

Equity Research: Fundamental and Technical Analysis

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Abstract: *The prominent nature of capital market instruments forces investors to depend strongly on fundamental factors in their investment decisions. These fundamental factors relate to the overall economy or a specific industry or a company. The performance of the securities that represent the company can be said to depend on the performance of the company itself. However, as companies are a part of industrial and business sector, which in turn are a part of overall economy, so even the economic and industry factors can affect the investment decision. The selection of an investment will start with fundamental analysis. Fundamental analysis examines the economic environment, industry performance and company performance before making an investment decision. One of the livelier and long-lasting debates in securities research is the relative merits of fundamental research and technical research. Fundamental research focuses on identifying and analyzing the factors that influence security prices whereas technical analysis is solely concerned with analyzing market behavior, without concern for trying to explain it. Given the sharp differences, it is easy to understand why proponents tend to favor one over the other*

Keywords: Capital market, fundamental factors, Technical Analysis investment decisions.

1. Introduction

1.1 Background

India is a developing country. Nowadays many people are interested to invest in financial markets especially on equities to get high returns, and to save tax in honest ways. Equities are playing a major role in contribution of capital to the business from the beginning of capital markets. Since the introduction of the concept of shares, large numbers of investors have shown interest to invest in the stock market. In industries plagued with skepticism and a stock market increasingly difficult to predict and contend with, if one looks hard enough there may still be a genuine aid for the Day Trader and Short Term Investor.

The price of a security represents a consensus. It is the price at which one person agrees to buy and another agrees to sell. The price at which an investor is willing to buy or sell depends primarily on his expectations. If he expects the security's price to rise, he will buy it; if the investor expects the price to fall, he will sell it. These simple statements are the cause of a major challenge in forecasting security prices, because they refer to human expectations. As we all know firsthand, human expectations are neither easily quantifiable nor predictable. If prices are based on investor expectations, then knowing what a security should sell for becomes less important than knowing what other investors expect it to sell for. That's not to say that knowing what a security should sell for isn't important, it still is. But there is usually a fairly strong consensus of a stock's future earnings that the average investor cannot disprove.

Fundamental analysis and technical analysis can co-exist in peace and complement each other. Since all the investors in the stock market want to make the maximum profits possible, they just cannot afford to ignore either fundamental or technical analysis.

1.2 Literature Review

The origin of Fundamental analysis for the share price valuation can be dated back to Yu-Hon Lui and David Mole (1998) reports on the use by foreign exchange dealers in Hong Kong of fundamental and technical analyses to form their forecasts of exchange rate movements.

Thomas Oberlechner (2001) presents the findings of a questionnaire and an interview survey on the perceived importance of Technical and Fundamental analysis among foreign exchange traders and financial journalists in Frankfurt, London, Vienna and Zurich. Foreign Exchange traders confirm that, out of both the forecasting approaches, technical analysis is more prominent than the other.

Doron Nissim and Stephen H. Penman (2001), this research work envisages on Financial Statement analysis and identifies that this analysis has traditionally been seen as part of the Fundamental analysis required for equity valuation. This paper outlines a financial statement analysis for use in equity valuation.

Sanjay Sehgal and Meenakshi Gupta (2005) presents the survey which aims at providing insights about the way technical traders operate in the financial market and the trading strategies that they adopt. The survey covered institutional and individual technical traders with a long and active trading record for the Indian market. In this study also it is observed that the sample respondents tend to use Technical analysis along with Fundamental analysis for security selection.

Jenni L., Bettman, Stephen. J. Sault, Emma J. Schultz (2008), proposes an equity valuation model integrating Fundamental and Technical analysis, they tend to recognize their potential as complements rather than as substitutes. Testing confirms the complimentary nature of Fundamental and Technical analysis by showing that in spite of each performing in isolation models integrating both have superior explanatory power.

From the above review of literature, it is evident that no recent study has been made to explain practically how the basic tools of fundamental and technical analysis may be applied to arrive at investment decisions in a specific sector of the Indian stock market. Another gap identified from the review of literature is the lack of integration of competitor analysis with fundamental and technical analysis.

1.3 Objectives and Limitations of the Study

The objectives of the study are as follows:

- To explain how the basic tools of fundamental and technical analysis may be applied to arrive at investment decisions.
- To interpret the results of ratios and charts prepared using the above tools.
- To identify trends and patterns in the stock prices.
- To integrate competitor analysis taking the Information Technology (IT) sector of India as a case study.

The limitations of the study are as follows :

- The discussion of the tools of fundamental and technical analysis is restricted by the time available and size considerations for the project.
- The interpretation of ratios and charts may vary from one analyst to another.
- The time frame for stock prices in this project is limited to 9 months (April 2014 to January 2015). Hence, very long term trends are not identifiable.
- For fundamental analysis, as the last quarter results are not available, the calculations are limited till October – December 2014.

