CHAPTER II

THE ANALYTICAL FRAMEWORK

2.1 Introduction

Since 1956, the Indian economy witnessed significant increase in the rate of industrialization. Evidently this phenomenon led to an expansion in the demand for investible funds especially in the private sector leading to the growth of capital market. Capital market by definition includes not only the system by which the public takes up long term securities directly or through intermediaries, but also the elaborate network of institutions responsible for short term, medium term and long term lending. Thus, capital market plays the role of a financial intermediary, whereby the savings are mobilised and flow of funds from the surplus sector to the deficit sector is facilitated.

Various groups participate in the functioning of the capital market. On the demand side of the market, there are issuers of various kinds of securities such as share certificates, debentures or bonds, deposits etc. On the supply side, the funds flow into the capital market either directly from individuals and/or from financial intermediaries like commercial banks, mutual funds, post
offices, insurance companies and term lending institutions.

Generally, the demand for funds by the firm can be met from two sources namely internal and external sources. Internal funds are generated within the firm through retaining and accumulating profits. External funds are sought from sources external to the firm, which may take the form of equity, debenture capital, public deposits, trade credit and borrowings from financial institutions. The supply of funds from internal sources depends on the amount that is ploughed back, the dividend policy adopted and corporate tax paid; the supply of funds from external sources depends on the volume of savings available in the form of financial assets and government policies with reference to allocation of credit to different sectors of the economy.

Internal funds are important for a firm to self-finance its programmes of expansion or modernisation either fully or partly. And the external funds schedule starts only when internal funds are not available or inadequate.

The focus of the present study is to identify and understand the importance of the factors that determine the level of and the demand for the internal and external sources of funds respectively, and to analyse the growth of securities market.

A priori, the factors that are identified to have influence over the demand for the two sources of funds are:
1. The prevailing economic environment.
2. Age and size of the firm.
3. The dividend policy followed by the firm.
4. The corporate income tax paid by the firm.
5. The cost of raising funds externally.
6. The level of outstanding debt.
7. The investment requirements of the firm.

In the following pages, the possible impact of the above mentioned factors over the two sources of funds is discussed with the help of a survey of relevant literature.

2.2.1. The prevailing Economic Environment in terms of the industrial, fiscal and foreign trade policy has a direct bearing on the working and fund raising capacity of the firm. In a vibrant, inflationary, boom economy, the economic activity as also the demand for funds to sustain and improve such activities will be more as against a dull, recessionary economy. For example, since the introduction of liberalisation measures there has been an increase in the number of companies registered, the funds mobilised through the stock market and the financial institutions (Chapter 3). On the other hand the foreign exchange crisis of the early nineties affected the performance of the firms depending more on imports.
2.2.2 The Age and Size of the Firm

Age of the firm is generally identified with the date of incorporation of business. As far as the size of the firm is concerned, there are different parameters on which firms can be classified (the size of fixed assets, amount of sales, the subscribed capital) and these parameters, however, are often inter-correlated (Shalit and Sankar 1977).

These two factors influence the investors in deciding the portfolios. Often the investors are found to prefer investing in old and established firms rather than in new firms (Rammohan Rao 1980). Age of the firm to a large extent determines the level of internal funds, because internal funds are the result of being in the business profitably for a considerable period of time (Mukherjee 1983). Little and Boumol in their 1962 study, however, argue that a firm's past earnings need not necessarily lead to future earnings or in other words retained earnings and growth are not related.

Apart from this, research has also gone in the area of choice of financing and the size of firm. Robert Weaver (1956) has identified several reasons for the small size equity financing by small companies. Some of the reasons are (1) Small Companies fear that they will loose control over their business. (2) They do not know where their appeal to the investor lies. On the other hand, larger companies with diversified product range win investor's
confidence easily than smaller ones with single product lines. This is because, the economies of scale enjoyed by the larger companies enable them to cope up more effectively with any business crisis than the small companies (Alberts and Archer, 1973).

2.2.3 Dividend Policy

Dividend is sharing a part of the profits made by the firm with the shareholders towards their investment. The dividend policy adopted by the firm plays an important role in deciding the level of internal funds for the company. It directly affects the level of internal funds and indirectly affects the amount of funds to be raised from external sources (Krishnamurthy and Sastry 1975; 1974).

Darling's (1957) theory of dividend states that firms prefer to follow a dividend stabilisation policy which refers to the tendency of the firms not to raise dividends with rising profits, unless and until the management is convinced of maintaining the new rate in future.

