



International School of Financial Markets

Fundamental Analysis – An Overview

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FUNDAMENTAL ANALYSIS

The intrinsic value of an equity share depends on a multitude of factors. The earnings of the company, the growth rate and the risk exposure of the company have a direct bearing on the price of the share. The fundamental school of thought appraised the intrinsic value of shares through.

- Economic Analysis
- Industry Analysis
- Company Analysis

ECONOMIC ANALYSIS

The level of economic activity has an impact on investment in many ways. If the economy grows rapidly, the industry can also be expected to show rapid growth and vice versa. When the level of economic activity is low, stock prices are low, and when the level of economic activity is high, stock prices are high reflecting the prosperous outlook for sales and profits of the firms. The analysis of macro economic environment is essential to understand the behaviour of the stock prices. The commonly analysed macro economic factors are as follows.

GROSS DOMESTIC PRODUCT (GDP) - GDP indicates the rate of growth of the economy. GDP represents the aggregate value of the goods and services produced in the economy. GDP consists of personal consumption expenditure, gross private domestic investment and government expenditure on goods and services and net export of goods and services. The estimates of GDP are available on an annual basis. The rate of growth of GDP is around 6% in the nineties. The GDP growth in 1998-99 has accelerated to 5.8 percent compared to 5 per cent of the previous year. The growth rate of economy points out the prospects for the industrial sector and the return investors can expect from investment in shares. The higher growth rate is more favourable to the stock market.

SAVINGS AND INVESTMENT It is obvious that growth requires investment which in turn requires substantial amount of domestic savings. Stock market is a channel through which the savings of the investors are made available to the corporate bodies. Savings are distributed over various assets like equity shares, deposits, mutual fund units, real estate and bullion. The saving and investment patterns of the public affect the stock to a great extent.

INFLATION - Along with the growth of GDP, if the inflation rate also increases, then the real rate of growth would be very little. The demand in the consumer product industry is significantly affected. The industries which come under the government price control policy may lose the market, for example Sugar. The government control over this industry, affects the price of the sugar and thereby the profitability of the industry itself. If there is a mild level of inflation, it is good to the stock market but high rate of inflation is harmful to the stock market.

INTEREST RATES – The interest rate affects the cost of financing to the firms. A decrease in interest rate implies lower cost of finance for firms and more profitability. More money is available at a lower interest rate for the brokers who are doing business with borrowed money.

BUDGET – The budget draft provides an elaborate account of the government revenues and expenditures. A deficit budget may lead to high rate of inflation and adversely affect the cost of production. Surplus budget may result in deflation. Hence, balanced budget is highly favourable to the stock market.

THE TAX STRUCTURE – Every year in March, the business community eagerly awaits the Government's announcement regarding the tax policy. Concessions and incentives given to a certain industry encourages investment in that particular industry. Tax reliefs given to savings encourage savings. The minimum Alternative Tax (MAT) levied by the Finance Minister in 1996 adversely affected the stock market. Ten type of tax exemption has impact on the profitability of the industries.

THE BALANCE OF PAYMENT – The balance of payment is the record of a country's money receipts from and payments abroad. The difference between receipts and payments may be surplus or deficit. Balance of payment is a measure of the strength of rupee on external account. If the deficit increases, the rupee may depreciate against other currencies, thereby, affecting the cost of imports. The industries involved in the export and import are considerably affected by the changes in foreign exchange rate. The volatility of the foreign exchange rate affects the investment of the foreign institutional investors in the Indian stock market. A favourable balance of payment renders a positive effect on the stock market.

MONSOON AND AGRICULTURE – Agriculture is directly and indirectly linked with the industries. For example, Sugar, Cotton, Textile and Food processing industries depend upon agriculture for raw-material. Fertilizer and insecticide industries are supplying inputs to the agriculture. A good monsoon leads to higher demand for input and results in bumper crop. This would lead to buoyancy in the stock market. When the monsoon is bad, agricultural and hydel power production would suffer. They cast a shadow on the share market.

