After reading this chapter you will be able to

- Understand Fundamental analysis
- Highlight the importance of fundamental analysis
- Perform company analysis using financial and non-financial data
- Understand various financial ratios and their utility
- Perform DuPont analysis
- Understand various stock valuation models

Investors invest in a wide range of securities as available in financial markets. For the sake of simplicity these securities can be divided into two broad categories like – fixed income securities i.e. bonds and debentures; and variable income securities i.e. equity shares. In the previous chapter we discussed about fixed income securities i.e. bonds and debentures and provided valuation models for their pricing. The peculiar feature of bonds and debentures is that the cash inflows from these securities can be very well predicted in advance because they have a fixed rate of interest income. Further they are also redeemable at maturity. Fixed income securities are preferred by more risk averse investors who do not want to take high risk and who prefer regular income rather than capital appreciation. Most of the old age and retired people fall in this category. However bonds and debentures may not interest to other investors who are less risk averse and prefer capital appreciation rather than regular income. Most of the young people and speculators fall in this category. For such investors equity shares are ideal investment option. It must be noted that investors generally invest in both bonds and equity shares as per their investment goals and investment horizon. This chapter deals with equity shares.
Equity shares are fundamentally different from debt securities or bonds. Equity shares represent ownership right in a company but return on equity shares is not fixed. Income from equity shares varies depending upon the amount of dividend declared by the company, which in turn, depends upon company’s profits besides a number of other factors. Equity shareholders are the owners of the company and not its creditors. Equity shares of publicly held companies are mandatorily listed on stock exchanges, which in turn, provide a platform for purchase and sale of equity shares. Hence equity shares are more liquid than bonds. The market price of a share represents shareholder’s wealth and hence the market value of a company. Share prices move according to the information available in the market. Expectations also play a major role in share price movement. A positive information or expectation will increase market price of a share while a negative information or expectation will dampen it. For example market price of a company which has shown higher growth in profitability increases while for a company, which is in distress, the market price declines.

4.1 APPROACHES TO SECURITY ANALYSIS

Behaviour of stock prices is an important area of research in finance. A plethora of research studies have shown share price movements for developed as well as developing countries since the decade of 1960’s. The stock market provides the market price of a share or “What the price is”. It is the price at which a share can be bought or sold. However a prospective investor as well as an existing shareholder is interested more in knowing “What the price should be” or what is the real worth of a share. So that a ‘buy’ or ‘sell’ decision can be made. In a bid to answer this question and predict share price, the following three approaches to security valuation have evolved over the years.

1. **Fundamental Analysis**: It is based on the premise that in the long run true or fair value of an equity share is equal to its intrinsic value. The intrinsic value of a share is the present value of all future expected cash inflows from the share. If the intrinsic value is greater than current price of the share, the share is underpriced and hence a good buy. On the other hand, if intrinsic value is less than current price of the share, it is over priced and hence a good ‘sell’. The future expected cash inflows from a share depends upon a wide array of factors including company’s performance and future prospects. Fundamental analysis is used primarily to identify securities that are mispriced *i.e.* that are undervalued or overvalued. However fundamental analyst needs to be equipped with certain financial and statistical skills in order to perform it. Fundamental analysis, especially company analysis is dealt in detail in this chapter.
2. **Technical Analysis**: Technical analysis is based on the premise that ‘history repeats itself’. Hence future price movements can be well predicted on the basis of past price and volume data. Technical analysts are therefore called “chartists” because they study various charts and patterns to predict ‘What the price should be”. Technical analysis is done on the basis of trend analysis of past prices. Technical analysis is used primarily to time the market *i.e.* in identifying the right time to buy or sell. It must be noted that technical analysis predicts future prices over a short period of time and hence may not be useful for a long term investor who just want to buy and hold the securities. Technical analysis is dealt in detail in next chapter.

3. **Efficient Market Hypothesis (EMH)**: The proponents of EMH, led by Eugene Fama in 1970, believe that share prices at any time reflect their true intrinsic value and hence all available information is already reflected in market price of a share. It is the flow of new information which changes share price.

### 4.2 FUNDAMENTAL ANALYSIS

Fundamental analysis is based on the premise that in the long run true or fair value of an equity share is equal to its intrinsic value. The intrinsic value of an asset is the present value of all expected future cash inflows (or earnings) from that asset. In case of an equity share it will be equal to the present value all expected future earnings (in the form of dividend, capital gain etc.) from that share because equity shares have infinite life. The expected earnings from an equity share depend upon a variety of economy wide, industry wide and company specific factors. Therefore fundamental analysis involves in-depth analysis of all possible factors having a bearing on company’s profitability and future prospects and hence on share price (theoretical or fair price).

Fundamental analysts forecast, among other things, future level of the economy’s GDP, future sales and earnings of a large number of industries and earnings of a large number of companies. Eventually such forecasts are converted to estimate the expected cash inflows from the shares of these companies. There can be two approaches to fundamental analysis – Top down approach and Bottom up approach.

**Top down approach**: With this approach the financial analysts are first involved in making forecasts for the economy, then for the industries and finally for the companies. The industry forecasts are based on the forecasts of the economy. Further a company’s forecasts are based on the forecasts of the economy as well as the concerned industry.

**Bottom up approach**: In case of bottom up approach, fundamental analysts forecast the prospects of the companies first, then for the industries
and in the last forecast for the economy. Such bottom up forecasting may unknowingly involve inconsistent assumptions. Forecasts of the economy is of no use if it is done after company forecasts because ultimately it is the expected cash inflows from the company’s share that will be used in finding out the intrinsic value of a share.

