Goldman Sachs Asset Management

Glossary of Investment Terms

Performance Measures

- **Alpha:** Alpha measures the difference between a portfolio's actual returns and its expected returns given its risk level as measured by its beta. A higher alpha is better, but a high alpha is only reliable in the presence of a high R-squared value. See it as a risk-adjusted measure of return. Some advisors see alpha as a measurement of the value added or subtracted by a fund's manager. A positive alpha figure indicates the portfolio has performed better than its beta would predict. A negative alpha figure indicates a portfolio has underperformed, given the expectations established by the fund's beta.
- **Batting Average:** Batting average of a manager is the ratio between the number of quarters where the manager outperforms a benchmark and the total number of quarters. Focuses on shorter term (quarterly) performance.
- **Beta:** Beta measures the portfolio's relative volatility and is used as a measure of risk (market risk). The benchmark has a beta of 1. If a portfolio has a beta of >1, it is more volatile than the benchmark. Conversely, if a portfolio has a beta <1, it is less volatile than the benchmark.
- **Capture Ratio:** Up and down capture is a measure of how well a manager was able to participate in phases of positive benchmark returns, and how badly the manager was affected by phases of negative benchmark returns. A manager seeks to have a larger up-capture ratio and a smaller down-capture ratio.
- **Duration:** The weighted-average term-to-maturity of the bond's cash flows, the weights being the present value of each cash flow as a percentage of the bond's full prices. The greater the duration of a bond, the greater its price sensitivity. In general, duration rises with maturity, falls with the frequency of coupon payments, and falls as the yield rises (the higher yield reduces the present values of the cash flows). Duration also provides an indication of a bond portfolio's price sensitivity to changes in interest rates.
- **Information Ratio:** Information ratio is a risk-adjusted measure of return which uses tracking error to represent risk. Specifically, it is the annualized excess return of the manager over the benchmark divided by the tracking error. A larger information ratio implies more return for less risk and measures the consistency with which a manager beats a benchmark.
- **Price to Book (P/B):** Current price divided by the book value per share, which is the value of the assets on the corporation's balance sheet.
- **Price to Earnings Ratio (P/E):** Price of a stock dividend by its earnings per share. The price to earnings ratio, also know as the multiple, gives investors an idea of how much they are paying for a company's earning power.
- **R-squared:** R-squared of a manager vs. a benchmark is a correlation measure of how much a manager's return can be explained by the benchmark. More specifically, R-squared is a measure of how well the variance of the benchmark explains the variance of the manager. Also known as "correlation-squared."

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- **Standard Deviation:** Standard deviation of return measures the average deviations of a return series from its mean, and is used as a measure of risk. A large standard deviation implies that there have been large swings in the return series of a manager.
- **Sharpe Ratio:** Sharpe ratio is a risk-adjusted measure of return which uses standard deviation to represent risk. Specifically, it is the annualized excess return of the manager over the 3 month Treasury (risk free rate of return) divided by the standard deviation of returns. A larger Sharpe ratio implies more return for less risk.
- **Tracking Error:** Tracking error of return measures the standard deviation of excess returns from a benchmark, and is used as a measure of risk. A large tracking error implies that there are large swings in the excess return series of a manager from their benchmark.
- **Weighted Average Maturity:** The weighted-average time to the return of a dollar of principal. It is arrived at by multiplying each portion of principal received by the time at which it is received, and then summing and dividing by the total amount of principal. Thus, if a four-year bond with a face value of $100 and principal payments of $40 the first year, $30 the second year, $20 the third year, and $10 the fourth year, WAM = .4X1 yr + .3 X 2yr. +.2 X 3y r+.1 X 4yr. =2 yr.
- **Yield Curve:** A line that plots the interest rates, at a set point in time, of bonds having equal credit quality, but differing maturity dates. The most frequently reported yield curve compares the three-month, two-year, five-year and 30-year U.S. Treasury debt. This yield curve is used as a benchmark for other debt in the market, such as mortgage rates or bank lending rates. The curve is also used to predict changes in economic output and growth.

Investment Management Terms

- **Discounted Free Cash Flow:** Future cash flows multiplied by discount factors to obtain present value of a company.
- **Dividend Discount Model:** A formula to estimate the intrinsic value of a company by figuring the present value of all expected future dividends.
- **EBITDA:** ("Earnings Before Interest, Taxes, Depreciation and Amortization"): A measure of cash flow calculated by: Revenue minus Expenses (excluding tax, interest, depreciation and amortization). EBITDA looks at the cash flow of a company. By not including interest, taxes, depreciation and amortization, we can clearly see the amount of money a company brings in.
- **Enterprise Value:** The market capitalization of a company's equity plus the market value of the company's debt. Often, the value of assets that are non-core are excluded from the final calculation. Often referred to as a company's total market capitalization.
- **Financial Leverage:** Use of debt to increase the expected return on equity. Financial leverage is measured by the ratio of debt-to-debt plus equity. A company with high financial leverage is more dependant on debt rather than revenue to drive return on equity.

