Finance describes the flow of money and how people, companies, and governments make, save, invest, borrow, and spend it. Personal finance is about budgeting, spending, borrowing, saving, and investing for the future. Corporate finance involves raising capital and issuing stock. establishing and expanding a business, purchasing equipment, leasing machinery, and hiring staff. Public finance focuses on managing public debt, spending on public services, collecting taxes, and stimulating the economy. Finance is critical to growing wealth, making decisions, and managing risk. Finance is all about dealing with and managing money.It can be broadly divided into three categories: personal, corporate, and public finance.People engage in finance when they manage money to use it more effectively or increase it.Finance is an academic subject with subcategories like social finance and behavioral finance. Finance can help people achieve their goals, empower them to live securely, plan ahead, and build wealth. Mira Norian / Investopedia Finance is typically broken down into three broad categories: public finance, corporate finance, and personal finance. Public finance includes tax systems, government expenditures, budget procedures, stabilization policies and instruments, debt issues, and other government concerns. Corporate finance involves managing assets, liabilities, revenues, and debts for businesses. Personal finance defines all financial decisions and activities of an individual or household, including budgeting, insurance, mortgage planning, savings, and retirement planning. Asset: An asset is something of value, such as cash, real estate, or property. A business may have current assets or fixed assets.Balance sheet: A balance sheet is a document that shows a company's assets and liabilities. Subtract the liabilities from the assets to find the firm's net worth.Cash flow: Cash flow is the movement of money into and out of a business or household.Compound interest: Compound interest is calculated and added periodically, unlike simple interest, which is interest added to the principal only time. This results in interest being charged not only on the principal but also on the interest that's already accrued.Equity: Equity means ownership. Stocks are called equities because each share represents a portion of ownership in the underlying corporation or entity.Liability: A liability is a financial obligation, such as debt. Liabilities can be current or long-term.Liquidity: Liquidity refers to how easily an asset can be converted to cash. Real estate isn't a very liquid investment because it can take weeks, months, or even longer to sell.Profit: Profit is the money that's left over after expenses. A profit and loss statement shows how much a business has earned or lost for a particular period. Finance arose as a study of theory and practice distinct from the field of economics in the 1940s and 1950s. It began with the works of Harry Markowitz, William F. Sharpe, Fischer Black, and Myron Scholes. Particular realms of finance, such as banking, lending, and investing have been around in some form since the dawn of civilization. The financial transactions of the early Sumerians were formalized in the Babylonian Code of Hammurabi around 1800 BCE. This set of rules regulated ownership or rental of land, employment of agricultural labor, and credit. Yes, there were loans back then, and yes, interest was charged on them. Rates varied depending on whether you were borrowing grain or silver. Cowrie shells were used as a form of money in China by 1200 BCE. Coinage was introduced in the first millennium BCE. King Croesus of Lydia, which is now Turkey, was one of the first to strike and circulate gold coins around 564 BCE. Hence the expression "rich as Croesus." Coins were stored in the basement of temples in ancient Rome because priests and temple workers were considered to be the most honest and devout to safeguard assets. Temples also loaned money, acting as financial centers of major cities. Belgium claims to be home to the first exchange, with one in Antwerp dating back to 1531. The East India Co. became the first publicly traded company in the 1600s as it issued stock and paid dividends on proceeds from its voyages. The London Stock Exchange was created in 1773 and was followed by the New York Stock Exchange less than 20 years later. The London Exchange had been around since the 1570s as the Royal Exchange. The earliest recorded bond dates back to 2400 BCE. It was a stone tablet that recorded debt obligations that guaranteed repayment of grain. Governments began issuing debts to fund war efforts during the Middle Ages. The Bank of England was created to finance the British Navy in the 1600s. The United States began issuing Treasury bonds to support the Revolutionary War nearly a century later. The early practice of options is outlined through an anecdote by the philosopher Thales in Aristotle's 4th-century philosophical work, "Politics." Thales preemptively acquired the rights to all olive presses in Chios and Miletus, believing that a great harvest of olives was on the horizon in the coming year. Both forward and options contracts were integrated into Amsterdam's sophisticated clearing process by the mid-17th century. Compound interest is interest that's calculated not just on principal but on previously accrued interest. It was known to ancient civilizations. The Babylonians had a phrase for "interest on interest," which basically defines the concept. But it wasn't until medieval times that mathematicians started to analyze to show how invested sums could mount up. One of the earliest and most important sources is the arithmetical manuscript written by Leonardo Fibonacci of Pisa, known as "Liber Abaci," in 1201. It gives examples comparing compound and simple interest. Luca Pacioli's "Summa de arithmetica, geometria, proportioni et proportionalita" was the first comprehensive treatise on bookkeeping and accountancy. It was published in Venice in 1494. A book on accountancy and arithmetic written by William Colson appeared in 1612, containing the earliest tables of compound interest written in English. Richard Witt published his "Arithmeticall Questions" in London a year later, in 1613, and compound interest was thoroughly accepted. Interest calculations were combined with age-dependent survival rates to create the first life annuities in England and the Netherlands toward the end of the 17th century. The federal government helps prevent market failure by overseeing the allocation of resources, distribution of income, and stabilization of the economy. Regular funding for these programs is secured mostly through taxation. Borrowing from banks, insurance companies, and other governments and earning dividends from its companies also helps finance the federal government. State and local governments receive grants and aid from the federal government. Other sources of public finance include: User charges from ports, airport services, and other facilitiesFines resulting from breaking lawsRevenues from licenses and fees, such as for drivingSales of government securities and bond issues Businesses obtain financing through a variety of means from equity investments to credit arrangements. A firm might take out a loan from a bank or arrange for a line of credit. Acquiring and managing debt properly can help a company expand and become more profitable. Startups may receive capital from angel investors or venture capitalists in exchange for a percentage of ownership. A company will issue shares on a stock exchange if it thrives and goes public. Such initial public offerings (IPOs) bring a great influx of cash into a firm. Established companies may sell additional shares or issue corporate bonds to raise money. Businesses might also purchase dividend-paying stocks, blue-chip bonds, or interest-bearing bank certificates of deposit (CDs). They may buy other companies in an effort to boost revenue. Some examples of corporate financing include: Bausch & Lomb Corp.'s IPO was initially filed on Jan. 13, 2022, and officially sold shares in May 2022. The healthcare company generated $630 million in proceeds.Ford Motor Credit manages outstanding notes to raise capital or extinguish debt to support Ford Motor Co.HomeLight, a real estate company, used a blended financial approach to raise $115 million: $60 million by issuing additional equity and $55 million through debt financing. HomeLight used the additional capital to acquire lending startup Accept. Personal financial planning generally involves analyzing an individual's or a family's current financial position, predicting short- and long-term needs, and executing a plan to fulfill those needs within individual financial constraints. Personal finance depends largely on one's earnings, living requirements, and goals and desires. Matters of personal finance include but aren't limited to the securing of financial products like credit cards, life and home insurance, mortgages, and retirement products. Personal banking products such as checking and savings accounts, individual retirement accounts (IRAs and 401(k) plans) are also considered a part of personal finance. The most important aspects of personal finance include: Assessing the current financial status, such as expected cash flow and current savingsBuying insurance to protect against risk and to ensure that one's material standing is secureCalculating and filing taxesEarmarking savings and investmentsPlanning for retirement Personal finance is a specialized field, although forms of it have been taught in universities and schools as "home economics" or "consumer economics" since the early 20th century. The field was initially disregarded by male economists because "home economics" appeared to be the purview of housewives. Economists have repeatedly stressed widespread education in matters of