CHAPTER 2

THEORY AND LITERATURE REVIEW

2.1 Theoretical Reviews

2.1.1 Fundamental Analysis

Number such as a company's earning per share, cash flow, book equity value, and sales are often called *fundamentals* because they describe, on a basic level, a specific firm's operation and profits (or lake of profits). Fundamental analysis represents the examinations of these and other accounting statement based company data used to assess the value of a company's stock. Information regarding such things a management quality, products, and product markets is often examined as well (Corrado and Jordan, 2005).

In applications, fundamental security analysis is typically performed in one of two ways; bottom-up or top-down. The bottom up method focuses on an analysis of the firm as a standalone entity. This procedure does not involve extensive analysis of economic, market, or industry conditions but instead focuses on firm-specific attributes such as management quality, product or service characteristics, input costs, operational efficiency, and other business fundamentals. The top-down method is the most comprehensive form of fundamental analysis. This method begins with an analysis of the global economy followed by an assessment of market, industry, and individual firm conditions. The choice between the two methods depends on the

preferences and training of the analysts or investor. Graham, Dodd, and Buffett use a bottom-up approach. Research analysts working for securities brokerage firms typically employ the top-down approach (Grimm, 2012).The approach to analyzinginvolves: Economic Analysis, Industry Analysis, and Company Analysis as follow:

2.1.1.1 Economic Analysis

a. The Global Economy

A top-down analysis of a firm's prospect must start with the global economy. The international economy might affect a firm's export prospects, the price competition it faces from foreign competitors, or profits it makes on investment abroad. The national economic environment can be a crucial determinant of industry performance. It is far harder for businesses to succeed in a contracting economy than in an expanding one. This observation highlights the role of a big-picture macroeconomic analysis as a fundamental part of the investment process(Bodie, Kane and Marcus, 2008).

b. The Domestic Macroeconomy

The macro economy is the environment in which all firm operate. The importance of the macroeconomy in determining investment performance.The ability to forecast the macroeconomy can translate into spectacular investment performance. But it is not enough to forecast the

macro well. One must forecast it better than one's competitors to earn abnormal profits (Bodie, Kane and Marcus, 2008).

In this sector we will review some of the key economic statistics used to describe the state of the macroeconomy.

1) Gross Domestic Product (GDP)

Gross Domestic Product or GDP, is the measure of the economy's total production of goods and service. Rapidly growing GDP indicates an expanding economy with ample opportunity for a firm to increase sales. Another popular measure of the economy's output is industrial production. This statistic provides a measure of economic activity more narrowly focused on the manufacturing side of the economy (Bodie, Kane and Marcus, 2007).

2) Unemployment Rates

The unemployment rate is the percentage of the total labor force(i.e., those who are either working or actively seeking employment) yet to find work. The unemployment rate measures the extent to which the economy is operating at full capacity. The unemployment rate is a statistic related to worker only, but further insight into the strength of the economy can be gleaned from the employment rate of other factors of production. Analysts also look at the *factory capacity utilization rate*, which is the ratio of actual output from factory to potential output(Bodie, Kane and Marcus, 2007)

3) Interest Rates

High interest rates reduce the present value of future cast flows, thereby reducing the attractiveness of investment opportunities. Demand for housing and high-priced consumer durables such automobiles, which are commonly finance, also is highly sensitive to interest rates because interest rates affect interest payments(Bodie, Kane and Marcus, 2007).

c. The Government Policy

1) Monetary Policy

Monetary policy refers to the manipulation of the money supply to affect the macro economy and is the other main leg of demand-side policy. Monetary policy works largely through its impact on interest rates. Increases in the money supply lower short-term interest rates, ultimately encouraging investment and consumption demand. Over longer periods, however, most economists believe a higher money supply leads only to a higher price level and does not have a permanent effect on economic activity (Bodie, Kane and Marcus, 2007).

