

# Glossary

- Abandonment option** The option to terminate an investment at some future time if the financial results are disappointing.
- Abnormal return** The amount by which a security's actual return differs from its expected return, given the security's risk and the market's return.
- Absolute dispersion** The amount of variability present without comparison to any reference point or benchmark.
- Accelerated book build** An offering of securities by an investment bank acting as principal that is accomplished in only one or two days.
- Accounting profit** Income as reported on the income statement, in accordance with prevailing accounting standards, before the provisions for income tax expense. Also called *income before taxes* or *pretax income*.
- Accredited investors** Investors that meet certain minimum regulatory net worth or other requirements in order to invest in certain types of alternative assets.
- Accrued interest** The amount of interest in currency or par value terms of a fixed-income instrument that accumulates from the last coupon payment until the trade settlement date. The amount is paid by the buyer to the seller.
- Action lag** Delay from policy decisions to implementation.
- Active investment** An approach to investing in which the investor seeks to outperform a given benchmark.
- Active return** The return on a portfolio minus the return on the portfolio's benchmark.
- Activist** Short for "activist shareholder." Managers secure sufficient equity holdings to allow them to seek a position in a company's board and influence corporate policies or direction.
- Activity ratios** Ratios that measure how well a company is managing key current assets and working capital over time.
- Ad hoc committee** A small group of lenders or bondholders who negotiate with an issuer on debt restructuring and refinancing before the issuer submits a final proposal to the wider group of all lenders and bondholders.
- Add-on pricing** A pricing approach based on high-margin optional features, customizations, and additional content.
- Add-on rate** A yield or pricing convention for money market instrument quotations. It is the interest earned on an instrument, derived from the difference between the price and face value, expressed as a percentage of the price and multiplied by the periodicity of the annual rate.
- Agency costs** Direct and indirect costs borne by the principal in a principal-agent relationship owing primarily to information asymmetries. Agency costs include the costs of monitoring and assessing the agent as well as missed opportunities.
- Agency RMBS** Securities created by the pooling of residential mortgage-backed securities in the United States by either the Federal National Mortgage Association (Fannie Mae) or the Federal Home Loan Mortgage Corporation (Freddie Mac). These RMBS carry the full faith and credit of the government, essentially a guarantee with respect to timely payment of interest and repayment of principal.
- All-or-nothing (AON) orders** An order that includes the instruction to trade only if the trade fills the entire quantity (size) specified.
- Allocationally efficient** A characteristic of a market, a financial system, or an economy that promotes the allocation of resources to their highest value uses.
- Altcoin** A cryptocurrency other than Bitcoin.
- Alternative data** Data that are generated from non-traditional sources, such as social media and sensor networks.
- Alternative hypothesis** The hypothesis that is accepted if the null hypothesis is rejected.
- Alternative investment markets** Market for investments other than traditional securities investments (i.e., traditional common and preferred shares and traditional fixed income instruments). The term usually encompasses direct and indirect investment in real estate (including timberland and farmland) and commodities (including precious metals); hedge funds, private equity, and other investments requiring specialized due diligence.
- Alternative trading systems** Trading venues that function like exchanges but that do not exercise regulatory authority over their subscribers except with respect to the conduct of the subscribers' trading in their trading systems. Also called *electronic communications networks* or *multilateral trading facilities*.
- American depository receipt** A US dollar-denominated security that trades like a common share on US exchanges.
- American depository share** The underlying shares on which American depository receipts are based. They trade in the issuing company's domestic market.
- American options** Options that may be exercised at any time from contract inception until maturity.
- American-style** Type of option contract that can be exercised at any time up to the option's expiration date.
- Amortization** The process of allocating the cost of intangible long-term assets having a finite useful life to accounting periods; the allocation of the amount of a bond premium or discount to the periods remaining until bond maturity.
- Amortizing debt** A loan or bond with a payment schedule that calls for periodic payments of interest and repayments of principal.
- Analysis of variance (ANOVA)** A table that presents the sums of squares, degrees of freedom, mean squares, and F-statistic for a regression model.
- Analytical duration** Estimates of duration using mathematical formulas. Estimates of the impact of yield changes on bond prices using analytical duration implicitly assume that benchmark yields and spreads are independent variables and are uncorrelated.
- Anchoring and adjustment bias** An information-processing bias in which the use of a psychological heuristic influences the way people estimate probabilities.
- Annual general meeting (AGM)** A yearly meeting of the corporate board of directors and shareholders, typically held in person and digitally, during which votes on directors, compensation plans, shareholder resolutions, and any

other matters properly brought forward at the meeting are held. Issuer management may also make presentations and hold events.

**Anomalies** Apparent deviations from market efficiency.

**Antidilutive** With reference to a transaction or a security, one that would increase earnings per share (EPS) or result in EPS higher than the company's basic EPS—antidilutive securities are not included in the calculation of diluted EPS.

**Arbitrage** 1) The simultaneous purchase of an undervalued asset or portfolio and sale of an overvalued but equivalent asset or portfolio, in order to obtain a riskless profit on the price differential. Taking advantage of a market inefficiency in a risk-free manner. 2) The condition in a financial market in which equivalent assets or combinations of assets sell for two different prices, creating an opportunity to profit at no risk with no commitment of money. In a well-functioning financial market, few arbitrage opportunities are possible. 3) A risk-free operation that earns an expected positive net profit but requires no net investment of money.

**Arbitrageurs** Traders who engage in arbitrage. See *arbitrage*.

**Arithmetic mean** The sum of the observations divided by the number of observations.

**Artificial intelligence (AI)** Computer systems that are capable of performing tasks that previously required human intelligence. AI methods are sometimes better suited to identify complex, non-linear relationships than are traditional quantitative and statistical methods.

**Ask** The price at which a dealer or trader is willing to sell an asset, typically qualified by a maximum quantity (ask size). See *offer*.

**Ask size** The maximum quantity of an asset that pertains to a specific ask price from a trader. For example, if the ask for a share issue is \$30 for a size of 1,000 shares, the trader is offering to sell at \$30 up to 1,000 shares.

**Asset allocation** The process of determining how investment funds should be distributed among asset classes.

**Asset class** A group of assets that have similar characteristics, attributes, and risk–return relationships.

**Asset utilization ratios** Ratios that measure how efficiently a company performs day-to-day tasks, such as the collection of receivables and management of inventory.

**Asset-backed commercial paper** Secured form of commercial paper issuance. Loans or receivables are sold to a special purpose entity that issues the ABCP and makes interest and principal payments to investors from asset cash flows.

**Asset-backed securities (ABS)** A type of bond issued by a legal entity called a special purpose entity created solely to own assets such as loans, receivables, and mortgages and to distribute cash flows to ABS investors. Generally, ABS backed by mortgages are known as mortgage-backed securities (MBS) while ABS refer to non-mortgage ABS.

**Asset-backed token** A token that represents the ownership of a physical asset that does not exist on the blockchain and whose value is based on the underlying asset.

**Asset-based valuation models** Valuation based on estimates of the market value of a company's assets.

**Asymmetric information** Also known as *information asymmetry*; the differential of information between corporate insiders and outsiders regarding the company's performance and prospects. Managers typically have more information about the company's performance and prospects than owners and creditors.

**At-the-money** Describes a unique situation in which the price of the underlying is equal to an option's exercise price. Like an out-of-the-money option, the intrinsic value is zero.

**Auction/reverse auction models** Pricing models that establish prices through bidding (by sellers in the case of reverse auctions).

**Autarky** Countries seeking political self-sufficiency with little or no external trade or finance. State-owned enterprises control strategic domestic industries.

**Automatic stabilizer** A countercyclical factor that automatically comes into play as an economy slows and unemployment rises.

**Availability bias** An information-processing bias in which people take a heuristic approach to estimating the probability of an outcome based on how easily the outcome comes to mind.

**Available-for-sale** Under US GAAP, debt securities not classified as either held-to-maturity or held-for-trading securities. The investor is willing to sell but not actively planning to sell. In general, available-for-sale debt securities are reported at fair value on the balance sheet, with unrealized gains included as a component of other comprehensive income.

**Average revenue (AR)** Total revenue divided by quantity sold.

**Backfill Bias** A problem whereby certain surviving hedge funds may be added to databases and various hedge fund indexes only after they are initially successful and start to report their returns. Also see *survivorship bias*.

**Backup line of credit** A type of credit enhancement provided by a bank to an issuer of commercial paper to ensure that the issuer will have access to sufficient liquidity to repay maturing commercial paper if issuing new paper is not a viable option.

**Backwardation** A downward-sloping, or inverted, forward curve in a futures market.

**Balance sheet ratios** Financial ratios involving balance sheet items only.

**Balanced** With respect to a government budget, one in which spending and revenues (taxes) are equal.

**Balloon payment** A large payment required at maturity to retire a bond's outstanding principal amount.

**Base rates** The reference rate on which a bank bases lending rates to all other customers.

**Base-rate neglect** A type of representativeness bias in which the base rate or probability of the categorization is not adequately considered.

**Basic EPS** Net earnings available to common shareholders (i.e., net income minus preferred dividends) divided by the weighted average number of common shares outstanding.

**Basis risk** The possibility that the expected value of a derivative differs unexpectedly from that of the underlying.

**Basket of listed depository receipts (BLDR)** An exchange-traded fund (ETF) that represents a portfolio of depository receipts.

**Bayes' formula** The rule for updating the probability of an event of interest—given a set of prior probabilities for the event, information, and information given the event—if you receive new information.

**Bearer bonds** Bonds for which ownership is not recorded; only the clearing system knows who the bond owner is.

**Behavioral finance** A field of finance that examines the psychological variables that affect and often distort the investment decision making of investors, analysts, and portfolio managers.

- Behind the market** Said of prices specified in orders that are worse than the best current price; e.g., for a limit buy order, a limit price below the best bid.
- Benchmark** A bond used to compare against another bond to discern attributes, often a government bond with the same or similar time-to-maturity as the bond under analysis.
- Benchmark spread** The difference in yield-to-maturity between a bond and that of a benchmark bond.
- Best bid** The highest bid in the market.
- Best effort offering** An offering of a security using an investment bank in which the investment bank, as agent for the issuer, promises to use its best efforts to sell the offering but does not guarantee that a specific amount will be sold.
- Best offer** The lowest offer (ask price) in the market.
- Best-in-class** An ESG implementation approach that seeks to identify the most favorable companies and sectors based on ESG considerations. Also called *positive screening*.
- Beta** A measure of the sensitivity of a given investment or portfolio to movements in the overall market.
- Bid** The price at which a dealer or trader is willing to buy an asset, typically qualified by a maximum quantity.
- Bid size** The maximum quantity of an asset that pertains to a specific bid price from a trader.
- Big data** The vast amount of information being generated by both traditional sources—for example, stock exchanges, companies, governments—and non-traditional sources—for example, electronic devices, social media, sensor networks, and company exhaust.
- Bilateralism** The conduct of political, economic, financial, or cultural cooperation between two countries. Countries engaging in bilateralism may have relations with many different countries but in one-at-a-time agreements without multiple partners. Typically, countries exist on a spectrum between bilateralism and multilateralism.
- Bimodal** A distribution that has two most frequently occurring values.
- Bitcoin** A cryptocurrency using blockchain technology that was created in 2009.
- Bivariate correlation** Also known as Pearson correlation. A parametric measure of the relationship between two variables.
- Black swan risk** An event that is rare and difficult to predict but has an important impact.
- Block brokers** A broker (agent) that provides brokerage services for large-size trades.
- Blockchain** A type of digital ledger in which information is recorded sequentially and then linked together and secured using cryptographic methods.
- Blue chip** Widely held large market capitalization companies that are considered financially sound and are leaders in their respective industry or local stock market.
- Board of directors** A body or individual selected by a limited company's member(s) or shareholder(s), in a manner determined by the company's charter, that manages the company. Typically, for larger companies, boards of directors appoint and oversee executive management.
- Bond equivalent yield** A money market interest rate quoted on a 365-day add-on rate basis.
- Bond indenture** A legal document between a bond issuer and investors that governs each party's rights and responsibilities.
- Bond market vigilantes** Bond market participants who might reduce their demand for long-term bonds, thus pushing up their yields.
- Bondholders** Investors in an entity's securitized debt claims, such as commercial paper, notes, and bonds. Common types of bondholders include investment funds and institutional investors.
- Bonds** Contractual agreements between an issuer and bondholders.
- Bonus issue of shares** A type of dividend in which a company distributes additional shares of its common stock to shareholders instead of cash.
- Book building** Investment bankers' process of compiling a "book" or list of indications of interest to buy part of an offering.
- Book value** The net amount shown for an asset or liability on the balance sheet; book value may also refer to the company's excess of total assets over total liabilities. Also called *carrying value*.
- Boom** An expansionary phase characterized by economic growth "testing the limits" of the economy.
- Bootstrap** A resampling method that repeatedly draws samples with replacement of the selected elements from the original observed sample. Bootstrap is usually conducted by using computer simulation and is often used to find standard error or construct confidence intervals of population parameters.
- Bottom-up analysis** An investment selection approach that focuses on company-specific circumstances rather than emphasizing economic cycles or industry analysis.
- Box and whisker plot** A graphic for visualizing the dispersion of data across quartiles. It consists of a box with "whiskers" connected to the box.
- Breakeven point** Represents the price of the underlying in a derivative contract in which the profit to both counterparties would be zero.
- Bridge financing** Interim financing that provides funds until permanent financing can be arranged.
- Broker** An agent who executes orders to buy or sell securities on behalf of a client in exchange for a commission.
- Brokered market** A market in which brokers arrange trades among their clients.
- Broker-dealer** A financial intermediary (often a company) that may function as a principal (dealer) or as an agent (broker) depending on the type of trade.
- Brownfield investments** The third stage of development of an infrastructure asset. Brownfield investments involve expanding existing facilities and may involve privatization of public assets or a sale leaseback of completed greenfield projects. They are characterized by a shorter investment period with immediate cash flows and an operating history.
- Budget surplus/deficit** The difference between government revenue and expenditure for a stated fixed period of time.
- Bullet bond** A bond whose principal repayment is made entirely at maturity.
- Bundling** A pricing approach that refers to combining multiple products or services so that customers are incentivized or required to buy them together.
- Business cycles** Are recurrent expansions and contractions in economic activity affecting broad segments of the economy.
- Business model** A concise description of how a business works and makes revenues and profits, including its customers, products or services, channels for reaching customers, and pricing.
- Businesses** Organization entities formed and managed for the purpose of providing a return or economic benefits to its investors and owners.

- Buy-side firm** An investment management company or other investor that uses the services of brokers or dealers (i.e., the client of the sell side firms).
- Buyback** A transaction in which a company buys back its own shares. Unlike stock dividends and stock splits, share repurchases use corporate cash.
- Cabotage** The right to transport passengers or goods within a country by a foreign firm. Many countries—including those with multilateral trade agreements—impose restrictions on cabotage across transportation subsectors, meaning that shippers, airlines, and truck drivers are not allowed to transport goods and services within another country's borders.
- Call market** A market in which trades occur only at a particular time and place (i.e., when the market is called).
- Call money rate** The interest rate that buyers pay for their margin loan.
- Call option** The right to buy an underlying.
- Call period** The time during which the issuer of a callable bond can exercise the call option.
- Call price** The price at which the issuer of a callable bond has the right to purchase the bond from investors.
- Call protection period** The time during which the issuer of a callable bond is not allowed to exercise the call option.
- Call risk** The uncertain maturity and limited price appreciation associated with callable bonds.
- Callable bond** A bond containing an embedded call option that gives the issuer the right to buy the bond back from the investor at specified prices on predetermined dates.
- Cannibalization** A transfer of sales or market share from one product to another product owned by the same company. It tends to occur when the two products are actual or perceived substitutes.
- Capacity** The ability of the borrower to make its debt payments on time.
- Capital** Other company resources available that reduce reliance on debt.
- Capital allocation** The process that companies use for decision making on capital investments—those projects with a life of one year or longer.
- Capital allocation line (CAL)** A graph line that describes the combinations of expected return and standard deviation of return available to an investor from combining the optimal portfolio of risky assets with the risk-free asset.
- Capital asset pricing model (CAPM)** An equation describing the expected return on any asset (or portfolio) as a linear function of its beta relative to the market portfolio.
- Capital expenditure** Expenditure on physical capital (fixed assets).
- Capital investments** An expenditure for an asset or resource with a useful life of more than one year.
- Capital market expectations (CME)** Expectations concerning the risk and return prospects of asset classes.
- Capital market line (CML)** The line with an intercept point equal to the risk-free rate that is tangent to the efficient frontier of risky assets; represents the efficient frontier when a risk-free asset is available for investment.
- Capital market securities** Fixed-income securities with original maturities greater than one year.
- Capital markets** Financial markets that trade securities of longer duration, such as bonds and equities.
- Capital restrictions** Controls placed on foreigners' ability to own domestic assets and/or domestic residents' ability to own foreign assets.
- Capital structure** The mix of debt and equity that a company uses to finance its business; a company's specific mix of long-term financing.
- Capital-indexed bond** A type of index-linked bond for which changes in the index are captured with adjustments to the principal. A common example is Treasury Inflation Protected Securities (TIPS) issued by the United States government.
- Capital-intensive businesses** Companies or business activities that are characterized by a relatively low fixed asset turnover, a high percentage of capital expenditures to sales, or a high net-working-capital-to-sales ratio.
- Capital-light businesses** Also known as *asset light businesses*, companies or business activities characterized by relatively high fixed asset turnover, a low percentage of capital expenditures to sales, or a low net-working-capital-to-sales ratio.
- Carried interest** A performance fee (also referred to as an incentive fee, or carry) that is applied based on excess returns above a hurdle rate.
- Carrying** Investing and holding an asset for a period of time.
- Carrying amount** The amount at which an asset or liability is valued according to accounting principles.
- Carrying value** Of a fixed-income instrument is the purchase price plus (minus) the amortized amount of the discount (premium) if the bond is purchased at a price below (above) par value.
- Cartel** Participants in collusive agreements that are made openly and formally.
- Cash conversion cycle** The amount of time between an issuer paying its suppliers in cash and receiving cash from its customers.
- Cash flow additivity principle** The principle that dollar amounts indexed at the same point in time are additive.
- Cash flow from operations** A cash profit measure over a period for an issuer's primary business activities. It includes cash from customers as well as interest and dividends received from financial investments, less cash paid to employees and suppliers as well as taxes paid to governments and interest paid to lenders.
- Cash flow hedge** Refers to a specific **hedge accounting** classification in which a derivative is designated as absorbing the variable cash flow of a floating-rate asset or liability, such as foreign exchange, interest rates, or commodities.
- Cash markets** Markets in which specific assets are exchanged at current prices. Cash markets are often referred to as **spot markets**.
- Cash prices** The current prices prevailing in **cash markets**.
- Cash ratio** A measure of liquidity that is the ratio of cash and marketable securities to current liabilities.
- Catch-up clause** A clause in an agreement that favors the GP. For a GP who earns a 20% performance fee, a catch-up clause allows the GP to receive 100% of the distributions above the hurdle rate *until* she receives 20% of the profits generated, and then every excess dollar is split 80/20 between the LPs and GP.
- CDS credit spread** Reflects the credit spread of a credit default swap (CDS) derivative contract. As with cash bonds, CDS credit spreads depend on the probability of default (POD) and the loss given default (LGD).
- Central bank digital currencies (CBDCs)** A tokenized version of the currency issued by the central bank, such as a digital bank note or coin, and a digital liability of the central bank.