- **Free Cash Flow:** Free cash flow is the amount of cash generated by the business after meeting all its obligations for interest, tax and dividends and after all capital investment, excluding share sales or purchases by the business.
- **Net Debt Free:** When a company's cash position exceeds the amount of debt it has that requires cash interest payments, that company is said to be "net debt free."
- **Operating Leverage:** Fixed operating costs divided by total (fixed plus variable) operating costs. A company with strong operating leverage has fixed costs which do not increase as more business is done. This generally means that increases in revenue will increase net income.
- **Turnover Ratio:** Turnover Ratio is the market value of the lesser of purchases or sales divided by the average asset value of the account over a given time period.

Investment Instruments

- **Asset-backed securities:** a type of debt security that is based on pools of assets, or collateralized by the cash flows from a specified pool of underlying assets. Assets are pooled to make otherwise minor and uneconomical investments worthwhile, while also reducing risk by diversifying the underlying assets. An example of an asset-backed security is a mortgage-backed security, whose cash flows are backed by the principal and interest payments of a set of mortgage loans.
- **Bonds:** a debt investment whereby investors loan money to entities (i.e. a corporation or government) to help them finance a variety of projects and activities. The entity borrows funds for a defined period of time at a particular interest rate. Types of bonds include corporate, municipal and U.S Treasury notes, bills and bonds, known as Treasuries.
- **Collateralized mortgage obligations (CMO):** a type of mortgage backed security. Investors in a CMO buy bonds issued by the entity, and receive payments according to a defined set of rules. The mortgages themselves are called the collateral, the bonds are called tranches (also called classes), and the set of rules that dictates how money received from the collateral will be distributed is called the structure.
- **Credit default swaps (CDS):** A financial instrument designed to transfer the credit exposure of fixed income securities between parties. It is essentially an insurance contract that enables a seller to protect against the risk of default on debt obligations for a specific issuer.
- **Derivatives:** a security whose price is dependent upon or derived from one or more underlying assets. The derivative itself is merely a contract between two or more parties. Its value is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes. Most derivatives are characterized by high leverage. Examples of derivatives include swaps, options, futures and forwards.
- **Forwards:** an agreement between two parties to buy or sell an asset at a specified point of time in the future. The price of the underlying instrument, in whatever form, is paid before control of the instrument changes.
- **Futures:** a financial contract obligating the buyer to purchase an asset (or the seller to sell an asset), such as a physical commodity or a financial instrument, at a predetermined future date and price.

- **Options:** a privilege, sold by one party to another, that gives the buyer the right, but not the obligation, to buy (call) or sell (put) a stock at an agreed-upon price within a certain period or on a specific date.
- **Stocks:** an equity investment, or ownership securities, that represent ownership in a corporation.
- **Swaps:** an agreement between two parties to exchange future cash flows according to a prearranged formula.
- **Treasury Inflation-Protected Securities (TIPS):** treasury bonds whose value rises with inflation.

Investment Strategies

- **Alternatives:** A broad category of asset classes that include hedge funds, managed futures, real estate, commodities and derivatives contracts. Alternatives generally have lower correlations to traditional asset classes (cash, equity and fixed income).
- **Core and Satellite:** A portfolio construction philosophy that separates investments into two components to seek additional return opportunities: 1) core investments, which provide efficient exposure to asset classes that are broadly representative of the market, and 2) satellite investments which generally deliver higher levels of active alpha (returns derived from skilled active management) or exotic beta (exposure to risk factors with low correlation to global markets) and can enhance expected returns. Satellite asset classes include REITS, Commodities, High Yield Bonds and Emerging Markets.
- **Fundamental equity:** A strategy employing fundamental analysis, whereby research using economic, financial, qualitative and quantitative factors is employed to select investments. Fundamental analysis seeks to take a holistic view of factors that may impact the value of a security (i.e. economic and sector conditions) and individually specific factors (i.e. company management).
- **Quantitative equity:** A strategy employing quantitative analysis, whereby models such as risk and asset allocation are used to select portfolio holdings. This strategy seeks to deemphasize (in varying degrees in some cases) human judgment in security selection.
- **Short selling:** the practice of selling a financial instrument that the seller borrows first (does not own), and then purchasing it later to “cover the short”. Short-sellers attempt to profit from an expected decline in the price of a security, such as a stock or a bond, in contrast to the ordinary investment practice, where an investor “goes long” by purchasing a security in the hope the price will rise.

Current Market-Related Terms

- **Auction rate security:** a debt instrument (corporate or municipal bonds) with a long-term nominal maturity for which the interest rate is regularly reset through a dutch auction, a type of auction where auctioneer begins with a high asking price which is lowered until some participant is willing to accept the auctioneer's price, or a predetermined reserve price (the seller's minimum acceptable price) is reached. The winning participant pays the last announced price.
- **Counterparty risk:** also known as default risk, or the risk that either party to a financial contract will not carry out their contractual obligations.
- **Leverage:** using borrowed funds, or debt, in an effort to attempt to increase the returns to equity. The reversal of the leveraging process is known as deleveraging.
- **Liquidity:** an asset's ability to be easily converted through an act of buying or selling without causing a significant movement in the price and with minimum loss of value.
- **Subprime:** borrowers who generally exhibit lower credit scores and higher leverage (i.e., higher debt-to-income ratio).

Source of definitions: GSAM, Wikipedia.

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