2) Fiscal Policy

Fiscal policy refers to the government's spending and tax actions and is part of ''demand-side management''. Fiscal policy is probably the most direct way either to stimulate or to slow the economy. Decreases in the government spending directly deflate the demand for goods and services. Similarly, increases in tax rates

immediately siphon income from consumers and result in fairly rapid decreases in consumption(Bodie, Kane and Marcus, 2007)

2.1.1.2 Industry Analysis

a. Business Cycle

The economy recurrently experiences periods of expansion and contraction, although the length and depth of these cycles can be irregular. These recurring patterns of recession and recovery are called business cycles(Bodie, Kane and Marcus, 2007).

b. Government Effects

Government regulations and actions can have significant effects on industries. The investor must attempt to assess the results of these effects or, at the very least, be well aware that they exist and may continue(Jones, 2010).

c. Evaluating Future Industry Prospects

Ultimately, investors are interested in expected performance in the future. They realize that such estimates are difficult and are to be somewhat in error, but they know equity prices are a function of expected parameters, not past, known values. How, then is an investor to proceed?(Jones, 2010)

1) Assessing Longer-Term Prospects: To forecast industry performance over the longer run, investors should ask the following questions:

a) Which industries are obvious candidates for growth and prosperity over, say, the next decade?
b) Which industries appear likely to have difficulties as Laos become full membership of ASEAN Economic Community (AEC) in 2015?

2.1.1.3 Company Analysis

Fundamental analysis at the company level involves analyzing basic financial variables in order to estimate the company intrinsic value. These variables include sales, profit margins, depreciation, the tax rate, sources of financing, asset utilization, and other factors. Additional analysis could involve the firm's competitive position in its industry, labor relations, technological changes, management, foreign competition, and so on. The end result of fundamental analysis at the company level is a good understanding of the company's financial variables and an assessment of the estimated value and potential of the company (Jones, 2010).

2.1.2 The Major Financial Statements

2.1.2.1 The Income Statement

The income statement is a summary of the profitability of the firm over a period of time, such as a year. It presents revenues generated during the operating period, the expenses incurred during that same period, and the company's net earnings or profits, which are simply the difference between revenues and expenses (Bodie, Kane andMacrus, 2007).

2.1.2.2 The Balance Sheet

The balance sheet provides a ‘’snapshot’’ of the financial condition of the firm at aparticular time. The balance sheet is a list of the firm’s assets and liabilities at that moment. The different of assets and liabilities is the net worth of the firm, also called stockholders ‘equity or, equivalently, shareholders’ equity. Like income statements, balance sheets are reasonably standardized in presentation(Bodie, Kane andMacrus, 2007).

2.1.2.3 The Statement of Cash Flow

The statement of cash flows is a financial statement showing a firm’s cash receipts and cash payments during a specified period(Bodie, Kane andMacrus, 2007).

2.1.3 Financial Ratios

Ratio analyses help financial statement users to understand relationships among various items reported in the financial statements. This type of analysis compares the amounts for one or more line items to the amounts for other line items in the same year. Like common size statements, ratio analyses are useful because they consider differences in the size of the amounts being compared, which allows users to evaluate how well a company has performed given the level of its other resources. In fact, some of the most popular ratios, such as net profit margin and debt to assets ratios, are taken directly from the common size statements (Libby, Philips, andWhitecotton, 2009)

a. **Leverage ratios:**The ratio of asset to equity. Is a measure of the firm's degree of financial leverage. It is equal to 1 plus the debt/equity ratio (Bodie, Kane and Marcus, 2010)
b. **Asset utilization:** It is often helpful in understanding a firm's ratio of sales to assets to compute comparable efficiency-of-utilization, or turnover, ratios for subcategories of assets.This ratio measures sales per dollar of the firm's money tied up in fixed assets (Bodie, Kane and Marcus, 2010)
c. **Profitability Ratios: w**hich relate to the company's performance in the current period in particular, the company's ability to generate income(Libby, Philips, and Whitecotton, 2009)
d. **Liquidity Ratios**, which relate to the company's short-term survival in particular, the company's ability to use current assets to repay liabilities as they become due (Libby, Philips, and Whitecotton, 2009)

2.1.3.1 Leverage ratios

a. **Times Interest Earned:** The times interest earned ratio indicates how many times the company's interest expense was covered by its operating results. This ratio is calculated using accrual based interest expense and net income before interest and income taxes, as follows: (Libby, Philips, and Whitecotton, 2009)

$$Time\ Interest\ Earning = \frac{Net\ Income + Interest\ Expense + Income\ Tax\ Expense}{Interest\ Expense} \quad \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