- Central bank funds market** The market in which deposit-taking banks that have an excess reserve with their national central bank can lend money to banks that need funds for maturities ranging from overnight to one year. Called the federal or fed funds market in the United States.
- Central bank funds rate** The interest rate at which central bank funds are bought (borrowed) and sold (lent) for maturities ranging from overnight to one year. Called federal or fed funds rate in the United States.
- Central clearing mandate** A requirement instituted by global regulatory authorities following the 2008 global financial crisis that most **over-the-counter (OTC)** derivatives be **cleared** by a **central counterparty (CCP)**.
- Central counterparty (CCP)** An economic entity that assumes the **counterparty credit risk** between derivative **counterparties**, one of which is typically a financial intermediary. CCPs provide **clearing** and **settlement** for most **derivative contracts**.
- Central limit theorem** The theorem that states the sum (and the mean) of a set of independent, identically distributed random variables with finite variances is normally distributed, whatever distribution the random variables follow.
- Certificate of deposit (CD)** An instrument that represents a specified amount of funds on deposit with a bank for a specified maturity and interest rate. CDs are issued in various denominations and can be negotiable or non-negotiable.
- Channels** Venues where a company markets and/or delivers its products and services.
- Character** The quality of a debt issuer's management.
- Checking accounts** Bank deposits with no stated maturity available for transactional purposes that pay little or no interest. Also known as a *demand deposit*.
- Circuit breaker** A pause in intraday trading for a brief period if a price limit is reached.
- Classical cycle** Refers to fluctuations in the level of economic activity when measured by GDP in volume terms.
- Clawback** A requirement that the general partner return any funds distributed as incentive fees until the limited partners have received their initial investment and a percentage of the total profit.
- Clearing** An exchange's process of verifying the execution of a transaction, exchange of payments, and recording of participants.
- Clearing instructions** Instructions that indicate how to arrange the final settlement ("clearing") of a trade.
- Clearinghouse** An entity associated with a futures market that acts as middleman between the contracting parties and guarantees to each party the performance of the other.
- Closed-end fund** A mutual fund in which no new investment money is accepted. New investors invest by buying existing shares, and investors in the fund liquidate by selling their shares to other investors.
- Cluster sampling** A procedure that divides a population into subpopulation groups (clusters) representative of the population and then randomly draws certain clusters to form a sample.
- Co-investing** In co-investing, the investor invests in assets *indirectly* through the fund but also possesses rights (known as co-investment rights) to invest *directly* in the same assets. Through co-investing, an investor is able to make an investment *alongside* a fund when the fund identifies deals.
- Code of ethics** An established guide that communicates an organization's values and overall expectations regarding member behavior. A code of ethics serves as a general guide for how community members should act.
- Coefficient of determination ( $R^2$ )** The percentage of the variation of the dependent variable that is explained by the independent variable. It is a measure of goodness of fit of a regression model.
- Coefficient of variation** The ratio of a set of observations' standard deviation to the observations' mean value.
- Cognitive cost** The effort involved in processing new information and updating beliefs.
- Cognitive dissonance** The mental discomfort that occurs when new information conflicts with previously held beliefs or cognitions.
- Cognitive errors** Behavioral biases resulting from faulty reasoning; cognitive errors stem from basic statistical, information-processing, or memory errors.
- Coincident economic indicators** Turning points that are usually close to those of the overall economy; they are believed to have value for identifying the economy's present state.
- Collateral** Assets or financial guarantees underlying a debt obligation that are above and beyond the issuer's promise to pay.
- Collateral manager** Buys and sells debt obligations for and from the CDO's collateral pool to generate sufficient cash flows to meet the obligations to the CDO bondholders.
- Collateralized bond obligations (CBOs)** CDOs backed by high-yield corporate and emerging market bonds.
- Collateralized debt obligations (CDOs)** Securities backed by a diversified pool of one or more debt obligations. CDOs can be backed by a broad range of debt.
- Collateralized loan obligations (CLOs)** CDOs backed by leveraged bank loans.
- Collateralized mortgage obligations** Securitize mortgage pass-through securities or multiple pools of loans. CMOs are structured to redistribute the cash flows to different bond classes or tranches and create securities that have different exposures to prepayment risk.
- Commercial paper (CP)** Short-term, negotiable, unsecured promissory note that represents a debt obligation of the issuer.
- Committed (regular) lines of credit** Bank commitments to extend credit; the commitment is considered a short-term liability and is usually in effect for 364 days (one day short of a full year).
- Committed capital** The amount that the limited partners have agreed to provide to the private equity fund.
- Commodities** A product or service from a firm that is indistinguishable from products or services of competing firms, usually conforming to a common standard or grade imposed by convention or regulation.
- Commoditization** A process by which competing products become less differentiated over time and become interchangeable "commodities" in the eyes of customers. This process is typically associated with declining profitability for the selling firms.
- Commodity producers** A firm that makes and/or sells commodities.
- Commodity swap** A type of swap involving the exchange of payments over multiple dates as determined by specified reference prices or indexes relating to commodities.

- Common market** Level of economic integration that incorporates all aspects of the customs union and extends it by allowing free movement of factors of production among members.
- Common shares** A type of security that represents an ownership interest in a company. Also called *common stock*.
- Common stock** A type of security that represents an ownership interest in a company. Also called *common shares*.
- Common-size analysis** The restatement of financial statement items using a common denominator or reference item that allows one to identify trends and major differences; an example is an income statement in which all items are expressed as a percent of revenue.
- Companies** Organization entities formed and managed for the purpose of providing a return or economic benefits to its investors and owners.
- Company research report** A document that presents an analyst's investment recommendation on an issuer and its securities, supported by financial modeling, industry overviews and competitive analyses, valuation scenarios, ESG considerations, and investment risks.
- Complete markets** Informally, markets in which the variety of distinct securities traded is so broad that any desired payoff in a future state-of-the-world is achievable.
- Concession agreement** A legal agreement in infrastructure investing that governs the investor's obligations to construct and maintain infrastructure as well as the exclusive right to operate and earn fees for a pre-determined period.
- Conditional expected value** The expected value of a stated event given that another event has occurred.
- Conditional pass-through covered bonds** Convert to pass-through securities after the original maturity date if all bond payments have not yet been made.
- Conditional variances** The variance of one variable, given the outcome of another.
- Conditions** The general economic, competitive, and business environment faced by all borrowers that may affect their ability to service or refinance debt.
- Confidence level** The complement of the level of significance.
- Confirmation bias** A belief perseverance bias in which people tend to look for and notice what confirms their beliefs, to ignore or undervalue what contradicts their beliefs, and to misinterpret information as support for their beliefs.
- Consensus protocol** A set of rules governing how blocks can join the blockchain that is designed to resist attempts at malicious manipulation up to a certain level of security; it can be either a proof of work or a proof of stake.
- Conservatism bias** A belief perseverance bias in which people maintain their prior views or forecasts by inadequately incorporating new information.
- Constant yield-price trajectory** A graphical depiction of the relationship between time to maturity and a bond price, assuming no default, that shows that a bond price approaches par as time passes.
- Constituent securities** With respect to an index, the individual securities within an index.
- Contango** Refers to spot price below forward price in a futures market.
- Contingency provision** Clause in a legal document that allows for some action if a specific event or circumstance occurs.
- Contingency table** A table of the frequency distribution of observations classified on the basis of two discrete variables.
- Contingent claim** A type of derivative in which one of the *counterparties* determines whether and when the trade will settle. An *option* is a common type of contingent claim.
- Contingent convertible bonds** Bonds that automatically convert to equity if a specific event or circumstance occurs, such as the issuer's equity capital falling below the minimum requirement set by regulators.
- Continuous trading market** A market in which trades can be arranged and executed any time the market is open.
- Continuously compounded return** The natural logarithm of 1 plus the holding period return, or equivalently, the natural logarithm of the ending price over the beginning price.
- Contract manufacturers** Companies that make products for other companies that meet specific terms and specifications.
- Contract size** Amount(s) used for calculation to price and value the derivative. The contract size is often referred to as "notional amount or notional principal."
- Contraction** The period of a business cycle after the peak and before the trough; often called a *recession* or, if exceptionally severe, called a *depression*.
- Contraction risk** The risk that the borrower repays the principal or a portion of the principal in a shorter period of time than the contractually agreed scheduled payment, reducing the amount of future payments the investor receives.
- Contractionary** Tending to cause the real economy to contract.
- Contractionary fiscal policy** A fiscal policy that has the objective to make the real economy contract.
- Contribution margin** A profitability measure using variable costs: unit price less unit variable cost. It can also be expressed as a percentage of price or sales.
- Controlling shareholder** An individual or entity that owns a majority of the voting rights in a corporation.
- Convenience sampling** A procedure of selecting an element from a population on the basis of whether or not it is accessible to a researcher or how easy it is for a researcher to access the element.
- Convenience yield** A non-cash benefit of holding a physical commodity versus a derivative.
- Conversion price** For a convertible bond, the price per share at which the bond can be converted into shares.
- Conversion ratio** For a convertible bond, the number of common shares that each bond can be converted into.
- Conversion value** For a convertible bond, the value of the bond if it is converted at the market price of the shares. Also called *parity value*.
- Convertible bond** A bond that gives the bondholder the right to exchange the bond for a specified number of common shares in the issuing company.
- Convertible debt** A debt instrument that gives the holder the right to exchange the instrument for a specified number of common shares in the issuing company.
- Convertible preference shares** A type of equity security that entitles shareholders to convert their shares into a specified number of common shares.
- Convexity** Used to describe the curved, non-linear shape of the price/yield relationship of fixed-income instruments as well as a measure that is used to complement modified duration, sometimes called the convexity adjustment, to capture the second-order effect of yield changes on a bond's price.

- Convexity adjustment** A measure that is used to complement modified duration to capture the second-order effect of yield changes on a bond's price. It is equal to the annual convexity statistic times one-half times the given change in the yield-to-maturity squared.
- Convexity bias** Refers to the difference in price changes for a given change in yield between interest rate futures and interest rate forward contracts. That is, interest rate forwards exhibit a non-linear or convex relationship between price and yield, while the price–yield relationship is linear for interest rate futures.
- Cooperation** The process by which countries work together toward some shared goal or purpose. These goals may, and often do, vary widely—from strategic or military concerns, to economic influence, to cultural preferences.
- Cooperative country** A country that engages and reciprocates in rules standardization; harmonization of tariffs; international agreements on trade, immigration, or regulation; and allowing the free flow of information, including technology transfer.
- Core real estate strategies** Strategies with exposure to well-leased, high-quality commercial and residential real estate in the best markets, generally offered by open-end funds. Investors expect core real estate to deliver stable returns, primarily from income from the property.
- Core-plus real estate strategies** Value-add investments that require modest redevelopment or upgrades to lease any vacant space together with possible alternative use of the underlying properties. Compared to core real estate strategies, these may be appealing for investors seeking higher returns and willing to accept additional risks from development, redevelopment, repositioning, and leasing.
- Corporate issuers** Limited companies or corporations that seek financing in financial markets by, for example, issuing debt or equity securities.
- Corporations** Another term for limited companies, though often used to refer to public limited companies. See *limited company*, *private limited company*, and *public limited company*.
- Correlation** A measure of the linear relationship between two random variables.
- Correlation coefficient** A number between  $-1$  and  $+1$  that measures the consistency or tendency for two investments to act in a similar way. It is used to determine the effect on portfolio risk when two assets are combined.
- Cost averaging** The periodic investment of a fixed amount of money.
- Cost of capital** The cost of financing for a company; the rate of return that suppliers of capital require as compensation for their contribution of capital (also called *opportunity cost of funds*).
- Cost of carry** The net of the costs and benefits related to owning an underlying asset for a specific period.
- Cost of debt** The required return on debt financing for a company, such as when it issues a bond, takes out a bank loan, or leases an asset through a finance lease.
- Cost of equity** The return required by equity investors to compensate for both the time value of money and the risk. Also referred to as the required rate of return on common stock or the required return on equity.
- Counterparty** Legal entities entering a **derivative contract**.
- Counterparty credit risk** The likelihood that a **counterparty** is unable to meet its financial obligations under the contract.
- Counterparty risk** The risk that the other party to a contract will fail to honor the terms of the contract.
- Country** The geopolitical environment as well as the legal and political system faced by all issuers in a jurisdiction that may affect debt payment.
- Coupon** Periodic interest payments paid by a bond issuer to investors, typically expressed as a percentage of par on an annual basis.
- Cournot assumption** Assumption in which each firm determines its profit-maximizing production level assuming that the other firms' output will not change.
- Covariance** A measure of the co-movement (linear association) between two random variables.
- Covenants** The terms and conditions of lending agreements that the issuer must comply with; they specify the actions that an issuer is obligated to perform (affirmative covenant) or prohibited from performing (negative covenant).
- Credit default swap (CDS)** A type of credit derivative in which one party, the credit protection buyer who is seeking credit protection against a third party, makes a series of regularly scheduled payments to the other party, the credit protection seller. The seller makes no payments until a credit event occurs.
- Credit enhancements** Provisions or methods that allow a borrower improve their creditworthiness in a structured transaction.
- Credit event** An event that defines a payout in a credit derivative. Events are usually defined as bankruptcy, failure to pay an obligation, or an involuntary debt restructuring.
- Credit facilities** Loan agreements with pre-specified terms and limits but with fluctuating balances based on borrower-specific needs at different points in time, analogous to a credit card.
- Credit migration risk** The risk that a bond issuer's creditworthiness deteriorates, or migrates lower, leading investors to believe the risk of default is higher. Also called **downgrade risk**.
- Credit rating** Letter-grade, qualitative measures of an issuer's ability to meet its debt obligations based on both the probability of default and the expected loss under a default scenario.
- Credit rating agencies** Institutions that issue and maintain credit ratings. The three largest are Standard & Poor's, Moody's, and Fitch Ratings.
- Credit risk** the expected economic loss under a potential borrower default over the life of the contract
- Credit spread** The compensation for the risk of default in a debt security, typically measured by the yield-to-maturity difference between a bond and a comparable government benchmark security.
- Credit spread risk** The risk of greater expected loss due to changes in credit conditions as a result of macroeconomic, market, and/or issuer-related factors.
- Credit tranching** Internal credit enhancement where cash flows into a senior/subordinate structure.
- Credit-linked notes** Bonds whose coupon changes when the bonds' credit rating changes.
- Critical values** Values of the test statistic at which the decision changes from fail to reject the null hypothesis to reject the null hypothesis.
- Cross-default clause** Covenant or contract clause that specifies borrowers are considered in default if they default on another debt obligation.

- Cross-sectional analysis** Also called relative analysis. Analysis that involves comparisons across individuals in a group over a given time period or at a given point in time.
- Crossing networks** Trading systems that match buyers and sellers who are willing to trade at prices obtained from other markets.
- Crowdsourcing** A business model that enables users to contribute directly to a product, service, or online content.
- Cryptocurrency** An electronic medium of exchange that lacks physical form.
- Cryptocurrency wallet** A storage unit for public and/or private keys for cryptocurrency transactions. These wallets may be a physical device, program, or service.
- Cryptography** An algorithmic process to encrypt data, making the data unusable if received by unauthorized parties.
- Cumulative preference shares** Preference shares for which any dividends that are not paid accrue and must be paid in full before dividends on common shares can be paid.
- Cumulative voting** A voting process whereby shareholders can accumulate and vote all their shares for a single candidate in an election, as opposed to having to allocate their voting rights evenly among all candidates.
- Currency** Money issued by national monetary authorities.
- Currency swap** A swap in which each party makes interest payments to the other in different currencies.
- Current government spending** With respect to government expenditures, spending on goods and services that are provided on a regular, recurring basis including health, education, and defense.
- Current ratio** A measure of liquidity that is the ratio of current assets to current liabilities.
- Current yield (CY)** The sum of the coupon payments received over the year divided by the flat price. Also called the income, interest yield, or running yield.
- Customs union** Extends the free trade area (FTA) by not only allowing free movement of goods and services among members, but also creating a common trade policy against nonmembers.
- CVaR** Conditional VaR, a tail loss measure. The weighted average of all loss outcomes in the statistical distribution that exceed the VaR loss.
- Daily settlement** A specific process of *mark-to-market* by a central clearing party in which the profits and losses of all counterparties to derivatives contracts are determined using settlement prices for each contract.
- Dark pools** Alternative trading systems that do not display the orders that their clients send to them.
- Data mining** The practice of determining a model by extensive searching through a dataset for statistically significant patterns.
- Data science** An interdisciplinary field that harnesses advances in computer science, statistics, and other disciplines for the purpose of extracting information from big data (or data in general).
- Data snooping** The practice of determining a model by extensive searching through a dataset for statistically significant patterns.
- Day order** An order that is good for the day on which it is submitted. If it has not been filled by the close of business, the order expires unfilled.
- Days of inventory on hand (DOH)** The average number of days it would take to sell the amount of inventory on hand. It is calculated as either the ending or average balance of inventories divided by (cost of goods sold/days in the period).
- Days payable outstanding (DPO)** The average number of days it takes a company to pay its suppliers. It is calculated as either the ending or average balance of accounts payable divided by (cost of goods sold/days in the period).
- Days sales outstanding (DSO)** The average number of days it takes for a company to receive payment from customers who purchase goods or services on credit. It is calculated as either the ending or average balance of accounts receivable divided by (revenues/days in the period).
- Dealers** Financial intermediaries, such as commercial banks or investment banks, who transact as **counterparties** with derivative end users.
- Debt** A claim against an entity to receive cash, stock, or other assets at a future date. From the perspective of the debtor or borrower, an obligation to pay cash, stock, or other assets at a future date. Generally, debt claims are unconditional and are senior to equity claims.
- Debt service coverage ratio** The ratio of project revenue available to cover interest and principal payments to debt service used as a measure of creditworthiness for revenue bonds.
- Debt tax shield** The tax benefit from interest paid on debt being tax deductible from income, equal to the marginal tax rate multiplied by the value of the debt.
- Debt-to-assets ratio** A solvency ratio calculated as total debt divided by total assets.
- Debt-to-capital ratio** A solvency ratio calculated as total debt divided by total debt plus total shareholders' equity.
- Debt-to-equity ratio** A solvency ratio calculated as total debt divided by total shareholders' equity.
- Debt-to-income ratio (DTI)** Residential lending metric that compares an individual's monthly debt payments to their monthly pre-tax, gross income.
- Debut issuer** An issuer approaching the bond market for the first time.
- Deciles** Quantiles that divide a distribution into 10 equal parts.
- Declaration date** The day that the corporation issues a statement declaring a specific dividend.
- Decreasing returns to scale** When a production process leads to increases in output that are proportionately smaller than the increase in inputs.
- Deductible temporary differences** Temporary differences that result in a reduction of or deduction from taxable income in a future period when the balance sheet item is recovered or settled.
- Deep learning** An area of artificial intelligence in which a system uses neural networks to perform multistage, non-linear data processing to identify patterns. Also called *deep learning nets*.
- Deep learning nets** See *Deep learning*.
- Deep-in-the-money option** An option that is highly likely to be exercised.
- Deep-out-of-the-money option** An option that is highly unlikely to be exercised.
- Default** When a borrower on a mortgage loan fails to meet the obligations of the loan.
- Default risk premium** An extra return that compensates investors for the possibility that the borrower will fail to make a promised payment at the contracted time and in the contracted amount.
- Defeasance** Mechanism that allows prepayment on mortgage, but the borrower must purchase a portfolio of government securities that fully replicates the cash flows of the remaining scheduled principal and interest payments, including the balloon loan balance, on the loan.