2. Conceptual Framework

2.1 Fundamental Analysis

Prices of the securities in the stock exchange keep on fluctuating. The investors and other operators are always interested in buying the shares at lower prices and selling them at higher prices to make profit. To achieve this objective, they estimate the share price.

Fundamental Analysis is the process of finding the intrinsic value or worth of a share. It is the study of a company's fundamentals with the aim of determining its exact worth. The process is based on analyzing the information that is 'fundamental' to the company. Fundamental analysis focuses on creating a portrait of a company, identifying the intrinsic or fundamental value of its shares and buying or selling the stock based on that information.

The investments made on the basis of fundamental analysis carry less risk if the time horizon of the investment is long. The share should be purchased if it is being traded in the market below its intrinsic value, it should be sold if it is traded in the market at a price above its intrinsic value. Suppose the intrinsic value of a share is Rs.200, the fundamental analyst suggests buying it if it is being traded in the market below Rs.200; sale is recommended if it is traded above Rs.200.

Fundamental analysis involves three types of analysis :

- Economic Analysis
- Industry Analysis

(iii) Company analysis

Fundamental analysis performed by the investors or their investment advisors. It is difficult for the ordinary investors to perform the analysis. Hence, generally it is carried by the consultants who are experts in this field. There are two investment philosophies followed by the experts:

- Top down philosophy
- Bottom up philosophy.

Top down philosophy follows the following investment process (a) First consider the macro-factors i.e. the state of economy; invest in the economy that is strong and growing (b) then, consider the industry; invest in the industry which is expected to outperform other industries (c) finally, consider the company; invest in the company which is expected to be best in the industry. Bottom up philosophy gives maximum weight to the 'company' i.e. a bottom-up investor considers the financial health, products, supply and demand, and other aspects of a company's performance over a given period of time. Using this approach the portfolio manager pay less attention to the economy as a whole, or to the prospects of the industry a company is in.

2.1.1 Economic Analysis

Corporate performance is very much influenced by macro-level economic factors. Positive factors increase the worth of the shares as such factors have positive impact on the performance of the company. These factors are: Monsoon, interest rates, GDP growth, foreign exchange rates, inflation, public debts, budgetary deficits, taxation policy, balance of trade, savings rate etc. Economic analysis is performed not only from the point of national economy but also from the point of view of the global economy particularly when the company is operating at global level.

2.1.2 Industry Analysis

Industry analysis gives an investor a deeper understanding of a company's financial prospectus. The purpose of this analysis is to identify the companies which are expected to provide good returns to the investors. It is a study of demand and supply of the industry's products. Industry analysis should be done from global prospective. The main study in industry analysis is the phase through which the industry is passing. There are four stages in any through which every industry has to pass - (a) Innovation stage (ii) expansion stage (iii) stagnation stage and (iv) declining stage. Industry analysis is quite important part of the fundamental analysis. For example, when the industry is passing through expansion stage, not only the leaders but even the laggards report good performance.

2.1.3 Company Analysis: There are two parts of company analysis :

- 1) Non-Financial analysis:** This includes analysis of leadership, top management, corporate governance, corporate vision, corporate policies, and relationship with different stakeholders and competitive advantage/disadvantage.
- 2) Financial Analysis:** Financial analysis means analysis of financial statements using the accounting ratios.

Tools of financial analysis are:

1. Earnings per Share

Basic earnings per share should be calculated by dividing the net profit or loss for the period attributable to equity shareholders by the weighted average number of equity shares outstanding during the period. For the purpose of calculating basic earnings per share, the net profit or loss for the period attributable to equity shareholders should be the net profit or loss for the period after deducting preference dividends and any attributable tax thereto for the period. For the purpose of calculating diluted earnings per share, the net profit or loss for the period attributable to equity shareholders and the weighted average number of shares outstanding during the period should be adjusted for the effects of all dilutive potential equity shares.

2. Price to Earnings Ratio

P/E is short for the ratio of a company's share price to its per-share earnings. As the name implies, to calculate the P/E, you simply take the current stock price of a company and divide by its earnings per share (EPS):

$P/E \text{ Ratio} = \text{Market Price per Share} / \text{Earnings per Share (EPS)}$

Most of the time, the P/E is calculated using EPS from the last four quarters. This is also known as the trailing P/E. However, occasionally the EPS figure comes from estimated earnings expected over the next four quarters. This is known as the leading or projected P/E. Theoretically, a stock's P/E tells us how much investors are willing to pay per rupee of earnings. For this reason it's also called the "multiple" of a stock.