2.1.3.2Asset utilization

a. **Total asset turnover:** The total asset turnover ratio indicates the effectiveness of the firm's use of its total asset base (net assets equals gross assets minus depreciation on fixed assets). It is computed as (Brown and Reilly, 2009)

$$Total\ Asset\ Turnover = \frac{Net\ Sales}{Average\ Total\ Net\ Assets} \quad \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

b. Fixed asset turnover: The net fixed asset turnover ratio reflects the firm's utilization of fixed assets. It is computed as (Brown and Reilly, 2009)

$$Fixed\ Asset\ Turnover = \frac{Net\ Sales}{Average\ Net\ Fixed\ ssets} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

C. Receivable Turnover: Our inventory measures give some indication of how fast we can sell products. We now look at how fast we collect on those sales. The receivables turnover is defined in the same way as inventory turnover (Rossp,Westerfield and Jaffe, 2010)

$$Receivablesturnover = \frac{Sales}{Accountsreceivable} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (4)$$

d. Days receivables: On average, we collect on our credit sales in 30 days. For obvious reasons, this ratio is frequently called the average collection period (ACP). Also note that if we are using the most recent figures, we can also say that we have 30 days' worth of sales currently uncollected (Rossp,Westerfield and Jaffe, 2010)

$$Days\ recievables = \frac{365\ days}{Recievables\ turnover} \quad \text{.....(5)}$$

2.1.3.3 Profitability Ratios

e. Profit Margin (Return on sales): The ratio of operating profits per dollar of sales (EBIT divided by sales) (Bodie, Kane and Marcus, 2010)

$$Profit\ Margin = \frac{EBIT}{Sales} \text{.....(6)}$$

f. Return on Asset (ROA): Return on asset, is a fundamental measure of company profitability, reflecting how effectively and efficiently its assets are used. Obviously, the higher the net income for a given a mount of assets, the better the return.(Jones,2010)

$$ROA = \frac{Net\ Income}{Sales} X \frac{Sales}{Total\ Assets}$$

$$ROA = Net\ Income\ Margin\ X\ Turnover \text{ .....(7)}$$

g. **Return on Equity (ROE):**Return on equity relates income earned to the investment made by the owners. This ratio reflects the simple fact that investors expect to earn more money if they invest more money (Libby and Short, 2011)

$$Return\ on\ equity\quad ROE\ = \frac{Net\ Income}{Average\ Stockholders'Equity} \quad \ldots\ldots\ldots(8)$$

2.1.3.2 Liquidity Ratios

a. **Current Ratio**: This ratio measures the ability of the firm to pay off its current liabilities by liquidating its current assets (that is turning them into cash). It indicates the firm's ability to avoid insolvency in the short run(Bodie, Kane and Marcus, 2007)

$$Currentratio = \frac{currentasset}{ceurrentliabilities} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(9)$$

b. **Quick Ratio:** This ratio is also called *the acid test ratio.* It has the same denominator as the current ratio, but its numerator includes only cash, cash equivalences such as marketable securities, and receivables. The quick ratio is a better measure of liquidity than the current ratio for firm whose inventory is not readily convertible into cash(Bodie, Kane andMarcus, 2007).

$$Quickratio = \frac{cash+marketable+receivables}{cerrentinliabilities} \quad \ldots\ldots\ldots\ldots\ldots\ldots (10)$$

c. **Cash Ratio:** A company's receivables are less liquid than its holdings of cash and marketable securities. Therefore, in addition to the quick ratio, analysts also compute a firm's cash ratio, defined as(Bodie, Kane and Marcus, 2007)

$$Cash\ ratio = \frac{cash+marketable\ securities}{current\ liabilities} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (11)$$

d. **Receivable Turnover:** Our inventory measures give some indication of how fast we can sell products. We now look at how fast we collect on those sales. The receivables turnover is defined in the same way as inventory turnover (Rossp, Westerfield and Jaffe, 2010).

$$Receivablesturnover = \frac{Sales}{Accountsreceivable} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (12)$$

