Aberdeen Standard Investments

Simply SMARTER Beta™ Glossary

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For professional investors only

Acrostic: A poem, word puzzle, or other composition in which certain letters in each line form a word or words.

Active management: A discretionary (judgement-based, active fundamental) or systematic (rules-based, active quantitative) investment approach that aims to outperform an appropriate benchmark.

Active share: A measure of the percentage of stock holdings in a portfolio that differs from the benchmark index.

Algorithm: A process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.

Alpha: A measure of active return measured by the excess return of a stock or portfolio over the benchmark index.

Alternative factor premium (plural Alternative factor premia): Those sources of excess returns such as Value, Quality, Momentum, Small Size, and Low Volatility which arise and persist in equity markets due to behavioural and structural anomalies and are systematically harvested through long-short strategies. Sometimes alternative factor premia can be used to refer to cross-asset (or multi-asset) alternative factor premia which may be thought of as returns that underlie 'classic' hedge fund strategies (i.e. hedge fund factor premia).

Arbitrage The simultaneous buying and selling of securities, currencies, or commodities in different markets or in derivative forms in order to take advantage of differing prices for the same asset. Investors identify arbitrage opportunities through mathematical modelling techniques.

Asset class: A group of securities that share financial characteristics and tend to behave broadly similarly. Traditional asset classes include stocks and fixed income bonds while alternative asset classes include hedge funds, private equity, and real assets.

Behavioural anomalies: Anomalous phenomena arising for non risk-based reasons. From a behavioural finance perspective, factor premia exist and persist due to investors having mistaken beliefs, incomplete information, or non-rational preferences. Behaviourally, Value outperformance, for example, is due to investors persistently over-reacting to bad news with respect to these financially distressed stocks.

Benchmark index: A pre-defined index against which the performance of an investment strategy is compared or which a passive strategy seeks to match.

Beta: A measure of systematic risk that reflects the sensitivity of the return for a specific stock or portfolio to the return of the broader market.

Book yield: A Value metric defined as book value per share divided by the current share price. Book value can be thought of as the accounting value of a company.

Capital deployment: A range of Quality metrics within our proprietary Prudent Management theme that shies away from companies with aggressive capital expenditure (CAPEX) plans. The investment rationale is that companies often invest in projects that earn below their cost of capital.

CAPM: The Capital Asset Pricing Model (CAPM) expresses a stock's expected return as a function of the risk-free rate, the equity risk premium, and the stock's beta (a measure of systematic risk).

Confirmation bias: A behavioural bias to search for and assimilate data that confirms one's own beliefs and overlooks evidence that contradicts them.

Correlation: A measure of how variables such as securities prices move in relation with another, taking a value between -1 and +1. Positive correlation implies that as one price moves, either up or down, the other price tends to move in the same direction. Negative correlation means that when one price moves, the other price tends to move in the opposite direction. If the correlation is zero, the movements in the two prices (or other variables) have no detectable relationship.

Cross-sectional: Data in which the observations are all at the same point in time.

Custom index: An index that is created by an investment management firm (with the intellectual property being owned by the investment management firm) but the index calculation and administration is outsourced to an index calculation agent/administrator.

Decile: A method of splitting up a set of ranked data into 10 equally large subsections.

Diversification: Diversification can be achieved along many dimensions, such as by asset class, geography, sector, factor, or style. The goal of diversification is to eliminate unsystematic risk which is typically not rewarded.

Diversification ratio: A mathematical measure of diversification devised and registered by asset management firm TOBAM. They define the Diversification Ratio as a ratio of the weighted average volatility of individual securities in a portfolio divided by the volatility of the overall portfolio. The higher the Diversification Ratio, the more diversified the portfolio.

Dividend yield: A financial ratio that indicates how much a company pays out in dividends each year relative to its share price. Dividend yield is represented as a percentage and can be calculated as annual dividends per share divided by price per share.

Drawdown: Negative return of a stock or portfolio from the peak to the trough price level over a given time period.

Earnings yield: A Value metric defined as earnings per share (either forward or historical) divided by the current share price. The earnings yield (which is the inverse of the P/E ratio) shows the percentage of each dollar invested in the stock earned by the company.

EBITDA/EV: A Value metric that is independent of a company's capital structure. Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) is a measure of a company's operating performance while Enterprise Value (EV) is a measure of the total value of a company. Using EBITDA normalises for differences in capital structure, taxation, and fixed asset accounting while EV also normalises for differences in a company's capital structure.

Economic cycle: The natural fluctuation of the economy between periods of expansion (growth) and contraction (recession). Variables such as gross domestic product, interest rates, levels of employment, and consumer spending help to determine the current stage of the economic cycle.

