CHAPTER III

THE INVESTMENT CRITERIA, ALTERNATIVES AND ANALYSIS: THE CONCEPTUAL FRAMEWORK
Investment decision-making can be a fascinating and stimulating field of study for a person who is interested in gaining knowledge and expertise in financial investment decision-making. The study of investment enables a person to operate in the securities market either on his own behalf, or on behalf of other individuals or institutions seeking his help.

An individual's desire to participate in any investment programme presupposes that he wants to accumulate assets and expand his net worth. However, the objectives with which the individual investors enter in the investment programme widely differ, depending upon their financial needs, their social outlook, family exigencies and moral views about the use of money. While some investors participate in the investment programme to accumulate money for the sake of accumulation and have no special goals; others view investment as a means of providing funds for their children's education, supplementing retirement income or fulfilling other financial and related needs. Still others view investment as a means of increasing their net worth in order to be able to provide increasing sources of funds for future family members.

Whatever be the goals of the investor, the purpose of the study of investment is to equip the individual, so that he makes investment decisions intelligently. The study of investment, therefore, is of growing significance to every individual, who desires to invest in the securities market. The basic question facing every investor is which securities to buy. The answer depends upon many factors such as a careful study of economic forces which have bearing on investment decision; the investigation of the industry and the company, and the security involved in the analysis.
Unfortunately, many investors, who participated in the investment programme, have little understanding of what they are doing and the risk they assume resembles more to a gambling instinct than to a prudent approach towards long-term investing. They do not appreciate the implications of accumulating good curities; they acquire the most hazardous ventures in an attempt to gain wealth quickly. Such investors, thereby, disregard the Baron Rothschild’s formula of Buying cheap (Cheep) and selling dear (dear). Being unaware of the true philosophy of the investment market, they come to wrong conclusions and so to wrong actions and subsequently blame the stock market for the consequences.

INVESTMENT CRITERIA

An investment programme is built with reference to certain criteria and to fit into the specific needs of an individual investor. To some investors tax considerations may be of primary importance, because of the size of income; to another marketability may be emphasised because of the probable necessity for liquidating the holdings. The tests of the investments, therefore, are relative, their importance depending upon the investment objectives of the investor.

Because of the contradictory character of different investment attributes, the application of the tests of a model investment portfolio become complicated. Safety is a quality universally sought in an investment. Income return is also generally desired. But both these qualities are mutually contradictory. If a high degree of safety is desired, income return must be sacrificed; and if high return is sought for, greater risk must be assumed. Likewise, if liquidity is obtained, the investor may be forced to lower quality, at another point, perhaps to accept a lower income return. Among the several possible investment criteria, the more significant
ones which influence an individual investor's decisions are safety (or absence of risk), income, liquidity, marketability, capital appreciation, tax benefits and suitability, public policy and diversification.

I. SAFETY (OR ABSENCE OF RISK)

Safety of funds is a prime consideration of investment decisions since every investor would like his money to be safe, return to be obtained punctually and repayment to be received promptly.

When an individual considers investing money, he is immediately faced with the conflict between the desire for safety of principal and the desire of a future return. Every investor expects a substantial return, but at the same time he is not willing to accept the risk associated with high returns desired. The risk in holding the securities is that the actual realised returns might be less than the expected returns. There is a positive relationship between the amount of risk assumed and the amount of expected return. Greater the risk, the larger the expected return and larger the chances of substantial losses.

The relationship between the amount of risk assumed in managing a portfolio of securities and the amount of expected return may be depicted in the following diagram:

![Diagram](attachment:image.png)
Expected rate of return has been shown on the OK axis and risk along the OY axis. The line OK shows the rate of return on riskless investments. The line N₀ to OR illustrates increases with an increase in the risk.

Every investor may knowingly, but not willingly, assume risk. By making an intelligent and through analysis, he tries to reduce possible risks. To properly assume these risks, it becomes necessary for every investor to know the nature of the various types of risks namely, business risk, market risk, purchasing power risk, interest rate risk and political risk.

(a) **Business Risk**

The inability of a company to maintain its competitive position and the growth or stability of its earnings is called business risk. Business risk is a decline in earning power which reduces a company's ability to pay interest or dividends. Business risk is a function of the operating conditions of a firm and the lack of stability of these operating conditions will determine operating income and dividends.

Business risk may be external or internal. Changes in the economic environment in the country will result in external business risks, while the internal business risk is largely associated with the operational efficiency of the firm. The external business risk can be determined by thoroughly examining the economic conditions within which a firm or industry operates. The determination, however of internal business risk is somewhat difficult, because it depends upon the managerial efficiency which in turn, can be judged by calculating the

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assets turnover ratio and comparing it with the ratio of other firms operating in the same industry.

Before selection of his investment the investor has to decide the extent up to which he wishes to assume business risk.

(b) Market Risk

Market risk is a change in market psychology which causes a security's price to decline irrespective of any timely change in earning power.

The changes in market prices of equity shares are usually an evidence that the future will bring a change in relative investment opportunities. An investor may miscalculate the magnitude of the change in relative investment opportunities or at least, to overestimate or underestimate the significance of the change. This irrationality in the securities market is a major factor contributing to the fluctuations in the security prices. This risk is called the market risk.

Market risk is, therefore, the loss of capital resulting from changes in equity share prices. It is not uncommon to find share prices falling from time to time, while a company's earnings are rising and vice versa. The price of a stock may fluctuate widely within a short, time even though earnings remain unchanged or relatively stable. The causes of this phenomena are varied, but usually it is the result of change in investor's attitude. The reaction of the investors to tangible as well as intangible events is the cause of most of the market risks, e.g., expectation of lower corporate profits throughout the economy may cause equity shares in general to fall in price.

All investors of equity shares are, therefore, exposed to market risk. Equity share prices in some fashion are related to earnings. Current and prospective dividends, which are made possible by earnings theoretically should be capitalised at a rate that will provide yields to compensate for the basic risks.