Darling lists several reasons for the firm's behaviour of following a stable dividend policy. The firm will not increase the dividends with a rise in profits because if all the increase in the earnings were distributed, then for further growth internal funds will not be adequate, and the firm should sell stocks or bonds to acquire external
funds. But the problem in such an event is that, additional borrowing will be restricted to the level creditors are willing to lend and in case of new issue of stock, the existing pattern of shareholding will also get disturbed.

Lintner's theory of dividend (1956) emphasised more on the current earnings of a firm which determines the level of dividend. For firms whose tax liability is high, smaller will be the net profits and still smaller will be the dividend paid out. Further, according to this theory, dividend paid by the firm which Lintner calls as the target pay out ratio depends on the current year's profit after taxes and the dividend paid in the preceding year.

Dhrymes and Kurz's (1964) study concludes that, firms experiencing a higher rate of investment tend to pay lower dividends in order to finance their investment. Secondly, smaller firms tend to retain higher portion of profits than larger ones because the larger firms have more access to capital market than smaller ones. Smaller firms and highly indebted firms will resort to internal funds.

Dobrovolsky (1958) argues that in the absence of external funds, retention of earnings could be made either through a cut in dividends or by retaining the whole of profits.

Reflecting the above notion, Puranandam and Hanumantha Rao (1966) point out that target dividend pay out
ratio depends on the internal, external finance policy adopted by the firm. Thus those desiring to be self-reliant tend to choose low target ratio of dividends.

Dhameja's (1976) study concludes that dividend is positively related with the earnings rate or the profit of the firm, and firms normally follow a stable dividend policy.

Meyer and Kuh (1966) point out that, by paying higher dividend which raises the price of securities and the value of the firm, industries maintain a good money market relationship with the investors which helps them in raising funds externally. However, Krishnamurty and Sastry's (1974) study finds no direct relationship between dividends and external finance, but for the fact that dividends act as a drain on internal sources to which extent a firm will have to look in for alternative sources.

2.2.4 Corporate Tax Paid

The extent of tax paid by a firm has direct relationship with the amount of profit earned and the rate of tax. The Direct Tax regime in India has kept the Corporate Tax at 35 per cent to 50 per cent of the profit before tax during 1980's. Since 1985-86, the corporate tax rate has been 50 per cent (earlier 55 per cent) for public limited companies and 50 - 55 per cent (earlier 60 per cent) for closely held companies.
The influence of this variable on the demand for funds - internal and external cannot be direct as there are many other factors that determine the tax paid. For example, (a) a company earning profit this year, may set off the profit against the accumulated losses of the previous years or (b) a company which is predominately engaged in export activity need not pay tax on export profits or (c) a company having dispute with income tax authorities on tax assessments on earlier years may not provide for tax.

Excluding the above factors a company paying tax is short of funds to that extent (INTERNAL FUNDS) and may borrow (EXTERNAL FUNDS). Its capacity to borrow also increases since the amount of tax paid serves as an indicator of profitability and financial discipline.

2.2.5 Debt Outstanding

The presence of debt is inevitable in the capital structure of a firm. The extent to which a firm can borrow depends on the debt that is already outstanding because of the risk factor involved with borrowing which is commonly referred to as the Kalecki's principle of risk. "Risk is an increasing function of the outstanding debt for two reasons (a) the danger of illiquidity and (b) the wealth position of the borrower is endangered in the event of failure of business (Krishnamurthy and Sastry 1974, page 161). Thus after a 'point' the availability of credit is limited or the
cost of acquiring funds increases. This 'point' is also
determined by the debt equity ratio. The lower this ratio,
the higher will be the availability of further debt (Rao and
Rao, 1975). This debt equity ratio is fixed differently for
different industries by the government depending on the
capital intensity of the firm and for this purpose only the
long term debt is taken into consideration. There are two
different methods of calculating the debt viz. (1) to include
only the long term borrowings (Sarma 1988) and (2) to include
even the current liabilities in the debt component. This is
because current liabilities represent firm's short term
obligations which exert more pressure on the firm (Pandey
1988). However, for the purpose of calculation of the ratio,
debt includes long term interest bearing obligations but
excludes short term borrowing drawn from the banking system
for working capital requirements (Mukherjee, 1983).

The presence of debt in the capital structure will
benefit the equity holders according to Modigliani and Miller
(1958). This is true to the extent interest paid on long
term loans is treated as a tax deductible expenditure and the
liability to pay income tax on the part of the company gets
reduced to the extent of interest payments.

