouraging short-termism; managers may be reluctant to make investments that damage the share price. See also options.

Shareholder value
The idea, especially influential in the 1990s and early 2000s, that businesses should focus only on improving shareholder returns. Supporters argued that it was up to governments to pass laws to promote wider social goals, not companies. Opponents argued that the concept led to short-termism and a callous disregard for workers' rights and the environment. See also stakeholder capitalism.

Shares
An alternative term for equities.

Short-selling
The practice of borrowing shares, then selling them, in the hope of buying them back at a lower price and making a profit. Short-sellers tend to be unpopular, on

the grounds that they prosper from bad news, and the practice tends to be banned or restricted during crises, the very times when it is most profitable. But short-sellers can play a useful role in sniffing out scandals and acting as a check on overheated markets.

Short-termism

An excessive focus on immediate returns at the expense of the long-term. This can apply to businesses if they pay too much attention to quarterly profits targets, or to institutional investors if they hold their position for a few weeks, rather than a few years. See share options.

Skill-biased technological change (SBTC)

An explanation for the rise in income inequality in the developed world. The rising use of new technology has led to a wage premium for those who can use it efficiently and depressed the wages of lower-skilled workers.

Socialism

A term that is hard to define. Socialists believe in some forms of collective ownership but not the near-complete abolition of the private sector imposed under communism. They will attempt to redistribute wealth through taxes on the rich and welfare for the poor, but not to eliminate all income differentials.

Sovereign risk

The risk that a government will default on a bond or a loan.

Sovereign-wealth funds

Investment pools accumulated by national governments, often from the proceeds of energy wealth. Among the largest are those of China, Norway, Abu Dhabi and Kuwait. These funds give countries a chance to diversify their assets, and thus to protect themselves against an economic downturn or a decline in a key industry.

Special drawing right (SDR)

Reserve asset created by the International Monetary Fund and defined in terms of a basket of five currencies (American dollar, euro, yen, yuan and British pound). New assets can be created at times of crisis, as they were in 2009, during the financial crisis, and in 2021, during the pandemic. The SDRs were distributed to countries, based on their shares in the IMF, thereby boosting their foreign exchange reserves and improving global liquidity.

Specialisation

Another term for the division of labour, and a key insight of Adam Smith, who used the example of a pin factory. By breaking up a production process into a series of tasks, workers could learn to do the tasks quickly and efficiently. Productivity would be far higher than if each worker attempted to handle the entire production process on their own. At the level of the whole economy, specialisation is the means of exploiting comparative advantage and hence the gains from free trade.

Speculation

The line between speculation and conventional investment is a fine one. Generally speaking, speculation will be short-term in nature, will involve leverage and will have no fundamental relationship to the business or personal interests of the speculator. Although speculators are often condemned, many businesses would struggle to hedge their risks without a speculator to take the other side of the position.

Speculative motive

One of three reasons suggested by Keynes for holding cash. An investor might hope that asset prices will fall and thus hangs on to cash in the expectation of buying the assets more cheaply. See also precautionary motive and transactions motive.

Spot price

The price that has to be paid for something if it is bought immediately. Most commonly used in the commodity markets, and a contrast with the futures price.

Spread

A common term in financial markets to describe the difference between two prices or interest rates. When an investor seeks to trade a share, the dealer will offer a spread between the price at which they buy and sell. Riskier companies pay a higher rate to borrow than high-quality companies, or the American government, and the difference in yields is known as the spread over the less-risky bond.

Stagflation
A combination of high inflation and high unemployment. The Phillips curve suggests this should be rare, as high unemployment is associated with a shortage of demand, and high inflation with demand outstripping supply. But it happened in the 1970s after the supply shock of the OPEC oil embargo, and also became a threat in the wake of the covid-19 pandemic (see this Explainer).

Stagnation
A prolonged period of little or no economic growth.

Stakeholder capitalism
The idea that businesses should serve a wider community than just their shareholders, including their workers, suppliers and society at large. Proponents argue that this is better for the economy in the long run than a focus on short-term profit; indeed, they believe that companies that ignore their other stakeholders will eventually run into trouble. See also shareholder value.

