

## **Stock Selection Theory**

### **(What is the NAIC Stock Selection Guide all about?)**

When the late George A. Nicholson, Jr. worked with Tom O'Hara and others to form NAIC in 1951, they formulated some basic principals for investment clubs. Among those was to "buy growth stocks". The Visual Analysis ratio chart on the front of the Stock Selection Guide enables the user to determine whether or not a company can be considered a growth one or not.

George was also a great believer in management's ability to produce excellent results. This factor has been identified as "the three most important factors about a stock are management, management and management". When he would bring in a stock for consideration by the *BI* Editorial Advisory and Securities Review Committee, he invariably would open his discussion with observations about management. There are several initial observations the investor should make with the SSG.

Does the Visual Analysis show a persistent growth rate of sales, pre-tax profits and EPS that are significantly superior to the overall economy and yet sustainable? Other things being equal, look for a company able to generate an annual growth rate of sales or revenue in at least the teens that will tend to produce superior investment performance providing it can be purchased at a reasonable P/E ratio. Cyclical stocks are usually an exercise in market and economic timing, a technique that seldom works. Companies in mature industries, such as basic materials, and products with cyclical demand are not growth situations. It is a fairly elementary and fundamental exercise to make a Visual Analysis of a company using the ratio chart on the front of the SSG. If your investment objectives include building a portfolio of growth stocks, then quickly abandon investigation of cyclical, ex-growth and no-growth companies. Do not expect "fallen angels" (former growth companies) to return to their glory days. Many companies are promoted as recovery situations or cyclical "upward bounce" by brokers seeking both a buy and sell commission for a trade. Use the Visual Analysis of the SSG to screen out the non-growth companies.

Look at "Evaluation of Management" in section 2 at the top of the reverse page. Compare the percent pre-tax profit margin on sales of the company being investigated with competitors and the industry norms. Percent earned on equity capital is a traditional way to compare management ability of companies in the same industry. After-tax profits reinvested in the company are a source of funds to finance expansion. Debt, increasing accounts payables and issuance of stock can be used to finance expansion. However, there are limitations imposed by the capital markets. As long-term and short-term debt rise above reasonable levels, risk also increases. Debt is a double-edged sword. During good times, a company is able to use the cost of debt, which is usually less than the cost of equity capital, to leverage operations upward. During economic recessions, the reverse situation rears its ugly head. The interest to be paid on debt can become a drag on profits. Good management is judicious about employing appropriate amounts of debt. Value Line has a box in the upper left side of the report headed Capital Structure. One of the pieces of data is the coverage of interest requirements by pre-tax profits. Some industries are little affected by economic cycles and can easily pay debt interest. Others tend to be adversely affected by a downturn in

the economy. Generally, interest coverage of 6 to 7 times in good times will translate into adequate coverage during a stressful economic period.

There is a theoretical measurement of the rate of return on reinvested capital to sustain growth. Value Line's second to last line in their display of data is titled Retained to Common Equity. The assumption is that the fraction of after-tax earnings reinvested into the company at the rate of return on equity capital will furnish the funds required to sustain growth. The computation is as follows:

$$\% \text{Return on equity} \times (1 - \text{dividend payout ratio}) = \text{sustainable growth rate}$$

This is a theoretical concept and not always realistic. However, it does pay to look at Retained to Common Equity and judge whether it is sufficient to support long-term growth. If the figure falls somewhat short of expectations of future growth rate, see if the debt to equity ratio is rising at an unsustainable rate or there are other signs of stress in the capital structure.

The judgment used to estimate the future rate of growth is a very important one. This judgment will affect the valuation results of the SSG including Relative Value, US/DS ratio and potential Total Return. A number of factors must be taken into consideration in making the judgment of expected future rate of growth.

1. Is it sustainable? Look at recent years performance. Look at Value Line Retained to Common Equity.
2. Look at the growth rate of total annual sales or revenue. Geometric growth from a small or moderate base is more reasonable to expect than from a large mature base. A sapling will easily grow into a large tree if nourished. A child will grow into an adult. The growth of a larger tree is not as dramatic as a sapling. Growth of an 18-year-old does not match the rate of growth of a pre-teenager.
3. In the long run, it is difficult to expect internal growth of EPS to exceed the rate of growth of sales or revenue. Bottom line growth (EPS) comes from top line growth (sales or revenue). The rate of growth of EPS can exceed the growth of sales on revenue under certain conditions:
  - Pre-tax profit margin rises. Is this sustainable?
  - The number of shares is reduced by buy backs. Is this sustainable?
  - Acquisitions are made – The P/E ratio of the acquiring company is greater than the one acquired. This tends to boost EPS growth. How long can this be maintained?
  - The tax rate goes down. Is this sustainable?
  - Non-recurring factors boost profits. Is this sustainable? It is wise to exclude non-operating revenue and profits from the record of actual vs. expected results because they are temporary. Use PERT to make a judgment as to what to include as sustainable operating results and what may be non-operating results. The same applies to expenses. Be wary of companies which try to dress-up results with “proforma” or one-time” accounting.