- Defensive interval ratio** A liquidity ratio that estimates the number of days that an entity could meet cash needs from liquid assets; calculated as (cash + short-term marketable investments + receivables) divided by daily cash expenditures.
- Deferred coupon bonds** Bonds that pay no coupons for their first few years but then pay a higher coupon than they otherwise normally would for the remainder of their life. Also called *split coupon bonds*.
- Deferred tax asset** A balance sheet asset that arises when an excess amount is paid for income taxes relative to accounting profit. The taxable income is higher than accounting profit and income tax payable exceeds tax expense. The company expects to recover the difference during the course of future operations when tax expense exceeds income tax payable.
- Deferred tax liabilities** A balance sheet liability that arises when a deficit amount is paid for income taxes relative to accounting profit. The taxable income is less than the accounting profit and income tax payable is less than tax expense. The company expects to eliminate the liability over the course of future operations when income tax payable exceeds tax expense.
- Defined benefit pension plans (DB plans)** Plans in which the company promises to pay a certain annual amount (defined benefit) to the employee after retirement. The company bears the investment risk of the plan assets.
- Defined contribution pension plans** Individual accounts to which an employee and typically the employer makes contributions during their working years and expect to draw on the accumulated funds at retirement. The employee bears the investment and inflation risk of the plan assets.
- Deflation** Negative inflation.
- Degree of financial leverage** The ratio of percentage change in net income to percentage change in operating income over a period. It is a measure of how sensitive net income is to changes in operating income, driven by the firm's use of debt in its capital structure.
- Degree of operating leverage (DOL)** The ratio of percentage change in operating income to percentage change in sales over a period. It is a measure of how sensitive operating income is to changes in sales, driven by the fixed and variable cost composition of operating expenses.
- Delta** The relationship between the option price and the underlying price, which reflects the sensitivity of the price of the option to changes in the price of the underlying. Delta is a good approximation of how an option price will change for a small change in the stock.
- Demand shock** A typically unexpected disturbance to demand, such as an unexpected interruption in trade or transportation.
- Dependent variable** The variable that is explained by a regression model.
- Depository bank** A bank that raises funds from depositors and other investors and lends it to borrowers.
- Depository institutions** Commercial banks, savings and loan banks, credit unions, and similar institutions that raise funds from depositors and other investors and lend it to borrowers.
- Depository receipt** A security that trades like an ordinary share on a local exchange and represents an economic interest in a foreign company.
- Depreciation** The process of systematically allocating the cost of long-lived (tangible) assets to the periods during which the assets are expected to provide economic benefits.
- Derivative** A financial instrument whose value depends on the value of some underlying asset or factor (e.g., a stock price, an interest rate, or exchange rate).
- Derivative contract** A legal agreement between counterparties with a specific **maturity**, or length of time, until the closing of the transaction, or **settlement**.
- Derivative pricing rule** A pricing rule used by crossing networks in which a price is taken (derived) from the price that is current in the asset's primary market.
- Differentiated products** A product or service from a firm that is distinguishable or distinct from those of competing firms. It is customers who determine and value whether a product is differentiated.
- Diffuse prior** The assumption of equal prior probabilities.
- Diffusion index** Reflects the proportion of the index's components that are moving in a pattern consistent with the overall index.
- Digital assets** The umbrella term covering assets that can be created, stored, and transmitted electronically and have associated ownership or use rights. Digital assets include a variety of assets, such as cryptocurrencies, tokens (security and utility), and digital collectables.
- Diluted EPS** The EPS that would result if all dilutive securities were converted into common shares.
- Dilution** An increase in the number of shares outstanding from share issuance that decreases the percentage of shares owned by existing shareholders.
- Direct investing** Occurs when an investor makes a direct investment in an asset without the use of an intermediary.
- Direct lending** Providing capital directly from private debt investors.
- Direct listing** Where the equity of a security is floated on the public markets directly, without underwriters, reducing the complexity and cost of the transaction.
- Direct sales** Marketing and/or delivering products and services to customers without an intermediary or third party between the customer and seller.
- Direct taxes** Taxes levied directly on income, wealth, and corporate profits.
- Discount factor** The price equivalent of a zero rate. Also may be stated as the present value of a currency unit on a future date.
- Discount rate** A yield or pricing convention for money market instrument quotations. It is the interest earned on an instrument, derived from the difference between the price and face value, expressed as a percentage of the face value and multiplied by the periodicity of the annual rate.
- Discounted cash flow models** Valuation models that estimate the intrinsic value of a security as the present value of the future benefits expected to be received from the security.
- Discriminatory pricing rule** A pricing rule used in continuous markets in which the limit price of the order or quote that first arrived determines the trade price.
- Diseconomies of scale** Increase in cost per unit resulting from increased production.
- Dispersion** The variability of a population or sample of observations around the central tendency.
- Display size** The size of an order displayed to public view.

- Disposition effect** As a result of loss aversion, an emotional bias whereby investors are reluctant to dispose of losers. This results in an inefficient and gradual adjustment to deterioration in fundamental value.
- Distressed debt** Debt of mature companies in financial difficulty, in bankruptcy, or likely to default on debt.
- Distressed/restructuring** These strategies focus on securities of companies either in or perceived to be near bankruptcy. In one approach, hedge funds simply purchase fixed-income securities trading at a significant discount to par but that are still senior enough to be backed by sufficient corporate assets.
- Distributed ledger** A type of database that can be shared among entities in a network.
- Distributed ledger technology (DLT)** Technology based on a distributed ledger.
- Diversification ratio** The ratio of the standard deviation of an equally weighted portfolio to the standard deviation of a randomly selected security.
- Dividend discount model (DDM)** A present value model of stock value that views the intrinsic value of a stock as present value of the stock's expected future dividends.
- Dividend payout ratio** The ratio of cash dividends paid to earnings for a period.
- Dividends** Distributions of profits and/or net assets from a corporation to its shareholders. While often in cash, dividends can be also be paid in stock or assets, such as property.
- Divisor** A number (denominator) used to determine the value of a price return index. It is initially chosen at the inception of an index and subsequently adjusted by the index provider, as necessary, to avoid changes in the index value that are unrelated to changes in the prices of its constituent securities.
- Domestic bonds** A type of bond for which the issuer's domicile and jurisdiction of issuance are the same.
- Domestic content provisions** Stipulate that some percentage of the value added or components used in production should be of domestic origin.
- Double taxation** The taxation of business income at both the entity and personal or owner levels. In most jurisdictions, this taxation scheme applies to public limited companies.
- Downside risk** Risk of incurring returns below a specified value.
- Drag on liquidity** An action or event that reduces available funds or delays cash inflows.
- Drivers** Causative factors that explain the level of and changes in an output variable
- DSC ratio** A property's annual net operating income (NOI) divided by the debt service.
- Dual-class structure** A capital structure that includes at least two classes of equity shares with unequal voting rights.
- Dupont analysis** An approach to decomposing return on investment, e.g., return on equity, as the product of other financial ratios.
- Duration** A measure of the approximate sensitivity of a security to a change in interest rates (i.e., a measure of interest rate risk).
- Duration gap** The difference between a bond's Macaulay duration and its investor's investment horizon.
- Dynamic pricing** A pricing approach that charges different prices at different times. Specific examples include off-peak pricing, "surge" pricing, and "congestion" pricing.
- Early repayment option** May entitle the borrower to prepay all or part of the outstanding mortgage principal prior to maturity. This creates a risk from the lender's or investor's viewpoint because the cash flow amounts and timing cannot be known with certainty.
- Earnings surprise** The portion of a company's earnings that is unanticipated by investors and, according to the efficient market hypothesis, merits a price adjustment.
- Economic indicators** Economic statistics provided by government and established private organizations that contain information on an economy's recent past activity or its current or future position in the business cycle.
- Economic infrastructure investments** A category of infrastructure investments that support economic activity through transportation assets, information and communication technology assets, and utility and energy assets.
- Economic stabilization** Reduction of the magnitude of economic fluctuations.
- Economic union** Incorporates all aspects of a common market and in addition requires common economic institutions and coordination of economic policies among members.
- Economies of scale** A decline in costs per unit as output grows, generally resulting from having fixed costs in the cost structure that are spread over more units of output.
- Economies of scope** A decline in costs per unit as the number of product or business lines increases, generally resulting from having shared costs between the product lines.
- Effective annual rate** An interest rate with a periodicity of one.
- Effective convexity** An interest rate risk statistic that measures the non-linear/second-order effect of changes in the benchmark yield curve on a bond's price.
- Effective duration** The sensitivity of the bond's price to an instantaneous parallel shift in a benchmark yield curve—for example, the government par curve.
- Efficient market** A market in which asset prices reflect new information quickly and rationally. See also, *informationally efficient market*.
- Either/or fee** A custom fee arrangement whereby major investors are offered a structure where managers agree to charge *either* a lower management fee *or* a higher incentive fee, whichever is greater.
- Electronic communications networks (ECNs)** See *alternative trading systems* and *multilateral trading facilities*.
- Embedded derivative** A derivative within an underlying, such as a callable, puttable, or convertible bond.
- Embedded options** Contingency provisions found in a bond's indenture representing rights that enable their holders to take advantage of interest rate movements. They can be exercised by the issuer, by the bondholder, or automatically depending on the course of interest rates.
- Emotional biases** Behavioral biases resulting from reasoning influenced by feelings; emotional biases stem from impulse or intuition.
- Empirical duration** Estimates of duration calculated over time and in different interest rate environments. Unlike analytical duration, empirical duration estimates do not assume that benchmark yields and spreads are independent variables and are uncorrelated
- Employee stock ownership plan (ESOP)** A type of employee benefit plan in which a company sets up a trust fund to receive contributions of newly issued shares or cash to buy existing shares. Contributions are tax deductible up to certain limits. Shares in the trust fund are allocated to individual employees based on relative pay or a formula.

- Endowment bias** An emotional bias in which people value an asset more when they hold rights to it than when they do not.
- Enterprise risk management** An overall assessment of a company's risk position. A centralized approach to risk management sometimes called firmwide risk management.
- Enterprise value (EV)** Total company value (the market value of debt, common equity, and preferred equity) minus the value of cash and investments.
- Equal weighting** An index weighting method in which an equal weight is assigned to each constituent security at inception.
- Equity** Ownership interest in an entity. A residual claim on the assets of an entity after more senior claims, such as debt, have been satisfied. Also known as *net assets*.
- Equity swap** A swap transaction in which at least one cash flow is tied to the return on an equity portfolio position, often an equity index.
- Error term** Represents the difference between the observed value of the independent variable and that expected from the true underlying population relation between the dependent and independent variable.
- Estimated parameters** In a simple linear regression, the estimated parameters are the intercept and slope of the fitted line.
- Ether** A programmable cryptocurrency created on the Ethereum blockchain in 2015 that allows for the execution of smart contracts.
- Ethical principles** Beliefs regarding what is good, acceptable, or obligatory behavior and what is bad, unacceptable, or forbidden behavior.
- Ethics** The study of moral principles or of making good choices. Ethics encompasses a set of moral principles and rules of conduct that provide guidance for our behavior.
- Eurobonds** A type of bond issued internationally, outside the jurisdiction of the country in whose currency the bond is denominated.
- European options** Options that may be exercised only at contract maturity.
- European-style** Said of an option contract that can only be exercised on the option's expiration date.
- Event risk** Risk that evolves around set dates, such as elections, new legislation, or other date-driven milestones, such as holidays or political anniversaries, known in advance. Example: Brexit referendum.
- Ex-dividend date** The first date that a share trades without (i.e., "ex") the right to receive the declared dividend for the period.
- Excess kurtosis** Degree of kurtosis (fatness of tails) relative to the kurtosis of the normal distribution.
- Excess spread** Surplus difference of yield remaining after payments to bondholders are made after expenses are made and losses are covered.
- Exchange** A rules-based, open access market venue where financial instruments are traded, with price and volume transparency accessible by issuers, investors, and their intermediaries.
- Exchange-traded derivative (ETD)** Futures, options, and other financial contracts available on exchanges.
- Exchanges** Places where traders can meet to arrange their trades.
- Execution instructions** Instructions that indicate how to fill an order.
- Exercise** The decision to transact the underlying by an option holder.
- Exercise date** The day that an option is exercised by its holder. For a call option, the day the strike price is paid and underlying is purchased. For a put option, when the strike price is received and the underlying is sold.
- Exercise price** The pre-agreed execution price specified in an option contract. Sometimes, this price is referred to as the strike price.
- Exogenous risk** A sudden or unanticipated risk that impacts either a country's cooperative stance, the ability of non-state actors to globalize, or both. Examples include sudden uprisings, invasions, or the aftermath of natural disasters.
- Expansion** The period of a business cycle after its lowest point and before its highest point.
- Expansionary** Tending to cause the real economy to grow.
- Expansionary fiscal policy** Fiscal policy aimed at achieving real economic growth.
- Expected exposure (EE)** The size of the investor's claim at the time of default
- Expected loss (EL)** Default probability times loss severity given default.
- Expected return on the portfolio** Denoted as  $(E(R_p))$ . The weighted average of the expected returns  $(R_1$  to  $R_n)$  on the component securities using their respective weights  $(w_1$  to  $w_n)$ .
- Expected value of a random variable** The probability-weighted average of the possible outcomes of a random variable.
- Expert system** A type of computer programming, often based on "if-then" rules, that attempts to simulate the knowledge base and analytical abilities of human experts in specific problem-solving contexts.
- Export subsidy** Paid by the government to the firm when it exports a unit of a good that is being subsidized.
- Exposure at default (EAD)** The size of the investor's claim at the time of default
- Extension risk** The risk that the borrower repays the principal or a proportion of the principal in a longer time period than the contractually agreed scheduled payment.
- External credit enhancements** Provisions or methods from a third party that allow a borrower improve their credit-worthiness in a structured transaction..
- External debt** Sovereign debt owed to foreign creditors.
- Extra dividend** A dividend paid by a company that does not pay dividends on a regular schedule, or a dividend that supplements regular cash dividends with an extra payment.
- Extraordinary general meetings (EGMs)** Meetings besides an AGM of the corporate board and shareholders, typically held to deliberate and vote on urgent matters. Corporate charters and bylaws specify who can call an EGM and under what conditions.
- Extreme value theory** A branch of statistics that focuses primarily on extreme outcomes.
- Face value** The amount of principal on a bond, also known as par value.
- Factoring arrangement** When a company sells its accounts receivable to a lender (known as a factor) that assumes responsibility for the credit-granting and collection process.
- Fair value** A market-based measure of an investment based on observable or derived assumptions to determine a price that market participants would use to exchange an asset or liability in an orderly transaction at a specific time.
- Fair value hedge** Refers to a specific **hedge accounting** designation that applies when a derivative is deemed to offset the fluctuation in fair value of an asset or liability.

- Fallen angels** Formerly investment-grade issuers whose credit quality has deteriorated since the time of issuance.
- Fat-Tailed** Describes a distribution that has fatter tails than a normal distribution (also called leptokurtic).
- Federal funds rate** The US interbank lending rate on overnight borrowings of reserves. Also known as *Fed Funds rate*.
- Fiat money** Money that is not convertible into any other commodity.
- Fiduciary call** A combination of a purchased call option and investment in a risk-free bond with face value of the option's exercise price.
- Fill or kill** See *immediate or cancel order*.
- Finance lease** A type of lease which is more akin to the purchase or sale of the underlying asset.
- Financial leverage** The use of debt in the capital structure. Measured using ratios such as operating income to operating income less interest expense, total assets to total equity, or debt to equity.
- Financial leverage ratio** A measure of financial leverage calculated as average total assets divided by average total equity.
- Financial risk** The risk arising from a company's capital structure and, specifically, from the level of debt and debt-like obligations.
- Fintech** Technological innovation in the financial services industry, specifically with the design and delivery of financial services and products. It may also refer more broadly to companies involved in developing the new technologies and their applications, as well as the business sector that includes such companies.
- Firm commitment** A pre-determined amount (price and quantity) is agreed to be exchanged at settlement. Examples of firm commitments include forward contracts, futures contracts, and swaps.
- First lien** Security interest in a property that gives the lender the right to seize the collateral if the borrower does not pay as agreed.
- First lien debt** Debt secured by a pledge of certain assets that could include buildings, but it may also include property and equipment, licenses, patents, brands, etc.
- First mortgage debt** Debt secured by a pledge of a specific property.
- Fiscal multiplier** The ratio of a change in national income to a change in government spending.
- Fiscal policy** The use of taxes and government spending to affect the level of aggregate expenditures.
- Fixed charge coverage** A solvency ratio measuring the number of times interest and lease payments are covered by operating income, calculated as (EBIT + lease payments) divided by (interest payments + lease payments).
- Fixed charge coverage ratio** A measure of how well a company's earnings covers its fixed expenses, which may include debt payments, interest expense, and lease costs.
- Fixed-income instruments** Debt instruments such as loans or bonds.
- Fixed-income securities** Fixed-income instruments designed to be more easily tradeable than a loan, such as a bond.
- Fixed-price call** A contingency provision that grants an issuer the right to buy back a bond at a predetermined price in the future.
- Fixed-rate payer** The counterparty paying fixed cash flows in a swap contract. May also be referred to as the floating-rate receiver.
- Flat price** The full price of a bond minus accrued interest. Flat prices are usually quoted by bond dealers.
- Float-adjusted market-capitalization weighting** An index weighting method in which the weight assigned to each constituent security is determined by adjusting its market capitalization for its market float.
- Floating-rate notes (FRNs)** Notes on which interest payments are not fixed but instead vary from period to period depending on the current level of a reference interest rate. Also known as floaters.
- Floating-rate payer** The counterparty paying the variable cash flows in a swap contract. May also be referred to as the fixed-rate receiver.
- Forecast object** A variable on or related to an issuer's financial statements that an analyst makes a projection for. Examples include drivers of financial statements, financial statement lines, and summary measures like EBITDA.
- Foreclosure** Allows a lender to take possession of the property and ultimately sell the property to recover funds toward satisfying the outstanding debt obligation.
- Foreign bonds** A type of bond for which the issuer's domicile and jurisdiction of issuance are different.
- Foreign currency reserves** Holding by the central bank of non-domestic currency deposits and non-domestic bonds.
- Foreign direct investments (FDI)** Long-term investments in the productive capacity of a foreign country.
- Foreign exchange gains (or losses)** Gains (or losses) that occur when the exchange rate changes between the investor's currency and the currency that foreign securities are denominated in.
- Forward contract** A **derivative contract** for the future exchange of an **underlying** at a fixed price set at contract signing.
- Forward price** Represents the price agreed upon in a forward contract to be exchanged at the contract's maturity date,  $T$ . This price is shown in equations as  $F_0(T)$ .
- Forward price-to-earnings ratio** A P/E calculated on the basis of a forecast of EPS; a stock's current price divided by next year's expected earnings.
- Forward rate agreement (FRA)** An OTC derivatives contract in which counterparties agree to apply a specific interest rate to a future time period.
- Founders class shares** A way to entice early participation in startup funds whereby managers offer incentives that entitle investors to a lower fee structure and/or other favorable terms.
- Framing bias** An information-processing bias in which a person answers a question differently based on the way in which it is asked (framed).
- Franchising** A situation where an owner of an asset and associated intellectual property divests the asset and licenses intellectual property to a third-party operator (franchisee) in exchange for royalties. Franchisees operate under the constraints of a franchise agreement.
- Free cash flow** The actual cash that would be available to the company's investors after making all investments necessary to maintain the company as an ongoing enterprise (also referred to as free cash flow to the firm); the internally generated funds that can be distributed to the company's investors (e.g., shareholders and bondholders) without impairing the value of the company.
- Free cash flow hypothesis** The hypothesis that higher debt levels discipline managers by forcing them to make fixed debt service payments and by reducing the company's free cash flow.

