

CHAPTER III

CONCEPTS AND THEORIES OF CAPITAL STRUCTURE AND PROFITABILITY: A REVIEW

III.1 Introduction

The review of past works portrays an apparent picture about the empirical analysis carried out and the varied arguments of the researchers. A review of concepts and theories will give a vivid idea about the basis on which these studies were carried out. It will also help us to understand how crucial the study is in improving their industry.

A firm funds its operation with capital raised from varied sources. A mix of these various sources is generally referred to as *capital structure (CS)*. The *CS* has been defined as “*that combination of debt and equity that attains the stated managerial goals (i.e.) the maximization of the firm’s market value*”. The *optimal CS* is also defined as that “*combination of debt and equity that minimizes the firm’s overall cost of capital*”¹. The firm’s balance sheet constitutes different proposition of debt instruments, preferred and common stock, which represents the *CS* of the firm. The *CS* is an unsolved problem, which has attracted both academics and practitioners as the objective of financial management is to maximise shareholder’s wealth. The key issue here is the relationship between *CS* and firm’s value. The firm’s value is maximised when cost of capital is minimised. Therefore, they are inversely related.

There are different views on how *CS* influences value of the firm. The optimal *CS* is a question which the managers themselves cannot answer. There are varied factors that influence the debt level in a firm. Among the key factors *the first* is the benefits and cost associated with various financing choices. The trade-off between the benefits and cost leads to well-defined target debt ratio. The *second* is the existence of shocks that cause firms to deviate, at least temporarily, from their targets. The *third* is the presence of factors that prevent firms from immediately making *CS* changes that offset the effect of the shocks or financial distress that move them away from their targets. Profit, cash flow, the rate of growth and the level of earning’s risk are important additional internal factors which influence on *CS*². The various factors that influence the *CS* of a firm are illustrated in *diagram III. A*.

III.2 Leverage

Leverage (*LEV*) generally mean “*the increased ability of accomplishing some purpose. It is the employment of an asset/ source of finance for which firms pay fixed cost/ fixed return*”³. Hence, it is the firm’s ability to use fixed cost assets or funds in lieu of variable costs assets or funds to increase the returns to its owners. Such *LEV* magnifies profits and losses. The *LEV* is of two types:

- Operating leverage, and
- Financial leverage

Both the types of *LEV* have the same effect on shareholders but are accomplished in very different ways, for very different purposes strategically. *Operating leverage* is determined by the relationship between the firm’s sales revenue and its earnings before interest and taxes (*EBIT*), on the other hand, *financial leverage* represents the relationship between *EBIT* and the earnings available for ordinary shareholders. Thus, *EBIT* is used as the pivotal point in defining *operating* and *financial leverages*⁴.

Diagram III. A
Factors Determining Capital Structure



Source: Compiled from secondary sources.

III. 3 Capital Structure Theories

A number of theories explain the relationship between cost of capital, **CS** and value of the firm. (see diagram III.B). They are:

- Net income approach (**NIA**)
- Net operating income approach (**NOIA**)
- Traditional approach (**TA**)
- Modigliani-Miller approach (**MMA**)

The two extreme boundaries of valuation of the earnings of a firm are the *net income approach* and the *net operating income approach*. According to the net income approach, the firm is able to increase its total valuation and lower its cost of capital, as it increases the degree of **LEV**. The net operating income approach implies that the total valuation of the firm is unaffected by its **CS** as this approach is purely definitional, however, behavioural or economic meaning is attached to them. **Modigliani and Miller (1958)**⁵ offered behavioural support for the independence of the total valuation and the cost of capital of the firm from its **CS**. The traditional approach assumes that there is an optimal **CS** and that the firm can increase its total value through the judicious use of **LEV**.

To find out what happens to the total valuation of the firm and to its cost of capital when the ratio of debt to equity, or degree of **LEV** is varied the assumptions such as (i) *no income tax, corporate or personal and no transaction cost*, (ii) *100 per cent dividend payout ratio*, (iii) *operating income is not expected to grow or decline over time*.