The investor can reduce market risks by carefully examining the history of each share and its price behaviour. Shares which have demonstrated a growth pattern in the past, will continue to do so in future and shares which have demonstrated high volatility or cyclical pattern in the past are likely to follow the same pattern in future too unless there appears to be a basic change in the companies expectations for its products or the market it serves.

An investor can avoid the market risk by being careful in the timing of his purchase or sale of shares. Timing, however, is one of the most difficult tasks confronting the investor. Individual investors generally are the poor market performers, mostly because their timing is generally incorrect and often they buy more at market higher than they sell, and they sell considerably more shares at market bottoms than they buy.

An investor might choose stocks that have the lowest amount of market risk. Growth-oriented equity shares may not have the same degree of market risk, as cyclical shares. Nevertheless, high growth shares will generally experience a sharp decline in market price, when the firm's growth rate slows and the market places a lower demand for that Company's securities.

(c) Purchasing Power Risk

All individuals, whether they buy securities or deposit their surplus funds in a bank or under the mattress suffer
from purchasing power risk, due to risk in prices which amounts to loss of income and the principal due to the decrease in the value of money.

Investors, who fear the effects of inflation, usually invest a part of their funds in variable return investments with the hope that they will rise in value over time. Generally, over the long-term, properly-selected, variable-return investment in equity shares may increase in market price and offset either totally or partially a price level risk.

For an investor, who tries to solve the problem of inflation within his investment holdings, fixed income securities are hardly of any help, as they do not increase in value to compensate for the rising costs. Equity shares have always been a good hedge against inflation.

(d) **Interest Rate Risk**

Interest rate risk has been defined as "the uncertainty of future returns due to changes in market rates of interest". Many investors consider high quality fixed income securities as the safest investments. However, the fixed income securities are subject to interest rate risk and the loss can be severe over a long period of time. When the rate of interest rises or falls as a result of supply and demand for money, there is a corresponding rise or fall in the rate of return demanded on alternative investments and therefore, the prices of fixed income securities change inversely.

In general, the investors of fixed income securities will find the price of their holdings rising at times when interest rates are decreasing, and the price decreasing, when

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the interest rates are rising. Due to this inverse relationship the investor of a fixed income security must be aware of the interest rate risk.

(e) **Political Risk**

Investors are subject to political risk which may be result of actions of the government policy in general and in the investment market in particular. Price-wage controls, tax increases, changes in tariff and subsidy policies etc., are some examples of the political risk under which investors operate.

Investors should know that no securities are free of all risks. Equity shares are most vulnerable to (a), (b) and (c); debentures are most vulnerable to (a), (c), (d) and (e). Even government securities are subject to (c) and (d).

II **INCOME**

Another consideration, which an investor keeps in mind is the income from the investment. The rate of return on an investment is usually inversely related to safety. The return on a purely riskless investment is pure interest. The amount by which the return on any particular security exceeds the pure interest rate is the payment for the assumption of the risk of investment in this security. The net return or yield on an investment thus becomes an index of the market appraisal of the degree of risk involved. For example, the return on government securities is the lowest (4-6%), whereas on company deposits is the highest (about 10.5 – 15%), Bank fixed deposits come midway (6-11%). Return on equity shares varies from company to company and time to time.
While there is a definite relationship between safety and income, there are a number of factors that modify the consistency of the relationship such as bank rate and other rates of interest in the market, the possibility of capital appreciation as also the availability and extent of tax benefits.

III LIQUIDITY

Liquidity is the capacity to produce cash on demand. It should be possible for the investor to raise money readily against his investments either by selling them or by borrowing against them. To meet the present or an unexpected need for cash, an investor will need to convert his investment into cash. Often in order to pay estate duty or other tax encumbrances upon the death of a wealthy investor his legal heirs may like to liquidate a part of the investment. The substitution of present holdings for others may become desirable in order to enlarge income, to reduce risk, to achieve greater diversification or to lower tax liability.

IV MARKETABILITY

Marketability may be defined "as the capacity to sell a security without an appreciable concession over the current market price."**

The term 'Marketability' and 'Liquidity' are not, however, synonymous. Complete liquidity can be achieved only when the investment can be sold without appreciable money loss. An investment may be marketable, yet fluctuate in price. Therefore,

a security is relatively liquid, when it is marketable and has price stability.

There are a number of factors that influence marketability of a security. Listing enhances the marketability of shares and debentures by providing a channel for buying and selling these securities. The number of shareholders of a security may also be important in gauging the size of the market. The size of the issue may likewise be important, usually the larger the issue, the easier it is to buy or sell it. Volume of trading for a particular listed security indicates the general interest of the investors in such a security. The transfer mechanism and tax exemptions also influence marketability.

The collateral value of an investor's holdings depends primarily on their marketability and freedom from price fluctuations. Readily saleable securities are preferred by lenders as collaterals, since they may be converted into cash with relative ease or minimum loss.

V CAPITAL APPRECIATION

Capital appreciation in investment is another expectation of an investor. Securities with fixed incomes, for example, government securities, bank deposits, preference shares, debentures and company deposits do not ordinarily rise or fall in their values. It is only the variable income securities, namely, the equity shares which have scope for capital appreciation gains from sale at a price higher than their purchase price or through allotment of bonus or rights shares. While well-managed companies with good previous record and high profitability can offer prospects of capital appreciation to the shareholders, there is also the likelihood of risk of capital depreciation in other cases.
Taxation of income and of capital gains has become a very important consideration for the investor. For investors in low tax brackets, tax considerations have little influence on their investment policies. However, higher the investor's income, the more tax considerations determine the character of investments. For investors in extremely high tax brackets, tax considerations may be the dominating factor.

Public Policy

An investor operates within the broad framework of public policy which may incorporate economic, industrial, corporate, fiscal and monetary policies etc. of the central government, state governments, central bank and other public authorities. The level and changes in these policies introduced from time to time have a direct bearing on the investment climate in general and the investment decisions of the present and potential investors in particular.