State capitalism
See authoritarian capitalism

Sticky prices
Retail prices can be slow to respond to changes in supply and demand, as car drivers often note when oil prices fall and the price of petrol fails to follow. This can lead to market disequilibrium as consumers wait until prices have adjusted before purchasing. Sticky prices may be caused by the costs of making price changes and asymmetric information between producers and consumers, among other factors.

Stock exchange
A formal market where shares, or equities, are traded. The word stock is commonly used as an alternative for shares in American English. Most developed

countries have at least one stock exchange, and each exchange will have listing requirements for companies that want to have their shares traded. Trading was once conducted via open outcry in a single location but is now done mostly electronically.

Stockmarket
A term used broadly to describe all the trading in shares or equities.

Strategic industry
An industry that a government deems to be of special importance to the economy and hence deserving of special treatment, such as tax breaks, subsidies or protection from foreign competition (see industrial policy). Some sectors, such as defence, may seem obvious choices but the list is long (even, notoriously, extending to dairy products: see article). Self-sufficiency, national security, the promotion of research and development or the fostering of an infant industry may be the justification; protectionism may be the outcome (see article).

Structural adjustment
A programme of economic change designed to improve long-term growth. The IMF and World Bank may demand a programme of structural adjustment in return for a loan. And many a leader in *The Economist* has recommended structural reform.

Structural unemployment
Joblessness that results, not from a shortage of demand, but from the structure of the economy. Examples include a focus on industries that have been overtaken by foreign competitors or have been rendered obsolete by technological change. Believers in supply-side economics would also argue that structural employment can be caused by overregulation and a lack of labour market flexibility. For more, see this Explainer.

Subprime mortgages
Home loans made to those with poor credit ratings. In the 2000s, some of these borrowers were dubbed “ninjas” as they had no income, job or assets. The loans were then bundled together as part of the securitisation process and sold to

institutional investors and shadow banks. When house prices started to fall, many subprime borrowers defaulted, contributing to the 2007-09 financial crisis.

Subsidy
Money paid by a government, usually to one of two groups. The first is consumers, to encourage them to buy a product (such as insulation) or to keep prices down (as in 2022 when energy prices surged). The second is businesses, either to keep them from going bust (and save existing jobs) or to set up in a certain area (and create new jobs). Many economists dislike subsidies, since they distort market signals, unless they correct externalities.

Substitution effect
When the price of a product rises, consumers may replace it with an alternative; chicken instead of beef, for example. Statisticians need to adjust for this when compiling inflation indices. In demand theory, the change in demand for a good in response to a change in its price can be broken down into the substitution effect (the party due to the change in its price relative to other goods) and the income effect (the part due to the change in real income).

Sunk costs
Expenses that cannot be recouped. Examples include the building of a prototype or the cost of obtaining planning permission for a new development. The danger is that businesses develop "sunk cost syndrome", continuing with a project, regardless of its prospects, rather than admit it was a failure and take the loss. See also loss aversion.

Supply
Those goods and services that are available to meet demand.

Supply and demand curves
One of the earliest illustrations learned by students of economics. Supply increases as the price rises, and demand increases when the price falls (with the exception of some luxuries, known as Veblen goods, and very basic Giffen goods). The two are displayed on a graph (usually as straight lines, rather than curves) and the point where they meet is the equilibrium price.

Supply shock
A disruption to economic activity caused by a sudden interruption to supply of important products, or a sharp rise in price. In the modern era, supply shocks are often associated with energy: the oil embargo imposed by OPEC in the 1970s, for example, or Russia's restrictions on gas supplies after its invasion of Ukraine in 2022. The covid-19 pandemic, which caused many businesses to close, was another supply shock. Supply shocks usually result in both higher inflation and lower output, and are thus difficult for policymakers to tackle.

Supply-side economics
A school of thought that argues growth is best boosted to ways of stimulating output by improving productivity. This can be done by tax cuts for the wealthy (to encourage entrepreneurship), reducing regulations on business and promoting labour market flexibility (making it easier to hire and fire workers). The approach was championed by free-market economists in the 1970s as a counter to Keynesian economics, which tended to focus on shortfalls in demand.