- Free float** The portion of a listed company's equity securities that are not held by insiders, strategic investors, sponsors, founders, and so on, that are more freely available for trading.
- Free trade areas** One of the most prevalent forms of regional integration, in which all barriers to the flow of goods and services among members have been eliminated.
- Free-cash-flow-to-equity models** Valuation models based on discounting expected future free cash flow to equity.
- Freemium business model** A pricing approach that allows customers a certain level of usage or functionality at no charge. Those who wish to use more must pay.
- Frequency table** A representation of the frequency of occurrence of two discrete variables.
- Full price** The price of a bond including any accrued interest owed to the seller. It is the flat price plus accrued interest.
- Fully amortizing loan** A loan or bond with a payment schedule that calls for the complete repayment of principal over the instrument's time to maturity.
- Fund investing** In fund investing, the investor invests in assets indirectly by contributing capital to a fund as part of a group of investors. Fund investing is available for all major alternative investment types.
- Fund of funds** Funds that hold a portfolio of hedge funds; also called *funds of hedge funds*.
- Fundamental analysis** The examination of publicly available information and the formulation of forecasts to estimate the intrinsic value of assets.
- Fundamental growth** These strategies use fundamental analysis to identify companies expected to exhibit high growth and capital appreciation.
- Fundamental long/short** In this strategy, the hedge fund takes a long position in companies that are trading at inexpensive levels compared to their potential intrinsic value and shorts those that trade in the other direction, with the intention of reversing this trade to obtain alpha.
- Fundamental value** These strategies use fundamental analysis to identify undervalued and unloved companies for which there is a possibility that a corporate turnaround, with future revenue and cash flow growth, will result in higher valuations.
- Fundamental weighting** An index weighting method in which the weight assigned to each constituent security is based on its underlying company's size. It attempts to address the disadvantages of market-capitalization weighting by using measures that are independent of the constituent security's price.
- Fungible** Freely exchangeable, interchangeable, or substitutable with other things of the same type. Money and commodities are the most common examples.
- Futures contract** A variation of a forward contract that has essentially the same basic definition but with some additional features, such as a clearinghouse guarantee against credit losses, a daily settlement of gains and losses, and an organized electronic or floor trading facility.
- Futures contract basis point value (BPV)** The change in price of a futures contract given a 1 basis point (0.01%) change in yield.
- Futures contracts** Forward contracts with standardized sizes, dates, and underlyings that trade on futures exchanges.
- Futures margin account** An account held by an exchange clearinghouse for each derivatives counterparty. The funds in such an account are used to ensure that counterparties do not default on their contract obligation.
- Futures price** The pre-agreed price at which a futures contract buyer (seller) agrees to pay (receive) for the underlying at the maturity date of the futures contract.
- FX swap** The combination of a spot and a forward FX transaction.
- G-spread** Yield spread in basis points between a bond's yield-to-maturity and that of an actual or interpolated government bond. It represents the return for bearing risks relative to the government bond.
- Game theory** The set of tools decision makers use to incorporate responses by rival decision makers into their strategies.
- Gamma** A numerical measure of how sensitive an option's delta (the sensitivity of the derivative's price) is to a change in the value of the underlying.
- Gate** A provision that when implemented limits or restricts redemptions for a period of time.
- General collateral repo** Rather than involving a specific security, a repo that instead references a specific group of securities as eligible collateral (such as government bonds of a specific maturity).
- General collateral repo rate** The interest rate on a general collateral repo.
- General obligation (GO) bonds** Unsecured bonds issued by a non-sovereign government which are backed by the taxing authority of the issuer.
- General partners (GPs)** Owners of a general partnership or limited partnership with unlimited liability and other attributes as specified in the partnership agreement.
- General partnership** A business organizational form owned entirely by general partners.
- Geophysical resource endowment** Includes such factors as livable geography and climate as well as access to food and water, which are necessary for sustainable growth. Geophysical resource endowment is highly unequal among countries.
- Geopolitics** The study of how geography affects politics and international relations. These relations matter for investments because they contribute to important drivers of investment performance, including economic growth, business performance, market volatility, and transaction costs.
- Gilts** Bonds issued by the UK government.
- Global depository receipt (GDR)** A depository receipt that is issued outside of the company's home country and outside of the United States.
- Global minimum-variance portfolio** The portfolio on the minimum-variance frontier with the smallest variance of return.
- Global registered share (GRS)** A common share that is traded on different stock exchanges around the world in different currencies.
- Globalization** The process of interaction and integration among people, companies, and governments worldwide. It is marked by the spread of products, information, jobs, and culture across borders.
- Gold standard** With respect to a currency, if a currency is on the gold standard a given amount can be converted into a prespecified amount of gold.
- Good-on-close** An execution instruction specifying that an order can only be filled at the close of trading. Also called *market-on-close*.
- Good-on-open** An execution instruction specifying that an order can only be filled at the opening of trading.

- Good-till-cancelled order** An order specifying that it is valid until the entity placing the order has cancelled it (or, commonly, until some specified amount of time such as 60 days has elapsed, whichever comes sooner).
- Goodwill** An intangible asset that represents the excess of the purchase price of an acquired company over the value of the net identifiable assets acquired.
- Governance tokens** In permissionless networks, governance tokens serve as votes to determine how the particular network is run.
- Government debt management** Government policies that relate to the issuance of debt securities, typically handled by a treasurer or finance ministry.
- Government equivalent yield** Measures quoted using actual/actual day counts.
- Grant date** The day that terms of compensation are communicated by an issuer and accepted by an employee recipient.
- Green bonds** Bonds used in green finance whereby the proceeds are earmarked toward environmental-related products.
- Greenfield investments** The first stage of development of an infrastructure asset. Greenfield investments involve developing new assets and new infrastructure with the intention either to lease or sell the assets to the government after construction or to hold and operate the assets. Greenfield investors typically invest alongside strategic investors or developers that specialize in developing the underlying assets.
- Gross profit margin** The ratio of gross profit to revenues.
- Groupthink** The practice of thinking or making decisions as a group in a way that discourages creativity or individual responsibility. For scenario analysis to be useful in portfolio management, teams must work hard to build creative processes, identify scenarios, track these scenarios, and assess the need for action on a regular cadence.
- Growth cycle** Refers to fluctuations in economic activity around the long-term potential trend growth level, focusing on how much actual economic activity is below or above trend growth in economic activity.
- Growth option** The option to make additional investments in a project at some future time if the financial results are strong. Also called an *expansion option*.
- Growth rate cycle** Refers to fluctuations in the growth rate of economic activity.
- Haircut** The difference between the market value of the security used as collateral and the value of the loan. Also called *repo margin*.
- Halo effect** An emotional bias that extends a favorable evaluation of some characteristics to other characteristics.
- Hard commodities** Traded natural resources, such as crude oil and metals, with markets often involving the physical delivery of the underlying upon settlement.
- Hard hurdle rate** Hurdle rate where the manager earns fees on annual returns in excess of the hurdle rate.
- Hard-bullet covered bonds** Type of security where if payments do not occur according to the original schedule of a covered bond, a bond default is triggered and bond payments are accelerated.
- Harmonic mean** A type of weighted mean computed as the reciprocal of the arithmetic average of the reciprocals.
- Hedge** The **derivative contract** used in **hedging** an exposure.
- Hedge accounting** Accounting standard(s) that allow an issuer to offset a hedging instrument (usually a derivative) against a hedged transaction or balance sheet item to reduce financial statement volatility.
- Hedge funds** Private investment vehicles that may invest in public equities or publicly traded fixed-income assets, private capital, and/or real assets, but they are distinguished by their investment *approach* rather than by the investments themselves.
- Hedge ratio** The proportion of an underlying that will offset the risk associated with a derivative position.
- Hedging** The use of a derivative contract to offset or neutralize existing or anticipated exposure to an **underlying**.
- Hegemony** Countries that are regional or even global leaders and use their political or economic influence of others to control resources.
- Held-to-maturity** Debt (fixed-income) securities that a company intends to hold to maturity; these are presented at their original cost, updated for any amortisation of discounts or premiums.
- Herding** Clustered trading that may or may not be based on information.
- Herfindahl-Hirschman Index (HHI)** A measure of market concentration, calculated as the sum of the squares of competitor market shares. Antitrust regulators in some countries consider markets with an HHI between 1,500 and 2,500 moderately concentrated and consider markets with an HHI over 2,500 highly concentrated.
- Heteroskedasticity** Non-constant variance across all observations.
- Hidden order** An order that is exposed not to the public but only to the brokers or exchanges that receive it.
- Hidden revenue business model** Business models that provide services to users at no charge and generate revenues elsewhere.
- High yield** Bond issuers and issues rated BB+ (Ba1 on Moody's scale) or lower. Also known as speculative grade and junk.
- High-water mark** The highest value, net of fees, that a fund has reached in history. It reflects the highest cumulative return used to calculate an incentive fee.
- Hindsight bias** A bias with selective perception and retention aspects in which people may see past events as having been predictable and reasonable to expect.
- Holder-of-record date** The date that a shareholder listed on the corporation's books will be deemed to have ownership of the shares for purposes of receiving an upcoming dividend.
- Holding period return** The return that an investor earns during a specified holding period; a synonym for total return.
- Home bias** A preference for securities listed on the exchanges of one's home country.
- Homogeneity of expectations** The assumption that all investors have the same economic expectations and thus have the same expectations of prices, cash flows, and other investment characteristics.
- Homoskedasticity** Constant variance across all observations.
- Horizon yield** An investor's total rate of return on a fixed income instrument over their holding period, including reinvested coupon payments. It is an internal rate of return expressed as an annualized rate.
- Hostile takeover** When a potential acquirer seeks to acquire a company (the target) against the wishes of the target's board of directors. Typically, a tender offer is used to carry out the hostile takeover, against which a board might use a poison pill in its defense.

- Household** A person or a group of people living in the same residence, taken as a basic unit in economic analysis.
- Human capital** The accumulated knowledge and skill that workers acquire from education, training, or life experience and the corresponding present value of future earnings to be generated by said skilled individual.
- Hurdle rate** Also called “preferred return.” The minimum rate of return on investment that a fund must reach before a GP receives carried interest.
- Hypothesis** A proposed explanation or theory that can be tested.
- Hypothesis testing** The process of testing of hypotheses about one or more populations using statistical inference.
- I-spread** Also known as interpolated spread, it is the yield spread for a bond over the standard swap rate in that currency of the same tenor.
- Iceberg order** An order in which the display size is less than the order’s full size.
- If-converted method** A method for accounting for the effect of convertible securities on earnings per share (EPS) that specifies what EPS would have been if the convertible securities had been converted at the beginning of the period, taking account of the effects of conversion on net income and the weighted average number of shares outstanding.
- Illusion of control bias** A bias in which people tend to believe that they can control or influence outcomes when, in fact, they cannot.
- Immediate or cancel order** An order that is valid only upon receipt by the broker or exchange. If such an order cannot be filled in part or in whole upon receipt, it cancels immediately. Also called *fill or kill*.
- Impact lag** The lag associated with the result of actions affecting the economy with delay.
- Implied forward rate (IFR)** An interest rate or yield over a future period implied by the current term structure of interest rates.
- Import license** Specifies the quantity of a good that can be imported into a country.
- In-the-money** Describes an option with a positive intrinsic value.
- Income tax paid** The actual amount paid for income taxes in the period; not a provision, but the actual cash outflow.
- Income tax payable** The income tax owed by the company on the basis of taxable income.
- Increasing returns to scale** When a production process leads to increases in output that are proportionately larger than the increase in inputs.
- Incurrence test** A financial ratio or other measurement taken prior to an action such as debt issuance, usually on a pro forma basis taking the action into account. Satisfaction of the test (e.g., leverage ratio below a certain value) is linked to covenants between the issuer and investors.
- Indenture** A written contract between a lender and borrower that specifies the terms of the loan, such as interest rate, interest payment schedule, or maturity.
- Independent** With reference to events, the property that the occurrence of one event does not affect the probability of another event occurring. With reference to two random variables  $X$  and  $Y$ , they are independent if and only if  $P(X,Y) = P(X)P(Y)$ .
- Independent directors** Members of a corporation’s board of directors who do not have an employment or familial relationship with the company, nor do they have a relationship that would impair their independence such as an economic interest in a vendor or competitor of the company.
- Independent variable** An explanatory variable in a regression model.
- Independently and identically distributed** With respect to random variables, the property of random variables that are independent of each other but follow the identical probability distribution.
- Index-linked bonds** A bond whose coupon payments or principal repayment is linked to a specified index.
- Indexing** An investment strategy in which an investor constructs a portfolio to mirror the performance of a specified index.
- Indicator variable** A variable that takes on only one of two values, 0 or 1, based on a condition. In simple linear regression, the slope is the difference in the dependent variable for the two conditions. Also referred to as a *dummy variable*.
- Indifference curve** A curve representing all the combinations of two goods or attributes such that the consumer is entirely indifferent among them.
- Indirect taxes** Taxes such as taxes on spending, as opposed to direct taxes.
- Inflation premium** An extra return that compensates investors for expected inflation.
- Inflation reports** A type of economic publication put out by many central banks.
- Inflation-linked bonds** A type of index-linked bond that offer investors protection against inflation by linking the bonds’ coupon payments and/or the principal repayment to an index of consumer prices. Also called *linkers*.
- Information cascade** The transmission of information from those participants who act first and whose decisions influence the decisions of others.
- Information-motivated traders** Traders that trade to profit from information that they believe allows them to predict future prices.
- Informationally efficient market** A market in which asset prices reflect new information quickly and rationally.
- Infrastructure** A type of real asset that is intended for public use and provides essential services. These assets are typically long-lived fixed assets, such as bridges and toll roads.
- Initial coin offering (ICO)** An unregulated process whereby companies raise capital by selling crypto-tokens to investors in exchange for fiat money or another agreed-upon cryptocurrency.
- Initial margin** The ratio of the price of collateral to the value of cash exchanged in a repo; a value over 1.0 or 100% indicates overcollateralization.
- Initial margin requirement** The margin requirement on the first day of a transaction as well as on any day in which additional margin funds must be deposited.
- Initial public offering (IPO)** The first issuance of common shares to the public by a formerly private corporation.
- Inside directors** Members of a corporation’s board of directors who are not independent. Typically, inside directors are employees or founders (and their family) of the company.
- Insolvency** Refers to the condition in which firm value is below the face value of debt used to finance the firm’s assets.
- Institution** An established organization or practice in a society or culture. An institution can be a formal structure, such as a university, organization, or process backed by law; or

it can be informal, such as a custom or behavioral pattern important to society. Institutions can, but need not be, formed by national governments. Examples of institutions include non-governmental organizations, charities, religious customs, family units, the media, political parties, and educational practice.

- Intangible assets** Assets without a physical form, such as patents and trademarks.
- Interbank market** The market of loans and deposits between banks for maturities ranging from overnight to one year.
- Intercept** The estimated value of the dependent variable when the independent variable is zero.
- Interest coverage** A solvency ratio calculated as EBIT divided by interest payments.
- Interest coverage ratio** A measure of an issuer's ability to service its debt, typically the ratio of operating income or EBIT to interest expense.
- Interest rate** A rate of return that reflects the relationship between differently dated cash flows; a discount rate.
- Interest rate swap** A swap in which the underlying is an interest rate. Can be viewed as a currency swap in which both currencies are the same and can be created as a combination of currency swaps.
- Interest-indexed bond** A type of index-linked bond for which changes in the index are captured with adjustments to interest payments.
- Internal credit enhancements** Provisions or methods a borrower initiates to improve their creditworthiness in a structured transaction, such as overcollateralization or excess spread.
- Internal rate of return (IRR)** The discount rate that makes net present value equal 0; the discount rate that makes the present value of an investment's costs (outflows) equal to the present value of the investment's benefits (inflows).
- Internet of things** The vast array of physical devices, home appliances, smart buildings, vehicles, and other items that are embedded with electronics, sensors, software, and network connections that enable the objects in the system to interact and share information.
- Interquartile range** The difference between the third and first quartiles of a dataset.
- Intrinsic value** The amount gained (per unit) by an option buyer if an option is exercised at any given point in time. May be referred to as the exercise value of the option.
- Investment banks** Financial intermediaries that provide advice to their mostly corporate clients and help them arrange transactions such as initial and seasoned securities offerings.
- Investment grade** Bond issuers and issues rated BBB- (Baa3 on Moody's scale).
- Investment policy statement** A written planning document that describes a client's investment objectives and risk tolerance over a relevant time horizon, along with the constraints that apply to the client's portfolio.
- Issue rating** A rating which seeks to capture the probability of default or expected loss of the issuer's senior unsecured bonds.
- Issuer rating** A rating which seeks to capture the credit risk of a specific financial obligation of an issuer which takes such factors as seniority into account.
- J-curve effect** Represents the initial negative return in the capital commitment phase followed by an acceleration of returns through the capital deployment phase.

**Jackknife** A resampling method that repeatedly draws samples by taking the original observed data sample and leaving out one observation at a time (without replacement) from the set.

**January effect** Calendar anomaly that stock market returns in January are significantly higher compared to the rest of the months of the year, with most of the abnormal returns reported during the first five trading days in January. Also called *turn-of-the-year effect*.

**Joint probability function** A function giving the probability of joint occurrences of values of stated random variables.

**Judgmental sampling** A procedure of selectively handpicking elements from the population based on a researcher's knowledge and professional judgment.

**Junior debt** Debt obligation with lower priority of payment than senior debt obligations.

**Key rate duration** A method of measuring interest rate sensitivities of a fixed-income instrument or portfolio to shifts in key points along the yield curve.

**Keynesians** Economists who believe that fiscal policy can have powerful effects on aggregate demand, output, and employment when there is substantial spare capacity in an economy.

**Kurtosis** The statistical measure that indicates the combined weight of the tails of a distribution relative to the rest of the distribution.

**Lagging economic indicators** Turning points that take place later than those of the overall economy; they are believed to have value in identifying the economy's past condition.

**Law of one price** A principle that states that if two investments have the same or equivalent future cash flows regardless of what will happen in the future, then these two investments should have the same current price.

**Lead underwriter** The lead investment bank in a syndicate of investment banks and broker-dealers involved in a securities underwriting.

**Leading economic indicators** Turning points that usually precede those of the overall economy; they are believed to have value for predicting the economy's future state, usually near-term.

**Legal tender** Something that must be accepted when offered in exchange for goods and services.

**Lender of last resort** An entity willing to lend money when no other entity is ready to do so.

**Leptokurtic** Describes a distribution that has fatter tails than a normal distribution (also called fat-tailed).

**Lessee** The party obtaining the use of an asset through a lease.

**Lessor** The owner of an asset that grants the right to use the asset to another party.

**Level of significance** The probability of a Type I error in testing a hypothesis.

**Leverage** A measure for identifying a potentially influential high-leverage point.

**Leveraged buyout** A transaction whereby the target company management team converts the target to a privately held company by using heavy borrowing to finance the purchase of the target company's outstanding shares.

**Leveraged buyout (LBO)** An acquirer (typically an investment fund specializing in LBOs) uses a significant amount of debt to finance the acquisition of a target and then pursues restructuring actions, with the goal of exiting the target with a sale or public listing.