personal finance as integral to the macro performance of the overall national economy. Social finance typically refers to investments made in social enterprises, including charitable organizations and some cooperatives. These investments take the form of equity or debt financing in which the investor seeks both a financial reward and a social gain. Forms of social finance also include some segments of microfinance, specifically loans to small business owners and entrepreneurs in less-developed countries to enable their enterprises to grow. Lenders earn a return on their loans while simultaneously helping to improve individuals' standards of living and to benefit the local society and economy. Social impact bonds, also known as Pay for Success Bonds or social benefit bonds, are a specific type of instrument that acts as a contract with the public sector or local government. Repayment and return on investment are contingent upon the achievement of certain social outcomes and achievements. There was a time when theoretical and empirical evidence seemed to suggest that conventional financial theories were reasonably successful at predicting and explaining certain types of economic events. Academics in the financial and economic realms, nonetheless, detected anomalies and behaviors that occurred in the real world but couldn't be explained by any available theories. It became increasingly clear that conventional theories could explain certain "idealized" events, but the real world was a great deal messier and more disorganized. Market participants frequently behave in ways that are irrational and difficult to predict according to those models. Academics began to turn to cognitive psychology to account for irrational and illogical behaviors that can't be explained by modern financial theory. The field of behavioral science was born out of these efforts. It seeks to explain our actions whereas modern finance looks to explain the actions of the idealized "economic man (Homo economicus)." Behavioral finance is a subfield of behavioral economics. It proposes psychology-based theories to explain financial anomalies such as severe rises or falls in stock prices. The purpose is to identify and understand why people make certain financial choices. It's assumed within behavioral finance that the information structure and the characteristics of market participants systematically influence individuals' investment decisions as well as market outcomes. Daniel Kahneman and Amos Tversky began to collaborate in the late 1960s and are considered by many to be the fathers of behavioral finance. Richard Thaler joined them later and combined economics and finance with elements of psychology to develop concepts like mental accounting, the endowment effect, and other biases that have an impact on people's behavior. Behavioral finance encompasses many concepts, but four are key. Mental accounting refers to the propensity for people to allocate money for specific purposes based on miscellaneous subjective criteria such as the source of the money and the intended use for each account. The theory of mental accounting suggests that individuals are likely to assign separate functions to each asset group or account. The result can be an illogical and even detrimental set of behaviors. Some people keep a special "money jar" set aside for a vacation or a new home while carrying substantial credit card debt at the same time. Herd behavior states that people tend to mimic the financial behaviors of the majority whether they're rational or irrational. Herd behavior is a set of decisions and actions that an individual wouldn't necessarily make on their own in many cases but which seem to have legitimacy because "everyone's doing it." Herd behavior is often considered a major cause of financial panics and stock market crashes. Anchoring refers to attaching spending to a certain reference point or level, even though it may have no logical relevance to the decision at hand. One common example of anchoring is the conventional wisdom that a diamond engagement ring should cost about two months' worth of salary. Another might be buying a stock that briefly rose from trading around $65 to hit $80 and then fell back to $65 out of a sense that it's now a bargain. That could be true but it's more likely that the $80 figure was an anomaly and $65 is the true value of the shares. High self-rating refers to a person's tendency to rank themself better than others or higher than an average person. An investor might think that they're an investment guru when their investments perform optimally, blocking out the investments that are performing poorly. High self-rating goes hand in hand with overconfidence, which reflects the tendency to overestimate or exaggerate one's ability to successfully perform a given task. Overconfidence can be harmful to an investor's ability to pick stocks. A 1998 study by researcher Terrance Odean found that overconfident investors typically conducted more trades compared with their less-confident counterparts, and these trades produced yields significantly lower than the market. Scholars have argued that the 2000s have witnessed an unparalleled expansion of financialization, or the role of finance in everyday business and life. Economics and finance are interrelated, informing and influencing each other. Investors care about economic data because they also influence the markets to a great degree. Investors should avoid "either/or" arguments regarding economics and finance. Both are important and have valid applications. The focus of economics and especially macroeconomics tends to be a bigger picture in nature such as how a country, region, or market is performing. Economics can also focus on public policy. The focus of finance is more individual-, company-, or industry-specific. Microeconomics explains what to expect if certain conditions change on the industry, firm, or individual level. Microeconomics says that consumers will tend to buy fewer cars than before if a manufacturer raises the prices of cars. The price of copper increases if a major copper mine collapses in South America because the supply is restricted. Finance also focuses on how companies and investors evaluate risk and return. Economics has historically been more theoretical and finance more practical, but the distinction has become much less pronounced since 2000. As a field of study and an area of business, finance has strong roots in related scientific areas such as statistics and mathematics. Many modern financial theories resemble scientific or mathematical formulas. There's no denying, however, that the financial industry also includes nonscientific elements that liken it to an art. It's been discovered that human emotions and decisions made because of them play a large role in many aspects of the financial world. Modern financial theories such as the Black-Scholes model draw heavily on the laws of statistics and mathematics found in science. Their very creation would have been impossible if science hadn't laid the initial groundwork. Theoretical constructs such as the capital asset pricing model (CAPM) and the efficient market hypothesis (EMH) attempt to explain the behavior of the stock market in an emotionless, completely rational manner, ignoring elements such as market and investor sentiment. Academic advancements have greatly improved the day-to-day operations of the financial markets, but history is rife with examples that seem to contradict the notion that finance behaves according to rational scientific laws. Stock market disasters such as the October 1987 crash (Black Monday) that saw the Dow Jones Industrial Average (DJIA) fall 22% and the great 1929 stock market crash beginning on Black Thursday (Oct. 24, 1929) aren't suitably explained by scientific theories. The human element of fear also played a part. A dramatic fall in the stock market is often called a "panic." The track records of investors have shown that markets aren't entirely efficient and they're therefore not entirely scientific, either. Studies have shown that investor sentiment appears to be mildly influenced by weather, with the overall market generally becoming more bullish when it's predominantly sunny. Other phenomena include the January effect, when stock prices fall near the end of one calendar year and rise at the beginning of the next. Many career options are available for those interested in finance. Accountant: An accountant manages a company's financial records, tracks expenses, and runs reports.Auditor: An auditor is tasked with ensuring accuracy in financial records. They may work in private practice auditing client companies, be employed by a company to ensure internal propriety, or they may work for the government.Banker: A commercial banker works with businesses to provide banking services such as accounts and loans. An investment banker focuses on companies looking to raise capital or conduct a sale or merger.Capital manager: A capital management professional helps a company allocate its capital resources between investment options.Lender: An individual who works in lending, such as a loan officer, manages the issuance of loans. A mortgage lender would work with contracts to secure a real estate loan.Market analyst: Market analysts evaluate trends and make forecasts that account for changing market conditions. They prepare recommendations that can guide a company's financial decisions. A personal financial advisor's median annual compensation is $189,000. A job as a treasury analyst pays a median total pay of $104,000 a year. Corporate treasurers who have more experience make a median total pay of $180,000. Financial analysts earn a median total pay of $106,000. Accountants and auditors' median total pay clocks in at $88,000. The median total pay for CPAs is $231,000 per year. Financial managers create financial