INFRASTRUCTURE FACILITIES – Infrastructure facilities are essential for the growth of industrial and agricultural sector. A wide net work of communication system is a must for the growth of the economy. Regular supply of power without any power cut would boost the production. Banking and financial sectors also should be sound enough to provide adequate support to the industry and agriculture. Good infrastructure facilities affect the stock market favourably. In India even though infrastructure facilities have been developed, still they are not adequate. The government has liberalized its policy regarding the communication, transport and power sector. For example, power sector has been opened up to the foreign investors with assured rates of returns.

DEMOGRAPHIC FACTORS – The demographic data provides details about the population by age, occupation, literacy and geographic location. This is needed to forecast the demand for the consumer goods. The population by age indicates the availability of able work force.

ECONOMIC FORECASTING

To estimate the stock price changes, an analyst has to analyse the macro economic environment and the factors peculiar to the industry he is concerned with. The economic activities affect the corporate profits, investors, attitude and the share prices. Fall in the GDP or a slackness in the economic growth may lead to fall in corporate profit and consequently the security prices. For the purpose of economic analysis, an analyst should be familiar with the forecasting techniques. He should know the advantages and disadvantages of various techniques. The common techniques used are analysis of key economic indicators, diffusion index, surveys and econometric model building. These techniques help him to decide the right time to invest and the type of security he has to purchase i.e. stocks or bonds or some combination of stocks and bonds.

ECONOMIC INDICATORS – The economic indicators are factors that indicate the present status, progress or slow down of the economy. They are capital investment, business profits, money supply, GNP, interest rate, unemployment rate, etc. The economic indicators are grouped into leading, coincidental and lagging indicators. The indicators are selected on the following criteria.

- Economic significance
- Statistical adequacy
- Timing
- Conformity

DIFFUSION INDEX – Diffusion index is a composite or consensus index. The diffusion index consists of leading, coincidental and lagging indicators. This type of index has been constructed by the National Bureau of economic Research in USA. But the diffusion index is complex in nature to calculate and the irregular movements that occur in individual indicators cannot be completely eliminated.

ECONOMETRIC MODEL BUILDING – For model building several economic variables are taken into consideration. The assumptions underlying the analysis are specified. The relationship between the independent and dependent variables is given mathematically. While using the model, the analyst has to think clearly all the inter-relationships are specified, he can forecast not only the direction but also the magnitude. But his prediction depends on his understanding of economic theory and the assumption on which the model has been built. The models mostly use simultaneous equations.

INDUSTRY ANALYSIS

An industry is a group of firms that have similar technological structure of production and produce similar products. For the convenience of the investors, the broad classification of the industry is given in financial dailies and magazines. Companies are distinctly classified to give a clear picture about their manufacturing process and products. The table 12.4 gives the industry wise classification given in Reserve Bank of INDIA Bulletin.

S No.	INDUSTRIES
1.	Food products
2.	Beverages, Tobacco and Tobacco products
3.	Textiles
4.	Wood and wood products
5.	Leather and leather products
6.	Rubber and plastic products
7.	Chemical and chemical products
8.	Non-metallic mineral products
9.	Basic metals, Alloys and metal products
10.	Machinery and Machine tools
11.	Transport equipment and parts
12.	Other Miscellaneous manufacturing industries

These industries can be classified on the basis of the business cycle i.e. classified according to their reactions to the different phases of the business cycle. They are classified into growth, cyclical, defensive and cyclical growth industry.

GROWTH INDUSTRY – The growth industries have special features of high rate of earnings and growth in expansion, independent of the business cycle.

CYCLICAL INDUSTRY – The growth and the profitability of the industry move along with the business cycle. During the boom period they enjoy growth and during depression they suffer a set back. For example, the white goods like fridge, washing machine and kitchen range products command a good market in the boom period and the demand for them slackens during the recession.

DEFENSIVE INDUSTRY – Defensive industry defies the movement of the business cycle. For example, food and shelter are the basic requirements of humanity. The food industry withstands recession and depression.

CYCLICAL GROWTH INDUSTRY – This is a new type of industry that is cyclical and at the same time growing. For example, the automobile industry experiences periods of stagnation, decline but they grow tremendously. The changes in technology and introduction of new models help the automobile industry to resume their growth path.