Diversification

Diversification of investible funds seeks to increase the degree of safety in investment portfolio by decreasing the amount of risk incurred in each security. It is a realistic recognition of the fallibility of human judgment and of the uncertainties underlying the selection of securities. Occasional losses inevitably occur, but diversification tends to limit the full force of any single miscalculation. Diversification of funds among several securities is not an attempt merely to eliminate risk, but rather to spread the risk.

The measurement of the diversification of investments is not the number of securities owned, but the proportion in...
which they are held. The appropriate number of securities depends upon the number of eligible securities available, the size of the investment fund and the number of issues the investor can reasonably supervise.

However, well-chosen the portfolio may be, it must continuously be reviewed in the light of changing conditions both in the securities market and in the requirements of the investor. Cyclical changes threaten the investor through periodic general decline in corporate income and asset protection, through variation in his income from the securities and through changes in their market valuation. In a balanced programme, debentures are relied upon for protection against periods when share prices and dividends decline, while equity shares provide opportunities for appreciation in price and increase in dividends during inflationary periods.

INVESTMENT ALTERNATIVES IN INDIA

Before making an investment decision, an investor considers the various alternative investment opportunities available to him. The various financial assets in which the bulk of household savings in India are absorbed are bank deposits, company deposits, small savings scheme, unit trust, life insurance, bullion, real estate and securities - gilt-edged as well as corporate securities. These investment alternative have been discussed in the following pages:

BANK DEPOSITS

Among the number of financial assets available to the investors, bank deposits are the most prominent, as these combine the canons of safety, liquidity and profitability as few other assets do in India today.
COMPANY DEPOSITS

Company deposits popularly known as public deposits have become a source of working capital for the companies and an attractive investment alternative to the investor with comparatively higher rate of interest in recent years due to restrictive bank credit measures taken by the government as an anti-inflationary measure. The public deposits however, are unsecured and payment of interest and repayment of principal on maturity depends on the financial health of the company. Efficient management, good record of profits, diversified nature of business and good future prospects are some of the criteria kept in mind by investors while investing in Company deposits.

SMALL SAVINGS SCHEME

Post Office Savings Bank was started on April 1, 1882 to foster the habit of saving and investment, especially in the rural areas. Besides various forms of small savings deposits schemes etc., are still popular despite the widespread branch network of commercial banks in recent years. Deposits in P.O. S.B. carry a slightly higher rate of interest than that of commercial banks. Moreover, the interest accrued is completely free of income tax under section 10 of Income Tax Act.

UNIT TRUST

Units Trust of India, a specialised financial institution, was set up in 1964 for the purpose of pooling the savings of the community, especially the persons belonging to the middle or lower strata of the society. Professional management of the trust's fund, diversification of risk, ready liquidity and ready return on capital, easy marketability and moderate capital appreciation, are the special benefits enjoyed by the investors in these funds.
In India, where social security schemes are virtually absent, the cover against life is the main consideration for taking an insurance policy. Strictly speaking life insurance is not considered among the major investment alternatives in India.

Viewed from the yardstick of Yield and capital appreciation, LIC policy may not be attractive investment, but from the yardsticks of security, regularity of Income, tax reliefs and risk free investment, it offers a unique opportunity to salaried earners.

**Bullion**

Investment in gold and silver has been most popular in India in the past because of the traditional attachment towards ornament and glittering metal, social values towards bullion, absence of alternative channels of investment particularly in the rural areas, ever increasing monetary and non-monetary use of bullion and wider home and international market. Bullion prices both of gold and silver have widely fluctuated between 1970-71 and 1981-82. Table 3.1 shows that prices of gold (per 10 grams) have increased from ₹184.96 to 1719.17 (an increase of 829 per cent) and the prices of silver (per kilogram) have increased from ₹536.08 to 2636.06 (an increase of 414 per cent) in Bombay bullion market.

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*The rate of bonus on whole life policies ranged between ₹ 22.31 per thousand and on endowment policies ₹ 17.60 - 24.80 per thousand during the period 1967-1979.*

**TABLE 3.1**

<table>
<thead>
<tr>
<th>Year</th>
<th>Gold Bombay Rs per 10 grams</th>
<th>Silver Bombay Rs per Kilogram</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-71</td>
<td>184.96</td>
<td>536.08</td>
</tr>
<tr>
<td>1974-75</td>
<td>519.10</td>
<td>1121.65</td>
</tr>
<tr>
<td>1975-76</td>
<td>544.99</td>
<td>1169.36</td>
</tr>
<tr>
<td>1976-77</td>
<td>549.50</td>
<td>1246.66</td>
</tr>
<tr>
<td>1977-78</td>
<td>637.92</td>
<td>1240.52</td>
</tr>
<tr>
<td>1978-79</td>
<td>791.22</td>
<td>1501.02</td>
</tr>
<tr>
<td>1979-80</td>
<td>1158.75</td>
<td>2297.90</td>
</tr>
<tr>
<td>1980-81</td>
<td>1522.44</td>
<td>2616.63</td>
</tr>
<tr>
<td>1981-82</td>
<td>1719.17</td>
<td>2636.06</td>
</tr>
</tbody>
</table>

* Average of closing quotations for working days.


**REAL ESTATE**

Investments in land, particularly urban house property, presently provide one of the most attractive investment opportunities in India. With growing industrialization, urbanisation, inflationary spiral and the generation of black money, there has been a phenomenal rise in the price of property particularly in the metropolitan cities and urban and semi-urban areas. Land is an idle form of investment and appreciates in value without any additional efforts. Return on land differs from place to place depending upon its place of location, nature of use and the interaction of its demand and supply. Real estate prices are the
cause and the effect of black money. People with black money have invested huge funds in real estate which in turn has generated further black money. Real estates lack ready liquidity due to ceiling and restrictions on its transfer. Such investment is fairly marketable in long run. Though there are no tax exemption on real estates as a whole, there are some tax incentives towards house construction.

