Analytical Methods I

Alpha and Beta

Beta

Beta (or beta coefficient) is used to measure the variability between a specific stock's (or portfolio's) rate of return versus the market as a whole (the S&P 500). The higher the beta, the higher the risk. When a security has a beta of 1, it is said to move with the market. A beta of greater than 1 means that the stock's return will be more than that of the market. A beta of less than 1 means the stock's return will not move as much as the market. When an investment has a negative beta the rate of return will be the opposite as that of the market as a whole.

Alpha

Alpha is the rate of return that is in excess of that predicted by an equilibrium model. Alpha can be positive or negative. Positive alpha is desirable, negative alpha is not.

Financial Ratios and Their Uses

Fundamental analysts will use ratios for comparison purposes.

Current Ratio
The current ratio takes current assets and divides them by current liabilities. The higher the ratio, the more liquid the company is.

Quick Ratio
The quick ratio factors out a company's inventory, since it may not sell as quickly as they hope. The quick ratio is also called the acid test ratio. The formula for the quick ratio is current assets minus inventory divided by current liabilities. The acid test ratio (quick ratio) is the most stringent measurement of liquidity since you do not include within the current assets the company's inventory.

Debt-To-Equity Ratio
The debt to equity ratio compares a company's long-term debt to overall capitalization. It is a measurement of leverage. Let's say the company has sold $50 million in stock and $100 million in debt, their total capitalization would be $150 million. The debt is $100 million divided by the total capitalization of $150 million = 66.7% is the debt to equity ratio.

Working Capital

Working capital is a measurement of liquidity. The formula for working capital is current assets minus current liabilities. It is a measurement of the short-term financial health of a company. It measures the company's ability to withstand a short-term economic downturn. Working capital is a dollar amount. The current ratio is better when comparing companies.

Valuation Ratios

Valuation ratios are used to compare stocks within the same industry only. They help an analyst determine if a stock is overpriced, underpriced, or priced just right.

P/E

The P/E ratio is found by dividing a stock's current market price by earnings per share. To find earnings per share, take earnings available to common and divide it by the number of shares outstanding. Remember, earnings available to common is after preferred stock dividends have been paid. Earnings come from the company's income statement.

If the industry's average P/E ratio is 40 and the stock being considered is trading at a P/E ratio of 46, this stock would be overpriced. If the stock was trading at a P/E ratio of 35, then it would be underpriced.

Growth stocks have high P/E ratios. They have low to no dividends. Growth stocks' market price trades at a high multiple of these low to no earnings.

Price-to-Book

The formula for book value per share is tangible assets minus liabilities minus par value of preferred divided by the number of common stock outstanding. Book value reflects the liquidating value of the company.

Price-to-book would tell an analyst how many times book value per share the stock was trading at. Value stocks are characterized by having low price-to-book ratios.

Income Measurements

Current yield
Current yield on common stock is annual dividends paid to common over the last four quarters divided by current market price per share of common stock. Current yield on a bond is annual interest divided by current market price.

Blue chips and value stocks will have higher current yields than growth stocks. Growth stocks pay low to no dividends.

EPS
Earnings per share comes from an income statement. Earnings available to common divided by the number of shares of common stock outstanding is the formula for earnings per share (EPS). Remember to use the dollar amount available to common stock, which is determined after paying dividends to preferred stockholders.

Dividend payout ratio
The dividend payout ratio measures the proportion of earnings paid to stockholders as dividends. Generally, blue chips have higher dividend payout ratios than growth companies.