2.1.3.4 Market Price Ratios

a. **Market–book-value ratio** (P/B): The P/B ratio equals the market price of a share of the firm'scommon stock divided by its *book value*, that is, shareholders' equity per share. A high P/B ratio is an indication that investors think a firm has opportunities of earning a rate of return on their

investment in excess of the market capitalization rate(Bodie, Kane and Marcus, 2010)

$$\frac{Pricepershare}{Bookvaluepershare}\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(13)$$

e. **Price-earning Ratios (P/E):** The price earnings ratio is the ratio of the market price per share to the earnings per share (Damodaran, 2001)

$$PE = \frac{Market\ Price\ per\ sheare}{Earning\ Price\ rer\ sheare}\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(14)$$

2.1.4 Vertical (Common size) Analysis

Vertical (common size) analysis focuses on important relationships within financial statements. When a company is growing or shrinking overall, it is difficult to tell from the dollar amounts whether the proportions within each statement category are changing. Common size financial statements provide this information by expressing each financial statement amount as a percentage of another amount on that statement. The usefulness of common size statements is illustrated by the fact that *Lowe's* presents its balance sheet and income statements in the common size (Libby, Philips, andWhitecotton, 2009)

a. **Preparing a Common Size Balance Sheet and Income Statement**

1) **In a common size balance sheet**, each asset appears as a percent of total assets, and each liability or stockholders' equity item appears as a percent of total liabilities and stockholders' equity.
2) **The common size income statement** reports each income statement item as a percentage of sales.

2.1.5 Statement of Cash Flows

So what can we do with the information in the statement of Cash flows? First, we use it for evaluating the ability of the company to manager its cash flows, and second, we use it as a check on the quality of accrual accounting earnings. We then examine a forecasted future cash flow statement to assess the reasonableness of our forecasts of their future. Finally, we use the forecasted future statements to compute the company's cash flows inputs for the Discounted Cash Flows valuation models. (Lundholm andSloan, 2003)

2.1.6 Holding Period Return (HPR)

Holding period return is the rate of return over a given investment period. The total holding period return of a shear of stock depends on the increase (or decrease) in the price of share over the investment period as well as on any dividend income the share has provided. (Bodie, Kane and Marcus, 2008)

$$HPR = \frac{Ending\ price - Beginning\ price + Cash\ dividend}{Beginning\ price} \quad \text{.....(15)}$$

This definition of the HPR assumes that the dividend is paid, the end of the holding period. To the extent that dividends are received earlier, the definition ignores reinvestment income between the receipt of the dividend and the end of holding period. Recall also that the percentage return from dividends is called the *dividend yield*, and so the dividend yield plus the capital gains yield equals the HPR.

2.1.7 Risk and Return

a. **Return** is the moving force in the investment process. It is the reward for the undertaking the investment. Return on a typical investment consists of two components such as: ***Yield,*** it is the income component of a security's return, and ***Capital Gain (Loss),***it is the change in price on a security over some period of time. (Jones, 2010)

Add these two components together (algebraically) to from the total return:

Total return = Yield + Price change

Where:

The yield component can be 0 or +

The price change component can be 0, +, or –

The total (TR) for a given holding period is a decimal or percentage number relating all the cash flows received by an investor during any designated time period to the purchase price of asset. The general equation for calculating TR is:

$$TR = \frac{CF_t + (P_E - P_B)}{P_B} = \frac{CF_t + PC}{P_B} \quad \text{.....(16)}$$

Where:

CF_T= *Cash flow the measurement period*

$P_E = Price\ of\ the\ end\ of\ period\ t\ or\ sale\ price$

$P_B = Purchase\ price\ of\ the\ asset\ or\ price\ at\ the\ beginning\ of\ the\ period$

PC = Change in price during the period, or P_E *minus* P_B

b. Risk: is often associated with the dispersion in the likely outcomes. Dispersion refers to variability. Risk is assumed to arise out of variability, which is consistent with our definition of *risk as the chance that the actual outcome of an investment will differ from the expected outcome (return)*. It an asset's return has no variability, in effect is has no risk(Jones, 2010)

1) Variance and Standard Deviation

The risk of financial assets can be measured with an absolute measure of dispersion, or variability of returns, called the variance. An equivalent measure of total risk is the square root of the variance, the standard deviation, which measure of the deviation of each observation from the arithmetic mean of the observations and is a reliable measure of variability because all the information in a sample is used. The symbol σ^2 is used to denote the variance, and σ to denote the standard deviation.

