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Evaluation of Security – Models and Methods

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***ABSTRACT* - This paper develops a risk/return portfolio model that can be used at that time of evaluating securities and investment selection. In addition, the model can be applied to other kinds of private equity portfolios such as management buyout funds, and real estate partnerships. The paper proceeds as follows:**

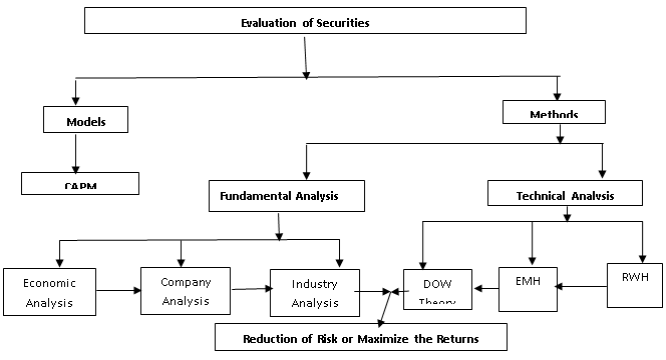
Key words – Securities; bModels; Methods; Analysis

1. INTRODUCTION

Valuation is the process of determining the current worth of an asset or company. In general, the value of an asset is the price that a willing and able buyer pays to the willing and able seller. There are many techniques that can be used to determine value, some are subjective and others are objective. Valuation of a security guides the investor in picking the right stocks. There are several quantitative valuation models (Bond and Equity), such as Dividend Valuation Model, Gordon Growth model, Price Earnings Valuation model etc. taking into account the dividend earnings, future cash flow stream, and its selling price.

Investors, who are risk averse, will choose to hold a portfolio of securities to take advantage of the benefits of Diversification. To decide whether or not to invest in a particular stock, they want to know how the stock will contribute to the risk and expected return of their portfolios. The standard deviation of an individual stock does not indicate how that stock will contribute to the risk and return of a diversified portfolio. Thus, another measure of risk is needed; a measure of a security's **systematic risk**. This measure is provided by the Capital Asset Pricing Model (CAPM).

We clearly understand process of evaluation of the securities by the mentioned below diagram.



2. MODELS

CAPM (Capital Asset Pricing Model): The Capital Asset Pricing Model (CAPM) provides an expression which relates the expected return on an asset to its systematic risk. An asset's total risk consists of both systematic and unsystematic risk. Systematic risk, which is also called market risk or undiversifiable risk, is the portion of an asset's risk that cannot be eliminated via diversification. The systematic risk indicates how including a particular asset in a diversified portfolio will contribute to the riskiness of the portfolio. Unsystematic risk, which is also called firm-specific or diversifiable risk, is the portion of an asset's total risk that can be eliminated by including the security as part of a diversifiable portfolio. The relationship of expected return and the systematic risk is referred as the *Security Market Line (SML)*[5] and the measure of systematic risk in the CAPM is called *Beta.*

Investing evokes a very wide variety of thoughts, emotions, and motivations. Conversations, the media, and popular literature contain significant unverified, biased, false, and sometimes simply ridiculous investment information. When such information is superficially plausible, it seems especially easy for erroneous beliefs to perpetuate and become part of widespread investment myths projecting bad investment ideas. For example, many individual investors believe that they have a good chance to consistently "beat-the-market." Such beliefs are played upon and are reinforced by others who stand to profit, that leads to poorly diversified portfolios with higher volatility and lower returns. Hence the investors need to realize that, they have to sort truth from fiction on their own without unbiased help from the industry. The methods used to analyze securities and make investment decisions fall into two very broad categories:

(i) Fundamental Analysis and/or ***(ii) Technical Analysis.***

(1) Fundamental analysis involves analyzing the characteristics of a company in order to estimate its value. Technical analysis takes a completely different approach; it does not attempt to measure a security's intrinsic value, but instead use charts and other tools to identify patterns of price movements in the market that can suggest future activity.

Fundamental Analysis measures the intrinsic value of a security by examining related economic, financial and other qualitative and quantitative factors. ***Intrinsic value***is the present value of the expected future cash flows discounted at the decision-maker's required rate of return. Fundamental analysts attempt to study everything that can affect the security's value, including macroeconomic factors (like

the overall economy and industry conditions) and individually specific factors (like the financial condition and management of companies).