A study of prices of house property in a planned city like Chandigarh shows that a plot of land of one canal which was available for around Rs 35,000/- in a fairly good locality of the city in 1963 can now fetch a value of around Rs 2,50,000/- showing an increase of 614 per cent. This example is merely illustrative. The prices of real estates in cities like Bombay, Calcutta, Delhi** and Madras have recorded a higher rise in recent years.

The real reason, according to those in the real estate business, is the unabated proliferation of money with the public in recent years, unchecked generation of black money and diversion of their capital and attention by traders to speculation in real estate because of the virtual takeover of foodgrains by the Government about a decade ago. Earlier, property agents say, gold jewellery and precious stones used to attract excess and black money. But with the sharp rise in its price in the international market, the yellow metal has lost much of its lustre.


** A delux unit in Swiss Apartments in the early 70s was offered for sale at Rs 2,50 lakhs. Today, there is a beeline of buyers who would be too happy to pay Rs 15 lakhs for the same. Flats in Tara and Azad Apartments till last winter were easily available at Rs 2,50 lakhs for a reasonably spacious accommodation. Then the appreciation bug bit it and no owner today talks of less than Rs 10 lakhs to Rs 12 lakhs. The value of a plot—freehold or leasehold if available in any of the posh colonies has appreciated to Rs 3500 per square metre from Rs 1500 in March last. In the early seventies accommodation in Defence Colony and South Extension I and II could be had for the asking but by mid-seventies the impact of rent had begun to be felt there. Last year the rents shot up at a menacing pace. These are now at least 10 times higher than what they were a year ago.

capital appreciation with a higher return over the last 25 years.

The rent of a four-room independent set which was Rs. 90/- per month in 1963 is now around Rs. 700/- per month (an increase of 678 per cent).

A three storey-house constructed on a 10 marla plot which could be purchased for Rs. 40,000/- in 1963 can fetch a price of Rs. 3,00,000/- in 1981—an increase of 650 per cent.

As a consequence of all these factors possession of real estates in metropolitan towns has become attractive as well as less risky. It is attractive because even according to a conservative reckoning, its price has been increasing at the rate of 5 per cent per month. It is less risky because one can always manage to produce documents showing loans from friends and relatives or some financial institutions to hoodwink the authorities.

SECURITIES

Securities can mainly be divided into two categories. The government securities, popularly known as gilt-edged securities, and industrial securities. Industrial securities may further be sub-divided into fixed-return securities (preference shares and debentures) and variable return securities.

(I) GILT-EDGED SECURITIES

Gilt-edged and semi-gilt securities are those issued by the Government of India and the State Governments and by statutory bodies like Port Trusts, Municipal Corporations, Improvement Trusts, Electricity Boards and the like. These obligations are mostly in the form of promissory notes, stocks
and bonds. The running yield on Government of India Securities as well as State Government Securities, which stood at 4.94 per cent and 5.59 per cent respectively in 1973-74 continued its upward trend and stood at 6.17 per cent and 6.13 per cent respectively during the period 1981-82.

(II) **CORPORATE SECURITIES**

Corporate securities or stocks or shares, as they are generally known, are the investments in the respective companies with certain rights. These securities are issued in the form of share certificates indicating the amount of investment. The main feature of these securities is that most of them can be sold at any time in the share market at the prevailing rate and can be transferred to the buyer. The price of the securities depends upon the prevalent market conditions and would often be different from the purchase price.

A successful investment would be one which gives an immediate return and future appreciation. Corporate securities are often a hedge against inflation, which is the realistic goal of an investor who has to consider the safety of investment and its liquidity. A brief description of various types of industrial securities is given below:

**DEBENTURES**

In modern commercial usages, debenture denotes an instrument issued by the company, generally bearing its common seal, and providing for the payment of or acknowledging the indebtedness in, a specified sum say Rs. 100, at a fixed rate with interest thereof.

Within the corporate securities, debentures of the company
are safer when compared to preference or equity shares, as the debenture-holders have the first priority for their claims both for interest payment and return of capital in the event of liquidation of the Company. But a debenture is a fixed interest bearing security (the prevailing maximum rate being 15 per cent per annum) repayable at a future date and the capital appreciation is not very attractive.

Convertible Debentures, a new form of debentures is gaining popularity these days. These debentures can be one of the finest holdings for the investor looking for both appreciation of investment and income, because after the stipulated period, they are convertible into equities. Besides regular return by way of interest (the prevailing rate of interest is 13.5 per cent), there are chances of getting moderate capital appreciation.

**Preference Shares**

Preference shares are preferred in the sense that they receive preferential treatment with regard to dividend payment and capital repayment. Preference shareholders are entitled to receive their fixed rate dividend (upper limit 13.5 per cent) before equity shareholders, irrespective of profits of the company. The preference shares are generally cumulative i.e., if a company skips its dividend for a particular year, it accumulates each year and becomes payable when the company is able to pay. Unless these cumulative preference dividends are cleared, the Company cannot declare dividends on equity shares.

**Equity Shares**

While considering variable return investments, the investor's primary concern is usually with the investment characteristics of equity shares. Debenture holders are
creditors of the Company, whereas equity shareholders are its owners. Debentureholders have legal claims against a Company for interest and principal payments and when the obligations are not met, the trustees can take legal action against the Company. However, shareholders whether they own equity or preference shares, are entitled to dividends only when dividends are declared by the Company's board of directors. Equity shareholders have only, residual claim against the Company, which limits their ownership to the net assets of the Corporation after all creditors and preferred shareholders claims are met.

Equity shares generally represent a more risky investment than limited return investments. The market value and dividends paid on equity shares are highly dependent upon the earning power of the company which is a reflection of the financial health of the firm and the industry that it serves and the quality, integrity and ability of management. If the Company is financially successful the profit that remains after paying interest to debentureholders and dividends to preference shareholders will usually give added value to equity shareholders in terms of dividend and capital appreciation.

