Economic Analysis:

Every common stock is susceptible to the market risk. This feature of almost all types of common stock indicates their combined movement with the fluctuations in the economic conditions towards the improvement or deterioration.

Stock prices react favorably to the low inflation, earnings growth, a better balance of trade, increasing gross national product and other positive macroeconomic news. Indications that unemployment is rising, inflation is picking up or earnings estimates are being revised downward will negatively affect the stock prices. This relationship is reasonably reliable that the US economy is better represented by the Standard & Poor 500 stock index, which is famous market indicator. The stock market will forecast an economic boom or recession properly from the signs in front of average citizen. The Federal bank of New York has conducted a research that describes that the slope of the yield curve is the perfect indicator of the economic growth more than three months out. Recession is indicated by negative slope while positive slope is considered as good one.

The implications of market risk should be clear to the investor. When there is recession in the economy, the prices of stocks moves downward. All the companies suffer the effects of recession despite of the fact that these are high performing companies or low performing ones. Similarly the stock prices are positively affected by the boom period of the economy.

Economic Analysis Factors

For studying the Economic Analysis, the Macro Economic Factors and the forecasting Techniques are studied in following paragraphs.

MACRO ECONOMIC FACTORS

The macro economy is the study of all the firms operates in economic environment. The key variables to describe the state of economy are explained as below:

1. Growth rate of Gross Domestic Product (GDP):

   An economy's overall economic activity is summarized by a measure of aggregate output. As the production or output of goods and services generates income, any aggregate output measure is closely associated with an aggregate income measure. The United States now uses an aggregate output concept known as the gross domestic product or GDP. The GDP is a measure of all currently produced goods and services valued at market prices. One should notice several features of the GDP measure. First, only currently produced goods (produced during the relevant year) are included. This implies that if you buy a 150-year old classic Tudor house, it does not count towards the GDP; but the service rendered by your real estate agent in the process of buying the house does. Secondly, only final goods and services are counted. In order to avoid double counting, intermediate goods—goods used in the production of other goods and services—do not enter the GDP. For example, steel used in the production of automobiles is not valued separately. Finally, all goods and

services included in the GDP are evaluated at market prices. Thus, these prices reflect the prices consumers pay at the retail level, including indirect taxes such as local sales taxes.

A measure similar to GDP is the gross national product (GNP). Until recently, the government used the GNP as the main measure of the nation's economic activity. The difference between GNP and GDP is rather small. The GDP excludes income earned abroad by U.S. firms and residents and includes the earnings of foreign firms and residents in the United States. Several other measures of output and income are derived from the GNP. These include the net national product (NNP), which subtracts from the GNP an allowance for wear and tear on plants and equipment, known as depreciation; the national income, which mainly subtracts indirect taxes from the NNP; the personal income, which measures income received by persons from all sources and is arrived at by subtracting from the national income items such as corporate profit tax payments and social security contributions that individuals do not receive, and adding items such as transfer payments that they do receive but are not part of the national income; and the personal disposable income, which subtracts personal tax payments such as income taxes from the personal income measure. While all these measures move up and down in a generally similar fashion, it is the personal disposable income that is intimately tied to consumer demand for goods and services—the most dominant component of the aggregate demand—and the total demand for goods and services in the economy from all sources.

It should be noted that the aggregate income/output measures discussed above are usually quoted both in current prices (in "nominal" terms) and in constant dollars (in "real" terms). The latter quotes are adjusted for inflation and are thus most widely used since they are not subject to distortions introduced by changes in prices.

2. Savings and investment:

   Growth of an economy requires proper amount of investments which in turn is dependent upon amount of domestic savings. The amount of savings is favorably related to investment in a country. The level of investment in the economy and the proportion of investment in capital market is major area of concern for investment analysts. The level of investment in the economy is equal to: Domestic savings + inflow of foreign capital - investment made abroad. Stock market is an important channel to mobilize savings, from the individuals who have excess of it, to the individual or corporate, who have deficit of it. Savings are distributed over various assets like equity shares, bonds, small savings schemes, bank deposits, mutual fund units, real estates, bullion etc. The demand for corporate securities has an important bearing on stock prices movements. Greater the allocation of equity in investment, favorable impact it have on stock prices.

3. Industry Growth rate:

   The GDP growth rate represents the average of the growth rate of agricultural sector, industrial sector and the service sector. The current contribution of industry sector in GDP in the year 2004-05 is 6.75 percent approximately. Publicly listed company play a major role in the industrial sector. The stock market analysts focus on the overall growth of

different industries contributing in economic development. The higher the growth rate of the industrial sector, other things being equal, the more favorable it is for the stock market.

4. Price level and Inflation:

   The inflation rate is defined as the rate of change in the price level. Most economies face positive rates of inflation year after year. The price level, in turn, is measured by a price index, which measures the level of prices of goods and services at given time. The numbers of items included in a price index vary depending on the objective of the index. Usually three kinds of price indexes, having particular advantages and uses are periodically reported by government sources. The first index is called the consumer price index (CPI), which measures the average retail prices paid by consumers for goods and services bought by them. A couple of thousand items, typically bought by an average household, are included in this index.