For retail companies, it is important to have same-store sales or comparable store growth. This is the internal growth from efficiencies, not from adding more outlets.

Look carefully at reported top line growth. How much is internal from existing operating and how much is from acquisitions? It is internal growth that is important to sustainable operations.

Be wary of accounting that varies from GAAP, Generally Accepted Accounting Principles. It may be used to shed a favorable light on results that GAAP suggests are unacceptable.

Prior to 1954, the NAIC SSG did not incorporate P/E ratios as a method of valuations. Alex Carroll brought this concept to the 1954 NAIC convention and it was quickly adopted. As earnings are gradually accumulated during a fiscal year, the price investors are willing to pay for the stock tends to represent investors' valuations. In section 3 of the SSG, the relationship between high and low fiscal year prices are represented by high and low P/E ratios. If EPS decline sharply during a fiscal year, the price does not always fall a comparable amount as investors view this as a temporary situation. Therefore, it is advisable to delete abnormally high P/E ratios when proceeding to estimate what the future P/E ratio will prevail. Please note all per share data such as EPS, prices and dividends must be evaluated in a common time frame, the fiscal year. Using annual price ranges to calculate P/E ratios for EPS generated in a non-calendar year is an exercise in lack of logic.

Making a judgment as to estimating what future P/E ratios will prevail is a job requiring an understanding of what is logical and what is speculative. There tends to be a relationship of P/E ratios and growth of EPS. This relationship is affected by what institutional investors are willing to pay for earnings.

Some investors use techniques for determining the value of a stock which does not relate to P/E ratios. Technical analysis and momentum investing are typical examples. As we saw during the March 2000 to March 2003 bear market period, stock market bubbles fueled by emotion and hype eventually explode, much to the regret of those who were sucked in.

What is a reasonable P/E ratio to pay for a stock? This is a question which many people disagree about. What is an "excessive" P/E ratio? Typically, the P/E ratio of large market capitalization (price times the number of shares) stocks that are favorites of institutional investors frequently sport P/E ratios that are more generous than lesser known issues. Such generous P/E ratios have built into them an expectation of future favorable results. It is when such results fall short of expectations that the price and P/E ratio of the stock takes a tumble.

Sometimes the P/E ratio history of a company goes to the other extreme. For example, stocks of home building companies tend to sell at modest P/E ratios because of the realization that if mortgage interest rates move up more and more potential home buyers are going to make the decision they can't afford the required monthly payment and decline to buy.

Examining the historical record of P/E ratios is one way of estimating what the future P/E ratios may be. This is a very important judgment because section 4 of the SSG uses P/E ratios to calculate potential future high and low prices. The high price is a multiple of the estimated future average high P/E ratio and the estimated EPS five years in the future. If one is too optimistic as to future EPS and/or a future high P/E ratio, the SSG

will suggest a stock is a good buy. Of course, only future events will determine the accuracy of the judgment. Unfortunately, too many investors make an optimistic assumption which hard cold logic suggests may be a route to a financial disappointment or disaster.

If we accept the premise that there should be a reasonable relationship between expected future growth of EPS and the P/E ratio, we can use similar logic to assist our decision process. The logic is the P/E ratio as a percent of the forecasted EPS growth rate, or PEG for short. If we can buy a stock at a PEG ratio of up to 100 or 110, then history tells us that is reasonable. Of course, in calculating the P/E ratio, we must use analysts' estimated EPS 12 months in the future. If the PEG ratio looks too invitingly low such a 50 or 60, then probably someone knows something we don't know, and that "something" is not good. One way to make money is to avoid losing it by paying inflated values for stocks.

It follows that if a high P/E ratio is chosen to calculate the future high price that incorporates an unreasonably generous PEG ratio, the probabilities for disappointing investment performance greatly increases. It is also evident that the PEG ratio is a function of the estimated growth rate and estimated EPS 12 months in the future. The good record of the Investor Advisory Service (IAS) in outperforming the S&P 500 is a function of recommending buys at reasonable PEG ratios for well-managed growth companies. The PEG ratio is a function not employed in the official NAIC SSG. Nevertheless, it is a concept of Stock Selection Theory that is important. Why? It is important because it relates proposed future P/E ratios to be used for valuation purposes to a reality other than sky-high P/E ratios that speculators have paid during irrational exuberance periods. PEG is a simple concept, but it requires good judgment. It requires that the investor realistically estimate the future growth rate. This does not mean either conservatively or optimistically, but realistically using the best tools and experience available. This is an element of Stock Selection Theory; that is really understanding the interaction of elements that affect valuation of stocks.