The end goal of performing fundamental analysis is to produce a value that an investor can compare with the security's current price in hopes of figuring out what sort of position to take with that security (underpriced = buy, overpriced = sell or short). This method of security analysis is considered to be the opposite of technical analysis. One of the most famous and successful users of fundamental analysis is the Oracle of Omaha, Warren Buffett, who has been well known for successfully employing fundamental analysis to pick securities. Some of the important observations about securities markets[6] are that:

- The aggregate market return consists of dividend gains plus capital gains or losses across all investors.
- Fundamentally, markets look forward. Participants attempt to peer into the murky and fundamentally unknowable spectrum of possible future events giving much importance for news rather than the stock fundamentals.
- Markets price securities on a risk-adjusted basis. Current securities prices are discounted versus their projected future values to reward certain kinds of risk taking.
- Current market prices reflect the expected risk and expected return.
- Current market prices tend to reflect fully all currently known information associated with a particular security. There may be a wide range in the interpretation of the importance of various information, and asset market values reflect the consensus across all investors.
- New information disseminates widely and very rapidly. Prices rapidly reflect new information, as supply and demand shifts quickly and market prices change accordingly.

When some investors "win," others must "lose" relative to the aggregate market return. Whether luck or skill determines who wins or loses and how one can tell the difference are pivotal questions in choosing investment strategies.

The components of fundamental analysis are ***Economic Analysis;Industry Analysis*** and ***Company Analysis*** which helps to interpret the correct value of securities in contrast with its market value.

(i) ***Economic Analysis-*** Economic Indicators measure the economic health of the overall economy. Economic Analysis analyses the global economics, both international and national, such as GDP growth rates, inflation, interest rates, exchange rates, productivity, and energy prices. The economic indicators like CPI (consumer Price Index); (PPI) Producer Price Index; M2 (money supply) and GDP are commonly used by traders. This helps to narrow down the search in choosing the sector or the industry.

(ii) ***Industry Analysis-*** It helps to remain fully abreast of the trends in individual industries. It provides information relating to demand and supply; price levels; Investments made; Financial performance of each sector contributing to GDP; growth in sales; effect of competing products; foreign competition etc. The industry analysis guides in choosing the right industry for investment.

(iii) Company Analysis – is the analysis of individual companies based on their profits earned, turnover, income distributed, debt payments overdue, and accumulated reserves. The following measurement tools will help evaluate a company and determine the value of its stock such as Price-Earnings Ratio; Price-earnings to Growth ratio; Cash ratio; Debt-equity ratio; Earnings per share; Book to Market price ratio; Return on Investment; Dividend payout ratio etc.

(2) Technical analysis

Technical analysis is a method used to predict the future stock price movement using historic data. Technical analysis studies the supply and demand in a market in an attempt to determine what direction, or trend, will continue in the future. In other words, technical analysis attempts to understand the emotions in the market by studying the market itself, as opposed to its components. In this method, the financials of a company or not taken account, while deciding on buying or selling a stock. In technical analysis, the pattern of price and volumes of a stock traded are the key parameters. There are many different kinds of patterns in technical analysis: such as the cup and handle, ascending/descending channels, the head-and-shoulders pattern etc. Apart from the patterns, the technical analysts also use technical *indicators* and *oscillators.* An indicator is a mathematical calculation based on a securities price and/or volumes, used to predict future prices. Common technical analysis indicators are the moving average convergence-divergence (MACD) indicator and the relative strength index (RSI). Oscillators are most advantageous when a clear trend cannot be easily seen in a company's stock such as when it trades horizontally or sideways. The most common oscillators are: the stochastic oscillator, RSI (Relative Strength Index), PPO (Percentage Price Oscillator) and MFI (Money Flow Index).

The field of technical analysis is based on three assumptions:

1. the market discounts everything.
2 Price moves in trends.
3. History tends to repeat itself.

3. DOW THEORY

An attempt to trace the origins of technical analysis would inevitably lead to Dow Theory. Dow Theory remains the foundation of much of what we know today as technical analysis. Charles Dow, then editor of the Wall Street Journal, recognized that the movement is caused by the action/reaction of the people dealing in stocks rather than the news in itself.

The first basic premise of Dow Theory suggests that all information - past, current and even future - is discounted into the markets and reflected in the prices of stocks and indexes. That information includes everything from the emotions of investors to inflation and interest-rate data, along

with pending earnings announcements to be made by companies after the close. From the prevailing trend in the market, the investor can make an investment decision. If the prevailing trend is upward, it follows that an investor would buy individual stocks trading at a fair valuation.

The three trends in Dow theory includes the primary or major trend lasting between one to three years; The secondary or intermediate trend is a correction of the primary trend lasting for a few weeks to months and finally the minor trend which are the corrective moves of the secondary trends which lasts from days to less than three weeks.

4. EFFICIENT MARKET HYPOTHESIS

Efficient markets are markets in which prices adjust quickly to new information and prices reflect the economic value of information. According to the Efficient Market Hypothesis (EMH), this means that stocks always trade at their fair value on stock exchanges, making it impossible for investors to either purchase undervalued stocks or sell stocks for inflated prices. As such, it should be impossible to outperform the overall market through expert stock selection or market timing, and that the only way an investor can possibly obtain higher returns is by purchasing riskier investments.