   A second price index used to measure the inflation rate is called the producer price index (PPI). It is a much broader measure than the consumer price index. The producer price index measures the wholesale prices of approximately 3,000 items. The items included in this index are those that are typically used by producers (manufacturers and businesses) and thus it contains many raw materials and semi-finished goods. The third and broadest measure of inflation is the called the implicit GDP price deflator. This index measures the prices of all goods and services included in the calculation of the current output of goods and services in the economy, the GDP.

   The three measures of the inflation rate are most likely to move in the same direction, even though not to the same extent. Differences can arise due to the differing number of goods and services included for the purpose of compiling the three indexes. In general, if one hears about the inflation rate number in the popular media, it is most likely to be the number based on the CPI.

5. Agriculture and monsoons:

   Agriculture is directly and indirectly linked with the industries. Hence increase or decrease in agricultural production has a significant impact on the industrial production and corporate performance. Companies using agricultural raw materials as inputs or supplying inputs to agriculture are directly affected by change in agriculture production. For example- Sugar, Cotton, Textile and Food processing industries depend upon agriculture for raw material. Fertilizer and insecticides industries are supplying inputs to agriculture. A good monsoon leads to higher demand for inputs and results in bumper crops. This would lead to buoyancy in stock market. If the monsoon is bad, agriculture production suffers and cast a shadow on the share market.

6. Interest Rate:

   The concept of interest rates used by economists is the same as the one widely used by ordinary people. The interest rate is invariably quoted in nominal terms—that is, it is not

adjusted for inflation. Thus, the commonly followed interest rate is actually the nominal interest rate. Nevertheless, there are literally hundreds of nominal interest rates. Examples include: savings account rate, six-month certificate of deposit rate, 15-year mortgage rate, variable mortgage rate, 30-year Treasury bond rate, 10-year General Motors bond rate, and commercial bank prime lending rate. One can see from these examples that the nominal interest rate has two key attributes—the duration of lending/borrowing involved and the identity of the borrower.

Fortunately, while the hundreds of interest rates that one encounters may appear baffling, they are closely linked to each other. Two characteristics that account for this linkage are the risk worthiness of the borrower and the maturity of the loan involved. So, for example, the interest rate on a 6-month Treasury bill is related to that on a 30-year Treasury bond, as bonds/loans of different maturity levels command different rates. Also, a 30-year General Motors bond will carry a higher interest rate than a 30-year Treasury bond, since a General Motors (GM) bond is riskier than a Treasury bond.

Finally, one should note that the nominal interest rate does not represent the real cost of borrowing or the real return on lending. To understand the real cost or return, one must consider the inflation-adjusted nominal rate, called the real interest rate. Tax and other considerations also influence the real cost or return. Nevertheless, the real interest rate is a very important concept in understanding the main incentives behind borrowing or lending.

7. Government budget and deficit:

   Government plays an important role in the growth of any economy. The government prepares a central budget which provides complete information on revenue, expenditure and deficit of the government for a given period. Government revenue come from various direct and indirect taxes and government made expenditure on various developmental activities. The excess of expenditure over revenue leads to budget deficit. For financing the deficit the government goes for external and internal borrowings. Thus, the deficit budget may lead to high rate of inflation and adversely affects the cost of production and surplus budget may results in deflation. Hence, balanced budget is highly favorable to the stock market.

8. The tax structure:

   The business community eagerly awaits the government announcements regarding the tax policy in March every year. The type of tax exemption has impact on the profitability of the industries. Concession and incentives given to certain industry encourages investment in that industry and have favorable impact on stock market.

9. Balance of payment, forex reserves and exchange rate:

   Balance of payment is the record of all the receipts and payment of a country with the rest of the world. This difference in receipt and payment may be surplus or deficit. Balance of payment is a measure of strength of rupee on external account. The surplus balance of

payment augments forex reserves of the country and has a favorable impact on the exchange rates; on the other hand if deficit increases, the forex reserve depletes and has an adverse impact on the exchange rates. The industries involved in export and import are considerably affected by changes in foreign exchange rates. The volatility in foreign exchange rates affects the investment of foreign institutional investors in Indian Stock Market. Thus, favorable balance of payment renders favorable impact on stock market.

10. Infrastructural facilities and arrangements:

    Infrastructure facilities and arrangements play an important role in growth of industry and agriculture sector. A wide network of communication system, regular supply or power, a well developed transportation system (railways, transportation, road network, inland waterways, port facilities, air links and telecommunication system) boost the industrial production and improves the growth of the economy. Banking and financial sector should be sound enough to provide adequate support to industry and agriculture. The government has liberalized its policy regarding the communication, transport and power sector for foreign investment. Thus, good infrastructure facilities affect the stock market favorable.