The payment of dividend on equity is discretionary, the board of directors may decide to payout a large proportion of earnings in dividends, or it may decide to plough back the major portion and pay the equityholders only a token amount, or pay nothing. Return of principal on equity share is market determined. The holder of equity share, who wants to convert his holdings to cash has no alternative, but to sell his shares to others.

In return for their junior capital structure position, equity shareholders have primary voting control and hope for
larger returns from the business is compensation for exposing themselves to a larger amount of risk. The result of this exposure to market and financial risk has resulted in a large variability of returns from year to year on equity shares.

The dividends on equity shares may vary depending on the profits of the company as there is no ceiling. The equity shares experience the widest fluctuations and offer the greatest opportunities for capital appreciation but there is also the risk of depreciation.

Growth attracts additional buy rates, and that drives share prices higher. Some of the risk of ownership of equity shares, in well established firms is minimised, if their records of earnings and sales have grown at a stable rate over a sufficiently long period of time, and, if forecasts indicate a continued pattern of growth.

Another attraction for equity shareholders is that a growing company offers new shares to its existing shareholders in the form of rights and bonus shares. Since equity shares represent proportionate voting power and ownership interest, it is the privilege of the shareholder to preserve his relative voting power and his proportionate share of the net worth of the issuer.

Another characteristic of equity shares, which distinguishes it from other financial assets is that, in addition to cash dividends, the board of directors may also declare "stock dividends", popularly known as bonus shares, whereby it simply issues additional shares of its equity stock and distributes them to existing shareholders in some ratio to their present equity shareholders. A stock dividend then is nothing
more than an "equity recapitalisation", resulting in a reduction of legal ability to declare and pay future cash.

When we talk of return on equity shares, it is worthwhile to know the names of some companies, which paid higher dividends in 1979-80. Among top rankers, mention may be made of Colgate Palmolive with a dividend rate of 92 per cent, Hindustan Dorr Oliver 55 per cent, Maheshwari Mills 50 per cent, Malankara Rubber 40 per cent, Cynamid 30 per cent, Tea Estates 30 per cent, Aryodaya Ginning 28 per cent and Indian Cord Clothing 27.5 per cent. Ahmedabad advance, Arvind Mills, Bimetal Bearing, East India Hotels, Food Specialities, Modipan and Three Dig Vijay Woolen 25 per cent cash and Gujrat Estate Fertilisers 22 per cent.

Among the equities which were quoted at very high prices in 1980, mention may be made of Colgate share at Rs 146 (against Rs 10 paid up); Inger Gold Land at Rs 125 (Rs 10); Reliance Textiles at Rs 111 (Rs 10); Century at Rs 863 (Rs 100), Bajaj Auto at Rs 855 (Rs 100), Modipan at Rs 68.50 (Rs 10), Food Specialities at Rs 66 (Rs 10), Cynamid at Rs 56 (Rs 10), GSFC at Rs 549.50 (Rs 100).

Table 3.2 gives the indices of security prices of Debentures, Preference Shares and Equity Shares during the period 1972-73 through 1978-79.

| TABLE 3.2 |
|---|---|---|---|---|---|---|---|---|
| **INDEX OF SECURITY PRICES (ALL INDIA)** | RBI SERIES (1970-71 = 100) |
| Debentures | 98.4 | 97.4 | 96.2 | 92.1 | 90.5 | 90.4 | 89.3 |
| Preferences share | 94.3 | 94.7 | 90.9 | 84.3 | 80.8 | 79.3 | 81.1 |
| Equity Shares | 96.4 | 114.6 | 112.5 | 97.3 | 103.4 | 107.4 | 130.4 |

From the above table one can easily conclude that price fluctuations are maximum and showed an upward trend in equity shares, which is responsible for a marked shift in favour of equity investment both in old as well as new companies.

(Diagram 3.1)

Table 3.3 shows the avenues of investment in India.

**TABLE 3.3**

**AVENUES OF INVESTMENTS**

(As on October 15, 1983)

<table>
<thead>
<tr>
<th>Type of Investment</th>
<th>Rate of Interest/Dividend (per cent per annum)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I</strong> Savings Account</td>
<td></td>
</tr>
<tr>
<td>(a) Commercial banks</td>
<td>5.00</td>
</tr>
<tr>
<td>(b) Post Office</td>
<td>5.50</td>
</tr>
<tr>
<td><strong>II</strong> Fixed deposits with Commercial Banks</td>
<td></td>
</tr>
<tr>
<td>(i) One year and above but less than two years</td>
<td>8.00</td>
</tr>
<tr>
<td>(ii) two years and above but less than three years</td>
<td>9.00</td>
</tr>
<tr>
<td>(iii) three years and above but less than five years</td>
<td>10.00</td>
</tr>
<tr>
<td>(iv) five years and above</td>
<td>11.00</td>
</tr>
<tr>
<td><strong>III</strong> Fixed deposits with post office</td>
<td></td>
</tr>
<tr>
<td>(i) One year</td>
<td>9.00</td>
</tr>
<tr>
<td>(ii) two years</td>
<td>9.75</td>
</tr>
<tr>
<td>(iii) three years</td>
<td>10.50</td>
</tr>
<tr>
<td>(iv) five years</td>
<td>11.50</td>
</tr>
<tr>
<td>(v) Five-year recurring deposits</td>
<td>11.50</td>
</tr>
<tr>
<td>(vi) Ten-year recurring deposits</td>
<td>8.75</td>
</tr>
<tr>
<td><strong>IV</strong> Fixed deposits with public sector and private sector companies</td>
<td></td>
</tr>
<tr>
<td>(1,2,3 year deposits)</td>
<td>15.00</td>
</tr>
</tbody>
</table>