**Company Analysis**

Company analysis is the study of various characteristics of a company regarding its operating and financial performance and future prospects. Once an investor decides to invest in a particular industry on the basis of economic and industry analysis, it is important to select the company in which investment is to be made. For example, if an investor decides to invest in IT industry, the next step is to decide in which company Infosys, Wipro, HCL, TCS etc.

In fact the estimation of future dividends and earnings from a company depends upon its past performance and managerial competence. Such an estimate is made within the broad framework of economy wide and industry analysis. The outcome of the Company analysis is expected future cash inflow from the share of that company which is used in determination of the intrinsic value of the share of that company. The intrinsic value of the share is then compared with the prevailing market price to find out whether the share is undervalued or overvalued. If the share a company is available in the market at a price less than its true intrinsic value then it is said that the share is undervalued. Hence a prospective investor should purchase it. On the other hand if the share a company is available in the market at a price more than its true intrinsic value then it is said that the share is overvalued. Hence a prospective investor should not purchase it. Rather if an investor already holds such a share it should be sold.

The intrinsic value of a company depends upon the amount of dividends and growth rate, which in turn depends upon the amount of earnings. Hence analysis of earnings of the company is of utmost importance in case of company analysis.

There are various sources for collecting necessary data for company analysis. The company level data is primarily collected from the annual financial statements of the company such as

- Balance sheet
- Income statement
- Cash flow statement
- Notes to financial statements
- Auditor’s report
- Social and sustainability reports, if any
- Corporate governance reports
4.3 COMPANY ANALYSIS

Company analysis covers the following parameters of study: financial ratio analysis especially earnings analysis, analysis of company management and corporate governance, analysis of product differentiation and innovations. These parameters can be classified as - Financial and Non-financial parameters.

4.3.1 Financial Parameters

These include earnings, assets, sales etc. and is done using financial ratio analysis.

Financial ratio or accounting ratio is based on the historical performance of the company. These ratios can be calculated using balance sheet and income statement data. It covers analysis of profitability, liquidity, solvency and efficiency level of a company.

(i) Earnings analysis or Profitability

Past profitability of a company is a good indicator of its future prospects. Earnings analysis is an important component of company analysis because future cash inflows from an equity share depends to a great extent on the earnings of the company. A company’s overall profitability may be analysed using operating profit margin, Return On Capital Employment (ROCE), Return On Asset (ROA), Return on Investment (ROI), net profit margin etc. In India, companies announce quarterly financial results and announcement regarding earnings or net profits is the most sought after news in stock market. Some of the important earnings measures are explained below:

a. Return on Equity (ROE): Return on equity is that part of total earnings of the company which belongs to equity shareholders. It is calculated by dividing profit after tax and preference dividend by the amount of equity shareholders’ funds or net worth.

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\text{Return on Equity} = \frac{\text{PAT} - \text{Preference dividend}}{\text{Equity shareholders’ funds}} \times 100
\]

\[
\text{Return on Equity} = \frac{\text{PAT} - \text{Preference dividend}}{\text{Net worth}} \times 100
\]

Return on equity indicates whether equity shareholders are getting adequate return on their funds or not. Return on equity is higher than return on investment if the company is profitable and uses debt. Equity shareholders are more interested in analyzing return on equity rather than the overall profitability of the company because that is what matters to them.
Earnings Per Share (EPS): Earnings per share is calculated by dividing the amount of profit after tax and preference dividends by the total number of outstanding equity shares of the company. Hence it shows how much amount is earned per equity share of the company. It is easy to understand than any other ratio and is widely reported in news and media. An increasing EPS shows the relative strength of the company.

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\text{Earning per share} = \frac{\text{PAT} - \text{Preference dividend}}{\text{Number of equity shares}}
\]

On the basis of the past trend analysis of EPS a fundamental analyst may very well forecast its future or expected EPS which can be used in the valuation of equity shares. The earnings multiplier approach of equity valuation determines the fair price of an equity share as the multiplication of Price earnings ratio and expected EPS of the company.

c. Price Earnings Ratio (P/E): Analysis of price earnings ratio or P/E ratio as we popularly call it is an important ingredient of company analysis. P/E ratio is calculated by dividing market price per share by the EPS.

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\text{Price Earnings Ratio} = \frac{\text{Market price per share}}{\text{EPS}}
\]

P/E ratio indicates the relative valuation of the share of a company in stock market. A high P/E ratio implies that the market is optimistic about the growth of the company and hence are paying a premium or high price to buy the share. However a very high P/E ratio of a company's share may also mean that the shares are overpriced in the market. On the other hand low P/E ratio implies that the market is pessimistic about the earnings potential of the company and hence the shares of the company are being traded at relatively low price. It may also mean that the stocks are underpriced in the market. Hence some investor prefer to buy stocks with low P/E ratio as they believe that they are undervalued.

d. Book Equity to Market Equity Ratio (BE/ME): A related valuation ratio is Book equity to Market Equity ratio. It is calculated by dividing the Book Value of Equity share by the Market price.

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\text{BE/ME Ratio} = \frac{\text{Book Value per share}}{\text{Market price per share}}
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It must be noted that book value per share is Net asset value per share. BE/ME ratio indicates the relative valuation of the share of a company in stock market. A high BE/ME ratio implies that