11. Demographic factors:

    The demographic data details about the population by age, occupation, literacy and geographic location. These factors are studied to forecast the demand for the consumer goods. The data related to population indicates the availability of work force. The cheap labor force in India has encouraged many multinationals to start their ventures. Population, by providing labor and demand for products, affects the industry and stock market.

12. Sentiments:

    The sentiments of consumers and business can have an important bearing on economic performance. Higher consumer confidence leads to higher expenditure and higher business confidence leads to greater business investments. All this ultimately leads to economic growth. Thus, sentiments influence consumption and investment decisions and have a bearing on the aggregate demand for goods and services.

ECONOMIC FORECASTING TECHNIQUES

Forecasting for an individual firm obviously begins with a forecast for the industry or industries in which it is involved. Beyond this, the analyst must determine the degree to which the company's share of each market may vary during the forecast period. Such variations can result from the introduction of a new product, the improvement of an existing product, the opening, closing, or expansion of plants, the activities of domestic or foreign competitors, a change in sales effort, or a variety of other factors. Information required to make such assessments may come in part from the company's own investment and marketing plans. Information on the activity and sales prospects of competitors is frequently collected from the firm's own salesmen. An increasing number of companies now employ sophisticated market research techniques to determine the probable reaction of their customers to new products.

1. Anticipatory Surveys:

   Some elements of the future are known with reasonable accuracy. Government spending is reflected in existing budgets. These budgets indicate how much will be spent and how much money will be extracted from the stream of private spending by taxation. Similar information is available on some parts of the private economy. Periodic surveys conducted both by government and by private organizations measure business plans to invest in new plants and equipment. Increasingly, attempts are made to probe the mood and intentions of consumers concerning the possible purchase of automobiles, houses, appliances, and other durable goods. Regular surveys are also made to determine the general mood of the public—whether people are optimistic or pessimistic about their own economic future and thus whether their spending is apt to be relatively strong or relatively weak. In general, such information obtained from the various surveys of investment plans, spending plans, and attitudes has been highly useful to economic forecasters. Such information helps to limit the range of possibility. But plans and attitudes change, sometimes quite abruptly, and although the surveys are useful tools they are not clear and reliable guides to the future.

2. Barometric or Indicator approach:

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3. Diffusion Indexes:

   Some economists also use sets of statistics called diffusion indexes to calculate economic turning points. A diffusion index is a method of summarizing the common tendency of a group of statistical series. If a greater number of the series are rising than are declining, the index will be above 50; if fewer are rising than declining, it will be below 50. In effect, a diffusion index measures the degree to which either strength or weakness pervades the economy. If, for example, most of a group of industries are increasing their production rates, the economy as a whole is probably expanding; if the proportion of industries that

are growing begins to decline and falls significantly below 50 percent for a period of time, the economy is probably in a recession, or at least moving in that direction.

4. Money and Stock Prices:

   Monetary theory in its simplest form states that fluctuations in the rate of growth of money supply are of utmost importance in determining GNP, corporate profits, interest rates, stock prices etc. Monetarists contend that changes in growth rate of money supply set off a complicated series of events that ultimately affects share prices. In addition, these monetary changes lead stock price changes. Thus, while making forecasts, changes in growth rate of money supply should be given due importance. Some thinkers states that stock market leads changes in money supply. However, sound monetary policy is a necessary ingredient for steady growth and stable prices.

5. Econometric Model Building:

   Economists frequently use mathematical equations to express the normal relations between various economic factors. As a simple example, a given increase in consumer income will ordinarily produce a certain increase in sales, saving, and tax revenue, and these developments can be expressed mathematically. With a sufficient number of equations, all the important interactions within the economy can be simulated in a mathematical model. With the advent of computers able to make millions of calculations in a few moments, economists began to construct more and more complex sets of equations, called econometric models. These models, some of which include hundreds of equations, can be used to forecast overall economic activity (macroeconomic forecasting) or developments in particular parts of the economy (microeconomic forecasting). The success of econometric forecasting has so far been limited because the exact nature of economic relations is not fully known, and also because of the inadequacies of existing statistics. Nevertheless, the improvement of these techniques represents the greatest hope for more accurate economic forecasting in the future

6. Opportunistic Model Building:

   Opportunistic model building or GNP model building or sectoral analysis is widely used forecasting method. Initially, the forecaster must hypothesize total demand and thus total income during the forecast period. Obviously, this will necessitate assuming certain environmental decisions, such as war or peace, political relationships among the level of interest rates. After, this work has been done, the forecaster begins building a forecast of the GNP figure by estimating the levels of the various component of GNP like the number of consumption expenditures, gross private domestic investment, government purchases of goods and services and net exports. After adding the four major categories the forecaster comes up with a GNP forecast. Now he tests this total for consistency with an independently arrived at a priori forecast of GNP.