INDUSTRY LIFE CYCLE – The industry life cycle theory is generally attributed to Julius Grodensky. The life cycle of the industry is separated into four well defined stages such as

- Pioneering stage
- Rapid growth stage
- Maturity and stabilization stage
- Declining stage

PIONEERING STAGE – The prospective demand for the product is promising in this stage and the technology of the product is low. The demand for the product attracts many producers to produce the particular product.

RAPID GROWTH STAGE - This stage starts with the appearance of surviving firms from the pioneering stage. The companies that have withstood the competition grow strongly in market share and financial performance.

MATURITY AND STABILISATION STAGE – In the stabilization stage, the growth rate tends to moderate and the rate of growth would be more or less equal to the industrial growth rate or the gross domestic product growth rate.

DECLINING STAGE – In this stage, demand for the particular product and the earnings of the companies in the industry decline. Now-a-days very few consumers demand black and white T.V. Innovation of new products and changes in consumer preferences lead to this stage. The specific feature of the declining stage is that even in the boom period, the growth of the industry would even in the boom period. Investment in the shares of these types of companies leads to erosion of capital.

FACTORS TO BE CONSIDERED – Apart from industry life cycle analysis, the investor has to analyse some other factors too. They are as listed below

- Growth of the industry
- Cost structure and profitability
- Nature of the product
- Nature of the competition
- Government policy
- Labour
- Research and development

GROWTH OF THE INDUSTRY – The historical performance of the industry in terms of growth and profitability should be analysed. Industry wise growth is published periodically by the Centre for Monitoring Indian Economy.

COST STRUCTURE AND PROFITABILITY – The cost structure, that is the fixed and variable cost, affects the cost of production and profitability of the firm.

NATURE OF THE PRODUCT – The products produced by the industries are demanded by the consumers and other industries.

NATURE OF THE COMPETITION – Nature of competition is an essential factor that determines the demand for the particular product, its profitability and the price of the concerned company scrips.

GOVERNMENT POLICY – The government policies affect the very nerve of the industry and the effects differ from industry to industry. Tax subsidies and tax holidays are provided for export oriented products. Government regulates the size of the production and the pricing of certain products. The sugar, fertilizer and pharmaceutical industry are often affected by the inconsistent government policies. Control and decontrol of sugar price affect the profitability of the sugar industry. In some cases entry barriers are placed by the government. In the airways, private corporates are permitted to operate the domestic flights only. When selecting an industry, the government policy regarding the particular industry should be carefully evaluated. Liberalisation and delicensing have brought immense threat to the existing domestic industries in several sectors.

LABOUR – The analysis of labour scenario in a particular industry is of great importance. The number of trade unions and their operating mode have impact on the labour productivity and modernization of the industry. Textile industry is known for its militant trade unions. If the trade unions are strong and strikes occur frequently, it would lead to fall in the production.

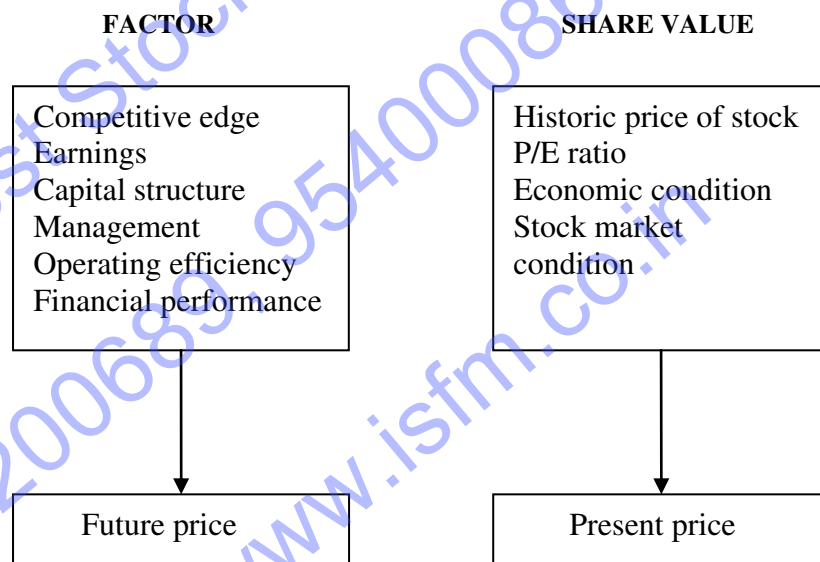
RESEARCH AND DEVELOPMENT – For any industry to survive the competition in the national and international markets, product and production process have to be technically competitive. This depends on the R&D in the particular company or industry.