reports, direct investment activities, and develop plans for the long-term financial goals of their organization. They have a median pay of $155,000 per year, reflecting that theirs is a fairly senior position. Securities and commodities agents are brokers who connect buyers and sellers in financial markets. Securities brokers earn a median total pay of $155,000, and commodities brokers earn a median total pay of $204,000. Wages in the finance and insurance industry increased by 40.5% % from 2006 through 2024, according to Payscale. The recipient of a bachelor's degree in finance earns a median salary of $78,080 a year. Chief compliance officers (CFOs) have the highest-salaried jobs in finance, according to an Indeed survey. They earned an average of $154,982 before bonuses as of April 2025. Undergraduate majors in finance will learn the ins and outs. A master's degree in finance will hone those skills and expand your knowledge base. An MBA will also provide some basics for corporate finance and similar topics.The chartered financial analyst (CFA) self-study program is a rigorous series of three difficult exams that culminate in a globally recognized credential in finance. It may be appropriate for those who have already graduated without a finance degree. Other, more specific industry standards exist, such as the Certified Financial Planner (CFP). Finance involves borrowing and lending, investing, raising capital, and selling and trading securities. The purpose of these pursuits is to allow companies and individuals to fund certain activities or projects to be repaid in the future based on income streams generated from those activities.People wouldn't be able to afford to buy homes entirely in cash without finance and companies wouldn't be able to grow and expand. Finance allows for the more efficient allocation of capital resources. Accounting is one aspect of finance that tracks day-to-day cash flows, expenses, and income. Accounting tasks include bookkeeping, tax preparation, and auditing. Finance is a broad term that describes a variety of activities, but they all boil down to the practice of managing money: getting, spending, and everything in between, from borrowing to investing. Finance also refers to the tools and instruments people use in relation to money and the systems and institutions through which activities occur. Finance can involve something as large as a country's trade deficit or as small as the dollar bills in a person's wallet. Very little could function without it, not an individual household, a corporation, or a society. Finance is defined as the management of money and includes activities such as investing, borrowing, lending, budgeting, saving, and forecasting. The financial system includes the circulation of money, the management of investments, and money lending. In businesses, the finance team is responsible for ensuring the company's capital is adequate, that appropriate investments are made, and that the company's revenues and expenses are well-managed. What Are the Types of Finance? The three main types of finance are personal finance, corporate finance, and public finance. Personal finance refers to individual money management, while corporate finance includes business capital and investment decisions. Public finance involves government fiscal policy and public spending. 1. Personal Finance Personal finance is the management of an individual's or household's income, expenses, investments, and obligations, such as income tax. Individuals often work with a personal banker, investment advisor, accountant, mortgage broker, and other professionals to manage their financial situation. Examples of Personal Finance Bank accounts Credit cards Mortgages Lines of credit Employment income Personal spending and expenses Taxes Savings Investments (stocks, bonds, real estate, etc.) 2. Corporate Finance (Business) From a business perspective, corporate finance is the management of a company's funding and its revenue sources, capital structure, and profit and loss (P&L) statement. Financial professionals employed by companies are responsible for managing the companies' capital and financial performance. These roles include accountants, financial analysts, finance managers, and executives, such as the Chief Financial Officer (CFO). Examples of Corporate Finance 3. Public Finance (Government) Public finance includes managing a country's national budget, treasury department, central bank, and other government agencies. It focuses on collecting tax revenue and spending that money on national services and programs such as roads, hospitals, and social security. Examples of Public Finance Income tax Sales tax Property tax Inflation Infrastructure spending (roads, hospitals, etc.) Social security and insurance Supply of money International trade Employment Gross national product (GNP) National debt National budget Video: What is Finance? Watch this short video for a quick breakdown of the definition of finance with examples and common financial topics. Examples of Finance Activities The easiest way to define finance is by providing examples of financial activities. Below is a list of the most common examples: Investing personal or client money in stocks, bonds, or guaranteed investment certificates (GICs). Borrowing money from institutional investors by issuing bonds on behalf of a public company. Lending money to people by providing them with a mortgage to buy a house. Using Excel spreadsheets to build a budget and financial model for a corporation. Saving personal money in a high-interest savings account. Developing a forecast for government spending and revenue collection. Finance Topics There is a wide range of topics that concern people in the financial industry. Below is a list of some of the most common topics you should expect to encounter in the industry. Finance Careers A definition of finance would not be complete without exploring the career options associated with the industry. Below are some of the most popular career paths: Excel Modeling Skills Across the entire industry, one of the most important and highly sought-after skill sets is financial modeling and the ability to create an Excel model that evaluates a particular situation. The screenshot below shows an example from one of CFI's Excel modeling courses. Source: CFI's 3-Statement Modeling course Frequently Asked Questions: Finance Definition What is finance in simple words? Finance is the management of money. It includes how individuals, businesses, and governments earn, spend, save, invest, and borrow money to achieve their financial goals. What is the best definition of finance? Finance is the management of money and includes activities such as investing, borrowing, lending, budgeting, saving, and forecasting. Finance encompasses how people and organizations make decisions about acquiring and using financial resources. What are the three types of finance? The three main types of finance are personal finance (managing individuals' money), corporate finance (managing business capital and investments), and public finance (managing government budgets and fiscal policy). Each type focuses on different financial decisions and stakeholders. What does finance mean as a job? Finance jobs involve managing money and financial decisions for individuals, businesses, or governments. Common finance careers include financial analyst, investment banker, accountant, financial planner, wealth manager, and corporate finance professional. These roles focus on analyzing financial data, making investment recommendations, managing budgets, and helping organizations optimize their financial performance. How can I learn corporate finance? You can learn corporate finance through formal higher education, but many people build applied finance skills outside of degree programs. Online courses and certification programs are designed to bridge the gap between theory and real-world application. Starting with foundations in accounting, capital structure, and using Excel, these programs will help you gain a strong knowledge base to build upon. CFI's Financial Modeling & Valuation Analyst (FMVA®) certification provides this foundation through applied, hands-on learning recognized across finance and business. Additional Resources To continue developing and preparing for a career in finance, these additional CFI materials will be helpful: Corporate Finance Overview How to Choose the Right Career Path in Finance for Your Skills Interactive Career Map Free Careers in Finance course See all Career resources Academic discipline studying businesses and investments For other uses, see Finance (disambiguation). "Financial" redirects here. For the Georgian newspaper, see The Financial. Part of a series onFinance Markets Assets Asset (economics) Bond Asset growth Capital asset Commodity Derivatives Domains Equity Foreign exchange Money Over-the-counter Private equity Real estate Spot Stock Participants Angel investor Bull (stock market speculator) Financial planner Investor institutional Retail Speculator Locations Financial centres Offshore financial centres Conduit and sink OFCs Instruments Bond Cash Collateralised debt obligation Credit default swap Time deposit (certificate of deposit) Credit line Deposit Derivative Futures contract Indemnity Insurance Letter of credit Loan Mortgage Option (callexoticput) Performance bonds Repurchase agreement Stock Security Syndicated loan Synthetic CDO Corporate General Accounting Audit Capital budgeting Capital structure Corporate finance Credit rating agency Enterprise risk management Enterprise value Risk management Financial statements Transactions Leveraged buyout Mergers and acquisitions Structured finance Venture capital Taxation Base erosion and profit shifting (BEPS) Corporate tax haven Tax inversion Tax haven Transfer pricing Personal Credit / Debt Employment contract Financial planning RetirementStudent loan Public Government spending Final consumption expenditure OperationsRedistribution Transfer payment Government revenue TaxationDeficit spending Budget (balance)Debt Non-tax revenue Warrant of payment Banking Central bank Deposit account Fractional-reserve Full-reserve Investment banking Loan Money supply Lists of banks Bank regulation Banking license Basel Accords Bank for International Settlements Financial Stability Board Deposit insurance Separation of investment and retail banking Regulation · Financial law International Financial Reporting Standards ISO 31000 Professional certification Fund governance Economic history Private equity and venture capital Recession Stock market bubble Stock market crash Accounting scandals Outline Business and Economics portal Money portalvte Finance refers to monetary resources and to the study and discipline of money, currency, assets and liabilities.