The standard deviation is a measure of the total risk of an asset or a portfolio. It captures the total variability in the asset's or portfolio's return whatever the source of that variability. The standard deviation can be calculated from the variance, which is calculated as (Jones, 2010)

$$\sigma^2 = \frac{\sum_{i=1}^{n}(X-\bar{X})^2}{n-1} \quad \text{.....(17)}$$

Where:

$\sigma^2 = The\ variance\ of\ a\ set\ of\ values$

X = each value in the set

$\bar{X} = The\ mean\ of\ the\ observations$

n = the number of returns in the sample

$\sigma = (\sqrt{\sigma^2})$ *= standard deviation*

2.1.8 Free Cash Flow

Free cash flow measures a company's ability to make capital investments and pay dividends from its operating cash flows (Libby, Philips, andWhitecotton, 2009)

$$Free\ Cash\ Flow = Net\ Cash\ Flow\ from\ Operting\ Activities - Purchases\ of\ Property\ and\ Equipment - Dividends\ Paid \quad \text{.....(18)}$$

The cash flow actually available for distribution to all investors (stockholder and debt holders) after the company has made all the investments in fixed assets, new

products, and working capital necessary to sustain ongoing operations(Brigham andHouston, 2004:55)

a. Calculating Free Cash Flow as follows

1) *Operating cash flow* =Net Operating Profit After Taxes (*NOPAT)*

+*Depreciation* ……..(19)

2) *Gross investment in operating capital = Net investment +Depreciation* (20)

From the following calculation, we can define free cash flow as follows:

FCF = Operating cash flow – Gross investment in operating capital….(21)

If we subtract depreciation from both operating cash flow and gross investment in operating capital in Equation (21), we obtain the following algebraically equivalent expression for free cash flow:

FCF = NOPAT – Net investment in operating capital …… (22)

2.1.9 Approaches to the Valuation of Common Stock

Because of the complexity and importance of valuing common stock, various valuation techniques have been devised over time. These techniques fall into one of two general approaches:

a. The discounted cash flow valuation techniques, where the value of the stock is estimated based upon the present value of some measure of cash flow including dividends, operating cash flow, and free cash flow.
b. The relative valuation techniques, where the value of stock estimated based upon its current price relative to variable considered to be significant to valuation, such as earnings, cash flow, book value, or sales.

An important point is that both these approaches and all of these valuationtechniques have several common stocks factors. First, all of them significantly affected by the investor's required rate of return on the stock because this rate becomes the discount rate or is a major component of the discount rate. Second, all valuation approaches are affected by the estimated growth rate of the variable used in the valuation technique (Brown and Reilly, 2009)

2.1.10 Discounted Cash flow Model

The classic model method of calculating the estimated value of any security is the discounted cash flow (DCF) model, which involves a present value analysis. This technique estimates the value of the security by discounting its expected future cash flow back to the present and adding them together. That is, the estimated value of the security is equal to the discounted (present) value of the future stream of cash flow that and investors expect to receive from the security, as shown in Equation as following:

$$Estimated\ value\ V_0 = \sum_{t=1}^{n} \frac{Expected\ cash\ flows}{(1+k)^t} \quad \text{.....(23)}$$

Where

k= the appropriate discount rate.

To use such a model, an investor must:

a. Estimate the amount and timing of the future cash flows.
b. Estimate and appropriate discount rate.
c. Use these to components in a present model to estimates the value of the security, which is them to the compared to the current market price of the security. This value is often called the *intrinsic value* of the stock, which we denote as V_0(Jones, 2010).