POLLUTION STANDARDS – Pollution standards are very high and strict in the industrial sector. For some industries it may be heavier than others; for example, in leather, chemical and pharmaceutical industries the industrial effluents are more.

SWOT ANALYSIS – The above mentioned factors themselves would become strength, weakness, opportunity and threat (SWOT) for the industry. Hence, the investor should carry out a SWOT analysis for the chosen industry. Take for instance, increase in demand for the industry's product becomes its strength, presence of numerous players in the market, i.e. competition becomes the threat to a particular company in the respective industry. The progress in the research and development in that particular industry is an opportunity and entry of multinationals in the industry and cheap imports of the particular products are threat to that industry. In this way the factors have to be arranged and analysed. To make the industry analysis more explanatory it has been carried out on the pharmaceutical industry and SWOT analysis results are also given.

COMPANY ANALYSIS

In the company analysis the investor assimilates the several bits of information related to the company and evaluates the present and future values of the stock. The risk and return associated with the purchase of the stock is analysed to take better investment decisions. The valuation process depends upon the investor's ability to elicit information from the relationship and inter-relationship among the company related variables. The present and future values are affected by a number of factors.



THE COMPETITIVE EDGE OF THE COMPANY – Major industries in India are composed of hundreds of individual companies. In the information technology industry even though the number of companies is large, few companies like Tata Infotech, Satyam computers, Infosys, NIIT etc. , control the major market share. The competitiveness of the company can be studied with the help of

- The market share
- The growth of annual sales
- The stability of annual sales

THE MARKET SHARE - The market share of the annual sale helps to determine a company's relative competitive position within the industry. If the market share is high, the company would be able to meet the competition successfully.

GROWTH OF SALES – The Company may be a leading company, but if the growth in sales is comparatively lower than another company, it indicates the possibility of the company losing the leadership. The rapid growth in sales would keep the shareholder in a better position than one with the stagnant growth rate.

STABILITY OF SALES – If a firm has stable sales revenue, other things being remaining constant, will have more stable earnings. Wide variation in sales leads to variations in capacity utilization, financial planning and dividend.

EARNINGS OF THE COMPANY- Sales alone do not increase the earnings but the costs and expenses of the company also influence the earnings of the company. Further, earnings do not always increase with the increase in sales. The company's sales might have increased but its earnings per share may decline due to the rise in costs. The rate of change in earnings differs from the rate of change of sales. Sales may increase by 10% in a company but earnings per share may increase only by 5%. Even though there is a relationship between sales and earnings, it is not a perfect one. Sometimes, the volume of sales may decline but the earnings may improve due to the rise in the unit price of the article. Hence, the investor should not depend only on the sales, but should analyse the earnings of the company.

MANAGEMENT - Good and capable management generates profit to the investors. The management of the firm should efficiently plan, organize, actuate and control the activities of the company. The basic objective of management is to attain the stated objectives of company for the good of the equity holders, the public and the employees. If the objectives of the company are achieved, investors will have a profit. A management that ignores profit does more harm to the investors than one that over emphasises it.

FINANCIAL ANALYSIS

The best source of financial information about a company is its own financial statements. This is primary source of information for evaluating the investment prospects in the particular company's stock. Financial statement analysis is the study of a company's financial statement from various viewpoints. The statement gives the historical and current information about the company's operations. Historical financial statement helps to predict the future. The two main statements used in the analysis are:

- Balance sheet
- Profit and loss account

THE BALANCE SHEET

The balance sheet shows all the company's sources of fund (liabilities and stockholder's equity) and uses of funds at a given point of time. The balance sheet can either be in the horizontal form or vertical form.