Swaps
Derivative agreements whereby two counterparties agree to exchange cashflows. For example, one party may agree to pay a fixed interest rate, and the other a variable rate, linked to some benchmark. When payment is due, the two cashflows will be netted out, so only one party will pay the other. As with other derivatives, swaps can be used for hedging (against rising interest rates, for example) or for speculation. See also credit default swaps.

Systematic risk
Risk that cannot be diversified away. An investor could buy 100 shares and thereby reduce the danger that the collapse of a single company could damage their portfolio. But the systematic risk of a collapse in the stockmarket would remain.

Systemic risk
The risk of damage to the entire financial system from the collapse of an individual institution from a group of them. Regulators have had to reconsider this subject in the aftermath of the financial crisis of 2007-09 when some

companies were deemed "too big to fail". Large commercial banks definitely fall into the category but the collapse of AIG, an insurance company, indicated that the potential for systemic risk was widespread. See also macroprudential regulation.

T

Tangible assets
Literally, things that can be touched such as buildings and machinery. See also intangible assets.

Tariff
A tax imposed on imports. Tariffs are designed to support domestic producers but they result in higher prices for consumers. *The Economist* was founded in 1843 to campaign against a tariff on grain, known as the Corn Laws.

Tariff-rate quota
Tariff-rate quotas (or tariff quotas) allow the import of a specified quantity of a good at a lower tariff, or free of tariffs. Amounts above the quota incur tariffs at a higher rate. Tariff-rate quotas are part of countries' trade commitments under the GATT and the World Trade Organisation.

Tax avoidance
Doing everything legally possible to reduce your tax bill. In a world of free capital movement and competing tax jurisdictions, multinational companies find it very easy to avoid taxes. See this Explainer on offshore havens; and also tax evasion.

Tax competition
When two different jurisdictions try to attract businesses and individuals by

reducing their tax rates. In theory, this can prevent governments from making excessive tax demands on their populations. But this depends on how mobile taxpayers are. Under the Bretton Woods system, capital controls made it hard to move money between countries; tax rates on companies and rich individuals were generally higher. Now, some critics argue, a combination of free capital movement and tax havens means that the corporate sector and the wealthy do not pay enough tax.

Tax evasion
Paying less tax than is legally required. Tax evasion is punished with fines and sometimes imprisonment but that requires the evaders to be caught. Contrast with tax avoidance.

Tax haven
A jurisdiction that imposes little or no tax on corporations and wealthy individuals. The haven benefits by attracting deposits to its banks and by generating business for local lawyers and accountants.

Tax incidence
A term for where the burden of tax actually falls, as opposed to liability in law. Tax a company and the cost will be passed on to its shareholders (via lower dividends), its customers (via higher prices) or its workers (via lower wages). The chain can be complicated; sales taxes may be paid by consumers but if the result is lower demand, that may hit the profits of retailers. Sometimes referred to as the "effective" incidence of a tax, in contrast to its "formal" incidence. For more on the distinction, see this article.

Tax neutrality
The principle that governments should set tax rules so that economic decisions are made on their own merits, and not for tax reasons. A combination of the policy priorities of politicians and lobbying by corporations means the principle is rarely observed in practice.

Taylor rule
A guideline, suggested by John Taylor, an American economist, for how the

Federal Reserve should set interest rates. The rule supposes a normal real interest rate of 2%. The Fed will move interest rates up or down depending on the distance between actual inflation and the target rate, and the size of the output gap. In practice central banks prefer to maintain their policy discretion, though they consult rules like Mr Taylor's. For more on the Taylor rule, see this article.

Technical progress
Innovations such as the steam engine, the internal combustion engine and electrification—as well as many incremental changes—have all boosted productivity and thus driven long-term economic growth. Some of these discoveries are down to individual genius but endogenous growth theory suggests governments can help to generate technical progress with the right policies: see this article.

Terms of trade
The average price of a country's exports, relative to that of its imports. Terms of trade shocks thus come in two main types. Developing countries can be hit by a fall in commodity prices, which reduces the value of their exports and this can worsen their trade balance. And developed economies can be hit by a rise in commodity prices, which increases the cost of imports and hits their trade balance.