2.1.11DiscountedCash Flow Approaches

a. Free Cash flows to Equity

Free cash flow to equity (FCFE) is defined as the cash flow remaining after interest and principle repayments on debt have been made and capital expenditures provided for (both to maintain existing asset and provide for new asset needed for growth(Jones, 2010). It can be calculate as:

FCFE = Net Income + Depreciation – Debt Repayments – Capital Expenditures – the Change in Working Capital + Net Debt Issues……...(24)

To implement this model for a firm whose cash flows are growing at a stable rate, an analysts or investor could apply the constant growth format discussed with the DDM. This results in the following equation:

$$V_0 = \frac{Expected\ FCFE}{k-g} \quad \text{.....(25)}$$

Where:

g = expected constant growth rate in FCFE for a company

k = cost of equity capital for the company

b. Free cash flow to the firm

The free cashflow to the firm is the sum of the cashflows to all claim holders inthe firm, including stockholders, bondholders and preferred stockholders. There are twoways of measuring the free cash flow to the firm (FCFF).One is to add up the cashflows to the claim holders, which would include cashflows to equity (defined either as free cash flow to equity or dividends), cash flows tolenders (which would include principal payments, interest expenses and new debt issues)and cash flows to preferred stockholders (usually preferred dividends)

FCFF = FCFE + Interest Expense (1 - tax rate) + Principal Repayments - New Debt Issues + Preferred Dividend…….(26)

Note, however, that we are reversing the process that we used to get to free cash flow toequity, where we subtracted out payments to lenders and

preferred stockholders toestimate the cash flow left for stockholders. A simpler way of getting to free cash flow tothe firm is to estimate the cash flows prior to any of these claims. Thus, we could beginwith the earnings before interest and taxes, net out taxes and reinvestment needs andarrive at an estimate of the free cash flow to the firm.

$$FCFF = EBIT\ (1 - tax\ rate) + Depreciation - Capital\ Expenditure - \Delta\ Working\ Capital \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (27)$$

Since this cash flow is prior to debt payments, it is often referred to as an unlevered cashflow. Note that this free cash flow to the firm does not incorporate any of the tax benefitsdue to interest payments. This is by design, because the use of the after-tax cost of debtin the cost of capital already considers this benefit and including it in the cash flowswould double count it (Damodaran, 2001)

2.1.12 Intrinsic Value

The traditional of intrinsic value emphasizes the role of fact: the value which is justified by assets, earnings, dividends, definite prospects, and the factor of management (Graham, Benjamin and Dodd's 1989)

2.1.13 Intrinsic Value and Market Price

The end objective of a discounted cash flow technique is an estimate of intrinsic value (IV). Again, it is simply the estimated value of the stock today, derived

from estimating and discounting the future cash flow for a stock. Traditionally, investors and analyst specify a relationship between the intrinsic value (which we shall call IV) of and asset and is current stock price, CMP. Specifically:

a. If IV> CMP, the asset is the undervalue and should be purchased or held if already owned.
b. If IV< CMP, the asset to overvalued and sold be avoided, sold if held, or possibly sold short.
c. If IV=CMP, this implies an equilibrium in that the asset is correctly valued. Security analysis has traditional been thought of as the search for undervalued or over valued stocks. To do this, one can calculate the estimated or intrinsic value of the stock and compare this value to the current market price of the stock. Most investors believe that stocks are always priced at their intrinsic values, thereby leading to buy and sell opportunities(Jones, 2010)

2.1.14 Time Series Model

A time series is a set of observations on the values that a variable takes at different times. Such data may be collected at regular time intervals, such as daily (e.g., stock prices, weather reports), weekly (e.g., money supply figures), monthly [e.g., the unemployment rate, the Consumer Price Index (CPI)], quarterly (e.g., GDP), annually (e.g., government budgets), that is every 5 years (e.g., the census of

manufactures), or decennially (e.g., the census of population). Sometime data are available both quarterly as well as annually, as in the case of the data on GDP and consumer expenditure (Gujarati, 2003)

2.2 Literature Review

Khan and Zuberi (1999). Being considered as bed-rock of security analyzing investment, fundamental analysis plays an extremely crucial role to analysts. This is top-ranking and indispensable method in share analyzing investment. Hence, this can be a fairly solid base, on which we can make investing decisions effectively. There are approximately 90% investors using fundamental analysis.