- Leveraged buyouts** Transactions whereby the target company's management team converts the target to a privately held company by using heavy borrowing to finance the purchase of the target company's outstanding shares.
- Leveraged loan** Where private debt investor firms borrow money to make a direct loan to a borrower.
- Leveraged loans** Loans made to a borrower or issuer with relatively lower credit quality and/or higher leverage.
- Liability-driven investing** An investment industry term that generally encompasses asset allocation that is focused on funding an investor's liabilities in institutional contexts.
- Licensing arrangements** Rights to produce a product or have access to intangible assets using someone else's brand name in return for a royalty (often a percentage of revenues).
- Lien** A legal right or claim to property by a creditor.
- Likelihood** The probability of an observation, given a particular set of conditions.
- Limit order** Instructions to a broker or exchange to obtain the best price immediately available when filling an order, but in no event accept a price higher than a specified (limit) price when buying or accept a price lower than a specified (limit) price when selling.
- Limit order book** The book or list of limit orders to buy and sell that pertains to a security.
- Limited company** A business organizational form owned by shareholders or members with limited liability who elect a board of directors to appoint management. Generally, limited companies have indefinite life and easier transfer of ownership interests than limited partnerships.
- Limited liability partnership (LLP)** A business organizational form available in some jurisdictions owned entirely by limited partners with limited liability.
- Limited partners (LPs)** Owners of a limited partnership with limited liability and other attributes as specified in the partnership agreement.
- Limited partnership** A business organizational form owned by a general partner and limited partners.
- Limited partnership agreement (LPA)** A legal document that outlines the rules of the partnership and establishes the framework that ultimately guides the fund's operations throughout its life.
- Lin-log model** A functional form for transforming regression model data in which the dependent variable is linear but the independent variable is logarithmic.
- Linear derivatives** Firm commitment derivative contracts in which the contract's payoff/profit function is linear with respect to the price of the underlying.
- Liquid market** Said of a market in which traders can buy or sell with low total transaction costs when they want to trade.
- Liquidity** The extent to which a company is able to meet its short-term obligations using cash flows and those assets that can be readily transformed into cash.
- Liquidity premium** An extra return that compensates investors for the risk of loss relative to an investment's fair value if the investment needs to be converted to cash quickly.
- Liquidity ratios** Financial ratios measuring the company's ability to meet its short-term obligations to creditors as they come due.
- Liquidity risk** A divergence in the cash flow timing of a derivative versus that of an underlying transaction.
- Liquidity trap** A condition in which the demand for money becomes infinitely elastic (horizontal demand curve) so that injections of money into the economy will not lower interest rates or affect real activity.
- Load fund** A mutual fund in which, in addition to the annual fee, a percentage fee is charged to invest in the fund and/or for redemptions from the fund.
- Loan-to-value ratio (LTV)** Ratio of the amount of the mortgage to the property's value. The lower the LTV, the higher the borrower's equity. From the lender's perspective, the higher the borrower's equity, the less likely the borrower is to default.
- Loans** Debt instruments agreed to between a borrower and lender, typically a bank.
- Lockout or revolving period** For an ABS with a non-amortizing collateral pool, such as credit card debt, is the period in which the cash proceeds from principal repayments are reinvested in additional loans with a principal equal to the principal repaid. During this period, there is no prepayment risk and potential default risk is generally limited. When the lockout period is over, principal repayments are used to pay off the outstanding principal on the ABS. Lockout period and revolving period are interchangeable.
- Lockup period** The minimum holding period before investors are allowed to make withdrawals or redeem shares from a fund. Its purpose is to allow the hedge fund manager the required time to implement and potentially realize a strategy's expected results.
- Log-lin model** A functional form for transforming regression model data in which the dependent variable is logarithmic but the independent variable is linear.
- Log-log model** A functional form for transforming regression model data in which both the dependent and independent variables are in logarithmic form.
- Long** A trading position in a **derivative contract** that gains value as the price of the **underlying** moves higher.
- Long position** A position in an asset or contract in which one owns the asset or has an exercisable right under the contract.
- Long-run average total cost** The curve describing average total cost when no costs are considered fixed.
- Loss aversion** The tendency of people to dislike losses more than they like comparable gains.
- Loss given default (LGD)** The investor's loss conditional on an issuer event of default.
- Loss severity** Portion of a bond's value (including unpaid interest) an investor loses in the event of default.
- Loss-aversion bias** A bias in which people tend to strongly prefer avoiding losses as opposed to achieving gains.
- Low-cost producer** A firm with lower production costs than its industry competitors.
- M<sup>2</sup>** A measure of what a portfolio would have returned if it had taken on the same total risk as the market index.
- M<sup>2</sup> alpha** Difference between the risk-adjusted performance of the portfolio and the performance of the benchmark.
- Macaulay duration** The present-value weighted average time to receipt of cash flows for fixed-income instrument, also the holding period needed to balance coupon reinvestment risk and price risk for a one-time instantaneous "parallel" shift in the yield curve once the bond purchase is settled. It is named after Frederick Macaulay, the Canadian economist who introduced the concept in 1938.
- Machine learning (ML)** Involves computer-based techniques that seek to extract knowledge from large amounts of data without making any assumptions about the data's underlying probability distribution. The goal of ML algorithms is

to automate decision-making processes by generalizing, or “learning,” from known examples to determine an underlying structure in the data.

**Maintenance capital expenditures** Investments in assets to keep them in operation or increase their efficiency without extending their useful lives.

**Maintenance margin** Minimum balance set below the initial margin that each contract buyer and seller must hold in the futures margin account from trade initiation until final settlement at maturity.

**Maintenance margin requirement** The margin requirement on any day other than the first day of a transaction.

**Management buy-in** A type of leveraged buyout where the current management team is replaced with the acquiring team involved in managing the company.

**Management buyout** A type of leveraged buyout where the current management team participates in the acquisition.

**Management guidance** Management of public companies may publicly provide targets for earnings, revenues, and other measures (e.g., capital expenditures) for the next quarter, year, or longer term. Guidance can be detailed or rather directional and is often updated throughout the year. Initial guidance for next fiscal year might be provided during the fourth-quarter earnings call and updated for completed quarters, and new information provided at the first-, second-, and third-quarter earnings calls. Also known simply as *guidance*.

**Margin call** Request to a derivatives contract counterparty to immediately deposit funds to return the futures margin account balance to the initial margin.

**Margin financing** A financing arrangement whereby the prime broker lends shares, bonds, or derivatives and the hedge fund (or investment manager) deposits cash or other collateral into a margin account at the prime broker based on certain fractions of the investment positions.

**Margin loan** Money borrowed from a broker to purchase securities.

**Marginal propensity to consume** The proportion of an additional unit of disposable income that is consumed or spent; the change in consumption for a small change in income.

**Marginal propensity to save** The proportion of an additional unit of disposable income that is saved (not spent).

**Mark to market (MTM)** The practice in which a central clearing party assigns profits and losses to counterparties to derivative contracts. In exchange-traded markets, this practice takes place daily and is often referred to as daily settlement.

**Market anomaly** Change in the price or return of a security that cannot directly be linked to current relevant information known in the market or to the release of new information into the market.

**Market bid-ask spread** The difference between the best bid and the best offer.

**Market discount rate** The rate of return required by investors given the risk of the bond investment, also known as the required yield or required rate of return.

**Market float** The number of shares that are available to the investing public.

**Market makers** **Over-the-counter (OTC) dealers** who typically enter into offsetting bilateral transactions with one another to transfer risk to other parties.

**Market model** A regression model with the return on a stock as the dependent variable and the returns on a market index as the independent variable.

**Market multiple models** Valuation models based on share price multiples or enterprise value multiples.

**Market neutral** These strategies use quantitative, fundamental, and technical analysis to identify under- and overvalued equity securities. The hedge fund takes long positions in undervalued securities and short positions in overvalued securities, while seeking to maintain a market-neutral net position.

**Market order** Instructions to a broker or exchange to obtain the best price immediately available when filling an order.

**Market reference rate** A market-determined interest rate used as the underlying in financial instruments and contracts such as variable-rate debt and interest rate swaps. An example is the Secured Overnight Financing Rate (SOFR), which is an overnight cash borrowing rate collateralized by US Treasuries. Other MRRs include the euro short-term rate (€STR) and the Sterling Overnight Index Average (SONIA).

**Market reference rate (MRR)** The interest rate underlying used in interest rate swaps. These rates typically match those of loans or other short-term obligations. Survey-based Libor rates used as reference rates in the past have been replaced by rates based on a daily average of observed market transaction rates. For example, the Secured Overnight Financing Rate (SOFR) is an overnight cash borrowing rate collateralized by US Treasuries. Other MRRs include the euro short-term rate (€STR) and the Sterling Overnight Index Average (SONIA).

**Market risk** The risk that arises from movements in interest rates, stock prices, exchange rates, and commodity prices.

**Market share** A company's or product's revenue expressed as a percentage of its market size.

**Market size** Total sales for a good or service, which can be calculated on a global or more regional basis.

**Market value** The price at which an asset or security can currently be bought or sold in an open market.

**Market-capitalization weighting** An index weighting method in which the weight assigned to each constituent security is determined by dividing its market capitalization by the total market capitalization (sum of the market capitalization) of all securities in the index. Also called *value weighting*.

**Market-on-close** An execution instruction specifying that an order can only be filled at the close of trading.

**Marketable limit order** A buy limit order in which the limit price is placed above the best offer, or a sell limit order in which the limit price is placed below the best bid. Such orders generally will partially or completely fill right away.

**Markowitz efficient frontier** The graph of the set of portfolios offering the maximum expected return for their level of risk (standard deviation of return).

**Master limited partnership (MLP)** Has similar features to limited partnerships but is usually a more liquid investment that is often publicly traded.

**Master repurchase agreement** A legal document governing all repo trades between two parties.

**Match funding** Financing an asset with a source, such as a loan or bond, that is aligned with certain attributes of the asset, such as duration and the respective streams of income and financing costs.

**Material** (materiality) Refers to information that is decision-useful for a reasonable investor.

**Matrix pricing** An estimation process for financial instruments based on the prices of comparable instruments.

**Maturity** The date of a fixed-income instrument's final payment to investors.

- Maturity premium** An extra return that compensates investors for the increased sensitivity of the market value of debt to a change in market interest rates as maturity is extended.
- Maturity structure of interest rates** Also known as the term structure of interest rates, refers to the difference in interest rates or benchmark yields by time-to-maturity.
- Mean absolute deviation** With reference to a sample, the mean of the absolute values of deviations from the sample mean.
- Mean square error (MSE)** Calculated as the sum of squares error (SSE) divided by the degrees of freedom, which are the number of observations minus the number of independent variables minus one. Since simple linear regression has just one independent variable, the degrees of freedom calculation is the number of observations minus 2.
- Mean square regression (MSR)** Calculated as the sum of squares regression (SSR) divided by the number of independent variables in the regression model. In simple linear regression, there is only one independent variable, so MSR equals SSR.
- Mean-variance analysis** An approach to portfolio analysis using expected means, variances, and covariances of asset returns.
- Measure of central tendency** A quantitative measure that specifies where data are centered.
- Measures of location** Quantitative measures that describe the location or distribution of data. They include not only measures of central tendency but also other measures, such as percentiles.
- Median** The value of the middle item of a set of items that has been sorted into ascending or descending order (i.e., the 50th percentile).
- Meme coin** A type of altcoin that is often inspired by a joke.
- Mental accounting bias** An information-processing bias in which people treat one sum of money differently from another equal-sized sum based on which mental account the money is assigned to.
- Merger arbitrage** Generally, these strategies involve going long (buying) the stock of the company being acquired at a discount to its announced takeover price and going short (selling) the stock of the acquiring company when the merger or acquisition is announced.
- Mesokurtic** Describes a distribution with kurtosis equal to that of the normal distribution, namely, kurtosis equal to three.
- Mezzanine debt** Refers to private credit subordinated to senior secured debt but senior to equity in the borrower's capital structure.
- Mezzanine-stage financing** Mezzanine venture capital that prepares a company to go public as it continues to expand capacity and enhance its growth trajectory. It represents the bridge financing needed to fund a private firm until it can execute an IPO or be sold.
- Miner** A validator of transactions on the blockchain that locks blocks of transactions into the blockchain and receives compensation for this process in the form of a digital asset.
- Minimum efficient scale** The smallest output that a firm can produce such that its long-run average total cost is minimized.
- Minimum-variance portfolio** The portfolio with the minimum variance for each given level of expected return.
- Minority shareholder** An individual or entity that owns less than a majority of the voting rights in a corporation.
- Mode** The most frequently occurring value in a distribution.
- Modern portfolio theory (MPT)** The analysis of rational portfolio choices based on the efficient use of risk.
- Modified duration** The first derivative of a bond's price with respect to its yield, this statistic is a measure of interest rate risk used to estimate the percentage price change for a given change in yield-to-maturity.
- Monetarists** Economists who believe that the rate of growth of the money supply is the primary determinant of the rate of inflation.
- Monetary policy** Actions taken by a nation's central bank to affect aggregate output and prices through changes in bank reserves, reserve requirements, or its target interest rate.
- Monetary transmission mechanism** The process whereby a central bank's interest rate gets transmitted through the economy and ultimately affects the rate of increase of prices.
- Monetary union** An economic union in which the members adopt a common currency.
- Money convexity** A measure that is used to complement modified duration to capture the second-order effect of yield changes on a bond's price, expressed in currency terms.
- Money duration** A measure of the price change of a fixed-income instrument in currency units from a change in yield-to-maturity. The money duration can be stated per 100 of par value or in terms of the actual position size. In the United States, money duration is commonly called "dollar duration."
- Money market** The market for short-term debt instruments (one-year maturity or less).
- Money market securities** Fixed-income securities with original maturities of one year or less.
- Money-weighted return** The internal rate of return on a portfolio, taking account of all cash flows.
- Moneyneess** Expresses the relationship between an option's value and its exercise price across the full range of possible underlying prices.
- Monopolistic competition** Highly competitive form of imperfect competition; the competitive characteristic is a notably large number of firms, while the monopoly aspect is the result of product differentiation.
- Monopoly** In pure monopoly markets, there are no substitutes for the given product or service. There is a single seller, which exercises considerable power over pricing and output decisions.
- Monte Carlo simulation** A technique that uses the inverse transformation method for converting a randomly generated uniformly distributed number into a simulated value of a random variable of a desired distribution. Each key decision variable in a Monte Carlo simulation requires an assumed statistical distribution; this assumption facilitates incorporating non-normality, fat tails, and tail dependence as well as solving high-dimensionality problems.
- Moral principles** Beliefs regarding what is good, acceptable, or obligatory behavior and what is bad, unacceptable, or forbidden behavior.
- Mortgage loan** Agreement to finance real estate by the collateral of a specified property that obliges the borrower to make a predetermined series of payments to the lender.
- Mortgage pass-through security** Security created when mortgage lenders pool mortgages together and sell securities to investors. The cash flow from the mortgage pool—monthly payments of principal, interest, and prepayments—are "passed through" to the security holders.
- Mortgage-backed securities** Debt obligations that represent claims to the cash flows from pools of mortgage loans, most commonly on residential property.

- Mortgage-backed securities (MBS)** Bonds created from the securitization of mortgages.
- Multi-factor model** A model that explains a variable in terms of the values of a set of factors.
- Multi-market indexes** Comprised of indexes from different countries, designed to represent multiple security markets.
- Multilateral trading facilities** See *alternative trading systems*.
- Multilateralism** The conduct of countries who participate in mutually beneficial trade relationships and extensive rules harmonization. Private firms are fully integrated into global supply chains with multiple trade partners. Examples of multilateral countries include Germany and Singapore.
- Multiple of invested capital (MOIC)** A simplified calculation that measures the total value of all distributions and residual asset values relative to an initial total investment; also known as a *money multiple*.
- Multiple-price auction** A debt securities auction in which bidders receive distinct prices based on their bids.
- Multiplier models** Valuation models based on share price multiples or enterprise value multiples.
- Mutual fund** A commingled investment pool in which investors in the fund each have a pro-rata claim on the income and value of the fund.
- Nash equilibrium** When two or more participants in a non-cooperative game have no incentive to deviate from their respective equilibrium strategies given their opponent's strategies.
- Nationalism** The promotion of a country's own economic interests to the exclusion or detriment of the interests of other nations. Nationalism is marked by limited economic and financial cooperation. These actors may focus on national production and sales, limited cross-border investment and capital flows, and restricted currency exchange.
- Natural language processing (NLP)** A field of research within the field of text analytics and at the intersection of computer science, AI, and linguistics that focuses on developing computer programs to analyze and interpret human language.
- Natural resources** These include commodities (hard and soft), agricultural land (farmland), and timberland.
- Negative externalities** A cost to a third party because of the production or consumption of a good or service.
- Negative pledge clause** Limitations on investments, the disposal of assets, or issuance of debt senior to existing obligations. Negative covenants seek to ensure that an issuer maintains the ability to make interest and principal payments.
- Net cash** An issuer's total debt less cash and marketable securities. When the balance is negative it is referred to as net cash.
- Net debt** An issuer's total debt less cash and marketable securities. When the balance is positive it is referred to as net debt.
- Net investment hedge** Refers to a specific **hedge accounting** designation that applies when either a foreign currency bond or a derivative, such as an FX swap or forward, is used to offset the exchange rate risk of the equity of a foreign operation.
- Net present value (NPV)** The present value of an investment's cash inflows (benefits) minus the present value of its cash outflows (costs).
- Net profit margin** An indicator of profitability, calculated as net income divided by revenue; indicates how much of each dollar of revenues is left after all costs and expenses. Also called *profit margin* or *return on sales*.
- Net tax rate** The tax rate net of transfer payments.
- Net working capital** Working capital excluding short-term items unrelated to business operations, such as cash, marketable securities, and short-term debt.
- Network effects** A business model that enables users to contribute directly to a product, service, or online content.
- Neural networks** A type of computer program design based on how the human brain learns and processes information.
- Neutral rate of interest** The rate of interest that neither spurs on nor slows down the underlying economy.
- No-load fund** A mutual fund in which there is no fee for investing in the fund or for redeeming fund shares, although there is an annual fee based on a percentage of the fund's net asset value.
- Node** Each value on a binomial tree from which successive moves or outcomes branch.
- Non-agency RMBS** MBS backed by residential mortgages that are issued by private entities and not guaranteed by a federal agency or a GSE.
- Non-amortizing loans** Type of debt where there are no scheduled principal repayments.
- Non-cooperative country** A country with inconsistent and even arbitrary rules; restricted movement of goods, services, people, and capital across borders; retaliation; and limited technology exchange.
- Non-cumulative preference shares** Preference shares for which dividends that are not paid in the current or subsequent periods are forfeited permanently (instead of being accrued and paid at a later date).
- Non-financial risks** Risks that arise from sources other than changes in the external financial markets, such as changes in accounting rules, legal environment, or tax rates.
- Non-fungible token (NFT)** A unique cryptographic token on the blockchain that cannot be replicated and is used to represent ownership of physical assets, such as artwork, real estate, or other assets.
- Non-linear derivatives** Derivatives, such as options or other contingent claims, with payoff/profit profiles that are non-linear (asymmetric) with respect to the price of the underlying.
- Non-participating preference shares** Preference shares that do not entitle shareholders to share in the profits of the company. Instead, shareholders are only entitled to receive a fixed dividend payment and the par value of the shares in the event of liquidation.
- Non-probability sampling** A sampling plan dependent on factors other than probability considerations, such as a sampler's judgment or the convenience to access data.
- Non-recourse loan** Loan in which the lender does not have a claim against the borrower and thus can look only to the property to recover the outstanding mortgage balance.
- Non-state actors** Those that participate in global political, economic, or financial affairs but do not directly control national security or country resources. Examples of non-state actors are non-governmental organizations (NGOs), multinational companies, charities, and even influential individuals, such as business leaders or cultural icons.