THE PROFIT AND LOSS ACCOUNT

Analysis of the financial condition of the company requires a report on the flow of funds too. The income statement reports the flow of funds from business operations that take place in between two points of time. It lists down the items of income and expenditure. The difference between the income and expenditure represents profit or loss for the period. It is also called income and expenditure statement.

ANALYSIS OF FINANCIAL STATEMENTS

The analysis of financial statements reveals the nature of relationship between income and expenditure, and the sources and application of funds. The investor determines the financial position and the progress of the company through analysis. The investor is interested in the yield and safety of his capital. He cares much about the profitability and the management's policy regarding the dividend. Towards this end, he can use the following simple analysis:

- Comparative financial statements
- Trend analysis
- Common size statements
- Fund flow analysis
- Cash flow analysis
- Ratio analysis

COMPARATIVE FINANCIAL STATEMENT – In the comparative statement balance sheet figures are provided for more than one year. The comparative financial statement provides time perspective to the balance sheet figures. The annual data are compared with similar data of previous years, either in absolute terms or in percentages.

TREND ANALYSIS – Here percentages are calculated with a base year. This would provide insight into the growth or decline of the sale or profit over the years. Sometimes sales may be increasing continuously, and the inventories may also be rising. This would indicate the loss of market share of the particular company's product. Likewise sales may have an increasing trend but profits may remain the same. Here the investor has to look in the cost and management efficiency of the company.

COMMON SIZE STATEMENT – Common size balance sheet shows the percentage of each asset item to the total assets and each liability item to the total liabilities. Similarly, a common size income statement shows each item of expense as a percentage of net sales. With common size statement comparison can be made between two different size firms belonging to the same industry. For a same company over the years common size statement can be prepared.

FUND FLOW ANALYSIS – The balance sheet gives a static picture of the company's position on a particular date. It does not reveal the changes that have occurred in the financial position of the unit over a period of time. The investor should know,

1. How are the profits utilized?
2. Financial source of dividend
3. Source of finance for capital expenditures
4. Source of finance for repayment of debt
5. The destiny of the sale proceeds of the fixed assets and
6. Use of the proceeds of the share or debenture issue or fixed deposits raised from public.

These items of information are provided in the funds flow statement. It is a statement of the sources and applications of funds. It highlights the changes in the financial condition of a business enterprise between two balance sheet dates. The investor could see clearly the amount of funds generated or lost in operations. He could see how these funds have been divided into three significant uses like taxes, dividends and reserves. Moreover, the application of long term funds towards the acquisition of current assets can be found out. This would reveal the real picture of the financial position of the company.

CASH FLOW STATEMENT – The investor is interested in knowing the cash inflow and outflow of the enterprise. The cash flow statement is prepared with the help of balance sheet, income statement and some additional information. It can be either prepared in the vertical form or in the horizontal form. Cash flows related to operations and other transactions are calculated. The statement shows the causes of changes in cash balance between two balance sheet dates. With the help of this statement the investor can review the cash movements over an operating cycle. The factors responsible for the reduction of cash balance in spite of increase in profits or vice versa can be found out

RATIO ANALYSIS – Ratio is a relationship between two figures expressed mathematically. Financial ratio provides numerical relationship between two relevant financial data. Financial ratios are calculated from the balance sheet and profit and loss account. The relationship can be either expressed as a percent or as a quotient. Ratios summarize the data for easy understanding, comparison and interpretation. Financial ratios may be divided into six groups. They are listed below:

- Liquidity Ratios
- Turnover Ratios
- Leverage Ratios
- Profit Margin Ratios
- Return on Investment Ratios
- Valuation Ratios

LIQUIDITY RATIO

Liquidity means the ability of the firm to meet its short term obligations. Current ratio and acid test ratio are the most popular ratios used to analyse the liquidity. The liquidity ratio indicates the liquidity in a rough fashion and the adequacy of the working capital. The ratios for the Sky Ltd. is given below:

$$\begin{aligned} \text{Current ratio} &= \frac{\text{Current Assets}}{\text{Current Liabilities}} \\ &= \frac{95825}{49000} = 1.96:1 \end{aligned}$$

$$\begin{aligned} \text{Acid test ratio} &= \frac{\text{Current assets} - \text{Investments}}{\text{Current liabilities}} \\ &= \frac{51825}{49000} = 1.06:1 \end{aligned}$$