3. Projected Earnings Growth

It is defined as a stock's price-to-earnings ratio divided by the growth rate of its earnings for a specified time period. The price/earnings to growth (PEG) ratio is used to determine a stock's value while taking the company's earnings growth into account, and is considered to provide a more complete picture than the P/E ratio. While a high P/E ratio may make a stock look like a good buy, factoring in the company's growth rate to get the stock's PEG ratio can tell a different story. The lower the PEG ratio, the more the stock may be undervalued given its earnings performance. The calculation is as follows:

$P/E \text{ ratio} \div \text{Annual EPS Growth}$

The PEG ratio that indicates an over or underpriced stock varies by industry and by company type, though a broad rule of thumb is that a PEG ratio below one is desirable. Also, the accuracy of the PEG ratio depends on the inputs used. Using historical growth rates, for example, may provide an inaccurate PEG ratio if future growth rates are expected to deviate from historical growth rates. To distinguish between calculation methods using future growth and historical growth, the terms "forward PEG" and "trailing PEG" are sometimes used.

4. Price to Sales Ratio

It is a valuation ratio that compares a company's stock price to its revenues. The price-to-sales ratio is an indicator of the value placed on each rupee of a company's sales or

revenues. It can be calculated either by dividing the company's market capitalization by its total sales over a 12-month period, or on a per-share basis by dividing the stock price by sales per share for a 12-month period. Like all ratios, the price-to-sales ratio is most relevant when used to compare companies in the same sector. A low ratio may indicate possible undervaluation, while a ratio that is significantly above the average may suggest overvaluation. Abbreviated as the P/S ratio or PSR, this ratio is also known as a "sales multiple" or "revenue multiple."

The 12-month period used for sales in the price-to-sales ratio is generally the past four quarters (also called trailing 12 months), or the most recent or current fiscal year. A price-to-sales ratio that is based on forecast sales for the current year is called a forward ratio.

5. Price to Book

It is a ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share. It is calculated as follows :

$P/E \text{ Ratio} = \text{Market Price per share} / \text{Book value per share}$

$\text{Book value per share} = \text{Shareholder's Funds} / \text{Number of shares}$

A lower P/B ratio could mean that the stock is undervalued. However, it could also mean that something is fundamentally wrong with the company. As with most ratios, this ratio varies by industry. This ratio also gives some idea of whether the investor is paying too much for what would be left if the company went bankrupt immediately.

6. Dividend Payout Ratio

It is the percentage of earnings paid to shareholders in dividends. $\text{Dividend Payout Ratio} = \text{Dividend per share} / \text{Earnings per share}$.

A reduction in dividends paid is looked poorly upon by investors, and the stock price usually depreciates as investors seek other dividend-paying stocks. A stable dividend payout ratio indicates a solid dividend policy by the company's board of directors.

7. Dividend Yield

A financial ratio that shows how much a company pays out in dividends each year relative to its share price. Dividend yield is calculated as follows:

$\text{Dividend Yield} = \text{Dividend per share} / \text{Market Price per share}$.

Dividend yield is a way to measure how much cash flow investors are getting for each rupee invested in an equity position. Investors who require a minimum stream of cash flow from their investment portfolio can secure this cash flow by investing in stocks paying relatively high, stable dividend yields.

8. Return on Capital Employed

It is a financial ratio that measures a company's profitability

and the efficiency with which its capital is employed. Return on Capital Employed (ROCE) is calculated as:

$$\text{ROCE} = \frac{\text{Earnings before Interest and Tax (EBIT)}}{\text{Capital Employed}}$$

"Capital Employed" as shown in the denominator is the sum of shareholders' equity and debt liabilities; it can be simplified as (Total Assets - Current Liabilities). Instead of using capital employed at an arbitrary point in time, analysts and investors often calculate ROCE based on "Average Capital Employed," which takes the average of opening and closing capital employed for the time period.

A higher ROCE indicates more efficient use of capital. ROCE should be higher than the company's capital cost; otherwise it indicates that the company is not employing its capital effectively and is not generating shareholder value.

ROCE is a useful metric for comparing profitability across companies based on the amount of capital they use.

Even though there are clear differences between simple moving averages and exponential moving averages, one is not necessarily better than the other. Exponential moving averages have less lag and are therefore more sensitive to recent prices - and recent price changes. Exponential moving averages will turn before simple moving averages. Simple moving averages, on the other hand, represent a true average of prices for the entire time period. As such, simple moving averages may be better suited to identify support or resistance levels.

9. Conclusions and Recommendations

Wipro

The overall fundamental analysis reveals that Wipro is at the moment a fundamentally strong stock. This is fairly evident from high quarterly and annual EPS growth. Further, low price to earnings and price to sales ratios as compared to competitors hint at undervaluation of the stock. This makes Wipro an ideal target for long term investors. The 12 month target price may be taken as 19 times its current EPS which approximates Rs. 660 (price on 30.01.2015 was Rs. 606 with P/E of -17).

Infosys

Infosys is also fundamentally strong with stable dividend payout.

TCS

Though TCS is also fundamentally strong Hence, the stock is rated "NEUTRAL".

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