- Nonparametric test** A test that is not concerned with a parameter or that makes minimal assumptions about the population from which a sample comes.
- Nonsystematic risk** Unique risk that is local or limited to a particular asset or industry that need not affect assets outside of that asset class.
- Normal distribution** A continuous, symmetric probability distribution that is completely described by its mean and its variance.
- Normalized earnings** The expected level of mid-cycle earnings for a company in the absence of any unusual or temporary factors that affect profitability (either positively or negatively).
- Notching** Ratings adjustment methodology where specific issues from the same borrower may be assigned different credit ratings.
- Notice period** The length of time (typically 30–90 days) in advance that investors may be required to notify a fund of their intent to redeem some or all of their investment. This allows a fund manager to liquidate a position in an orderly fashion without magnifying losses.
- Novation process** A process that substitutes the initial **swap execution facility (SEF)** contract with identical trades facing the **central counterparty (CCP)**. The CCP serves as **counterparty** for both financial intermediaries, eliminating bilateral **counterparty credit risk** and providing **clearing** and **settlement** services.
- Null hypothesis** The hypothesis that is tested.
- Off-the-run** Seasoned government bonds that are often less liquid.
- Off-the-run securities** Sovereign debt securities outstanding other than on-the-run securities. Off-the-run securities are less liquid than on-the-run securities.
- Offer** The price at which a dealer or trader is willing to sell an asset, typically qualified by a maximum quantity (ask size).
- Official interest rate** An interest rate that a central bank sets and announces publicly; normally the rate at which it is willing to lend money to the commercial banks. Also called *official policy rate* or *policy rate*.
- Official policy rate** An interest rate that a central bank sets and announces publicly; normally the rate at which it is willing to lend money to the commercial banks.
- Oligopoly** Market structure with a relatively small number of firms supplying the market.
- Omnichannel** Refers to a company selling its products or services in multiple channels, such as in store and online.
- On-the-run** Most recently issued, and liquid, government bonds.
- On-the-run securities** The most recently issued and liquid sovereign debt securities.
- Open interest** The number of outstanding contracts.
- Open market operations** The purchase or sale of bonds by the national central bank to implement monetary policy. The bonds traded are usually sovereign bonds issued by the national government.
- Open-end fund** A mutual fund that accepts new investment money and issues additional shares at a value equal to the net asset value of the fund at the time of investment.
- Operating cycle** The length of time between a company's acquisition of goods or raw materials and the collection of cash from sales to customers.
- Operating efficiency ratios** Ratios that measure how efficiently a company performs day-to-day tasks, such as the collection of receivables and management of inventory.
- Operating leases** A type of lease which is more akin to the rental of the underlying asset.
- Operating leverage** The sensitivity of a firm's operating profit to a change in revenues, determined by the composition of fixed and variable operating costs.
- Operating profit margin** A profitability ratio calculated as operating income (i.e., income before interest and taxes) divided by revenue. Also called *operating margin*.
- Operational deposits** Bank deposits generated by clearing, custody, and cash management activities.
- Operational independence** A bank's ability to execute monetary policy and set interest rates in the way it thought would best meet the inflation target.
- Operational risk** The risk that arises from inadequate or failed people, systems, and internal policies, procedures, and processes, as well as from external events that are beyond the control of the organization but that affect its operations.
- Operationally efficient** Said of a market, a financial system, or an economy that has relatively low transaction costs.
- Opportunistic real estate strategies** Include major redevelopment, repurposing of assets, taking on large vacancies, or speculating on significant improvement in market conditions. These may be appealing for investors seeking higher returns and willing to accept additional risks from development, redevelopment, repositioning, and leasing.
- Opportunity cost** The value that investors forgo by choosing a particular course of action; the value of something in its best alternative use.
- Optimal capital structure** The capital structure at which the value of the company is maximized.
- Option** A primary example of a **contingent claim**. A **derivative contract** that provides the buyer the right, but not the obligation, to buy or sell an **underlying**.
- Option contract** See *option*.
- Option premium** An amount that is paid upfront from the option buyer to the option seller. Reflects the value of the option buyer's right to exercise in the future.
- Option-adjusted price** The sum of a bond's flat price and value of an embedded option.
- Option-adjusted spread** Or OAS for a bond is its Z-spread adjusted for the value of an embedded option.
- Option-adjusted yield** A yield measure for a bond adjusted for embedded options.
- Order** A specification of what instrument to trade, how much to trade, and whether to buy or sell.
- Order precedence hierarchy** With respect to the execution of orders to trade, a set of rules that determines which orders execute before other orders.
- Order-driven markets** A market (generally an auction market) that uses rules to arrange trades based on the orders that traders submit; in their pure form, such markets do not make use of dealers.
- Ordinary shares** Equity shares that are subordinate to all other types of equity (e.g., preferred equity). Also called *common stock* or *common shares*.
- Organizational form** A legal and tax classification of a business, specific to a jurisdiction, that determines the organization's legal identity, owner–manager relationship, owner liability, taxation, and access to financing.
- Out-of-the-money** Describes an option with zero intrinsic value because the option buyer would not rationally exercise the option. An example of such would be the case in which the price of the underlying is less than the option's exercise price for a call option.

- Over-the-counter (OTC)** Refers to derivative markets in which **derivative contracts** are created and traded between derivatives end users and **dealers**, or financial intermediaries, such as commercial banks or investment banks.
- Overcollateralization** Credit enhancement technique where collateral underlying the transaction exceeds the face value of the issued bonds.
- Overconfidence bias** A bias in which people demonstrate unwarranted faith in their own intuitive reasoning, judgments, and/or cognitive abilities.
- Overfitting** When a machine learning model learns the input and target dataset too precisely, making the system more likely to discover false relationships or unsubstantiated patterns that will lead to prediction errors.
- p-Value** The smallest level of significance at which the null is rejected.
- Par rate** A yield-to-maturity that makes the present value of a bond's cash flows equal to par.
- Par swap rate** The fixed swap rate that equates the present value of all future expected floating cash flows to the present value of fixed cash flows.
- Par value** The amount of principal on a bond, also known as face value.
- Parallel shift** When all maturities along a yield curve increase or decrease in yield in the same direction by the same magnitude. A parallel shift in the yield curve is implicitly assumed in analytical duration and convexity.
- Parameter** A descriptive measure computed from or used to describe a population of data, conventionally represented by Greek letters.
- Parametric test** Any test (or procedure) concerned with parameters or whose validity depends on assumptions concerning the population generating the sample.
- Pari passu clause** A covenant or contract clause that ensures a debt obligation is treated the same as the borrower's other senior debt instruments and is not subordinated to similar obligations.
- Partially amortizing bond** A loan or bond with a payment schedule that calls for the complete repayment of principal over the instrument's time to maturity.
- Participating preference shares** Preference shares that entitle shareholders to receive the standard preferred dividend plus the opportunity to receive an additional dividend if the company's profits exceed a pre-specified level.
- Pass-through businesses** Businesses that, by virtue of their organizational form and/or other legal and regulatory attributes, do not pay entity-level taxes on income or loss; income or loss is passed through to owners, who pay personal taxes.
- Pass-through rate** The coupon rate of a mortgage pass-through security that is received by the investor after administrative charges. It is lower than the weighted average mortgage rate earned on the underlying pool of mortgages because of administrative charges. The pass-through rate that the investor receives is said to be "net interest" or "net coupon."
- Passive investment** A buy and hold approach in which an investor does not make portfolio changes based on short-term expectations of changing market or security performance.
- Payable date** The day that the company actually mails out (or electronically transfers) a dividend payment.
- Payment date** The day that the company actually mails out (or electronically transfers) a dividend payment.
- Payment-in-kind** A bond feature whereby coupon payments can be fully or partially paid in the form of additional issuance or added to the principal amount.
- Payments system** The system for the transfer of money.
- Pearson correlation** A parametric measure of the relationship between two variables.
- Pecking order theory** The theory that managers consider how their actions might be interpreted by outsiders and thereby order their preferences for various forms of corporate financing. Forms of financing that are least visible to outsiders (e.g., internally generated funds) are most preferable to managers, and those that are most visible (e.g., equity issuance) are least preferable.
- Penetration pricing** A discount pricing approach used when a firm willingly sacrifices margins in order to build scale and market share.
- Percentiles** Quantiles that divide a distribution into 100 equal parts that sum to 100.
- Perfect competition** A market structure in which the individual firm has virtually no impact on market price, because it is assumed to be a very small seller among a very large number of firms selling essentially identical products.
- Performance evaluation** The measurement and assessment of the outcomes of investment management decisions.
- Performance fee** Fee paid to the general partner from the limited partner(s) based on realized net profits.
- Period costs** Costs (e.g., executives' salaries) that cannot be directly matched with the timing of revenues and which are thus expensed immediately.
- Periodicity** Number of periods in a year, used for compound interest. The periodicity of a fixed-income instrument usually matches the frequency of its coupon payments.
- Permanent differences** Differences between tax and financial reporting of revenue (expenses) that will not be reversed at some future date. These result in a difference between the company's effective tax rate and statutory tax rate and do not result in a deferred tax item.
- Permissioned networks** Networks that are fully open only to select participants on a DLT network.
- Permissionless networks** Networks that are fully open to any user on a DLT network.
- Perpetual bonds** Bonds with no stated maturity date.
- Perpetuity** A perpetual annuity, or a set of never-ending level sequential cash flows, with the first cash flow occurring one period from now.
- PESTLE analysis** A framework for analyzing factors that influence an industry's economic outcomes.
- Pet projects** A capital investment that is pursued by management but is not economically justifiable by a disinterested party. Motivations for pet projects include self-dealing and vanity.
- Physical risks** Economic and financial losses from the increase in the severity and frequency of extreme weather due to climate change—for example, the loss of coastal real estate from a storm.
- PIPE (private investment in public equity)** A private offering to select investors with fewer disclosures and lower transaction costs that allows the issuer to raise capital more quickly and cost effectively.
- Platykurtic** Describes a distribution that has relatively less weight in the tails than the normal distribution (also called thin-tailed).
- Pledge** A legal right or claim to property by a creditor. Also called a lien.

- Poison pill** Officially known as a shareholder rights plan, a poison pill is a hostile-takeover defense adopted by boards of directors according to rules specified in the corporate charter. There are several types of poison pills. Generally, they allow shareholders, *excluding* the shareholder making the hostile bid and their affiliates, to buy newly issued shares at a discounted price. The share issuance would dilute the bidder's ownership percentage, rendering it impossible for the bidder to attain control.
- Policy rate** An interest rate that a central bank sets and announces publicly; normally the rate at which it is willing to lend money to the commercial banks.
- Portfolio companies** The individual companies owned by a private equity firm.
- Portfolio investment flows** Short-term investments in foreign assets, such as stocks or bonds.
- Portfolio planning** The process of creating a plan for building a portfolio that is expected to satisfy a client's investment objectives.
- Position** The quantity of an asset that an entity owns or owes.
- Posterior probability** An updated probability that reflects or comes after new information.
- Power of a test** The probability of correctly rejecting the null—that is, rejecting the null hypothesis when it is false.
- Pre-funding period** Allows the trust to acquire during a certain period of time after the close of the transaction.
- Preference shares** A type of equity interest which ranks above common shares with respect to the payment of dividends and the distribution of the company's net assets upon liquidation. They have characteristics of both debt and equity securities. Also called *preferred stock*.
- Preferred stock** See *preference shares*.
- Premium** In the case of bonds, premium refers to the amount by which a bond is priced above its face (par) value. In the case of an option, the amount paid for the option contract.
- Prepayment option** May entitle the borrower to prepay all or part of the outstanding mortgage principal prior to maturity. This creates a risk from the lender's or investor's viewpoint because the cash flow amounts and timing cannot be known with certainty.
- Prepayment risk** The risk that the principal or a proportion of the principal is paid back at a different pace from the contractually agreed scheduled payment plan by the borrower.
- Present value models** Valuation models that estimate the intrinsic value of a security as the present value of the future benefits expected to be received from the security. Also called *discounted cash flow models*.
- Pretax margin** A profitability ratio calculated as earnings before taxes divided by revenue.
- Price discrimination** A pricing approach that charges different prices to different customers based on their willingness to pay.
- Price index** Represents the average prices of a basket of goods and services.
- Price limits** Establish a band relative to the previous day's settlement price within which all trades must occur.
- Price multiple** A ratio that compares the share price with some sort of monetary flow or value to allow evaluation of the relative worth of a company's stock.
- Price priority** The principle that the highest priced buy orders and the lowest priced sell orders execute first.
- Price return** Measures *only* the price appreciation or percentage change in price of the securities in an index or portfolio.
- Price return index** An index that reflects *only* the price appreciation or percentage change in price of the constituent securities. Also called *price index*.
- Price stability** In economics, refers to an inflation rate that is low on average and not subject to wide fluctuation.
- Price takers** Producers that must accept whatever price the market dictates.
- Price value of a basis point (PVBP)** An estimate of the change in the full price of a bond given a 1 bp change in its yield-to-maturity. The PVBP is also called the "PV01," standing for the "price value of an 01" or "present value of an 01," where "01" means 1 bp. In the United States, it is commonly called the "DV01" for the "dollar value" of 1 bp.
- Price weighting** An index weighting method in which the weight assigned to each constituent security is determined by dividing its price by the sum of all the prices of the constituent securities.
- Price-setting option** The option to adjust prices when demand or supply varies from what is forecast.
- Price-to-earnings ratio (P/E)** The ratio of share price to earnings per share.
- Pricing power** The ability of a firm to set prices for its products or services without materially losing volume share. Generally this means that the product or service is not a commodity because the firm is not a price taker.
- Primary bond markets** Fixed-income markets comprised of issuers issuing bonds to investors to raise capital, often intermediated by a third-party such as an investment bank.
- Primary capital markets (primary markets)** The market where securities are first sold and the issuers receive the proceeds.
- Primary dealer** Financial institution that is authorized to deal in new issues of sovereign bonds and that serves primarily as a trading counterparty of the office responsible for issuing sovereign bonds.
- Primary market** The market where securities are first sold and the issuers receive the proceeds.
- Prime broker** A broker that provides services that commonly include custody, administration, lending, short borrowing, and trading.
- Prime loans** Lending made to borrowers of high credit quality with strong employment and credit histories, a low DTI, substantial equity in the underlying property, and a first lien on the mortgaged property serving as the collateral for the loan.
- Principal** The amount that an issuer agrees to repay the debtholders on the maturity date.
- Principal-agent relationship** An arrangement in which one party (the agent) has authority to act for or on behalf of another party (the principal). Such an arrangement imposes a duty on the agent to act in the principal's best interest.
- Prior probabilities** Probabilities reflecting beliefs prior to the arrival of new information.
- Priority of claims** Priority of payment, with the most senior or highest ranking debt having the first claim on the cash flows and assets of the issuer.
- Private capital** Funding provided to companies that is not sourced from the public markets.
- Private company** A company, typically a limited company, that does not list its equity securities on an exchange.
- Private debt** Capital extended to companies through a loan or other form of debt.
- Private debtholders** Investors in an entity's non-securitized debt claims, such as a loan or lease. The most common type of private debtholder is a bank.

- Private equity** Equity investment capital raised from sources other than public markets and traditional institutions.
- Private equity fund** A hedge fund that seeks to buy, optimize, and ultimately sell portfolio companies to generate profits. See *venture capital fund*.
- Private equity securities** Securities that are not listed on public exchanges and have no active secondary market. They are issued primarily to institutional investors via non-public offerings, such as private placements.
- Private investment in public equity (PIPE)** An investment in the equity of a publicly traded firm that is made at a discount to the market value of the firm's shares.
- Private limited company** A type of limited company in many jurisdictions with pass-through taxation but restrictions on the number of shareholders or members and on the transfer of ownership interest.
- Private placement** A sale of debt or equity securities to a small group of investors on an unregulated basis. The terms of the offering are negotiated by the issuer and investors.
- Probability of default (POD)** The likelihood that an issuer fails to make full and timely payments of principal and interest; typically an annualized measure.
- Probability sampling** A sampling plan that allows every member of the population to have an equal chance of being selected.
- Probability tree diagram** A diagram with branches emanating from nodes representing either mutually exclusive chance events or mutually exclusive decisions.
- Production flexibility option** The option to alter production when demand varies from what is forecast.
- Profession** An occupational group that has specific education, expert knowledge, and a framework of practice and behavior that underpins community trust, respect, and recognition.
- Profit margin** An indicator of profitability, calculated as net income divided by revenue; indicates how much of each dollar of revenues is left after all costs and expenses.
- Profitability ratios** Ratios that measure a company's ability to generate profitable sales from its resources (assets).
- Prospectus** Legal document in securitization that describes the structure of the transaction, including the priority and amount of payments to be made to the servicer, administrators, and the ABS holders, as well as the credit enhancements used in the securitization.
- Protective put** A strategy of purchasing an underlying asset and purchasing a put on the same asset.
- Proxy contest** When a shareholder or group of shareholders campaigns for certain matters they have submitted to a shareholder vote, often a slate of directors who oppose the incumbent board and management. The incumbent board and management simultaneously campaign for their side.
- Proxy voting** A form of casting a ballot in an election in which a voter authorizes a representative to vote on their behalf according to instructions. In corporate elections, proxy ballots are cast by shareholders that direct a representative, typically the corporate secretary, to enter their votes as instructed.
- Public (listed) company** A company with its equity securities traded on an exchange.
- Public limited companies** A type of limited company in many jurisdictions with entity-level taxation but no restrictions on the number of shareholders or transferability of ownership interest; the most suitable organizational form for a company that seeks to go public.
- Public-private partnership (PPP)** An agreement between the public sector and the private sector to finance, build, and operate public infrastructure, such as hospitals and toll roads.
- Pull on liquidity** An action or event that accelerates cash outflows.
- Purchase agreement** Legal document in a securitization transaction that outlines the representations and warranties that the seller makes about the assets sold.
- Pure discount bonds** Bonds that do not pay interest during their life. They are issued at a discount to par value and redeemed at par. Also called zero-coupon bonds.
- Put** An option that gives the holder the right to sell an underlying asset to another party at a fixed price over a specific period of time.
- Put option** The right to sell an underlying.
- Puttable bonds** Bonds that give the bondholder the right to sell the bond back to the issuer at a predetermined price on specified dates.
- Put-call forward parity** Describes the no-arbitrage condition in which at  $t = 0$  the present value of the price of a long forward commitment plus the price of the long put must equal the price of the long call plus the price of the risk-free asset (with face value of the exercise price of both the call and the put).
- Put-call parity** Describes the no-arbitrage condition in which at  $t = 0$  the price of the long underlying asset plus the price of the long put must equal the price of the long call plus the price of the risk-free asset (with face value of the exercise price of both the call and the put).
- Quantile** A value at or below which a stated fraction of the data lies. Also referred to as a fractile.
- Quantitative easing** An expansionary monetary policy based on aggressive open market purchase operations.
- Quartiles** Quartiles that divide a distribution into four equal parts.
- Quick ratio** A measure of liquidity that is the ratio of cash, marketable securities, and receivables to current liabilities.
- Quintiles** Quintiles that divide a distribution into five equal parts.
- Quota rents** Profits that foreign producers can earn by raising the price of their goods higher than they would without a quota.
- Quotas** Government policies that restrict the quantity of a good that can be imported into a country, generally for a specified period of time.
- Quote-driven market** A market in which dealers acting as principals facilitate trading.
- Quoted margin** Specified spread of a floating rate instrument over a market reference rate or benchmark.
- Range** The difference between the maximum and minimum values in a dataset.
- Rapid amortization provisions** Provisions in receivable ABS that may require early principal amortization if specific events occur. Such provisions are referred to as early amortization and are included to safeguard the credit quality of the issue, particularly during the revolving period.
- Razor, razorblade pricing** A pricing approach that combines a low price on a piece of equipment and high-margin pricing on repeat-purchase consumables.