TURNOVER RATIOS

The turnover ratios show how well the assets are used and the extent of excess inventory, if any. These ratios are also known as activity ratios or asset management ratios. Commonly calculated ratios are sales to current assets, sales to fixed assets, sales to inventory, receivable to sales and total assets to turnover. Each ratio has a specific application. Sales to current asset ratio shows the utilization of the current assets and sales to fixed asset ratio indicates the fixed asset utilization. The sales to inventory ratio reflects the inventory management. The receivable to sales gives a view of the receivable management. The values of the calculated ratios for the Sky Ltd. Company are given below:

$$\text{Inventory turnover ratio} = \frac{\text{Net Sales}}{\text{Inventory}} = \frac{240000}{44000} = 5.45 : \text{times}$$

$$\text{Receivables turnover ratio} = \frac{\text{Net Sales}}{\text{Receivables}} = \frac{240000}{33025} = 7.27 : \text{times}$$

$$\text{Fixed asset turnover ratio} = \frac{\text{Net Sales}}{\text{Fixed asset}} = \frac{240000}{120000} = 2.1 \text{ times}$$

$$\text{Total assets turnover ratio} = \frac{\text{Net Sales}}{\text{Total assets}} = \frac{240000}{215825} = 1.1 \text{ times}$$

THE LEVERAGE RATIOS - The investors are generally interested to find out the debt portion of the capital. The debt affects the dividend payment because of the outflow of profit in the form of interests.

The financial leverage affects the risk and return aspects of holding the shares. The total debt to total assets ratio indicates the percentage of borrowed funds in the firms' assets.

$$\text{Debt to asset ratio} = \frac{\text{Total debt}}{\text{Total assets}}$$

INTEREST COVERAGE RATIO

This shows how many times the operating income covers the interest payment.

$$\text{Interest coverage ratio} = \frac{\text{E B I T}}{\text{Interest}}$$

PROFITABILITY RATIO

Profitability ratios relate the firm's profit with factors that generate the profits. The investor is very particular in knowing net profit to sales, net profit to total assets and net profit to equity. The profitability ratios measure the overall efficiency of the firm.

NET PROFIT MARGIN RATIO – This ratio indicates the net profit per rupee of sales revenue.

$$\text{Net Profit Margin} = \frac{\text{P A T}}{\text{Sales}}$$

RETURN ON ASSETS – The return on asset measures the overall efficiency of capital invested in business.

$$\text{Return on assets} = \frac{\text{Net income}}{\text{Total assets}}$$

RETURN ON EQUITY – Here, the net profit is related to the firm's capital.

$$\text{Return on equity} = \frac{\text{Net Profit}}{\text{Net worth}}$$

VALUATION RATIOS - The shareholders are interested in assessing the value of the shares. The value of the share depends on the performance of the firm and the market factors. The performance of the firm in turn depends on a host of factors. Hence, the valuation ratios provide a comprehensive measure of the performance of the firm itself. In the subsequent section, some of the valuation ratios are dealt in detail.

BOOK VALUE PER SHARE – This ratio indicates the share of equity shareholders after the company has paid all its liabilities, creditors, debenture holders and preference shareholders. At the time of liquidation, the shareholder can know what remains after making all the payments. In ordinary time also it helps the shareholder to find out his real position in the company.

$$\text{Book value per share} = \frac{\text{Equity share capital} + \text{Reserve}}{\text{Total number of equity shares outstanding}}$$

OR

$$\begin{aligned}
&= \frac{\text{Networth} - \text{Preference share capital}}{\text{Total number of equity shares outstanding}} \\
&= \frac{50000 \text{ (Rs in lakhs)}}{2000 \text{ (numbers in lakhs)}} \\
&= \text{Rs } 25
\end{aligned}$$

Here, the book value of the share is 2.5 times higher than its par value of Rs 10. When the book value of the share is higher than the par value, it is a healthy sign. The profits and accumulated reserves lead to high book value. Book value may be less for firms having long gestation period and when there are accumulated losses.