Although it is a cornerstone of modern financial theory, the EMH is highly controversial and often disputed. Believers argue it is pointless to search for undervalued stocks or to try to predict trends in the market through either fundamental or technical analysis. Meanwhile, while academics point to a large body of evidence in support of EMH, an equal amount of dissension also exists. For example, investors, such as Warren Buffett have consistently beaten the market over long periods of time, which by definition is impossible according to the EMH. Detractors of the EMH also point to events, such as the 1987 stock market crash when the Dow Jones Industrial Average (DJIA) fell by over 20% in a single day, as evidence that stock prices can seriously deviate from their fair values. The three degrees of EMH defends the theory as; (i) *Weak Form* of Efficiency claim all past prices of a stock are reflected in today's stock price. Therefore, technical analysis cannot be used to predict and beat a market. (ii) In the *strong form* of market efficiency, all information in a market, whether public or private, is accounted for in a stock price. Not even insider information could give an investor the advantage. (iii) The*semi-strong form* of efficiency implies all public information is calculated into a stock's current share price which means that neither fundamental nor technical analysis can be used to achieve superior gains.

5. RANDOM WALK THEORY

The theory that stock price changes have the same distribution and are independent of each other, so the past movement or trend of a stock price or market cannot be used to predict its future movement[10]. In short, this is the idea that stocks take a random and unpredictable path. A follower of the random walk theory believes it's impossible to outperform the market without assuming additional risk. Critics of the theory, however, contend that stocks do maintain price trends over time - in other words, that it is possible to outperform the market by carefully selecting entry and exit points for equity investments.

The theory claims that day-to-day stock prices are independent of each other, meaning that momentum does not generally exist and calculations of past earnings growth does not predict future growth. The random walk theory also considers technical analysis undependable because, according to Malkiel, chartists buy only after price trends are established and sell only after price trends are broken; essentially, the chartists buy or sell too late and miss the boat. According to the theory, this happens because stock prices already reflect the information by the time the analyst moves on the stock[12]. Malkiel also notes that the widespread use of technical analysis reduces the advantages of the approach.

Further, Malkiel finds fundamental analysis flawed because analysts often collect bad or useless information and then poorly or incorrectly interpret that information when predicting stock values. Factors outside of a company or its industry may affect a stock price, rendering further the fundamental analysis irrelevant.

To conclude that the key element in creating market vibrations are investors behavior driven by their emotions, feelings and attitudes reflecting in the price movements of stock market and the indices. Against this backdrop this study proceeds to identify the behavioral factors and make an attempt to analyze the issues

6. REFERENCES

Sir John Templeton, “Golden Nuggets” (1997), Templeton FoundationPress, pp.22-23

Susan Thomas**, “**India's capital markets: have we come full circle?”, *Outlook* magazine, 14 January 2002.

Nupur Hetamsaria , (2005), “What Indian financial markets need”, 12 April, 2005, www. Rediff.com/money.

B.Venkatachalam. Dr, Lecture speech on “Currency Futures”, conducted byMCX’SX and FKCCI on 12th January, 2009.

Eugene F, Fama, (1965), “ The Behavior of Stock Market Prices”, Journal of Business, Vol. 38, No. 1., pp 34 – 45

William Goetzmann and Alok Kumar. “Diversification Decisions ofIndividual Investors and Asset Prices.” 14 January 2004, pp 1-58.

7. Maurice Kendall, (1953), "The Analysis of Economic Time- Series-Part I: Prices", Journal of the Royal Statistical Society, Vol.116, No.1, pp. 11–34.
8. James Dow and Gary Gorton, (1997), “Stock Market Efficiency and Economic Efficiency: Is There a Connection?”, *The Journal of Finance*, Vol.LII, No.3, pp.1087 -1127.
9. Basu, S, (1977), “Investment performance of Common Stocks in relation to their Price-Earnings ratio: A test of the Efficient Market Hypothesis”, The Journal of Finance, Vol.32, No.3, pp 663 – 674

10. Malkiel, Burton G., (1973), "A Random Walk Down Wall Street" W.W. Norton & Company, Inc. pub., 6th edn., pp.45-48
11. Maurice G. Kendall and B. Babington Smith, (1938), "Randomness and Random Sampling Numbers," Journal of the Royal Statistical Society, Vol. 101:1, pp. 147-166.
12. Fama, Eugene F., (1965), "Random Walks In Stock Market Prices", *Financial Analysts Journal* , Vol.21, No. 5, pp. 55–59.
13. www. stockmarketguide.org
14. www. livemint.com
15. www.pib.nic.in
16. www.thehindubusinessline.com
17. www.icmrindia.org
18. www.envestindia.com
19. www.theskilledinvestor.com
20. www.capmarketline.com
21. www.investoguide.com
22. www. cime.com
23. www.stockteacher.com
24. www.jstor.org