Patil (1979) and Chitale (1980) point out that the
deduction of interest paid in computing taxable income has
led to an increase in the borrowings from institutions by
private corporate sector, which has led to a lopsided growth
of security market. Hence they suggest discontinuation of the practice of deducting interest from computing taxable income. Such a step will reduce the dependency on borrowed capital since borrowings will become costlier and will result in the companies depending more on retained earnings.

Rao's 1982 study brings out that, out of a sample of 250 companies, none of the companies reported paying tax because of the various tax deductible expenses, out of which interest charges alone constituted 30-40 per cent. Similar finding is also reported by Gupta in his 1981 study. He points out that "an analysis of the data provided by the Bombay Stock Exchange official directory reveals that as many as 183 companies reported a tax burden of less than 30 per cent in 1977-78. Of these as many as 147 companies reported a tax liability of less than 10 per cent. Many of them have paid very little or no tax at all."

2.2.6 Investment Requirements

Investment decision either in fixed assets or current assets such as inventory which determines the level of external fund to be raised is in turn determined by (1) growth objective of the firm (2) internal savings (3) cost of capital and (4) outstanding debt-position of the firm (Sastry, 1975; Krishnamurthy and Sastry, 1974). Firms with higher growth rate or expanding firms, depend more on external sources of funds than firms with lower growth rate. Whereas investment in fixed assets is closely related to the
above mentioned factors, inventory investment is positively related with investment in fixed assets (Mishra, 1976; Ram Mohan Rao, 1976) and sales.

2.2.7 Cost of Capital

Cost of capital is a crucial factor in determining the source and level of funds. Comparing the cost of capital of internal and external funds, it is found that internal funds is less costlier than external funds. This is because, the only cost associated with internal funds is the opportunity cost, which the firms calculate to find the relative profitability of investing the funds within the firm rather than investing outside.

Considering the cost of capital of equity and debt, debt is considered to be cheaper. This is because interest paid on debt is treated as a tax deductible expenditure whereas dividend is paid after the corporate income tax is paid. In the words of Rao and Rao (1975), "exemption of interest charges has to be considered as a factor that increases the cost of stock financing in the sense it makes it necessary to earn more before taxes to maintain any given rate of earnings after tax." Further, unlike the case of equity, (where the firm is expected to share the increase in the earnings) interest charges on debt is fixed.

The cost of capital rises according to the outstanding debt position of the company. This is because
as pointed out elsewhere in this chapter, as the debt position of the firm increases, the risk involved in lending funds also increases. Hence, either the rate of interest charged increases or the availability of funds in the form of loan gets reduced (Krishnamurthy and Sastry, 1974). However, the importance of the factor cost of capital may not be strong where interest rates are below their shadow rates on account of regulation and control. Also when the rates do not move according to the free play of market forces on account of regulation and control, their temporal variability may be small and therefore may not register their influence (Krishnamurthy and Sastry, 1974).

Analysing the cost of capital of new issues Khan (1976) points out that the cost of capital varies with the size of issue and the cost of raising capital of smaller issues was twice that of the larger issues.

Blackwell and Kidwell's (1988) study on cost of public sales and private placement reveals several interesting findings. It is brought out in this study that economies of scale exist in the issuing of securities because of fixed flotation costs which does not vary with size of issue. Secondly, the effect of the prevailing economic conditions have lesser effect on private placements than public offer. And firms raising smaller amount of debt prefer private placement than public sale.
The above discussion based on the existing literature on the factors influencing the sources of funds leads to certain questions which the study attempts to answer. They are:

1. Is there a positive association between the age, size of firm and the retained earnings of the firm?
2. To what extent do the short and long term investment requirements are financed by the two sources of funds?
3. What is the effect of the cost of capital on funds raised externally?
4. What is the impact of outflows such as dividend and corporate taxes on the two sources of funds?

The explanation for these questions in line with the broad objectives of the study stated in the first chapter will be carried out at three levels of analysis, namely by (a) industrial groups (b) size of firm and (c) age of the firm (see for classification of firms, Chapter IV, Tables 4.1 - 4.3).

These classifications are adopted mainly to identify the differences, if any, in the factors that influence the firm's decision to go in for a particular source of fund. Before presenting this analysis it is necessary to have an overview of the industrial environment and the evolution of the Indian financial system which forms the content of the following chapter.