Time value of money
The idea that money received now is worth more than money received in the future. In assessing the worth of an investment, any future income must be discounted at some rate in order to come up with a net present value. The choice of that discount rate (see this article) is crucial; the higher it is, the lower the net present value.

Tobin tax
A levy, proposed by James Tobin, an American economist and winner of a Nobel prize, on all currency transactions as a way of reducing volatility and discouraging speculation in the foreign exchange market. The Tobin tax has not yet been imposed, given the difficulty of getting international agreement. For more detail, read this Explainer.

Total factor productivity (TFP)
Output relative to inputs, measured (eg, by America's official statisticians) by dividing an index of output by a combined index of labour and capital. Growth in TFP is thus productivity growth that cannot be accounted for by extra inputs, but comes from greater efficiency or the adoption of new technology.

Total return
The sum of all returns from an investment, including income and capital gain.

Trade bloc
A group of nations that have agreed terms to reduce tariffs, or other trade barriers, among them. The European Union is the most obvious example. See also free-trade area.

Trade unions
Workers' associations that campaign for better employment rights and wages. In the developed world, their heyday was in the three decades after the second world war, when union membership was high and manufacturing jobs were plentiful. But globalisation and the decline of manufacturing employment after 1980 weakened union membership, leaving their greatest strength in the public sector. For more, see this article.

Trade-weighted exchange rate
A weighted average of a country's exchange rate with its main trading partners. The weights reflect the proportion of trade done with each partner. Trends in this rate are a useful guide to the country's competitive position.

Tragedy of the commons
If individuals have access to a public resource, they will exploit it, without considering the common good. So small farmers will let their animals graze on the common (since it is free) until all the vegetation is destroyed; over the centuries, humans have overfished the oceans. Avoiding this problem either requires regulation or market pricing to discourage overuse.

Transactions motive
One of three reasons for holding cash suggested by Keynes and the simplest: people need cash to buy stuff. See also precautionary motive and speculative motive.

Transfer
In economics, a transfer is a payment of money without any goods or services being exchanged in return. Governments make transfers in the form of welfare benefits but individuals make transfers, both to charities and to friends and family members. See also remittances.

Transfer pricing
This occurs when goods or services are exchanged, across national borders, but within a multinational company. This creates the scope for a subsidiary within a high-tax jurisdiction to sell at a low price (or buy at a high price) when dealing with another subsidiary in a low-tax area. As a result, the subsidiary in a low-tax nation makes most of the profit. There are rules against this form of tax avoidance but it undoubtedly occurs: see this article.

Treasury bills
Short-term government debt with a maturity of less than a year. The term is most commonly used for debt issued by the American government, and the market in these bills is highly liquid. However, other governments (including Britain) also issue Treasury bills.

Treasury bonds
Medium- and long-term debt issued by the American government. This is one of the most liquid markets in the world and the basis for many financial transactions including repurchase agreements.

Trust
A necessary condition for much economic activity; suppliers must trust that their customers must pay them and customers must trust that the goods they buy are satisfactory. Surveys have found that higher levels of trust are associated with faster economic growth in the long run. For more detail, see this article.

U

Uncertainty
See Knightian uncertainty and risk.

Unemployment
Being out of work when you want a job. After the Great Depression, many countries adopted policies to try to keep unemployment down and also offered income support to those who were out of a job. See also frictional unemployment, structural unemployment, involuntary unemployment and Nairu. For more on the different types of unemployment, read this Explainer.

Unions
See Trade unions

Universal basic income (UBI)
Term used for a variety of schemes to reduce poverty which involve giving all citizens an income that is enough to support them. Depending on the scheme design, the UBI would replace all or part of the benefit system. There are doubts about its potential effectiveness; a UBI might require punitively high marginal tax rates and might create a disincentive to work.

USMCA (United States-Mexico-Canada Agreement)
See NAFTA.

Usury
The charging of excessive rates of interest. Many ancient philosophers disliked the concept of interest payments and in the Middle Ages, laws against usury were

common. Since lending was inherently risky in that era, this discouraged trade expansion and business formation. In the modern era, some governments still have laws that discourage sky-high rates of interest charged by those known as “loan sharks”.