[a] As a subject of study, it is a field of Business Administration which involves the planning, organizing, leading, and controlling of an organization's resources to achieve its goals. Based on the scope of financial activities in financial systems, the discipline can be divided into personal, corporate, and public finance. In these financial systems, assets are bought, sold, or traded as financial instruments, such as currencies, loans, bonds, shares, stocks, options, futures, swaps, etc. Assets can also be banked, invested, and insured to maximize value and minimize loss. In practice, risks are always present in any financial action and entities. Due to its wide scope, a broad range of subfields exists within finance. Asset-, money-, risk- and investment management aim to maximize value and minimize volatility. Financial analysis assesses the viability, stability, and profitability of an action or entity. Some fields are multidisciplinary, such as mathematical finance, financial law, financial economics, financial engineering and financial technology. These fields are the foundation of business and accounting. In some cases, theories in finance can be tested using the scientific method, covered by experimental finance. The early history of finance parallels the early history of money, which is prehistoric. Ancient and medieval civilizations incorporated basic functions of finance, such as banking, trading and accounting, into their economies. In the late 19th century, the global financial system was formed. In the middle of the 20th century, finance emerged as a distinct academic discipline,[b] separate from economics.[1] The earliest doctoral programs in finance were established in the 1960s and 1970s.[2] Today, finance is also widely studied through career-focused undergraduate and master's level programs.[3][4] Bond issued by The Baltimore and Ohio Railroad. Bonds are a form of borrowing used by corporations to finance their operations. Share certificate dated 1913 issued by the Radium Hill Company NYSE's stock exchange traders floor in 1963, before the introduction of electronic readouts and computer screens Chicago Board of Trade Corn Futures market, 1993 Oil traders, Houston, 2009 Main article: Financial system See also: Financial services, financial market, and Circular flow of income As outlined, the financial system consists of the flows of capital that take place between individuals and households (personal finance), governments (public finance), and businesses (corporate finance). "Finance" thus studies the process of channeling money from savers and investors to entities that need it.[c] Savers and investors have money available which could earn interest or dividends if put to productive use. Individuals, companies and governments must obtain money from some external source, such as loans or credit, when they lack sufficient funds to run their operations. In general, an entity whose income exceeds its expenditure can lend or invest the surplus with the aim of earning a fair return. Correspondingly, an entity where income is less than expenditure can raise capital usually in one of two ways: (i) by borrowing in the form of a loan (private individuals), or by selling government or corporate bonds; (ii) by a corporation selling equity, also called stock or shares (which may take various forms: preferred stock or common stock). The owners of both bonds and stock may be institutional investors—financial institutions such as investment banks and pension funds—or private individuals, called private investors or retail investors. (See Financial market participants.) The lending is often indirect, through a financial intermediary such as a bank, or via the purchase of notes or bonds (corporate bonds, government bonds, or mutual bonds) in the bond market. The lender receives interest, the borrower pays a higher interest than the lender receives, and the financial intermediary earns the difference for arranging the loan.[6][7][8] A bank aggregates the activities of many borrowers and lenders. Banks accept deposits from individuals and businesses, paying interest on these funds. The bank then lends these deposits to borrowers, facilitating transactions between borrowers and lenders of various sizes and enabling efficient financial coordination. Investing typically entails the purchase of stock, either individual securities or via a mutual fund, for example. Stocks are usually sold by corporations to investors so as to raise required capital in the form of "equity financing", as distinct from the debt financing described above. The financial intermediaries here are the investment banks (which find the initial investors and facilitate the listing of the securities, typically shares and bonds), the securities exchanges (which allow their trade thereafter), and the various investment service providers (including mutual funds, pension funds, wealth managers, and stock brokers, typically servicing retail investors). Inter-institutional trade and investment, and fund-management at this scale, is referred to as "wholesale finance". Institutions here extend the products offered, with related trading, to include bespoke options, swaps, and structured products, as well as specialized financing; this "financial engineering" is inherently mathematical, and these institutions are then the major employers of quantitative analysts (or "quants", see below). In these institutions, risk management, regulatory capital, and compliance play major roles. As outlined, finance broadly comprises three areas: personal finance, corporate finance, and public finance. These, in turn, overlap and employ various activities and sub-disciplines—chiefly investments, risk management, and quantitative finance. Wealth management consultation—here, the financial advisor counsels the client on an appropriate investment strategy. Main article: Personal finance Further information: Financial planner and Investment advisory Personal finance refers to the practice of budgeting to ensure enough funds are available to meet basic needs, while ensuring there is only a reasonable level of risk to lose said capital. Personal finance may involve paying for education, financing durable goods such as real estate and cars, buying insurance, investing, and saving for retirement.[9] Personal finance may also involve paying for a loan or other debt obligations. The main areas of personal finance are considered to be income, spending, saving, investing, and protection. The following steps, as outlined by the Financial Planning Standards Board,[10] suggest that an individual will understand a potentially secure personal finance plan after: Purchasing insurance to ensure protection against unforeseen personal events; Understanding the effects of tax policies, subsidies, or penalties on the management of personal finances; Understanding the effects of credit on individual financial standing; Developing a savings plan or financing for large purchases (auto, education, home); Planning a secure financial future in an environment of economic instability; Pursuing a checking or a savings account; Preparing for retirement or other long term expenses.[11] Main articles: Corporate finance and Financial management Further information: Strategic financial management Corporate finance deals with the actions that managers take to increase the value of the firm to the shareholders, the sources of funding and the capital structure of corporations, and the tools and analysis used to allocate financial resources. While corporate finance is in principle different from managerial finance, which studies the financial management of all firms rather than corporations alone, the concepts are applicable to the financial problems of all firms,[12] and this area is then often referred to as "business finance". Typically, "corporate finance" relates to the long term objective of maximizing the value of the entity's assets, its stock, and its return to shareholders, while also balancing risk and profitability. This entails[13] three primary areas: Capital budgeting: selecting which projects to invest in—here, accurately determining value is crucial, as judgements about asset values can be "make or break".