Relative Value, by definition is the forward P/E ratio as a percent of your judgment as to what is an appropriate future average P/E ratio. Forward P/E uses the current price and the analysts' estimate of EPS 12 months in the future. Aside from investor's psychology, there are two prime factors that determine the future price of a stock. These are EPS and P/E ratio. The future high price is a multiple of future EPS and a future P/E ratio. The SSG arrives at the estimate of the future high price by multiplying the estimated selected high P/E ratio by the estimate of EPS five years in the future. Of these two factors, expansion of the P/E ratio from close to the average or less towards the average high P/E ratio is the most powerful. Price appreciation results from a combination of EPS growth and P/E ratio expansion.

When estimating what P/E ratios to use in section 4-A, to calculate the potential high price and 4-B (a) to estimate the potential future low price, it is important to use the above logic. The Toolkit software, as currently formatted, uses P/E ratios from section 3 lines 7 and 8 for the PERT Report. If these differ from the user's judgment for section 4-A and 4-B (a), then manual calculation must be made in the PERT Report. If Relative Value (RV) is not calculated on the basis of your judgment as to what is appropriate for sections 4-A and 4-B (a), the result will be misleading. A manual calculation must be made as to the average future P/E ratio and used to calculate the RV.

It follows as night follows the day that the lower the opportunity for a P/E ratio expansion, the lower the opportunity for a price rise. If you can buy a stock at a P/E ratio at or somewhat below your judgment as to what is an appropriate average P/E ratio, the odds for a significant price appreciation increase. A Relative Value (RV) of 100 says the current P/E ratio is equal to your judgment made as to the appropriate average P/E ratio. If the RV is significantly less than 100 it may indicate that the profitability of the estimated EPS 12 months in the future may be at risk. In other words, the P/E ratio is depressed because of investors' apprehension that estimated EPS will not be achieved. Someone knows something you do not know and it is not good news. This is known as discounting the future. When the P/E ratio is excessively high, the future good news is already discounted in the price. When the P/E ratio drops to a value that is much less than the judgment of the average low P/E ratio, it suggests there is a reason for this supposedly great bargain. The "bargain" may turn out to be a trap for the unwary and inexperienced. Remember, there is no such thing as a free lunch. If it looks too good to be true, it probably is not true.

The process of estimating a future low price is an exercise in judgment. The SSG suggests several ways. If the low price used is higher than the 52-week low, then it violates common sense. Investors in the market determine prices. To ignore the actual low price of the last 52-weeks is like living in fantasyland. It is unrealistic. The Toolkit and New Stock Analyst seem to ignore the 52-week low price in both 4B (a) and 4B (c).

A multiple of your judgment of the average low P/E ratio and the expected low EPS seems logical providing the result is not higher than the 52-week low.

The average low price of the last five years is unrealistic when applied to growth stocks because the price should move up as EPS rise.

A recent severe market low price is a reasonable choice, providing it is not too far back in the history.

A price the dividend will support is a choice that would apply if the resultant yield is significantly greater than the yield on the S&P 500. In other words, the dividend yield must be great enough to attract investors interested in dividend income. However, if the dividend is in jeopardy by barely being covered by the EPS, it follows the current dividend could be cut and the support would be gone. This method applies to stocks like REITs that tend to sell on a yield basis.

Look at the zoning on the SSG with a jaundiced eye. If you use a 25%, 50%, 25% zoning, then you don't have to do a lot of mental calculations. The highest price in the lower zone is always a safe US/DS ratio of 3 to 1. It can be considered the "buy zone". However, if you use the 1/3, 1/3, 1/3 method of zoning, then prices in the lower zone may not be a buy because the US/DS ratio is not 3 to 1. In fact, the highest price in the lower zone is an US/DS ratio of 2 to 1.

Therefore, be very careful of what you consider to be the "buy" zone. Understand the theory and it will be beneficial to your financial health. If you just enter numbers into the SSG without understanding the theory, it can be hazardous to your future financial security.

The SSG is not an answer to a maiden's prayer by itself. A successful investor will read and study financial news. With the advent of Internet and the SEC rule that all news that might affect the price of the stock must be publicized to be able to be accessed by interested parties, has leveled the playing field. Investors should also read financial publications such as The Wall Street Journal, Barron's, Business Week and Fortune. These sources have writers who dig behind the numbers, provide analysis to both background and future consequences. In other words, you have to know why as well as what. The informed and intelligent investor will know why a situation is a buy, hold or sell. They will depend on their judgment. The SSG is all about judgment. It is an aid to judgment, a guide to judgment, but not a substitute for judgment. The final results will heavily depend on your understanding of theory and the judgments made.

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