Warrant Edward Buffett, who made most of money from investment; he is an excellent example of successful people of fundamental analysis. His analysis focused on the simplicity of the business, the consistency of its operating history, the attractiveness of its long-term prospects, the quality of management, and the firm's capacity to create value (Banchuenvijit, 2008)

The main goal of fundamental analysis is identifying the weaknesses of the market during the formation of market share price, through elaborating the amount of deviation of the market price of shares relative to the real-intrinsic value of shares. Fundamental analysis research has involved testing the ability of fundamental signals to predict either future earnings or stock returns. In addition, it tests for other

contextual factors such as the state of the economy or industry that may affect the prediction of future earnings or stock returns (Seng, 2011)

Richardson (2006), fundamental analysis is based upon constructing high-quality estimates of the parameters in the valuation model, which can be written in the following three mathematically equivalent forms: the discounted dividend model, the free cash flow model, and the residual income model. Fundamental analysis involves the use of current and past financial statements in conjunction with industry and economic data in order to determine firms' intrinsic value and identify mispriced securities (Kothari, 2011)

Galyadkina, Gerasimova andBykovsky (2011) the factors will be analyzed, which should be taken into account on every step while carrying out the fundamental analysis of a company, and also look at the steps of potential investor, who wants to create an attractive portfolio of stocks. Scientists usually highlight two basic approaches of the way of carrying out fundamental analysis: traditional "Top-Down Approach to Investing" and alternative "Bottom-Up Approach to Investing". Traditional approach starts with macroeconomic analysis, continues with the analysis of the branch of the economy and finishes with the analysis of a company performance. Contrary to it, an alternative analysis means starting from the micro level and finishing with the analysis of economic situation in the country.

Fundamental question in accounting is the relative ability of accrual-based earnings and cash flows to predict a firm's ability to generate future cash flows by K.R Subramanyam and Venkatachalam (2007), contribute to this important debate by examining the relative ability of earnings and cash flows in explaining ex post intrinsic value of equity. They determine ex post intrinsic values using the dividend discount model.

Kim and Doyoun (2010) was determine the intrinsic value by used Discount Cash Flow model and free cash flows of the firm were projected and discounted to the present value at the decent discount rate calculated through cost of capital. By adding up discounted free cash flows, the firm value of Jinro was reckoned, and by subtracting debt amount, the value of equity portion was gathered. Through dividing the equity value by the number of outstanding share, the final intrinsic value of each share was determined. This paper examines how well the Firm-Foundation Theory predicts the price.

Goodman, Neamtiu and Zhang (2011), they investigate whether fundamental accounting signals can predict extreme stock price movements and whether such information is appropriately priced by the option market. Elleuch (2009), he examine whether a simple fundamental analysis strategy based on historical accounting information can predict stock returns. His goal is to that simple screens based on historical financial signals can shift the distribution of return earned by an investment

by separating eventual winner stock from losers. Results show that historical accounting signals can be used to improve the entire distribution of future returns earned by an investor.

Seng and Hancook (2011). They investigate how detailed financial statement data enter the decision of market makers by examining how current changes in the fundamental signals chosen can provide information on subsequent earnings changes. They extend the body of research using fundamental signals for predict future of earning change. The result shown that detail of finance signal has relationship for the prediction of earning and stock return. Fundamental signals are significant predictor of both short and long-term future earnings change.

Garood and Rees (1999) used the four fundamental variables of stockholders rights, net income, dividend, and stock price to explain and forecast changes in incomes. The variables that were compared with rights of stockholders showed considerable potential to explain the changes in the net incomes of next two years. Fundamental analysis can be regarded as one of the effective tools to predict changes in stock price (Sarikhani andZEbrahimi, 2011).

Sarikhani and Ebrahimi (2011),the use of fundamental analysis can be regarded as one of the effective tools to predict changes in stock prices. The residual income model is considered among the effective models for fundamental analysis. His purpose of this study is to predict stock prices by such a model. Therefore a

sample of 87 companies listed on the Tehran Stock Exchange was selected, and the results of this study indicate the potential of this model. They showed a significant relationship between the current stock price and calculated price by use of a residual income model and the book value of stock. Furthermore, it can be concluded that in predicting stock prices, the ratio of the price calculated by the residual income model to the current stock price is more appropriate, in comparison to the ratio of the book value to the current price of stock.