contd..
<table>
<thead>
<tr>
<th>Type of Investment</th>
<th>Rate of Interest/ Dividend (Per cent Per annum)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V Small Savings</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Six year National Savings Certificates</td>
<td></td>
</tr>
<tr>
<td>(i) VI issue</td>
<td>12.00 (compound)</td>
</tr>
<tr>
<td>(ii) VII issue</td>
<td>12.00 (simple)</td>
</tr>
<tr>
<td>(b) Ten-year social security certificates</td>
<td>11.30 (compound)</td>
</tr>
<tr>
<td>(c) Ten-year capital investment Bonds</td>
<td>7.00</td>
</tr>
<tr>
<td><strong>VI PUBLIC PROVIDENT FUND</strong></td>
<td>9.00</td>
</tr>
<tr>
<td><strong>VII Corporate Securities</strong></td>
<td>Variable dividend</td>
</tr>
<tr>
<td>(i) Equity Shares</td>
<td>13.50</td>
</tr>
<tr>
<td>(ii) Preference shares</td>
<td>13.50</td>
</tr>
<tr>
<td>(iii) Convertible debentures</td>
<td>15.00</td>
</tr>
<tr>
<td>(iv) Non convertible debentures</td>
<td>15.00</td>
</tr>
<tr>
<td><strong>VIII Unit Trust of India</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Unit Scheme, 1964</td>
<td>13.50</td>
</tr>
<tr>
<td>(b) Unit-Linked insurance Plan (ULIP), 1921</td>
<td>10.50</td>
</tr>
<tr>
<td>(c) Unit Scheme for Charitable and religious trusts and registered societies (CRTS), 1981</td>
<td>12.75</td>
</tr>
</tbody>
</table>

**Non-resident investors**: Eligible to get higher rate of interest of two per cent points on their deposits with commercial and cooperative banks. Also entitled for interest rate of 13 per cent (against 12 per cent of resident investors) on the National Savings Certificates (VI and VII issues).

**Cooperative banks**: Permitted to pay higher interest rate ranging from 0.25 per cent to 1.00 per cent point on savings deposits and time deposits up to three years than those payable by commercial banks.

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TABLE 3.3 (cont'd)

Non-resident investors: Eligible to get higher rate of interest of two per cent points on their deposits with commercial and cooperative banks. Also entitled for interest rate of 13 per cent (against 12 per cent of resident investors) on the National Savings Certificates (VI and VII issues).

Cooperative banks: Permitted to pay higher interest rate ranging from 0.25 per cent to 1.00 per cent point on savings deposits and time deposits up to three years than those payable by commercial banks.
Diagram 3.1

MONEY AND INVESTMENT

WHERE CAN YOU INVEST?

- UTI
  - Initiated 1964
  - 13.5%
- Post Office Savings
  - 11.5%
- Shares dividend
- Non-convertible debentures
  - 15%
- Convertible debentures
  - 13.5%
- Gold Silver
- Bank deposits over 5 years
  - 11%
- Public Provident Fund
  - 9%
- National Saving Certificates
  - 12%
- Company deposits
  - 15%
- Social Security Certificates
  - 11.3%
Table 3.4 shows a relative position of the various investment alternatives in India.

**TABLE 3.4**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Type of Deposit</th>
<th>Safety of Capital (or absence of risk)</th>
<th>Current Yield</th>
<th>Inflation Resistance</th>
<th>Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bank Deposits</td>
<td>Excellent</td>
<td>Fair</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td>2</td>
<td>Public Deposits</td>
<td>Good</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>3</td>
<td>Small Savings (P.O.)</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>(a) Deposits</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>(b) Time Deposits</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>(c) C.T.D.</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>(d) Certificates and Bonds</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>Life Insurance</td>
<td>Excellent</td>
<td>Fair</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>5</td>
<td>U.T.I.</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>6</td>
<td>Bullion:</td>
<td>Good</td>
<td>None</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>(a) Gold</td>
<td>Good</td>
<td>None</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td>7</td>
<td>Real Estate</td>
<td>Excellent</td>
<td>Fair</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td>8</td>
<td>Govt. Securities</td>
<td>Excellent</td>
<td>Fair</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td>9</td>
<td>Debentures</td>
<td>Excellent</td>
<td>Good</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>10</td>
<td>Preference Shares</td>
<td>Fair</td>
<td>Poor</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>11</td>
<td>Equity Shares</td>
<td>Fair</td>
<td>Poor</td>
<td>Good</td>
<td>Good</td>
</tr>
</tbody>
</table>
ANALYSIS OF EQUITY SHARES

Equity shares are at the heart of the variable return security analysis. When an investor considers of equity shares, he is primarily concerned with estimating the total rate of return available from an equity share portfolio. Total return is derived from a combination of the dividends available and the capital appreciation or decline in the price of the equity shares.

Investors in shares usually make constant use of the following six basic financial calculations for gauging the relative merit of a script and for testing, the reasonableness of its price. These calculations are, in no sense, final determinants of quality and value, but they are convenient preliminary indicators, which taken in conjunction with the investors' general knowledge of the industry and the company, tell whether the share is worthy of investigation. The analysis in question generally centres round (1) The Book Value Per Share (BV), (2) Dividend per Share, (3) Earnings per Share (4) The Price-Earnings Ratio (5) The Yield and (6) Assets.

1 THE BOOK VALUE PER SHARE

The book value per share, also known as the net asset value per share attempts to measure the amount of assets, which the corporation has on behalf of each equity share. The book value per share shows the investment per share made in the business by the shareholders. In other words, it represents on a per share basis the net assets (excluding intangibles) remaining after offsetting all the liabilities against the assets. It is the net result of capital contributed by the shareholders and retention of profits after deducting the losses.

* For the purposes of the present study Price-earnings ratio and yield have excluded because both. These variables are dependent on market price. As stated earlier the variables tested for the present study are BV, DPS, EPS, size, ROI, leverage and growth. For details please see chapters IV to VI.
In a business enterprise, where the available assets are a good measure of the earning power, the book value per share may be highly significant. Two things, however, must be noted in this connection that (1) book values are usually based on cost and not earning power and (2) intangible assets not shown in the books may be more significant than book value in determining earning power. Hence, the net asset value per share should not be overemphasized, though the solid dependability of good assets in assuring future earnings should not be belittled.