[14] Dividend policy: the use of "excess" funds—these are to be reinvested in the business or returned to shareholders. Capital structure: deciding on the mix of funding to be used—here attempting to find the optimal capital mix re debt-commitments vs cost of capital. (This consists in understanding how much the firm has to generate to satisfy investors, and by minimizing the weighted average cost of capital (WACC) so that the value of the company increases.) The latter creates the link with investment banking and securities trading, as above, in that the capital raised will generically comprise debt, i.e. corporate bonds, and equity, often listed shares. Re risk management within corporates, see below. Financial managers—i.e. as distinct from corporate financiers—focus more on the short term elements of profitability, cash flow, and "working capital management" (inventory, credit and debtors), which is concerned about the daily funding operations, and the goal is to maintain liquidity, minimize risk and maximize efficiency ensuring that the firm can safely and profitably carry out its financial and operational objectives; i.e. that it: (1) can service both maturing short-term debt repayments, and scheduled long-term debt payments, and (2) has sufficient cash flow for ongoing and upcoming operational expenses. (See Financial management and FP&A.) President George W. Bush, speaking on the Federal Budget in 2007, requesting additional funds from Congress CBO: 2023 US Federal Budget Infographic Main article: Public finance Public finance refers to the management of finances related to sovereign states, sub-national entities, and associated public agencies or bodies. It generally encompasses a long-term strategic perspective regarding investment decisions that affect public entities.[15] These long-term strategic periods typically encompass five or more years.[16] Public finance is primarily concerned with:[17] Identification of required expenditures of a public sector entity; Source(s) of that entity's revenue - both from tax, and from non-tax sources; The budgeting process; Sovereign debt issuance, or municipal bonds for public works projects. Central banks, such as the Federal Reserve System banks in the United States, the European Central Bank and the Bank of England in the United Kingdom, are strong players in public finance. They act as lenders of last resort as well as strong influences on monetary and credit conditions in the economy.[18] Development finance, which is related, concerns investment in economic development projects provided by a (quasi) governmental institution on a non-commercial basis; these projects would otherwise not be able to get financing. A public–private partnership is primarily used for infrastructure projects: a private sector corporate provides the financing up-front, and then draws profits from taxpayers or users. Climate finance, and the related Environmental finance, address the financial strategies, resources and instruments used in climate change mitigation. Share prices listed in a Korean newspaper "The excitement before the bubble burst"—viewing prices via ticker tape, shortly before the Wall Street crash of 1929 A modern price-ticker. This infrastructure underpins contemporary exchanges, evidencing prices and related ticker symbols. The ticker symbol is represented by a unique set of characters used to identify the subject of the financial transaction. Main article: Investment management See also: Active management and Passive management Investment management[12] is the professional asset management of various securities—typically shares and bonds, but also other assets, such as real estate, commodities and alternative investments—in order to meet specified investment goals for the benefit of investors. As above, investors may be institutions, such as insurance companies, pension funds, corporations, charities, educational establishments, or private investors, either directly via investment contracts or, more commonly, via collective investment schemes like mutual funds, exchange-traded funds, or real estate investment trusts. At the heart of investment management[12] is asset allocation—diversifying the exposure among these asset classes, and among individual securities within each asset class—as appropriate to the client's investment policy, in turn, a function of risk profile, investment goals, and investment horizon (see Investor profile). Here: Portfolio optimization is the process of selecting the best portfolio given the client's objectives and constraints. Fundamental analysis is the approach typically applied in valuing and evaluating the individual securities. Technical analysis is about forecasting future asset prices with past data.[19] Overlaid is the portfolio manager's investment style—broadly, active vs passive, value vs growth, and small cap vs. large cap—and investment strategy. In a well-diversified portfolio, achieved investment performance will, in general, largely be a function of the asset mix selected, while the individual securities are less impactful. The specific approach or philosophy will also be significant, depending on the extent to which it is complementary with the market cycle. Additional to this diversification, the fundamental risk mitigant employed, investment managers will apply various hedging techniques as appropriate,[12] these may relate to the portfolio as a whole or to individual stocks. Bond portfolios are often (instead) managed via cash flow matching or immunization, while for derivative portfolios and positions, traders use "the Greeks" to measure and then offset sensitivities. In parallel, managers – active and passive – will monitor tracking error, thereby minimizing and preempting any underperformance vs their "benchmark". A quantitative fund is managed using computer-based mathematical techniques (increasingly, machine learning) instead of human judgment. The actual trading is typically automated via sophisticated algorithms. Crowds gathering outside the New York Stock Exchange after the Wall Street crash of 1929 Customers queuing outside a Northern Rock branch in the United Kingdom to withdraw their savings during the 2008 financial crisis Main article: Financial risk management Risk management, in general, is the study of how to control risks and balance the possibility of gains; it is the process of measuring risk and then developing and implementing strategies to manage that risk. Financial risk management[20][21] is the practice of protecting corporate value against financial risks, often by "hedging" exposure to these using financial instruments. The focus is particularly on credit and market risk, and in banks, through regulatory capital, includes operational risk. Credit risk is the risk of default on a debt that may arise from a borrower failing to make required payments; Market risk relates to losses arising from movements in market variables such as prices and exchange rates; Operational risk relates to failures in internal processes, people, and systems, or to external events (these risks will often be insured). Financial risk management is related to corporate finance[12] in two ways. Firstly, firm exposure to market risk is a direct result of previous capital investments and funding decisions; while credit risk arises from the business's credit policy and is often addressed through credit insurance and provisioning. Secondly, both disciplines share the goal of enhancing or at least preserving, the firm's economic value, and in this context[22] overlaps also enterprise risk management, typically the domain of strategic management. Here, businesses devote much time and effort to forecasting, analytics and performance monitoring. (See ALM and treasury management.) For banks and other wholesale institutions,[23] risk management focuses on managing, and as necessary hedging, the various positions held by the institution—both trading positions and long term exposures—and on calculating and monitoring the resultant economic capital, and regulatory capital under Basel III. The calculations here are mathematically sophisticated, and within the domain of quantitative finance as below. Credit risk is inherent in the business of banking, but additionally, these institutions are exposed to counterparty credit risk. Banks typically employ Middle office "Risk Groups", whereas front office risk teams provide risk "services" (or "solutions") to customers. Insurers[24] manage their own risks with a focus on solvency and the ability to pay claims: Life Insurers are concerned more with longevity risk and interest rate risk; Short-Term Insurers (Property, Health,Casualty) emphasize catastrophe- and claims volatility risks. For expected claims reserves are set aside periodically, while to absorb unexpected losses, a minimum level of capital is maintained. Dōjima Rice Exchange, the world's first futures exchange, established in Osaka in 1697 Main article: Quantitative analysis (finance) Quantitative finance—also referred to as "mathematical finance"—includes those finance activities where a sophisticated mathematical model is required,[25] and thus overlaps several of the above. As a specialized practice area, quantitative finance comprises primarily three sub-disciplines; the underlying theory and techniques are discussed in the next section: Quantitative finance is often synonymous with financial engineering. This area generally underpins a bank's customer-driven derivatives business—delivering bespoke OTC-contracts and "exotics", and designing the various structured products and solutions mentioned—and encompasses modeling and programming in support of the initial trade, and its subsequent hedging and management. Quantitative finance also significantly overlaps financial risk management in banking, as mentioned, both as regards this hedging, and as regards economic capital as well as compliance with regulations and the Basel capital / liquidity requirements. "Quants" are also responsible for building and deploying the investment strategies at the quantitative funds mentioned; they are also involved in quantitative investing more generally, in areas such as trading strategy formulation, and in automated trading, high-frequency trading, algorithmic trading, and program trading. ∑ t = 1 n F C F F t (1 + W A C C t) t + [F C F F n + 1 (W A C C n + 1 − g n + 1)] (1 + W A C C n) n {\displaystyle \sum _{t=1}^{n}{\frac {FCFF_{t}}{(1+WACC_{t})^{t}}}+{\frac {\left[{\frac {FCFF_{n+1}}{(WACC_{n+1}-g_{n+1})}}\right]}{(1+WACC_{n})^{n}}}} DCF valuation formula widely applied in business and finance, since articulated in 1938. Here, to get the value of the firm, its forecasted free cash flows are discounted to the present using the weighted average cost of capital for the discount factor. For share valuation investors use the related dividend discount model. Financial theory is studied and developed within the disciplines of management, (financial) economics, accountancy and applied mathematics. In the abstract,[12][26] finance is concerned with the investment and deployment of assets and liabilities over "space and time"; i.e., it is about performing valuation and asset allocation today, based on the risk and uncertainty of future outcomes while appropriately incorporating the time value of money. Determining the present value of these future values, "discounting", must be at the risk-appropriate discount rate, in turn, a major focus of finance-theory.