Efficient frontier: A concept in modern portfolio theory that describes the highest expected returns available for a given volatility, under a no-leverage constraint.

EMH: The Efficient Market Hypothesis (EMH) states that, at any given time and in a liquid market, security prices fully reflect all available information. The EMH exists in various forms: weak; semi-strong; and strong.

Equal risk contribution index: A type of risk weighted 'smart beta' index that weight stocks in such a way that they contribute equally to the risk of a portfolio.

Equally weighted index: A smart beta index that holds the same weight in each stock i.e. 1/N, where N is the number of stocks.

Equity risk premium: Also referred to the 'equity premium', is the excess return that investing in the stock market provides (typically using a market capitalisation weighted index as a proxy for the stock market) over the risk-free rate.

ESG: Environmental, Social, and Governance (ESG) criteria used to assess corporate standards with respect to the Environment (performance as a steward of the natural environment), Social (relations with employees, suppliers, customers, and local communities), and Governance (corporate leadership, executive pay, audits and internal controls, and shareholder rights).

ESG inside: The ESG methodology employed by Aberdeen Standard Investments' systematic investment team and integrated fully within the firm's systematic investment strategies and multifactor equity indices.

Excess return: A stock or portfolio's return above or below that of a benchmark index or the theoretically risk-free rate.

Factor (plural factors): An attribute or characteristic of groups of stocks that may help explain risk and return e.g. Dividend Yield. 'Factor premia' (aka 'risk premia') are a subset of factors that are Robust, Intuitive, Persistent, and Empirical (RIPE).

Factor decay: The diminution of a factor's efficacy over time due to changing prices. The speed of decay is dependent upon the factor; for example, Quality and Small Size exhibit less pronounced factor decay whilst Momentum typically exhibits the most pronounced factor decay.

Factor investing: An investment strategy based on harvesting those anomalous sources of excess returns i.e. 'factor premia'. Factor investing may be applied to beta strategies (known as 'enhanced indexing'), smart beta strategies, and alpha strategies (known as 'active quant').

Factor premium (plural factor premia): Same as 'Risk premium (plural Risk premia)'. Those sources of excess returns such as Value, Quality, Momentum, Small Size, and Low Volatility which arise and persist in equity markets due to behavioural (non risk-based) and structural (risk-based) anomalies and are systematically harvested through long-only strategies.

Financial Strength theme: A theme within Aberdeen Standard Investments' Enhanced Quality factor comprised of several metrics favouring those stocks exhibiting increasing liquidity, decreasing leverage, and increasing profitability.

Free cash flow yield: A Quality metric within Aberdeen Standard Investments' proprietary Prudent Management theme. Free cash flow is the cash that is available for distribution to shareholders after the company has paid for ongoing activities and growth. At Aberdeen Standard Investments, we define free cash flow yield as cash flow from operations less capital expenditure (CAPEX) less dividends all divided by market capitalisation. Note here that dividends are thought of as 'fixed' in the sense that investors take a dim view of any company that cuts its dividend.

Herding: A behavioural bias to follow others without individual thought. Herding occurs when individuals gravitate to the same stocks based almost solely on the fact that many others are investing in those stocks. The fear of regret of missing out on a good investment is also attributed to herding.

Heuristic: Refers to any approach to problem solving, learning, or discovery that employs a practical method not guaranteed to be optimal or perfect, but sufficient for the immediate goals.

Index (plural Indices): A hypothetical portfolio of securities representing a particular market or market segment. Indices have traditionally been market capitalisation weighted (see 'Market capitalisation weighted index'), used as both an investment template for passive investment strategies and as a benchmark index for performance comparisons, but are increasingly also non-market capitalisation weighted (see 'Smart beta').

Information ratio: Also known as 'active risk', is a measure of a stock or portfolio's risk-adjusted excess returns. Calculated as the return in excess of the benchmark index (total return less benchmark index return) divided by the stock or portfolio's tracking error (standard deviation of the difference between a stock or portfolio's returns and the returns of the benchmark index). The higher the Information ratio, the more an investor is compensated for bearing active risk.

Intrinsic value: Also commonly referred to as 'fair value' or 'true value'. In equities, it is the value of a stock determined through fundamental analysis without reference to its market value. It is ordinarily calculated by summing the discounted future income generated by a stock to obtain the present value.

Long-only: A portfolio for which each stock's weight is greater than zero.

Long-short: A portfolio for which the weights of some stocks are positive and the weights of other stocks are negative.

Low volatility factor: A factor premium associated with stocks that have delivered less volatile returns over the recent past as measured by standard deviation.

Mandate: Or 'segregated mandate', is an allocation of funds to an investment manager to be managed in accordance with a specified purpose.