It has become customary in recent years to calculate book value by taking tangible assets only due to the practice followed by most of the companies not to show the fictitious and intangible assets in their financial statements. Due to this practice, the book value of highly valuable shares may be very small. But in other cases it avoids distortion by excluding the dubious intangible values, which some financial statements contain.

Some of the complications which are generally experienced by the financial analyst, while computing the book value of earnings figures are given below:

1. When a company makes a new issue of shares for property or cash during a business year, the new assets contribute to the earnings during only for a part of the year. In such cases the financial analyst often computes earnings per share on the weighted average number of shares outstanding.

2. Earnings per share in case of a holding company of a participant in joint ventures may be computed from either the corporate, or the consolidated income statement. Earnings of the corporate income statement will include the dividends received by the company from its subsidiaries or affiliates plus the profits from its own operations. This may be a measure of company's capacity to pay dividends from current earnings. Earnings per share computed from a consolidated income statement will reveal
the per share profit of the business as a whole whether the subsidiaries or affiliates have paid dividends or not.

3 When corporations sell bonds or preference shares, which can be converted into equity shares, the dilution problem often occurs. This conversion will usually reduce the senior claims to income by a relatively modest amount. In such a situation the number of outstanding equity shares might increase greatly, while the total earnings available for the equity shares increase very little. The result would be a decline in per share earnings.

2 DIVIDEND PER SHARE (DPS)

Dividend per share is the actual amount of dividend (gross) declared per share. The net profits after taxes belong to shareholders. But the income, which they really receive is the amount of earnings distributed and paid as cash dividends. Therefore, a large number of present and potential investors are more interested in the dividend per share, rather than the earnings per share. The dividend per share is the earnings distributed to equity shareholders divided by number of equity shares outstanding.

3 EARNINGS PER SHARE (EPS)

Since equity-holders are the residual claimants to the earnings of the corporation, the net profits to be taken for computation of EPS are usually arrived at after subtracting the preference dividends. The foundation of any fundamental security analysis must evolve around the earning power of the company. The entire concept of calculating securities investment value is built around an accurate projected earnings and earnings per share. If there is no earnings growth, there can be no constant dividend growth. If the company does not earn
enough to cover the full preferred dividend for the time period in question, the amount of deficiency is regarded as a deficit to the equity shares.

If EPS of the firm has been increasing consistently, it is generally indicative of the firm's successful participation in the growth of industry. If the share being analysed by the investor is such which shows a consistent increase in earnings per share, he should determine to the best of his ability how much longer the industry will continue its desirable growth before reaching the maturity stage. When the company and the industry reach maturity stage, it is difficult to maintain the historical growth rate. The sudden realisation that historical growth has decreased or ceased can cause a rapid reassessment of the shares' future value in the market price. This might cause a decline in the market price of the share, in spite of the fact that earnings may increase at the diminishing rate in the future.

The investor should also be aware of the composition of the firm's earnings in the recent past. In order to determine the true earning capacity of the firm's normal operations, the extraordinary income and loss items on the income statement should be taken out. Sometimes a firm may attempt to offset a poor year by liquidating a successful past investment and thereby increasing the earnings. A less knowledgeable investor generally considers the company's total earnings without bothering that a large part of the total earnings may be the result of extraordinary gains.

**PRICING**

Price earnings ratio is simply the market price of the share expressed as a multiple of the per share earnings of the corporation. The price-earnings ratio is a conventional measure
of stock values because it gives an indication of share prices measured against the earning power of the stock. It can be represented as:

\[
\text{Price-Earning Ratio} = \frac{\text{Market Price Per Share}}{\text{Earnings per Share}}
\]

Sometimes certain high quality shares brought as little as 10 times earnings, while other shares as much as 25 times. The reason of this may be that the high quality shares, which have been sold for 10 to 14 times earnings may be of such companies in which earnings growth is slow and dividend increases are rare. The price of such shares is likely to increase in future, but there are hardly any chances of big profits. Contrarily there are companies, which are involved in expansion and new product development, which promise rapid increases in earnings and dividends. Shareholders will be prepared to high multiples of present earnings for these growth shares. The shares whose market price is 15-30 times of their current earnings are almost shares with high growth prospects. The faster and more durable is the growth trend, the higher is the price.

The price-earnings ratio is not the same for all companies or even constant for one company. The ratio would be high during depressions, because though share prices are low, earnings are still lower, so the ratio is high. When business slowly emerges from its slump, prices and earnings both rise, but prices are slow to advance, because investors are still shy of the market, owing to the recent debacle in share prices and furthermore surplus investible funds are scarce. As a result, during this period price-earnings ratio tends to fall. As the business cycle proceeds, both prices and earnings now advance together with the
result that price-earnings ratio tends to remain steady. Finally at the height of the boom, share prices make spectacular advances, but earnings do not show corresponding improvement and, therefore, once again the price-earnings ratio jumps to a high level.

Because earnings in India are generally declared annually, the changes in the price-earnings ratio over a period of one year would be only due to the changes in the market price of the share. In the USA, earnings are declared quarterly and, therefore, this ratio acquires greater significance there.

5 Yield

Yield refers to the percentage, which the annual dividend bears to the current price of the share and can be calculated as:

\[
\text{Yield} = \frac{\text{Dividend Per Share}}{\text{Market Price per Share}} \times 100
\]

The slow growth or non-growth shares yield as much as 6 per cent, while the shares promising a growing dividend in future may yield only 2 or 3 per cent at the moment. Two more important factors may be noted in this connection. First, it is apparent that stock market price fluctuations can force most yields to abnormal levels, sometimes for periods of several years. Second, the relative yields offered by shares and bonds vary as market conditions change.