- Real assets** Generally, these are tangible physical assets, such as real estate, infrastructure, and natural resources, but they also include such intangibles as patents, intellectual property, and goodwill. Real assets generate current or expected future cash flows and/or are considered a store of value.
- Real estate** Includes borrowed or ownership capital in buildings or land. Developed land includes commercial and industrial real estate, residential real estate, and infrastructure.
- Real option** A right, but not an obligation, for management to make a decision with respect to a capital investment that alters future cash flows from the original forecasted scenario.
- Real risk-free interest rate** The single-period interest rate for a completely risk-free security if no inflation were expected.
- Rebalancing** In the context of asset allocation, a discipline for adjusting the portfolio to align with the strategic asset allocation.
- Rebalancing policy** The set of rules that guide the process of restoring a portfolio's asset class weights to those specified in the strategic asset allocation.
- Recapitalization** Recapitalization via private equity describes the steps a firm takes to increase or introduce leverage to its portfolio company and pay itself a dividend out of the new capital structure.
- Recognition lag** The lag in government response to an economic problem resulting from the delay in confirming a change in the state of the economy.
- Recourse loan** Loan in which the lender has a claim against the borrower for the shortfall (deficiency) between the amount of the outstanding mortgage balance and the proceeds received from the sale of the property.
- Recovery rate (RR)** The percentage of an outstanding debt claim recovered when an issuer defaults
- Redemption fee** A fee charged to discourage redemptions and to offset the transaction costs for remaining investors in the fund.
- Refinancing rate** A type of central bank policy rate.
- Regionalism** In between the two extremes of bilateralism and multilateralism. In regionalism, a group of countries cooperate with one another. Both bilateralism and regionalism can be conducted at the exclusion of other groups. For example, regional blocs may agree to provide trade benefits to one another and increase barriers for those outside of that group.
- Registered bonds** Bonds for which ownership is recorded by either name or serial number.
- Regression analysis** Allows us to test hypotheses about the relationship between two variables, by quantifying the strength of the relationship between the two variables, and to use one variable to make predictions about the other variable.
- Regression coefficients** The collective term for the intercept and slope coefficients in the regression model.
- Regret** The feeling that an opportunity has been missed; typically, an expression of *hindsight bias*.
- Regret-aversion bias** An emotional bias in which people tend to avoid making decisions that will result in action out of fear that the decision will turn out poorly.
- Relative dispersion** The amount of dispersion relative to a reference value or benchmark.
- Reopening** Issuing bonds by increasing the size of an existing bond issue with a price significantly different from par.
- Replication** A strategy in which a derivative's cash flow stream may be recreated using a combination of long or short positions in an underlying asset and borrowing or lending cash.
- Repo rate** The interest rate on a repurchase agreement.
- Representativeness bias** A belief perseverance bias in which people tend to classify new information based on past experiences and classifications.
- Repurchase agreement (Repo)** A form of collateralized loan involving the sale of a security with a simultaneous agreement by the seller to buy back the same security from the purchaser at an agreed-on price and future date. The party who sells the security at the inception of the repurchase agreement and buys it back at maturity is borrowing money from the other party, and the security sold and subsequently repurchased represents the collateral.
- Repurchase date** The date when the party who sold the security at the inception of a repurchase agreement buys back the security from the cash lending counterparty.
- Repurchase price** The price at which the party who sold the security at the inception of the repurchase agreement buys back the security from the cash lending counterparty.
- Required margin** Yield spread of a floating rate instrument such that the instrument is priced at par value on a rate reset date.
- Required rate of return** The rate of return required by investors given the risk of the bond investment, also known as the market discount rate or required yield.
- Required yield** The rate of return required by investors given the risk of the bond investment, also known as the market discount rate of required rate of return.
- Required yield spread** The difference in yield-to-maturity between a bond and that of a government benchmark bond with the same or similar time-to-maturity.
- Resampling** A statistical method that repeatedly draws samples from the original observed data sample for the statistical inference of population parameters.
- Reserve currency** A currency held by global central banks in significant quantities and widely used to conduct international trade and financial transactions.
- Reserve requirement** The requirement for banks to hold reserves in proportion to the size of deposits.
- Residual** The amount of deviation of an observed value of the dependent variable from its estimated value based on the fitted regression line.
- Restricted domestic currency** A currency with limited convertibility into other currencies due to illiquidity.
- Return on assets (ROA)** A profitability ratio calculated as net income divided by average total assets; indicates a company's net profit generated per dollar invested in total assets.
- Return on equity (ROE)** A profitability ratio calculated as net income divided by average shareholders' equity.
- Return on invested capital (ROIC)** A measure of the profitability of a company relative to the amount of capital invested by the equityholders and debtholders.
- Return on sales** An indicator of profitability, calculated as net income divided by revenue; indicates how much of each dollar of revenues is left after all costs and expenses. Also referred to as *net profit margin*.
- Return-generating model** A model that can provide an estimate of the expected return of a security given certain parameters and estimates of the values of the independent variables in the model.

- Revenue bonds** Bonds issued by non-sovereign governments related to a government sponsored project expected to generate future cash flow as a primary source of repayment.
- Reverse repurchase agreement** A repurchase agreement viewed from the perspective of the cash lending counterparty.
- Reverse stock split** A reduction in the number of shares outstanding with a corresponding increase in share price, but no change to the company's underlying fundamentals.
- Revolving credit agreements** The most reliable form of short-term bank borrowing facilities; they are in effect for multiple years (e.g., three to five years) and can have optional medium-term loan features. Also known as *revolvers*.
- Rho** The change in a given derivative instrument for a given small change in the risk-free interest rate, holding everything else constant. Rho measures the sensitivity of the option to the risk-free interest rate.
- Ricardian equivalence** An economic theory that implies that it makes no difference whether a government finances a deficit by increasing taxes or issuing debt.
- Risk** Exposure to uncertainty. The chance of a loss or adverse outcome as a result of an action, inaction, or external event.
- Risk averse** The assumption that an investor will choose the least risky alternative.
- Risk aversion** The degree of an investor's unwillingness to take risk; the inverse of risk tolerance.
- Risk budgeting** The establishment of objectives for individuals, groups, or divisions of an organization that takes into account the allocation of an acceptable level of risk.
- Risk exposure** The state of being exposed or vulnerable to a risk. The extent to which an organization is sensitive to underlying risks.
- Risk governance** The top-down process and guidance that directs risk management activities to align with and support the overall enterprise.
- Risk management** The process of identifying the level of risk an organization wants, measuring the level of risk the organization currently has, taking actions that bring the actual level of risk to the desired level of risk, and monitoring the new actual level of risk so that it continues to be aligned with the desired level of risk.
- Risk management framework** The infrastructure, process, and analytics needed to support effective risk management in an organization.
- Risk premium** An extra return expected by investors for bearing some specified risk.
- Risk shifting** Actions to change the distribution of risk outcomes.
- Risk tolerance** The amount of risk an investor is willing and able to bear to achieve an investment goal.
- Risk transfer** Actions to pass on a risk to another party, often, but not always, in the form of an insurance policy.
- Risk-neutral pricing** A no-arbitrage derivative value established separately from investor views on risk that uses underlying asset volatility and the risk-free rate to calculate the present value of future cash flows.
- Risk-neutral probability** The computed probability used in binomial option pricing by which the discounted weighted sum of expected values of the underlying equal the current option price. Specifically, this probability is computed using the risk-free rate and assumed up gross return and down gross return of the underlying.
- Rollover risk** The possibility that an issuer will be unable to refinance maturing (typically short-term) debt at economical terms or at all.
- Safety-first rules** Rules for portfolio selection that focus on the risk that portfolio value or portfolio return will fall below some minimum acceptable level over some time horizon.
- Sample correlation coefficient** A standardized measure of how two variables in a sample move together. It is the ratio of the sample covariance to the product of the two variables' standard deviations.
- Sample covariance** A measure of how two variables in a sample move together.
- Sample excess kurtosis** A sample measure of the degree of a distribution's kurtosis in excess of the normal distribution's kurtosis.
- Sample mean** The sum of the sample observations divided by the sample size.
- Sample skewness** A sample measure of the degree of asymmetry of a distribution.
- Sample standard deviation** The positive square root of the sample variance.
- Sample variance** The sum of squared deviations around the mean divided by the degrees of freedom.
- Sample-size neglect** A type of representativeness bias in which financial market participants incorrectly assume that small sample sizes are representative of populations (or "real" data).
- Sampling distribution** The distribution of all distinct possible values that a statistic can assume when computed from samples of the same size randomly drawn from the same population.
- Sampling error** The difference between the observed value of a statistic and the estimate resulting from using subsets of the population.
- Sampling plan** The set of rules used to select a sample.
- Saving deposits** Bank deposits typically held for non-transactional purposes that often have a stated term.
- Scatter plot** A two-dimensional graphical plot of paired observations of values for the independent and dependent variables in a simple linear regression.
- Scenario analysis** A technique for exploring the performance and risk of investment strategies in different structural regimes.
- Scraping** An automated, large-scale, algorithm-driven approach that retrieves otherwise unstructured data available on websites and creates data in a more structured format.
- Seasoned offering** An offering in which an issuer sells additional units of a previously issued security.
- Secondary bond markets** Fixed-income markets comprised of investors trading existing bonds amongst themselves.
- Secondary market** The market where securities are traded among investors.
- Secondary precedence rules** Rules that determine how to rank orders placed at the same time.
- Secondary sale** Sale of a private company stake to another private equity firm or group of financial buyers.
- Secondary-stage investments** The second stage of development of an infrastructure asset. Secondary-stage investments involve existing infrastructure facilities or fully operational assets that do not require further investment or development over the investment horizon. These assets generate immediate cash flow and returns expected over the investment period.

- Sector indexes** Indexes that represent and track different economic sectors—such as consumer goods, energy, finance, health care, and technology—on either a national, regional, or global basis.
- Secured** With collateral; secured debt is backed by the cash flows of the issuer and the collateral as a secondary source of repayment.
- Secured loans** Loans collateralized by an asset of the borrower.
- Security** Evidence of equity or debt interest or in an entity or a related right, such as a derivative. Often standardized to conform to security exchange requirements.
- Security characteristic line** A plot of the excess return of a security on the excess return of the market.
- Security market index** A portfolio of securities representing a given security market, market segment, or asset class.
- Security market line (SML)** The graph of the capital asset pricing model.
- Security selection** The process of selecting individual securities; typically, security selection has the objective of generating superior risk-adjusted returns relative to a portfolio's benchmark.
- Security tokens** Digitizes the ownership rights associated with publicly traded securities.
- Segmenting** A process of identifying and grouping customers by decision-useful attributes.
- Self-attribution bias** A bias in which people take too much credit for successes (*self-enhancing*) and assign responsibility to others for failures (*self-protecting*).
- Self-control bias** A bias in which people fail to act in pursuit of their long-term, overarching goals because of a lack of self-discipline.
- Self-investment limits** With respect to investment limitations applying to pension plans, restrictions on the percentage of assets that can be invested in securities issued by the pension plan sponsor.
- Sell-side firm** A broker/dealer that sells securities and provides independent investment research and recommendations to their clients (i.e., buy-side firms).
- Semi-strong-form efficient market** A market in which security prices reflect all publicly known and available information.
- Semiannual bond basis yield** Also known as a semiannual bond equivalent yield, it is an annualized interest rate with a periodicity of two.
- Semiannual bond equivalent yield** Also known as a semiannual bond basis yield, it is an annualized interest rate with a periodicity of two.
- Senior debt** A debt obligation with higher priority of payment than junior debt obligations.
- Senior unsecured debt** The highest-ranked debt in an issuer's capital structure which is a general obligation of the borrower.
- Seniority** Priority of payment of various debt obligations.
- Sensitivity analysis** Analysis that shows the range of possible outcomes as specific assumptions are changed.
- Separately managed account (SMA)** An investment portfolio managed exclusively for the benefit of an individual or institution.
- Separately managed accounts** Accounts that are managed in accordance with an investor's specific investment preferences and risk tolerance.
- Service period** The time between the grant and vesting dates for an employee share-based award, usually measured in years.
- Settlement** The closing date at which the counterparties of a derivative contract exchange payment for the underlying as required by the contract.
- Settlement price** The price determined by an exchange's clearinghouse in the daily settlement of the mark-to-market process. The price reflects an average of the final futures trades of the day.
- Share class** Types of equity securities that have different voting rights—for example, an issuer may issue Class A shares that carry one vote per share and Class B shares that carry ten votes per share.
- Share repurchase** A transaction in which a company buys back its own shares. Unlike stock dividends and stock splits, share repurchases use corporate cash.
- Shareholder activism** A range of actions by a corporation's shareholders that are intended to result in some change in the corporation, typically a change in the board of directors, management, or business strategy.
- Shareholder derivative lawsuit** A legal action by a shareholder on behalf of a company, not the shareholder personally, against a third party. Often, the third party is a director or manager who the shareholder believes has harmed the company.
- Shareholder engagement** Shareholder engagement reflects active ownership by investors in which the investor seeks to influence a corporation's decisions on ESG matters, either through dialogue with corporate officers or votes at a shareholder assembly (in the case of equity).
- Shareholder theory of corporate governance** Espoused by Milton Friedman in his famous 1970 essay, the shareholder theory holds that the objective of a business is to increase profits and shareholder value.
- Shareholders** Individuals or entities that own a share.
- Shares** Units of ownership interest in a limited company.
- Sharpe ratio** The average return in excess of the risk-free rate divided by the standard deviation of return; a measure of the average excess return earned per unit of standard deviation of return.
- Shelf registration** A type of public offering that allows the issuer to file a single, all-encompassing offering circular that covers a series of bond issues.
- Short** A trading position in a **derivative contract** that gains value as the price of the **underlying** moves lower.
- Short biased** These strategies use quantitative, technical, and fundamental analysis to short overvalued equity securities with limited or no long-side exposures.
- Short position** A position in an asset or contract in which one has sold an asset one does not own, or in which a right under a contract can be exercised against oneself.
- Short selling** A transaction in which borrowed securities are sold with the intention to repurchase them at a lower price at a later date and return them to the lender.
- short-run average total cost** The curve describing average total cost when some costs are considered fixed.
- Shortfall risk** The risk that portfolio value or portfolio return will fall below some minimum acceptable level over some time horizon.
- Shutdown point** The point at which average revenue is equal to the firm's average variable cost.
- Side letter** A side agreement created between the GP and specific LPs. These agreements exist *outside* the LPA. These agreements provide additional terms and conditions related to the investment agreement.

- Signpost** An indicator, market level, data piece, or event that signals a risk is becoming more or less likely. An analyst can think of signposts like a traffic light.
- Simple linear regression (SLR)** An approach for estimating the linear relationship between a dependent variable and a single independent variable by minimizing the sum of the squared deviations between the fitted line and the observed values.
- Simple random sample** A subset of a larger population created in such a way that each element of the population has an equal probability of being selected to the subset.
- Simple random sampling** The procedure of drawing a sample to satisfy the definition of a simple random sample.
- Simple yield** The sum of the coupon payments plus the straight-line amortized share of the gain or loss divided by the bond's flat price. Simple yields are used mostly to quote JGBs.
- Simulation** A technique for exploring how a target variable (e.g. portfolio returns) would perform in a hypothetical environment specified by the user, rather than a historical setting.
- Simulation trial** A complete pass through the steps of a simulation.
- Single-price auction** A debt securities auction in which all bidders pay the same price.
- Sinking fund** Provisions that reduce the credit risk of a bond issue by requiring the issuer to retire a portion of the bond's principal outstanding each year.
- Situational influences** External factors, such as environmental or cultural elements, that shape our behavior.
- Skewed** Not symmetrical.
- Skewness** A quantitative measure of skew (lack of symmetry); a synonym of skew. It is computed as the average cubed deviation from the mean standardized by dividing by the standard deviation cubed.
- Slope coefficient** The change in the estimated value of the dependent variable for a one-unit change in the value of the independent variable.
- Small country** A country that is a price taker in the world market for a product and cannot influence the world market price.
- Smart beta** Involves the use of simple, transparent, rules-based strategies as a basis for investment decisions.
- Smart contracts** Computer programs that are designed to self-execute on the basis of pre-specified terms and conditions agreed to by parties to a contract.
- Social infrastructure investments** A category of infrastructure investments that are directed toward human activities and include such assets as educational, health care, social housing, and correctional facilities, with the focus on providing, operating, and maintaining the asset infrastructure.
- Soft commodities** Standardized agricultural products, such as cattle and corn, with markets often involving the physical delivery of the underlying upon settlement.
- Soft hurdle rate** Hurdle rate where the fee is calculated on the entire return when the hurdle is exceeded. With a soft hurdle, GPs are able to catch up performance fees once the hurdle threshold is exceeded.
- Soft power** A means of influencing another country's decisions without force or coercion. Soft power can be built over time through actions, such as cultural programs, advertisement, travel grants, and university exchange.
- Soft-bullet covered bonds** Delay the bond default and payment acceleration of bond cash flows until a new final maturity date, which is usually up to a year after the original maturity date.
- Solvency** Refers to the condition in which firm value exceeds the face value of debt used to finance the firm's assets.
- Solvency ratios** Ratios that measure a company's ability to meet its long-term obligations.
- Solvency risk** The risk that an organization does not survive or succeed because it runs out of cash, even though it might otherwise be solvent.
- Sophisticated investors** Individuals or entities that are permitted in a jurisdiction to trade unregistered or, generally, less regulated securities, including shares of privately held companies; also called *accredited investors*.
- Sovereign immunity** A principle limiting the legal recourse of bondholders holding national government debt from forcing the issuer to declare bankruptcy or liquidate assets to settle debt claims.
- Spearman rank correlation coefficient** A measure of correlation applied to ranked data.
- Special dividend** A dividend paid by a company that does not pay dividends on a regular schedule, or a dividend that supplements regular cash dividends with an extra payment.
- Special purpose acquisition company (SPAC)** A company that has gone public, raising money to acquire a private company using stock and, often, private investments from institutional investors. In connection with the acquisition (known as a de-SPAC), the private company becomes a public company.
- Special purpose entity (SPE)** A legal entity created for a temporary or narrow legal purpose to isolate a parent entity from risk. Sometimes also called a special purpose vehicle (SPV) or a special purpose company.
- Special purpose vehicle** See *special purpose entity*.
- Special situations** These strategies focus on opportunities to buy the equity of companies engaged in security issuance or repurchase, special capital distributions, rescue finance, asset sales/spin-offs, or other catalyst-oriented situations.
- Split ratings** Complex risks viewed very differently by rating agencies
- Sponsored** A type of depository receipt in which the foreign company whose shares are held by the depository has a direct involvement in the issuance of the receipts.
- Spot curve** Yields-to-maturity on a series of default-risk-free zero-coupon bonds.
- Spot markets** Markets in which specific assets are exchanged at current prices. Spot markets are often referred to as **cash markets**.
- Spot prices** The current prices prevailing in **spot markets**.
- Spot rates** Yields-to-maturity on default-risk-free zero-coupon bonds.
- Spread** The difference in yield-to-maturity between a bond and that of another bond.
- Spread risk** Bond price risk arising from changes in the yield spread on credit-risky bonds; reflects changes in the market's assessment and/or pricing of credit migration (or downgrade) risk and market liquidity risk.
- Spurious correlation** Refers to: 1) correlation between two variables that reflects chance relationships in a particular dataset; 2) correlation induced by a calculation that mixes each of two variables with a third variable; and 3) correlation between two variables arising not from a direct relation between them but from their relation to a third variable.