[27]As financial theory has roots in many disciplines, including mathematics, statistics, economics, physics, and psychology, it can be considered a mix of an art and science,[1] and there are ongoing related efforts to organize a list of unsolved problems in finance. Decision trees, a more sophisticated valuation-approach, sometimes applied to corporate finance "project" valuations (and a standard[28] in business school curricula); various scenarios are considered, and their discounted cash flows are probability weighted. Main article: Managerial finance Managerial finance[29] is the branch of finance that deals with the financial aspects of the management of a company, and the financial dimension of managerial decision-making more broadly. It provides the theoretical underpin for the practice described above, concerning itself with the managerial application of the various finance techniques. Academics working in this area are typically based in business school finance departments, in accounting, or in management science. The tools addressed and developed relate in the main to managerial accounting and corporate finance: the former allow management to better understand, and hence act on, financial information relating to profitability and performance; the latter, as above, are about optimizing the overall financial structure, including its impact on working capital. Key aspects of managerial finance thus include: Capital budgeting Capital structure Working capital management Risk management Financial analysis and reporting The discussion, however, also extends to the broader field of business strategy, emphasizing the need for alignment with the overall strategic objectives of the company. It likewise incorporates managerial perspectives related to planning, directing, and controlling. The "efficient frontier", a prototypical concept in portfolio optimization. Introduced in 1952, it remains "a mainstay of investing and finance".[30] An "efficient" portfolio, i.e. combination of assets, has the best possible expected return for its level of risk (represented by the standard deviation of return). Modigliani–Miller theorem, a foundational element of finance theory, introduced in 1958; it forms the basis for modern thinking on capital structure. Even if leverage (D/E) increases, the weighted average cost of capital (k0) stays constant. Main article: Financial economics Financial economics[31] is the branch of economics that studies the interrelation of financial variables, such as prices, interest rates and shares, as opposed to real economic variables, i.e. goods and services. It thus centers on pricing, decision making, and risk management in the financial markets,[31][26] and produces many of the commonly employed financial models. (Financial econometrics is the branch of financial economics that uses econometric techniques to parameterize the relationships suggested.) The discipline has two main areas of focus:[26] asset pricing and corporate finance; the first being the perspective of providers of capital, i.e. investors, and the second of users of capital; respectively: Asset pricing theory develops the models used in determining the risk-appropriate discount rate, and in pricing derivatives; and includes the portfolio- and investment theory applied in asset management. The analysis essentially explores how rational investors would apply risk and return to the problem of investment under uncertainty, producing the key "Fundamental theorem of asset pricing". Here, the twin assumptions of rationality and market efficiency lead to modern portfolio theory (the CAPM), and to the Black–Scholes theory for option valuation. At more advanced levels—and often in response to financial crises—the study then extends these "neoclassical" models to incorporate phenomena where their assumptions do not hold, or to more general settings. Much of corporate finance theory, by contrast, considers investment under "certainty" (Fisher separation theorem, "theory of investment value", and Modigliani–Miller theorem). Here, theory and methods are developed for the decisioning about funding, dividends, and capital structure discussed above. A recent development is to incorporate uncertainty and contingency—and thus various elements of asset pricing—into these decisions, employing for example real options analysis. C (S , t) = N (d 1) S − N (d 2) K e − r (T − t) d 1 = 1 σ T − t [ln ⁡ (S K) + (r + σ 2 2) (T − t)] d 2 = d 1 − σ T − t {\displaystyle {\begin{aligned}C(S,t)&=N(d_{1})S-N(d_{2})Ke^{-r(T-t)}\\d_{1}&={\frac {1}{\sigma {\sqrt {T-t}}}}\left[\ln \left({\frac {S}{K}}\right)+\left(r+{\frac {\sigma ^{2}}{2}}\right)(T-t)\right]\\d_{2}&=d_{1}-\sigma {\sqrt {T-t}}\\\end{aligned}}} The Black–Scholes formula for the value of a call option. Although lately its use is considered naive, it has underpinned the development of derivatives-theory, and financial mathematics more generally, since its introduction in 1973.[32] "Trees" are widely applied in mathematical finance; here used in calculating an OAS. Other common pricing-methods are simulation and PDEs. These are used for settings beyond those envisaged by Black-Scholes. Post crisis, even in those settings, banks use local and stochastic volatility models to incorporate the volatility surface, while the xVA adjustments accommodate counterparty and capital considerations. Main article: Mathematical finance See also: Quantitative analysis (finance) and Financial modeling § Quantitative finance Financial mathematics[33] is the field of applied mathematics concerned with financial markets; Louis Bachelier's doctoral thesis, defended in 1900, is considered to be the first scholarly work in this area. The field is largely focused on the modeling of derivatives—with much emphasis on interest rate- and credit risk modeling—while other important areas include insurance mathematics and quantitative portfolio management. Relatedly, the techniques developed are applied to pricing and hedging a wide range of asset-backed, government, and corporate-securities. As above, in terms of practice, the field is referred to as quantitative finance and / or mathematical finance, and comprises primarily the three areas discussed. The main mathematical tools and techniques are, correspondingly: for derivatives,[34] Itô's stochastic calculus, simulation, and partial differential equations; see aside boxed discussion re the prototypical Black-Scholes model and the various numeric techniques now applied for risk management,[23] value at risk, stress testing and "sensitivities" analysis (applying the "greeks"); the underlying mathematics comprises mixture models, PCA, volatility clustering and copulas.[35] in both of these areas, and particularly for portfolio problems, quants employ sophisticated optimization techniques Mathematically, these separate into two analytic branches: derivatives pricing uses risk-neutral probability (or arbitrage-pricing probability), denoted by "Q"; while risk and portfolio management generally use physical (or actual or actuarial) probability, denoted by "P". These are interrelated through the above "Fundamental theorem of asset pricing". The subject is closely related to financial economics, which, as outlined, focuses on much of the underlying theory involved in financial mathematics: generally, financial mathematics will derive and extend the mathematical models suggested. Computational finance is the branch of (applied) computer science that deals with problems of practical interest in finance, and especially[33] emphasizes the numerical methods applied here. Main article: Experimental finance Experimental finance[36] aims to establish different market settings and environments to experimentally observe and provide a lens through which science can analyze agents' behavior and the resulting characteristics of trading flows, information diffusion, and aggregation, price setting mechanisms, and returns processes. Researchers in experimental finance study how well existing financial economics theories make accurate predictions and seek to validate them. They also aim to discover new principles to extend these theories for future financial decisions. This research often involves conducting trading simulations or observing human behavior in artificial, competitive, market-like environments. Main article: Behavioral economics Behavioral finance studies how the psychology of investors or managers affects financial decisions and markets[37] and is relevant when making a decision that can impact either negatively or positively on one of their areas. With more in-depth research into behavioral finance, it is possible to bridge what actually happens in financial markets with analysis based on financial theory.[38] Behavioral finance has grown over the last few decades to become an integral aspect of finance. Nowadays there is a need for more theory and testing of the effects of feelings on financial decisions. Especially, because now the time has come to move beyond behavioral finance to social finance, which studies the structure of social interactions, how financial ideas spread, and how social processes affect financial decisions and outcomes.