It is difficult to define any normal relation between shares and debentures yields. The greater safety inherent in debentures prior claims and unconditional contractual rights to payments would perhaps justify an yield lower than that available on most shares. However, dividends on most good
shares usually increase with the passage of time, especially if the general price level rises, and it might be reasonable to accept a share yield lower than a bond yield, if the dividends were expected to increase within a reasonable time.

Equity Share Yields and Prices

Equity shares can be purchased out of planned saving and are issued by companies that raise funds in this form to finance their investment. The prices of equity shares and fixed interest securities are, therefore, influenced by saving and investment in a similar fashion. But the impact of actual or expected course of equity share dividends is superimposed upon the forces that determine the prices of fixed interest securities and equity shares alike, so that the prices of equity shares and fixed interest securities, can move in different directions, shifts in both supply and demand occur between the two types of assets.

At any point of time all that the investor knows regarding the yield of an equity share is its current market price and its last interim and final dividend. At any existing market price, it is the pattern of expected yields that determines the action of sellers and buyers. The expected yield is the relationship of the current price of a share to expected future dividends plus or minus any change in price, which an investor expects over the future.

A prudent investor will not consider the expected yield of a security in isolation from his portfolio as a whole. He would study the effect on his expected yield of his whole portfolio and the confidence with which the expectation can be held that the sensible investor will judge the purchase and sale of a security. He will, therefore, be reluctant to buy equity shares in a company or industry in which he already has a substantial holding, if he
fears that his portfolio would be exposed to one type of risk only. On the other hand, he will prefer to acquire shares which diminish the risk attached to his total portfolio, by permitting a greater spread of risk and particularly by allowing different risk to be offset one against another. Thus, different investors will act differently, according to the existing composition of their portfolio, even though their assessment of the yield to be expected from particular shares, if considered in isolation, may be exactly the same.

**Expected Yield and Risk**

The expected yield of an equity share is blurred because of the uncertainty of future dividends and because the price at which it is likely to stand in the future cannot be predicted with confidence. When the future is uncertain, equity share market is not a safe hunting ground for the capital conscious investor, because fluctuations in equity prices are more than the fixed interest securities. The foundations of the equity share market are built by the transactions of the income conscious investor, content to accept the risk of temporary fluctuations in share prices for the sake of the expected income yield that the dividends of equity share may provide in the long run.

The expected yield attached to an ordinary share by an investor whether he is income-conscious or capital-conscious, must, therefore, exceed the expected yield on a fixed interest security in order to compensate for this greater degree of income and capital risk. The investor in other words, will demand a 'risk premium' in order to justify the purchase of an equity share rather than a fixed interest security. The size of this 'risk premium' will, therefore, be influenced by the risk of fluctuations in business activity, by the marketability of
equity shares, by the protection afforded by Company Law and by the adequacy of company accounts all of which have some bearing on the uncertainty of realised yield for which investors require to be compensated.

THE GENERAL LEVEL OF EQUITY SHARE PRICES AND YIELDS

THE LONG TERM RATE OF INTEREST

The rate of interest on irredeemable government securities appears as a standard, free from income risk by which the merits of an equity share can be judged and it actually sets a datum for the determination.

PUBLISHED EARNINGS AND DIVIDENDS DECLARED

Given the long-term rate of interest, equity share prices reflect published equity earnings and dividends declared. Viewed in isolation, a conservative dividend policy or a heavy weight of taxation tends to depress equity share prices.

EXPECTING DIVIDENDS AND EARNINGS

Share prices will be influenced by changes in expectations regarding future dividends and earnings. If a change in dividend has been fully anticipated, the news of the change will leave the price of the share concerned more or less unaltered, but if an increase in dividends proves to have disappointed a sufficient number of investors, its announcement will be accompanied by a fall in share prices.

SECOND AND THIRD DEGREE GUESSING

The oscillation of share price is partly the result of changes in expectations regarding future share prices that are to some extent based on the anticipation by investors individually of other investor’s actions.
Second degree guessing is the belief that other investors are on the point of buying or selling, because of their forecasts regarding objective factors, such as the future of dividends and earnings. In principle, there is also the need for third degree guessing i.e., for attempting to assess what other investors' forecasts happen to be, but whether many investors go this far explicitly is doubtful, as it is impossible to buy, if all investors are seeking to buy or to sell, if all are seeking to sell. However, the capital conscious investor, including the speculator, must attempt to anticipate purchases and sales by the rest of the market as a whole, so that to each investor the actions and therefore, the expectations of other investors are highly important.

6 ASSETS

The size of a business enterprise is generally assessed in terms of its assets. The assets are the items owned by the company. Assets represent (a) the claims of the creditors, i.e., the liabilities representing the debits owned by the company; and (b) the net worth, i.e., the capital plus surplus or deficit representing the balance of value remaining for which the company is responsible to its shareholders. Accordingly,

Assets = Liabilities + Networth

Total assets or gross capital employed of a company consist of (a) current assets, (b) fixed assets, (c) investment in subsidiaries (d) miscellaneous assets, and (e) intangible assets. An investment analysis is primarily interested in the long range study. The consistently rising trend of the total assets of an enterprise is an indication of the growth of the company and growth in turn influence the behaviour of share prices of a company.
In the preceding Chapter an attempt has been made to evolve a theoretical model with a view to identifying the criteria for analysis of equity share prices which indicated that Book Value per share (BV), dividend per share (DPS), Earning per share (EPS), Price earnings Ratio (PE ratio), yield and assets could affect the market price of equity shares.

Chapters IV and V deal with the identification of investment analysis indicators for individual companies on the basis of coefficients of correlations and regression analysis. Exponential growth rates of different share price variables for each company have also been studied.

Chapter VI deals with the identification of investment analysis indicators for the sample companies classified according to industrial groups as also for the sample companies as a whole. The analysis is carried out in two stages. Stage one deals with correlation analysis whereas univariate and multiple regression analysis are taken in the second stage. Univariate results are reported in Tables 1-5 and that for multiple regression in table 6.