Market capitalisation weighted index: Also commonly referred to as 'cap weighting', whereby component stocks in an index are weighted according to the total market value of their outstanding shares. The market value is calculated by multiplying the number of shares outstanding by the current share price.

Market cycle: A representative time period that covers a full range of market environments e.g. both booms and busts.

Maximum diversification index: A type of risk weighted 'smart beta' index that uses an optimiser to maximise a mathematical definition of diversification (the so-called Diversification Ratio) in order to provide the most diversified possible portfolio in any given stock universe.

Mean reversion: A theory suggesting that prices and returns eventually move back towards the mean (or average). This mean value is typically the historical average price return.

Momentum factor: A factor premium associated with stocks that have generated high relative returns over the recent past.

Multifactor: An investment strategy that provides explicit exposure to two or more factor premia.

Mutual fund: A commingled open-ended investment vehicle that is typically regulated and accessible to the general public, either directly or through registered investment advisors.

NMH: The Noisy Market Hypothesis (NMH) claims that the prices of stocks are not always the best estimate of intrinsic value. Rather, prices are influenced by temporary shocks or 'noise' that can obscure the true value.

Panic selling: Wide-scale selling of an investment based on emotion and fear, causing a sharp decline in price.

Passive management: An investment strategy that aims to closely track the performance of a specified benchmark index.

PRI: The United Nations supported Principles for Responsible Investment (PRI), the world's leading proponent of responsible investment.

Prudent Management theme: A theme within our Enhanced Quality factor comprised of free cash flow yield and capital deployment.

Quality factor: A factor premium associated with stocks of higher quality companies (as defined by metrics such as earnings stability or measures of profitability such as return on assets).

Responsible investor: An investor who supports positive ESG initiatives both in principle (by ascribing to the PRI principles) and in practice (by integrating ESG within their investment processes).

RIPE Factors™: Aberdeen Standard Investments prerequisite criteria for inclusion as a factor premia (i.e. those sources of risk that compensate investors with excess returns as opposed to those factors that do not). For instance, it has been suggested that there are over 400 factors but, within equities, we believe there are only five factors meeting the Robust, Intuitive, Persistent, and Empirical (RIPE) prerequisite criteria which qualifies them as factor premia. These RIPE Factors™ employed with our SMARTER Beta™ indices and funds include Value, Quality, Momentum, Small Size, and Low Volatility. [c.f. Factor (plural Factors)]

Risk efficient index: A type of risk weighted 'smart beta' index that uses an optimiser to improve risk/reward efficiency. The weighting of the portfolio of constituents achieves the highest possible return-to-risk efficiency by maximising the Sharpe ratio.

Risk-free rate: A theoretical rate of return of an investment with zero risk. The risk-free rate represents the interest an investor would expect from a completely risk-free investment over a specified period of time. In practice, the risk-free rate does not exist as even the safest investments carry a very small amount of risk. Investors therefore commonly use the interest rate on a three-month US Treasury bill as a proxy for the risk-free rate because short-term government-issued securities have virtually zero risk of default.

Risk premium (plural risk premia): Same as 'Factor premium (plural Factor premia)'. Those sources of excess returns such as Value, Quality, Momentum, Small Size, and Low Volatility which arise and persist in equity markets due to behavioural (non risk-based) and structural (risk-based) anomalies and are systematically harvested through long-only strategies.

Risk weighted indices: An umbrella term for a range of 'smart beta' indices whereby component companies are weighted according to their volatility with the aim of improving portfolio efficiency by making assumptions about future volatilities and/or correlations, generally based on historical observations.

Self index: An algorithm, or set of rules, implemented on the desk by a fund manager.

Sharpe ratio: Also known as the 'reward-to-variability ratio', is a measure of a stock or portfolio's risk-adjusted performance relative to the risk-free rate. Calculated as the return in excess of cash (total return less risk-free return) divided by the standard deviation (or volatility) of the stock or portfolio's returns. The higher the Sharpe Ratio, the more an investor is compensated for bearing absolute risk.

Single factor: An investment strategy that provides intended exposure to one factor premium. [c.f. Multifactor]

Smart beta: An umbrella term describing various non-market capitalisation weighted index approaches. At Aberdeen Standard Investments, we define 'smart beta' as non-market capitalisation, systematic (rules-based) investment strategies designed to deliver targeted exposure to factor premia – in particular those RIPE Factors™ such as Value, Quality, Momentum, Small Size, and Low Volatility – with the aim of delivering superior risk-adjusted excess returns relative to equivalent market capitalisation weighted indices.