When the book value of the share is high, companies may issue bonus shares to the existing shareholders out of the reserves. Right issues also can bring down the book value of the share.

DIVIDEND TO MARKET PRICE – Dividend is the regular income received by the shareholder. The shareholder would like to know the relationship between the market price and the dividend. Suppose “A” company pays Rs 4 per share and the market value is Rs 50. Then

$$\begin{aligned}
\text{Dividend yield} &= \frac{\text{Dividend per share}}{\text{Market price per share}} \times 100 \\
&= \frac{4}{50} \times 100 = 8\%
\end{aligned}$$

Even though the “A” company provides 40 percent dividend its actual yield is low because of the high market price. Whenever companies plough back their profits to settle the loans or for expansion program, the yield would be low. At the same time, if the company distributes profits to shareholders the yield may be high. This may not be a proper indicator. The earnings per share is treated as a better guide in investment decisions.

EARNINGS PER SHARE – Earnings per share is the earnings after tax divided by the number of common shares outstanding.

$$\text{EPS} = \frac{\text{EAT}}{\text{Number of shares outstanding}}$$

Lerner and Carleton have given a model for the EPS.

$$\text{EPS} = \frac{(1 - T) [R + (R - I) L / E] E}{\text{Number of common shares outstanding}}$$

EPS - Earnings per share

- T - Effective tax rate (Tax exposure / EBT)
- R - Before tax return on assets (EBIT/A)
- I - Effective interest rate (Interest expense / liabilities)
- L - Total liabilities
- E - Equity

The model gives a comprehensive outlook of the earnings per share. According to the model the earnings per share is affected by the following factors.

1. Utilisation of assets in the company

2. Margin on sales
3. Effective cost of the borrowed funds
4. Debt-equity ratio
5. Equity base of the company
6. Effective tax rate paid by the company

GROWTH IN EARNINGS – Further, the growth in earnings also influences the value of the stock. The growth in earnings depends on the earnings retained and reinvested in the firm.

The rate of return on equity also influences the growth rate.

$$\text{Growth rate} = \text{Retention rate} \times \text{Return on equity} = \text{RR} \times \text{ROC}$$

The same can be rewritten as follows.

$$\begin{aligned} \text{Growth rate} &= \text{RR} \times \frac{\text{Sales}}{\text{Total assets}} \times \frac{\text{Total assets}}{\text{Equity}} \times \frac{\text{Net income}}{\text{Sales}} \\ \text{RR} &= \frac{\text{Retained earnings} / \text{Net income}}{\text{NI}} = \frac{\text{RE}}{\text{NI}} \end{aligned}$$

Substituting and rearranging we get

$$\text{Growth Rate} = \frac{\text{RE}}{\text{NI}} \times \frac{\text{NI}}{\text{Sales}} \times \frac{\text{Sales}}{\text{TA}} \times \frac{\text{TA}}{\text{EQ}} = \frac{\text{RE}}{\text{EQ}}$$

This analysis is known as Dupont analysis because it was popularized by Dupont company.

PRICE EARNINGS RATIO – One of the most common financial parameters used in the stock market is the price-earnings ratio (P/E). It relates the share price with earnings per share. Most of the news papers along with the stock price quotations give the P/E ratio too. The P/E ratio is the multiplying factor that the market is willing to offer to the company's future earnings. In the "A" company's earnings per share is Rs 6 and price Rs 50, then:

$$\begin{aligned} \text{Price – Earnings Ratio} &= \frac{\text{Market price per share}}{\text{Earnings per share}} \\ &= \frac{\text{Rs } 50}{\text{Rs } 6} = 8.33 \text{ times} \end{aligned}$$

The P/E of 8.33 means that the market is prepared to pay Rs 8.33 for every rupee of future earnings. The past performance is the base for the estimate. High P/E ratio indicates high expectation of the market regarding the growth of future earnings of the company. The P/E ratio has linked with other financial parameters like dividend payout, dividend growth rate and the cost of company's funds. Large dividend payouts, high dividend growth rates and low cost of funds will result in high P/E ratios.