[39][40] Behavioral finance includes such topics as: Empirical studies that demonstrate significant deviations from classical theories; Models of how psychology affects and impacts trading and prices; Forecasting based on these methods; Studies of experimental asset markets and the use of models to forecast experiments. A strand of behavioral finance has been dubbed quantitative behavioral finance, which uses mathematical and statistical methodology to understand behavioral biases in conjunction with valuation. This section needs additional citations for verification. Please help improve this article by adding citations to reliable sources in this section. Unsourced material may be challenged and removed. (April 2025) (Learn how and when to remove this message) Main article: Quantum finance Quantum finance involves applying quantum mechanical approaches to financial theory, providing novel methods and perspectives in the field.[41] Quantum finance is an interdisciplinary field, in which theories and methods developed by quantum physicists and economists are applied to solve financial problems. It represents a branch known as econophysics. Although quantum computational methods have been around for quite some time and use the basic principles of physics to better understand the ways to implement and manage cash flows, it is mathematics that is actually important in this new scenario.[42] Finance theory is heavily based on financial instrument pricing such as stock option pricing. Many of the problems facing the finance community have no known analytical solution. As a result, numerical methods and computer simulations for solving these problems have proliferated. This research area is known as computational finance. Many computational finance problems have a high degree of computational complexity and are slow to converge to a solution on classical computers. In particular, when it comes to option pricing, there is additional complexity resulting from the need to respond to quickly changing markets. For example, in order to take advantage of inaccurately priced stock options, the computation must complete before the next change in the almost continuously changing stock market. As a result, the finance community is always looking for ways to overcome the resulting performance issues that arise when pricing options. This has led to research that applies alternative computing techniques to finance. Most commonly used quantum financial models are quantum continuous model, quantum binomial model, multi-step quantum binomial model etc. Further information: History of money, History of banking, History of investment, Financial centre § History, Corporate finance § History, Quantitative analysis (finance) § History, Financial crisis § History, and Global financial system § History of international financial architecture See also: Category:History of finance The origin of finance can be traced to the beginning of state formation and trade during the Bronze Age. The earliest historical evidence of finance is dated to around 3000 BCE. Banking originated in West Asia, where temples and palaces were used as safe places for the storage of valuables. Initially, the only valuable that could be deposited was grain, but cattle and precious materials were eventually included. During the same period, the Sumerian city of Uruk in Mesopotamia supported trade by lending as well as the use of interest. In Sumerian, "interest" was mas, which translates to "calf". In Greece and Egypt, the words used for interest, tokos and ms respectively, meant "to give birth". In these cultures, interest indicated a valuable increase, and seemed to consider it from the lender's point of view.[43] The Code of Hammurabi (1792–1750 BCE) included laws governing banking operations. The Babylonians were accustomed to charging interest at the rate of 20 percent per year. By 1200 BCE, cowrie shells were used as a form of money in China. The use of coins as a means of representing money began in the years between 700 and 500 BCE.[44] Herodotus mentions the use of crude coins in Lydia around 687 BCE and, by 640 BCE, the Lydians had started to use coin money more widely and opened permanent retail shops.[45] Shortly after, cities in Classical Greece, such as Aegina, Athens, and Corinth, started minting their own coins between 595 and 570 BCE. During the Roman Republic, interest was outlawed by the Lex Genucia reforms in 342 BCE, though the provision went largely unenforced. Under Julius Caesar, a ceiling on interest rates of 12% was set, and much later under Justinian it was lowered even further to between 4% and 8%.[46] The first stock exchange was opened in Antwerp in 1531.[47] Since then, popular exchanges such as the London Stock Exchange (founded in 1773) and the New York Stock Exchange (founded in 1793) were created.[48][49] 2008 financial crisis Outline of finance ^ The following are definitions of 'finance' as crafted by the authors indicated: Fama and Miller: "The theory of finance is concerned with how individuals and firms allocate resources through time. In particular, it seeks to explain how solutions to the problems faced in allocating resources through time are facilitated by the existence of capital markets (which provide a means for individual economic agents to exchange resources to be available of different points In time) and of firms (which, by their production-investment decisions, provide a means for individuals to transform current resources physically into resources to be available in the future)." Guthmann and Dougall: "Finance is concerned with the raising and administering of funds and with the relationships between private profit-seeking enterprise on the one hand and the groups which supply the funds on the other. These groups, which include investors and speculators – that is, capitalists or property owners – as well as those who advance short-term capital, place their money in the field of commerce and industry and in return expect a stream of income." Drake and Fabozzi: "Finance is the application of economic principles to decision-making that involves the allocation of money under conditions of uncertainty." F.W. Paish: "Finance may be defined as the position of money at the time it is wanted". John J. Hampton: "The term finance can be defined as the management of the flows of money through an organisation, whether it will be a corporation, school, or bank or government agency". Howard and Upton: "Finance may be defined as that administrative area or set of administrative functions in an organisation which relates with the arrangement of each debt and credit so that the organisation may have the means to carry out the objectives as satisfactorily as possible". Pablo Fernandez: "Finance is a profession that requires interdisciplinary training and can help the managers of companies make sound decisions about financing, investment, continuity and other issues that affect the inflows and outflows of money, and the risk of the company. It also helps people and institutions invest and plan money-related issues wisely." ^ The first academic journal, The Journal of Finance,[citation needed] began publication in 1946. ^ Finance thus allows production and consumption in society to operate independently from each other. Without the use of financial allocation, production would have to happen at the same time and space as consumption. Through finance, distances in timespace between production and consumption are then posible.[5] ^ a b Hayes, Adam. "Finance". Investopedia. Archived from the original on 19 December 2020. Retrieved 3 August 2022. ^ Gippel, Jennifer K (7 November 2012). "A revolution in finance?". Australian Journal of Management. 38 (1): 125–146. doi:10.1177/0312896212461034. ISSN 0312-8962. S2CID 154759424. ^ "Finance" Archived 31 January 2023 at the Wayback Machine, UCAS Subject Guide. ^ Anthony P. Carnevale, Ban Cheah, Andrew R. Hanson (2015). "The Economic Value of College Majors" Archived 8 November 2022 at the Wayback Machine. Georgetown University. ^ Allen, Michael; Price, John (2000). "Monetized time-space: derivatives – money's 'new imaginary'?". Economy and Society. 29 (2): 264–284. doi:10.1080/030851400360497. S2CID 145739812. Archived from the original on 20 March 2022. Retrieved 3 June 2022. ^ See e.g., Bank of Finland. "Financial system". Archived from the original on 2 June 2020. Retrieved 18 May 2020. ^ "Introducing the Financial System | Boundless Economics". courses.lumenlearning.com. Archived from the original on 28 July 2020. Retrieved 18 May 2020. ^ "What is the financial system?". Economy. Archived from the original on 31 July 2020. Retrieved 18 May 2020. ^ Publishing, Speedy (2015). Finance (Speedy Study Guides). Speedy Publishing LLC. ISBN 978-1-68185-667-4. ^ Snowdon, Michael, ed. (2019), "Financial Planning Standards Board", Financial Planning Competency Handbook, John Wiley & Sons, Ltd, pp. 709–735, doi:10.1002/9781119642497.ch80, ISBN 978-1-119-64249-7, S2CID 242623141 ^ Kenton, Will. "Personal Finance". Investopedia. Archived from the original on 18 August 2000. Retrieved 20 January 2020. ^ a b c d e f Pamela Drake and Frank Fabozzi (2009). What Is Finance? Archived 2023-02-23 at the Wayback Machine ^ See Aswath Damodaran, Corporate Finance: First Principles Archived 2016-10-17 at the Wayback Machine ^ Irons, Robert (July 2019). The Fundamental Principles of Finance. Google Books: Routledge. ISBN 978-1-000-02435-7. Archived from the original on 11 November 2021. Retrieved 3 April 2021. ^ Doss, Daniel; Sumrall, William; Jones, Don (2012). Strategic Finance for Criminal Justice Organizations (1st ed.). Boca Raton, Florida: CRC Press. p. 23. ISBN 978-1-4398-9223-7. ^ Doss, Daniel; Sumrall, William; Jones, Don (2012). Strategic Finance for Criminal Justice Organizations (1st ed.). Boca Raton, Florida: CRC Press. pp. 53–54. ISBN 978-1-4398-9223-7. ^ Kioko, Sharon; Marlowe, Justin (2016). Financial Strategy for Public Managers. Rebus Foundation. ISBN 978-1-927472-59-0. Archived from the original on 15 June 2022. Retrieved 5 July 2022. ^ Board of Governors of Federal Reserve System of the United States. Mission of the Federal Reserve System. Federalreserve.gov Accessed: 2010-01-16. (Archived by WebCite at Archived 2010-01-14 at the Wayback Machine) ^ Han, Yufeng; Liu, Yang; Zhou, Guofu; Zhu, Yingzi (21 May 2021). "Technical Analysis in the Stock Market: A Review". SSRN Papers. Rochester, NY. doi:10.2139/ssrn.3850494. S2CID 235195430. SSRN 3850494. ^ Peter F. Christoffersen (2011). Elements of Financial Risk Management. Academic Press. ISBN 978-0-12-374448-7. ^ Allan M. Malz (2011). Financial Risk Management: Models, History, and Institutions. John Wiley & Sons. ISBN 978-1-118-02291-7. ^ John Hampton (2011). The AMA Handbook of Financial Risk Management. American Management Association. ISBN 978-0-8144-1744-7 ^ a b See generally, Roy E. DeMeo (N.D.) Quantitative Risk Management: VaR and Others Archived 2021-11-12 at the Wayback Machine ^ Thomas M. Grondin (2001). "Risk Management Practices in the Insurance Industry" Archived 20 March 2025 at the Wayback Machine. Society of Actuaries ^ See discussion here: "Careers in Applied Mathematics" (PDF). Society for Industrial and Applied Mathematics. Archived (PDF) from the original on 5 March 2019. ^ a b c See the discussion re finance theory by Fama and Miller under § Notes. ^ "Finance" Archived 2019-12-22 at the Wayback Machine Farlex Financial Dictionary. 2012 ^ A. Pinkasovitch (2021). Using Decision Trees in Finance Archived 2021-12-10 at the Wayback Machine ^ What is managerial finance? Archived 4 July 2022 at the Wayback Machine, Corporate Finance Institute ^ W. Kenton (2021). "Harry Markowitz" Archived 2021-11-26 at the Wayback Machine, investopedia.com ^ a b For an overview, see "Financial Economics" Archived 2004-06-04 at the Wayback Machine, William F. Sharpe (Stanford University manuscript) ^ "The History of the Black-Scholes Formula" Archived 2021-11-26 at the Wayback Machine, priceonomics.com ^ a b Research Area: Financial Mathematics and Engineering Archived 2022-05-16 at the Wayback Machine, Society for Industrial and Applied Mathematics ^ For a survey, see "Financial Models" Archived 2021-11-13 at the Wayback Machine, from Michael Mastro (2013). Financial Derivative and Energy Market Valuation, John Wiley & Sons. ISBN 978-1-118-48771-6. ^ See for example III.A.3, in Carol Alexander, ed. (2005). The Professional Risk Managers' Handbook. PRMIA Publications. ISBN 978-0-9766097-0-4 ^ Bloomfield, Robert and Anderson, Alyssa. "Experimental finance" Archived 2016-03-04 at the Wayback Machine. In Baker, H. Kent, and Nofsinger, John R., eds. Behavioral finance: investors, corporations, and markets. Vol. 6. John Wiley & Sons, 2010. pp. 113–131. ISBN 978-0-470-49911-5 ^ Glaser, Markus and Weber, Martin and Noeth, Markus. (2004). "Behavioral Finance" Archived 2023-02-09 at the Wayback Machine, pp. 527–546 in Handbook of Judgment and Decision Making, Blackwell Publishers ISBN 978-1-405-10746-4 ^ Zahera, Syed Aliya; Bansal, Rohit (8 May 2018). "Do investors exhibit behavioral biases in investment decision making? A systematic review". Qualitative Research in Financial Markets. 10 (2): 210–251. doi:10.1108/QRFM-04-2017-0028. ISSN 1755-4179. Archived from the original on 8 April 2022. Retrieved 8 April 2022. ^ Shefrin, Hersh (2002). Beyond greed and fear: Understanding behavioral finance and the psychology of investing. New York: Oxford University Press. p. ix. ISBN 978-0-19-530421-3. Retrieved 8 May 2017. growth of behavioral finance. ^ Hirshleifer, David (2015). "Behavioral Finance". Annual Review of Financial Economics. 7: 133–159. doi:10.1146/annurev-financial-092214-043752. ISSN 1941-1367. ^ Focardi, Sergio; Fabozzi, Frank J.; Mazza, Davide (31 August 2020). "Quantum Option Pricing and Quantum Finance". The Journal of Derivatives. 28 (1): 79–98. doi:10.3905/jod.2020.1.111. ISSN 1074-1240. ^ Ristic, Kristijan (2–3 December 2021). "New Financial Future: Digital Finance As a key Aspect of Financial Innovation". 75th International Scientific Conference on Economic and Social Development: 283–288. ProQuest 2616890742. ^ Fergusson, Nial. The Ascent of Money. United States: Penguin Books. ^ "babylon-coins.com". babylon-coins.com. Archived from the original on 15 June 2021. Retrieved 13 May 2021. ^ "Herodotus on Lydia". World History Encyclopedia. Archived from the original on 13 May 2021. Retrieved 13 May 2021. ^ "History of Usury Prohibition – IslamiCity". islamicity.org. 22 December 2005. Archived from the original on 9 April 2023. Retrieved 9 April 2023. ^ "Handelsbeurs" [Trade fair]. Visit Antwerp (in Dutch). Retrieved 2 September 2022. The 'Nieuwe Beurs' was built in 1531 because the 'Old Beurs' in Hofstraat had become too small. It was the first stock exchange ever built specifically for that purpose and later became the example for all stock exchange buildings in the world. ^ "Our History". London Stock Exchange. Archived from the original on 2 September 2022. Retrieved 2 September 2022. ^ "Research Guides: Wall Street and the Stock Exchanges: Historical Resources: Stock Exchanges". Library of Congress. Archived from the original on 4 August 2022. Retrieved 2 September 2022. Graham, Benjamin; Jason Zweig (8 July 2003) [1949]. The Intelligent Investor. Warren E. Buffett (collaborator) (2003 ed.). HarperCollins. front cover. ISBN 0-06-055566-1. Graham, Benjamin; Dodd, David LeFevre (1996) [1934]. Security Analysis: The Classic 1934 Edition. McGraw-Hill Education. ISBN 978-0-070-24496-2. LCCN 34023635. Bogle, John Bogle (2007). The Little Book of Common Sense Investing: The Only Way to Guarantee Your Fair Share of Stock Market Returns. John Wiley and Sons. pp. 216. ISBN 978-0-470-10210-7. Buffett, W.; Cunningham, L.A. (2009). The Essays of Warren Buffett: Lessons for Investors and Managers. John Wiley & Sons (Asia) Pte Limited. ISBN 978-0-470-82441-2. Kiyosaki, Robert and Sharon Lechter (2000). Rich Dad Poor Dad: What the Rich Teach Their Kids About Money That the Poor and Middle Class Do Not! Warner Business Books. ISBN 0-446-67745-0 Stanley, Thomas J.; Danko, W.D. (1998). The Millionaire Next Door. Gallery Books. ISBN 978-0-671-01520-6. LCCN 98046515. Soros, George (1988). The Alchemy of Finance: Reading the Mind of the Market. A Touchstone book. Simon & Schuster. ISBN 978-0-671-66238-7. LCCN 87004745. Fisher, Philip Arthur (1996). Common Stocks and Uncommon Profits and Other Writings. Wiley Investment Classics. Wiley. ISBN 978-0-471-11927-2. LCCN 95051449. Finance at Wikipedia's sister projects Definitions from WiktionaryMedia from CommonsNews from WikinewsQuotations from WikiquoteTexts from WikisourceTextbooks from WikibooksResources from Wikiversity Hypertextual Finance Glossary (Campbell Harvey) Finance Glossary (Pierre Vernimmen) Glossary of financial risk management terms (Risk.net) Glossary of Key Investment Terms (PIMCO) Corporate finance resources (Aswath Damodaran) Financial management resources (James Van Horne) Personal finance resources (Financial Literacy and Education Commission, mymoney.gov) Public finance resources (Governance and Social Development Resource Centre, gsdrc.org) [Archived 2023-06-02 at the Wayback Machine] Risk management resources (Global Risk Institute) Retrieved from " adjective (2)noun (1)View synonyms for financialof or relating to finance or financesof or relating to persons who manage money, capital, or creditinformal, having money; in funds(of a club member) fully paid-up"Collins English Dictionary — Complete & Unabridged" 2012 Digital Edition © William Collins Sons & Co. Ltd. 1979, 1986 © HarperCollins Publishers 1998, 2000, 2003, 2005, 2006, 2007, 2009, 2012financially adverbnonfinancial adjectivenonfinancially adverbprefinancial adjectivequasi-financial adjectivequasi-financially adverbOrigin of financial1First recorded in 1760–70; finance + -ialFinancial, fiscal, monetary, pecuniary refer to matters concerned with money. Financial usually refers to money matters or transactions of some size or importance: a financial wizard. Fiscal is used especially in connection with government funds, or those of any organization: the end of the fiscal year. Monetary relates especially to money as such: a monetary system or standard. Pecuniary refers to money as used in making ordinary payments: a pecuniary obligation or reward.Examples are provided to illustrate real-world usage of words in context. Any opinions expressed do not reflect the views of Dictionary.com."American investors should pay close attention. A stronger yen and rising Japanese yields could pull capital away from the U.S. bond and equities markets, tightening financial conditions globally."How much of a red flag is his financial situation?According to the same accounts, Zipcar membership fees cover the cost of fuelling or charging the vehicle and, as energy costs continued to rise last year, it has added to financial pressures on the company.The former monarch, 87, has lived in self-imposed exile in the United Arab Emirates since 2020 after a series of extramarital and financial scandals tarnished his reputation.Monday's report also found that somebody gained early access to the equivalent financial forecasts in March while Reeves was delivering her Spring Statement, though they did not act on the information.commercial economic fiscal monetary finance companyFinancial Accounting Standards BoardBrowse#aabbccddeeffgghhiijjkkllmmnnooppqqrrssttuuvvwwxxyyzzAboutCareersContact usCookies, terms, & privacyHelpFollow usGet the Word of the Day every day!© 2025 Dictionary.com, LLC