V

Vacancy rate

In the property sector, this is a measure of the proportion of rentable, or lettable, properties that are unoccupied. A high vacancy rate is either a sign of economic problems or the aftermath of excessive property building. For employment vacancies, see job vacancies.

Value added

The difference between the price of a good or service and the cost of producing it. This can be applied at the level of the individual firm (and is the basis for value added tax) or at the sectoral level.

Value at risk (VAR)

A measure used by financial institutions to estimate the maximum financial loss they might suffer, due to market movements, within a set period. Some institutions that used VAR were caught out in the financial crisis of 2007-09, because their models failed to allow for extreme events, or fat tails.

Variable costs

That part of a firm’s expenditure that changes with the level of output (for example, extra raw materials). See also fixed costs.

Veblen goods

Luxury goods for which demand increases in line with their price. They are named after Thorstein Veblen, who described the phenomenon of "conspicuous consumption" in the late 19th century. Ownership of these goods confers social status, so their high price makes them more desirable by indicating that the buyer is part of the elite. As the saying goes: "If you have to ask the price, you can't afford it."

Velocity of circulation
A measure of how quickly money changes hands. A key component in the formula at the heart of the quantity theory of money.

Venture capital
A branch of the investment management industry that invests in start-ups, or recently formed companies, with the hope that they will achieve long-term success. Inevitably, venture capital investments have a high failure rate but the few successes can be so lucrative that overall returns can still be good. The sector has played a big role in financing the technology firms in Silicon Valley.

Visible trade
Trade in physical goods, such as raw materials, components and manufactured articles, like cars. See also invisible trade.

Volatility
A measure of risk in the financial markets. In its simplest terms, it is how much an asset price tends to go up and down. More precisely, it is calculated using the standard deviation of the logarithmic return over a given period. More volatile assets are deemed to be more risky and thus investors demand a higher return for owning them. For more, see this article.

Voluntary unemployment
A subset of economic inactivity, this term covers those workers who have the time, opportunity and ability to take a job, but choose not to. This may be down to frictional unemployment; they have recently left their jobs and are looking for a post that pays better or suits their skills. See also quit rate.

W

Wage-price spiral
A feedback loop in which rising inflation causes workers to demand higher wages and the cost of meeting those wage rises causes businesses to push up their prices. Workers are often the losers, as wages fail to keep up: see this article.

Wages
The return due to labour. As well as a weekly or monthly payment, workers are often entitled to other benefits such as pensions, health insurance and sick pay. Some workers also receive overtime pay and performance-related bonuses. Although, in theory, wages are a matter of negotiation between employers and employees, some states have minimum wage levels while trade unions may negotiate on the workers' behalf.

Washington consensus
A term, developed by John Williamson, a British economist, to describe the advice often given to developing countries by bodies such as the International Monetary Fund and the World Bank. The advice usually included deregulation, trade liberalisation, privatisation and fiscal restraint. Critics focused on the "one size fits all" approach of the consensus and the lack of attention to democratic accountability and poverty relief. For more, read this article.

Wealth effect
The impact of a change in wealth on consumption. A sudden collapse in the stockmarket or in house prices will make people feel poorer and thus they will spend less. Conversely rapidly rising asset prices may make consumers more confident and prompt them to increase their spending.

Wealth tax

An idea that appeals to many on the left, given the wealth disparities in many countries. Inheritance taxes are a form of wealth tax and played their part in reducing disparities in the first half of the 20th century, by eating into the landed wealth of European aristocracies. More ambitious politicians hope to impose annual levies on the assets of the wealthy. However, the rich are good at tax avoidance and the revenues raised from such taxes tend to be low as a proportion of GDP. And many economists think that taxes on capital distort the economy by encouraging consumption rather than saving and investment.

Welfare

A term used, particularly in America, for social benefits to help people who are unemployed, sick, retired or have low incomes. Before the 20th century, welfare benefits were low and designed to discourage the "undeserving poor" from applying. But the Great Depression demonstrated the need for social benefits and developed economies built "welfare states" after the second world war. In 2019 welfare spending averaged around 20% of GDP across the OECD.