The investors generally compare the P/E ratio of the company with that of the industry and market. A P/E ratio lower than industry means that the stock is under priced. Investors should be careful in comparing the scrip's P/E with the industry's P/E because sometimes, the industry P/E may be high due to overheated market. In such a situation, the industry's P/E should be moderated to acceptable levels. The investor can also forecast the future P/E ratio and compare it with the present P/E to assess the extent of underpricing of the particular share. Forecast can be done by studying fundamental factors and applying statistical techniques three conclusions given below:

1. If the current P/E ratio is larger than the E (P/E) ratio, the stock is overpriced. It is better to sell the shares before the fall in price.

2. If the current P/E ratio is smaller than the E (P/E) ratio, the stock is underpriced and it could be a best buy with the expectation of the rise in price.
3. If the current P/E ratio equals the E (P/E) ratio, the stock is correctly priced. No significant changes in prices are likely to occur.

INTRINSIC VALUE – The true economic worth of the share is its intrinsic value. The fundamental analysts find out the intrinsic value of a share by using the following formula:

Intrinsic value of a share = Normalised EPS × Expected P/E ratio

The expected P/E ratio can be found out by

$$E (P/E) = \frac{\text{Cash dividend / E(EPS)}}{\text{Discount rate – growth rate}} = \frac{D/E(EPS)}{K - g}$$

The numerator is:

Payout ratio = Cash dividend per share / Expected earnings per share = D/E (EPS)

To forecast the P/E, the analyst should have the following details:

- Stock's risk – adjusted discount rat (K)
- Growth rate (g)
- Cash dividend per share (D)
- Earnings per share (EPS)
- Pay out ratio (D/P)

The simple technique adopted by the analyst is as follows:

Intrinsic value = Average P/E ratio over the years × Present earnings per share

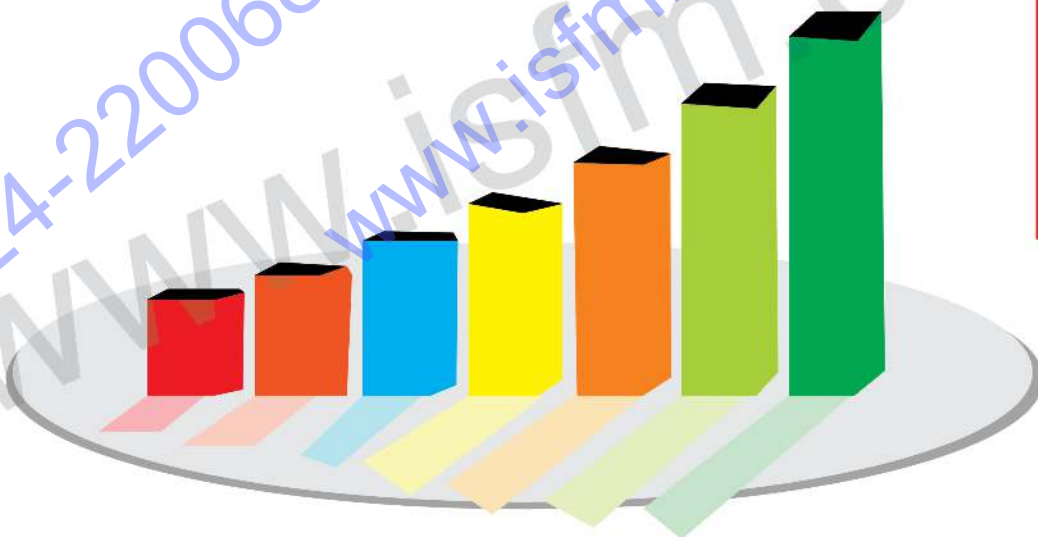
OR

= Average P/BV ratio over the years × Present book value per share

This calculation is based on the assumption that

1. The trend in the profitability of the immediate past and the present will continue to be the same.
2. The average P/E, P/BV and average earnings to equity ratio remain constant over a period of time.

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