SMARTER Beta™: Our proprietary and exclusive 'smart beta' approach, where SMARTER is an acrostic spelling Systematic, Multifactor, Affordable, Resilient, Transparent, ESG Inside, and RIPE Factors™.

Standard deviation [of returns]: A measure of risk. Calculated as the square root of historical variance. The larger the standard deviation, the greater the magnitude of the fluctuations from a stock or portfolio's mean (average) return.

Structural anomalies: Anomalous phenomena arising for risk-based reasons. From a risk-based perspective, factor premia exist and persist because there are limits or costs to arbitrage that prevent a mispricing from being bid away. Structurally, Value outperformance, for example, is compensation for buying financially distressed stocks.

Style (plural styles): Split market segments based on market capitalisation weighting into symmetrical, two-sided components that sum to the whole segment (e.g. Value plus Growth equals the whole segment). [c.f. Factor (plural Factors)].

Systematic: A rules-based investment approach that follows a well-defined 'rule book' or algorithm.

Systematic risk: The risk inherent to the entire market or market segment. Also known as 'market risk' or 'undiversifiable risk', systematic risk affects the overall market, not just a particular stock, and cannot be mitigated through diversification. [c.f. Unsystematic risk].

Targeted volatility: A method to effectively manage risk where the goal is to achieve more consistent portfolio risk, regardless of market volatility, which may provide investors with a 'smoother ride'.

Third-party index: An index that is licensed from an index provider in exchange for a fee (with the intellectual property being owned by the index provider).

Tracking error: A measure of relative risk. Calculated as the standard deviation (or volatility) of the excess return (relative to the benchmark index). If tracking error is measured historically, it is called 'realised' or 'ex-post' tracking error. If a model is used to predict tracking error, it is called 'ex-ante' tracking error. Ex-post tracking error is more useful for reporting performance whereas ex-ante tracking error is generally used by fund managers to control risk.

Transparent: Pertinent information is available about an investment strategy's methodology.

Unsystematic risk: Also known as 'idiosyncratic risk', is the risk inherent to a particular stock. Idiosyncratic risk has little or no correlation with market risk and can therefore be substantially mitigated or eliminated from a portfolio by using adequate diversification. [c.f. Systematic risk].

US Treasury bill: A short-term, marketable, fixed interest US government debt security. Treasury bills are short-term obligations issued with a term of one year or less and, because they are sold at a face value, they do not pay interest before maturity. Treasury bills are perceived to be primarily risk-free, as they are issued by the US government with very little risk of default, and the three-month US Treasury bill is commonly used as a proxy for the risk-free rate.

US Treasury note/bond: Both are marketable, fixed interest US government debt securities. Treasury notes and bonds are different with respect to their term to maturity; specifically, Treasury notes are issued in one, three, five, seven, and ten year terms whereas Treasury bonds are long-term investments with terms of ten years or more.

Value factor: A factor premium associated with stocks that trade at a low price relative to fundamentals.

Variance: A measure of the variability (volatility) between numbers in a data set. The variance measures how far each number in the set is from the mean (average). Calculated by taking the differences between each number in the set and the mean, squaring the differences (to make them positive) and dividing the sum of the squares by the number of values in the set.

Volatility: A measure of the variation in returns for a given investment. Volatility is the same as standard deviation (which is the square root of variance) and is typically shown as an annualised number over time.

Volatility weighted index: A type of risk weighted 'smart beta' index whereby component companies are weighted in proportion to the inverse of their historical variance.

About the Author

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David Wickham is the Global Head of Quantitative Investment Solutions at Aberdeen Standard Investments in London. In this role, he is responsible for the development, marketing, and specialist sales of the firm's equity, fixed income, and multi-asset quantitative capabilities.

Prior to joining Aberdeen Standard Investments, David was the Chief Portfolio Specialist for Emerging Markets, Frontier Markets, and Smart Beta Solutions with HSBC Global Asset Management in London. Before HSBC, David was a Senior Portfolio Manager and Head of International Private Markets with Invesco Private Capital in New York and London where he managed the firm's non-US private markets investment program. He held a similar private markets portfolio management position prior to this at Insight Investment in London. David commenced his investment management career in Australia as a Multi-Asset Portfolio Manager and Investment Consultant, respectively, with Mercer Investments and Mercer Investment Consulting after a period of time in international relations with the Australian Government.

David holds a Master's degree in International Relations from the University of Cambridge and an MBA with Distinction from the University of Oxford. He is also a former Fellow of the Brookings Institution in Washington DC and Adjunct Professor of the University of Oxford's Saïd Business School, Fellow of the Oxford University Foreign Service Programme, and Practitioner-in Residence with the Skoll Centre for Social Entrepreneurship at the University of Oxford's Saïd Business School.

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