Welfare-to-work programmes

Schemes that encourage people to take up jobs and employers to give them work. These may include training, education or tax credits that reduce the impact of the loss of benefits to workers, and tax incentives for companies.

Windfall gains

A sudden, unexpected, gain in wealth such as an inheritance or a lottery win. If the permanent income hypothesis were correct, people would save the bulk of these gains. But not everyone does.

Windfall taxes

Levies imposed on companies that make large profits after an economic change. The most recent examples have been taxes on energy companies when their profits surged after Russia's invasion of Ukraine in 2022. Economists are dubious about the merits of these taxes as they may discourage future investment; companies may need the occasional windfall to compensate them for the losses they incur in difficult times. For the case against, see this article.

Winner-takes-all markets
When enormous rewards go to a few. Lots of people can sing or play football but the big money goes to those good enough to sell out concerts or play for top-flight clubs. By the same token, the best accountants, lawyers or fund managers will attract very high fees as clients will seek them out.

Withholding tax
A levy that is collected before the recipient gets their money. Such taxes are often applied to interest and dividend income. Taxes are also deducted before most workers get their wages.

Working from home (WFH)
A phenomenon that took off during the covid-19 pandemic when many offices were closed. Although employees in many sectors (retailing, manufacturing) could not work from home, office workers were able to use technology, such as video conferencing, to carry on. The evidence did not suggest a great impact on productivity but as the pandemic eased, hybrid working (with some days at home and some in the office) became quite common where it was possible. For more, see our Special Report.

World Bank
An institution set up, like the International Monetary Fund, as part of the Bretton Woods agreement. The World Bank's main activity has been to provide loans and advice to developing countries, but it also conducts research into issues such as poverty and migration. For more about the bank, read this Explainer.

World Economic Forum
A research and conference group that holds an annual meeting in Davos, Switzerland, that attracts the great and the good. The conference has given rise to the stereotype of "Davos man" who is entitled and spouts the latest received wisdom. The forum has fuelled a thousand conspiracy theories.

World Trade Organisation (WTO)
A body set up, under the auspices of the General Agreement on Tariffs and Trade, to replace that regime and rule on trade disputes. China's admission to the WTO

in December 2001 was followed by a rapid expansion of its exports, but not by the political liberalisation that some hoped would occur. The WTO is disliked by some campaigners—and some governments—because its decisions impinge on national sovereignty.

Y

Yield
The income from a security, expressed as a proportion of its market price. A bond carries an interest rate or coupon based on its par value (conventionally expressed as 100). But as the price falls or rises, the yield moves in inverse proportion. A coupon of $5 is a higher yield on a price of 80 than on a price of 120. The gross redemption yield reflects any capital gain or loss (since the bond will eventually be repaid at 100) as well as the income. For equities, the yield is the dividend as a proportion of the share price.

Yield curve
A graph that shows the yield of securities with different maturities. Normally, longer-dated securities carry higher yields than those with shorter maturities to compensate investors for locking their money away (see time value of money). Occasionally the yield curve inverts, with shorter-dated securities yielding more; this is often the result of central banks tightening policy by raising interest rates and can be a harbinger of recession.

Z

Zero coupon bond
A bond on which no interest payments are made. Instead it is issued at a discount to its repayment value and the bondholder makes a capital gain if they hold it to maturity. In some jurisdictions, this may have tax advantages if capital gains are treated less harshly than interest income.

Zero lower bound
Central banks adjust interest rates in their attempts to stimulate or slow down the economy. There is no upper limit to rates but economists debated whether rates could be cut below zero; that is, could depositors be penalised for keeping their money in a bank. However, central banks showed, in the aftermath of the 2007-09 financial crisis, that it was possible to introduce negative interest rates albeit for commercial banks, rather than for individuals. For more, read this article.

Zero-hours contracts
A form of employment in the gig economy that offers maximum flexibility to employers and little security to workers. Employees are summoned for work only when they are needed and cannot therefore be sure of their likely income, their availability for other jobs or child-care commitments.

Zero-sum game
The view that economic advance by one party can only be at the expense of another. This philosophy underlies protectionism, which seeks to exclude the products of other countries. But most economists believe that open trade is mutually beneficial. See comparative advantage; and see this article.