- Stablecoin** A cryptocurrency that aims to maintain a stable value relative to a specified asset or to a pool or basket of assets.
- Stackelberg model** A prominent model of strategic decision making in which firms are assumed to make their decisions sequentially.
- Staggered board** A structure of board elections in which only part of the board is elected simultaneously—for example, only one-third of the board may be up for election each year, so the board can be replaced over three years, not in one year if all seats were elected annually. This structure fosters greater continuity of board members but is an obstacle for shareholders seeking to effect change.
- Stakeholder theory of corporate governance** An expansion of the shareholder theory of corporate governance under which the objective of a business is to maximize value for, and balance the interests of, a broad group of stakeholders, including shareholders, employees, society, and the non-human environment.
- Stakeholders** Any party with an interest, financial or non-financial, in an entity or its actions.
- Standard deviation** The positive square root of the variance; a measure of dispersion in the same units as the original data.
- Standard error of the estimate** A measure of the distance between the observed values of the dependent variable and those predicted from the estimated regression. The smaller this value, the better the fit of the model. Also known as the standard error of the regression and the root mean square error.
- Standard error of the forecast** Used to provide an interval estimate around the estimated regression line. It is necessary because the regression line does not describe the relationship between the dependent and independent variables perfectly.
- Standard error of the slope coefficient** Calculated for simple linear regression by dividing the standard error of the estimate by the square root of the variation of the independent variable.
- Standardization** The process of creating protocols for the production, sale, transport, or use of a product or service. Standardization occurs when relevant parties agree to follow these protocols together. It helps support expanded economic and financial activities, such as trade and capital flows that support higher economic growth and standards of living, across borders.
- Standards of conduct** Behaviors required by a group; established benchmarks that clarify or enhance a group's code of ethics.
- Standing limit orders** A limit order at a price below market and which therefore is waiting to trade.
- State actors** Typically national governments, political organizations, or country leaders that exert authority over a country's national security and resources. The South African President, Sultan of Brunei, Malaysia's Parliament, and the British Prime Minister are all examples of state actors.
- Statement of cash flows** A financial statement that details the movement of cash over a period. The statement is classified into operating, investing, and financing activities.
- Static trade-off theory of capital structure** A theory pertaining to a company's optimal capital structure; the optimal level of debt is found at the point where additional debt would cause the costs of financial distress to increase by a greater amount than the benefit of the additional tax shield.
- Statistically significant** A result indicating that the null hypothesis can be rejected; with reference to an estimated regression coefficient, frequently understood to mean a result indicating that the corresponding population regression coefficient is different from zero.
- Status quo bias** An emotional bias in which people do nothing (i.e., maintain the status quo) instead of making a change.
- Statutory voting** A common method of voting where each share represents one vote.
- Step-up bonds** Bonds for which the coupon, be it fixed or floating, increases by specified margins at specified dates.
- Stock dividend** A type of dividend in which a company distributes additional shares of its common stock to shareholders instead of cash.
- Stock exchange** An exchange in which equity securities are traded. See *exchanges*.
- Stock split** An increase in the number of shares outstanding with a consequent decrease in share price, but no change to the company's underlying fundamentals.
- Stockholder overhang** The downward pressure on the share price of stock as large blocks of shares are being sold on the open market.
- Stop order** An order in which a trader has specified a stop price condition. Also called *stop-loss order*.
- Stop-loss order** See *stop order*.
- Stranded assets** A resource that is no longer economically valuable owing to changes in demand, regulations, or availability of substitutes—for example, a newly discovered oil well that will not be brought into production.
- Strategic asset allocation** Strategic asset allocation is an investment strategy premised on long-term asset allocation. This strategy only rebalances its portfolio when the asset mix represents significant deviation from the original or targeted allocation mix.
- Stratified random sampling** A procedure that first divides a population into subpopulations (strata) based on classification criteria and then randomly draws samples from each stratum in sizes proportional to that of each stratum in the population.
- Street convention** For yield measures on fixed-income instruments that assume payments are made on scheduled dates and ignore weekends and holidays.
- Stress testing** A specific type of scenario analysis that estimates losses in rare and extremely unfavorable combinations of events or scenarios.
- Strong-form efficient market** A market in which security prices reflect all public and private information.
- Structural budget deficit** Also known as the cyclically adjusted budget deficit. The deficit that would exist if the economy was at full employment (or full potential output).
- Structural subordination** Arises in a holding company structure when the debt of operating subsidiaries is serviced by the cash flow and assets of the subsidiaries before funds can be passed to the holding company to service debt at the parent level.
- Structured notes** A broad category of securities that incorporate the features of debt instruments and one or more embedded derivatives designed to achieve a particular issuer or investor objective.
- Subordinated debt** A class of unsecured debt that ranks below a firm's senior unsecured obligations.
- Subordination** A form of internal credit enhancement that relies on creating more than one bond tranche and ordering the claim priorities for ownership or interest in an asset

between the tranches. The ordering of the claim priorities is called a senior/subordinated structure, where the tranches of highest seniority are called senior, followed by subordinated or junior tranches. Also called **credit tranching**.

**Subprime loans** Lending to borrowers with lower credit quality, high DTI, and/or are loans with higher LTV, and include loans that are secured by second liens otherwise subordinated to other loans.

**Sum of squares error (SSE)** A measure of the total deviation between observed and estimated values of the dependent variable. It is calculated by subtracting each estimated value  $\hat{Y}_i$  from its corresponding observed value  $Y_i$ , squaring each of these differences, and then summing all of these squared differences.

**Sum of squares regression (SSR)** A measure of the explained variation in the dependent variable, calculated as the sum of the squared differences between the predicted value of the dependent variable,  $\hat{Y}_i$ , based on the estimated regression line, and the mean of the dependent variable,  $\bar{Y}$ .

**Sum of squares total (SST)** A measure of the total variation in the dependent variable in a simple linear regression. It is calculated by subtracting the mean of the observed values  $\bar{Y}$  from each of the observed values  $Y_i$ , squaring each of these differences, and then summing all of these squared differences.

**Sunk costs** A cost that has already been incurred.

**Supervised learning** A type of machine learning in which the system attempts to learn to model relationships based on labeled training data.

**Supervisory board** In some jurisdictions, a corporation's board of directors is formally composed of a supervisory board and a management board. The supervisory board appoints and oversees the management board and often includes representatives of employees and other non-shareholder stakeholders.

**Supply chain** The sequence of processes involved in the creation and delivery of a physical product to the end customer, both within and external to a firm, regardless of whether those steps are performed by a single firm.

**Supply shock** A typically unexpected disturbance to supply.

**Survivorship bias** Relates to the inclusion of only current investment funds in a database. As such, the returns of funds that are no longer available in the marketplace (have been liquidated) are excluded from the database. Also see *backfill bias*.

**Swap** A firm commitment involving a periodic exchange of cash flows.

**Swap contract** An agreement between two parties to exchange a series of future cash flows.

**Swap execution facility (SEF)** A swap trading platform accessed by multiple dealers.

**Swap rate** The fixed rate to be paid by the fixed-rate payer specified in a swap contract.

**Syndicate** A group of lenders, typically made up of banks.

**Synthetic protective put** The combination of a synthetic long underlying position (i.e., a long forward and risk-free borrowing) and a purchased put on the underlying.

**Systematic risk** Risk that affects the entire market or economy; it cannot be avoided and is inherent in the overall market. Systematic risk is also known as non-diversifiable or market risk.

**Systematic sampling** A procedure of selecting every  $k$ th member until reaching a sample of the desired size. The sample that results from this procedure should be approximately random.

**Systemic risk** Refers to risks supervisory authorities believe are likely to have broad impact across the financial market infrastructure and affect a wide swath of market participants.

**Tactical asset allocation** Asset allocation that involves making short-term adjustments to asset class weights based on short-term predictions of relative performance among asset classes.

**Target capital structure** Management's desired proportions of debt and equity financing, usually stated on a book value basis or indirectly using a financial leverage metric, such as net or gross debt to EBITDA or credit rating.

**Target independent** A bank's ability to determine the definition of inflation that they target, the rate of inflation that they target, and the horizon over which the target is to be achieved.

**Target semideviation** A measure of downside risk, calculated as the square root of the average of the squared deviations of observations below the target (also called target downside deviation).

**Tariffs** Taxes that a government levies on imported goods.

**Tax base** The amount at which an asset or liability is valued for tax purposes.

**Tax expense** An aggregate of an entity's income tax payable (or recoverable in the case of a tax benefit) and any changes in deferred tax assets and liabilities. It is essentially the income tax payable or recoverable if these had been determined based on accounting profit rather than taxable income.

**Taxable income** The portion of an entity's income that is subject to income taxes under the tax laws of its jurisdiction.

**Taxable temporary differences** Temporary differences that result in a taxable amount in a future period when determining the taxable profit as the balance sheet item is recovered or settled.

**Technical analysis** A form of security analysis that uses price and volume data, often displayed graphically, in decision making.

**Tender offer** A solicitation by a current or prospective shareholder to other shareholders to acquire a substantial percentage, including 100%, of shares at a specified price. This action is usually undertaken by a potential acquirer whose bid was rejected by the issuer's board of directors, prompting the potential acquirer to appeal directly to shareholders.

**Tenor** The remaining time to maturity for a bond or derivative contract. Also called term to maturity.

**Term repos** Repos with a maturity longer than one day.

**Term structure of interest rates** Also known as the maturity structure of interest rates, refers to the difference in interest rates or benchmark yields by time-to-maturity.

**Terminal stock value** The expected value of a share at the end of the investment horizon—in effect, the expected selling price. Also called *terminal value*.

**Terminal value** The expected value of a share at the end of the investment horizon—in effect, the expected selling price.

**Test of the mean of the differences** A statistical test for differences based on paired observations drawn from samples that are dependent on each other.

- Text analytics** Involves the use of computer programs to analyze and derive meaning typically from large, unstructured text- or voice-based datasets, such as company filings, written reports, quarterly earnings calls, social media, email, internet postings, and surveys.
- Thematic risks** Known risks that evolve and expand over a period of time. Climate change, pattern migration, the rise of populist forces, and the ongoing threat of terrorism fall into this category.
- Thin-tailed** Describes a distribution that has relatively less weight in the tails than the normal distribution (also called platykurtic).
- Tiered pricing** A pricing approach that charges different prices to different buyers, commonly based on volume purchased.
- Timberland investment management organizations** Entities that support institutional investors by managing their investments in timberland by analyzing and acquiring suitable timberland holdings.
- Time tranching** Structure of a securitization that allows for the redistribution of “prepayment risk” among bond classes by creating bond classes of different expected maturities.
- Time value** The difference between an option’s premium and its intrinsic value.
- Time value decay** The process by which the time value of an option declines toward zero as the option’s expiration date is approached.
- Time-weighted rate of return** The compound rate of growth of one unit of currency invested in a portfolio during a stated measurement period; a measure of investment performance that is not sensitive to the timing and amount of withdrawals or additions to the portfolio.
- Tokenization** The process of representing ownership rights to physical assets on a blockchain or distributed ledger.
- Top-down analysis** An investment selection approach that begins with consideration of macroeconomic conditions and then evaluates markets and industries based upon such conditions.
- Total probability rule for expected value** A rule explaining the expected value of a random variable in terms of expected values of the random variable conditional on mutually exclusive and exhaustive scenarios.
- Total return** Measures the price appreciation, or percentage change in price of the securities in an index or portfolio, plus any income received over the period.
- Total return index** An index that reflects the price appreciation or percentage change in price of the constituent securities plus any income received since inception.
- Total working capital** The difference between current assets and current liabilities.
- Tracking error** The standard deviation of the differences between a portfolio’s returns and its benchmark’s returns; a synonym of *active risk*. Also called *tracking risk*.
- Tracking risk** The standard deviation of the differences between a portfolio’s returns and its benchmarks returns. Also called *tracking error*.
- Trade creation** When regional integration results in the replacement of higher cost domestic production by lower cost imports from other members.
- Trade diversion** When regional integration results in lower-cost imports from non-member countries being replaced with higher-cost imports from members.
- Trade sale** A portion or division of a private company sold via either direct sale or auction to a strategic buyer interested in increasing the scale and scope of an existing business.
- Trade settlement date** The date when the buyer and seller transfer consideration and securities.
- Traditional investment markets** Markets for traditional investments, which include all publicly traded debts and equities and shares in pooled investment vehicles that hold publicly traded debts and/or equities.
- Tranches** A grouping of securities within an issue with characteristics that vary from other tranches, such as different credit quality and seniority.
- Transfer payments** Welfare payments made through the social security system that exist to provide a basic minimum level of income for low-income households.
- Transition risks** Economic and financial losses from the transition to a lower-carbon economy in response to climate change—for example, the abandonment of an oil well that is no longer economical.
- Treasury Inflation-Protected Securities (TIPS)** US Treasury bonds with a principal that is adjusted for changes in the Consumer Price Index. TIPS are issued in 5-, 10-, and 30-year maturities.
- Treynor ratio** A measure of risk-adjusted performance that relates a portfolio’s excess returns to the portfolio’s beta.
- Trimmed mean** A mean computed after excluding a stated small percentage of the lowest and highest observations.
- Triparty repo** A repurchase agreement in which the transacting parties agree to use a third-party agent that provides access to a larger collateral pool and multiple counterparties, as well as valuation and safekeeping of assets.
- True yield** Measures on fixed-income instruments use actual payment dates, accounting for weekends and holidays. The true yield on an instrument is always lower than the street convention yield.
- Turn-of-the-year effect** Calendar anomaly that stock market returns in January are significantly higher compared to the rest of the months of the year, with most of the abnormal returns reported during the first five trading days in January.
- Two-fund separation theorem** The theory that all investors regardless of taste, risk preferences, and initial wealth will hold a combination of two portfolios or funds: a risk-free asset and an optimal portfolio of risky assets.
- Two-way table** A table of the frequency distribution of observations classified on the basis of two discrete variables. Also known as *Contingency table*.
- Two-week repo rate** The interest rate on a two-week repurchase agreement; may be used as a policy rate by a central bank.
- Type I error** The error of rejecting a true null hypothesis; a false positive.
- Type II error** The error of not rejecting a false null hypothesis; false negative.
- Uncommitted lines of credit** Sources of bank credit that a bank can refuse to honor. Uncommitted credit lines are made up to a certain principal amount for a pre-determined maximum maturity, charging a market reference rate plus an issuer-specific spread on only the principal outstanding for the period of use.
- Underfitted** When a machine learning model treats true parameters as if they are noise and is unable to recognize relationships in the training data, making the model more likely to fail to fully discover patterns that underlie the data.
- Underlying** The asset referred to in a **derivative contract**.

- Underwritten offering** A type of securities issue mechanism in which the investment bank guarantees the sale of the securities at an offering price that is negotiated with the issuer. Also known as *firm commitment offering*.
- Unearned revenue** A liability account for money that has been collected for goods or services that have not yet been delivered; payment received in advance of providing a good or service. Also called *deferred revenue* or *deferred income*.
- Unimodal** A distribution with a single value that is most frequently occurring.
- Unit economics** The expression of revenues and costs on a per-unit basis.
- Unitranche debt** A hybrid or blended loan structure combining different tranches of secured and unsecured debt into a single loan with a single, blended interest rate.
- Unsecured** Without collateral; unsecured debt is backed only by cash flows of the issuer.
- Un-sponsored** A type of depository receipt in which the foreign company whose shares are held by the depository has no involvement in the issuance of the receipts.
- Unsupervised learning** A type of machine learning in which the system tries to learn the structure of unlabeled data.
- Utility tokens** Tokens that provide services within a network, such as paying for services and network fees.
- Validity instructions** Instructions which indicate when the order may be filled.
- Value added resellers** Businesses that distribute a product and also handle more complex aspects of product installation, customization, service, or support.
- Value at risk** A money measure of the minimum value of losses expected during a specified time period at a given level of probability.
- Value chain** The systems and processes in a firm that create value for its customers.
- Value proposition** The product or service attributes valued by a firm's target customer that lead those customers to prefer that firm's offering.
- Value-add real estate strategies** Strategies that involve larger-scale redevelopment and repositioning of existing assets and that may allow the investor to earn a higher return compared with core-plus real estate strategies.
- Value-based pricing** Pricing set primarily by reference to the value of the product or service to customers.
- VaR** See *value at risk*.
- Variance** The expected value (the probability-weighted average) of squared deviations from a random variable's expected value.
- Variance of a random variable** The expected value (the probability-weighted average) of squared deviations from a random variable's expected value.
- Variation margin** The difference between current margin required and the current collateral price in a repurchase agreement.
- Vega** The change in a given derivative instrument for a given small change in volatility, holding everything else constant. A sensitivity measure for options that reflects the effect of volatility.
- Velocity** The pace at which geopolitical risk impacts an investor portfolio.
- Venture capital** Investments or financing to private companies with high growth potential.
- Venture capital fund** A hedge fund that seeks to buy, optimize, and ultimately sell portfolio companies to generate profits. See *private equity fund*.
- Venture debt** Private debt funding that provides venture capital backing to start-up or early-stage companies that may be generating little or negative cash flow.
- Vest** To become unconditionally entitled to.
- Vesting date** The day that an employee becomes unconditionally entitled to compensation.
- Vintage year** The year in which a private capital fund makes its first investment.
- Volatility** The standard deviation of the continuously compounded returns on the underlying asset.
- Vote by proxy** A mechanism that allows a designated party—such as another shareholder, a shareholder representative, or management—to vote on the shareholder's behalf.
- Voting rights** The power of shareholders to cast votes in corporate elections for directors and other matters submitted to a shareholder vote.
- Warrant** An attached option that gives its holder the right to buy the underlying stock of the issuing company at a fixed exercise price until the expiration date.
- Waterfall structures** These represent the distribution order for cash flows and risk to different tranches in a financing structure.
- Weak-form efficient market hypothesis** The belief that security prices fully reflect all past market data, which refers to all historical price and volume trading information.
- Weighted average coupon rate (WAC)** Rate calculated for a mortgage pass-through security by weighting the mortgage rate of each mortgage in the pool by the percentage of the outstanding mortgage balance relative to the outstanding amount of all the mortgages in the pool.
- Weighted average maturity (WAM)** Calculated for a mortgage pass-through security by weighting the remaining number of months to maturity of each mortgage in the pool by the outstanding mortgage balance relative to the outstanding amount of all the mortgages in the pool.
- Weighted-average cost of capital (WACC)** A weighted average of the after-tax required rates of return on a company's equity, debt, preferred stock, and other long-term financing sources, where the weights are the fraction of each source of financing in the company's current market value or management's target capital structure.
- Winsorized mean** A mean computed after assigning a stated percentage of the lowest values equal to one specified low value and a stated percentage of the highest values equal to one specified high value.
- Write-off/liquidation** Refers to a transaction that has not gone well, and the investment is likely to lose value. The private equity firm revises the value of its investment downward or liquidates the portfolio company.
- Yield curve** A graphical depiction of yields-to-maturity of bonds from the same issuer across maturities.
- Yield spread** The difference in yield-to-maturity between a bond and that of another bond.
- Yield-to-call** An internal rate of return on a fixed-income instrument's cash flows assuming cash flows are received on scheduled dates and the bond is called at a certain call price and date.
- Yield-to-maturity** Internal rate of return on a fixed-income instrument's cash flows assuming all cash flows are received on their scheduled dates.
- Yield-to-worst** The lowest among a fixed-income instrument's yields-to-call and yield-to-maturity. A commonly cited yield measure for fixed-rate callable bonds.

**Z-spread** Z-spread (or zero-volatility spread) is a constant yield spread for a bond over a government or swap curve.

**Zero-coupon bond** A bond that does not pay a coupon but is priced at a discount and pays its full face value at maturity.

**Zero-coupon bonds** Bonds that do not pay interest during their life. They are issued at a discount to par value and redeemed at par. Also called pure discount bond.