Given the above assumptions, the analysis focuses on the following rates:

$$r_D = \frac{I}{D} = \frac{\text{Annual interest charges}}{\text{Market value of debt}}$$

Assuming that the debt is perpetual, r_D represents the cost of debt.

$$r_E = \frac{P}{E} = \frac{\text{Equity earnings}}{\text{Market value of equity}}$$

When the dividend payout ratio is 100 per cent and earnings are constant, r_E , as defined here, represents the cost of equity.

$$r_A = \frac{O}{V} = \frac{\text{Operating income}}{\text{Market value of firm}}$$

Where $V = D + E$. r_A is the overall capitalisation rate of the firm. Since it is the weighted average cost of capital, it may be expressed as:

$$r_A = r_D \left(\frac{D}{D+E} \right) + r_E \left(\frac{E}{D+E} \right)$$

The changes in r_D , r_E and r_A corresponding to changes in financial **LEV** (Debt/Equity) are discussed in the following sections⁶.

III. 3.1 Net Income Approach

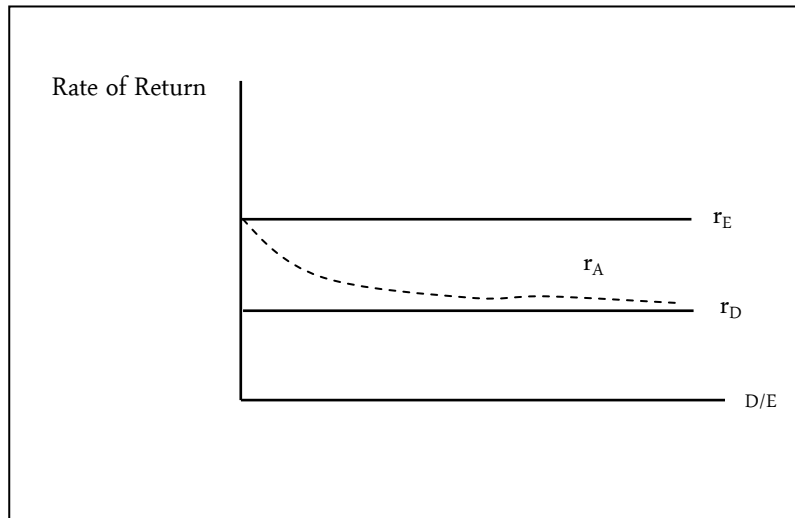
According to this approach, the cost of debt, r_D , and the cost of equity, r_E , remain unchanged when D/E varies⁷. The constancy of r_D and r_E with respect to D/E means that r_A , the average cost of capital, measured as

$$r_A = r_D \left(\frac{D}{D+E} \right) + r_E \left(\frac{E}{D+E} \right)$$

declines as D/E increases. This happens because when D/E increases, r_D , which is lower than r_E , receives a higher weight in the calculation of r_A .

The net income approach is graphically shown in *graph III. A*. D/E is plotted on the abscissa; r_E , r_D and r_A are plotted on the ordinate.

Graph III.A
Behaviour of r_A , r_D and r_E as per the Net Income Approach



From graph III.A it is clear that as D/E increases, r_A decreases because the proportion of debt, the cheaper source of finance, increases in the **CS**.

III. 3.2 Net Operating Income Approach

According to the net operating income approach, the overall capitalisation rate and the cost of debt remain constant for all degrees of **LEV**. In the equation

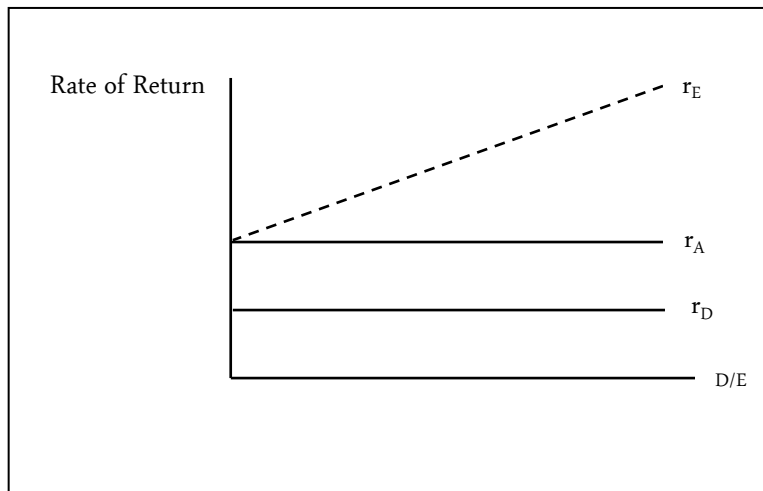
$$r_A = r_D \left(\frac{D}{D+E} \right) + r_E \left(\frac{E}{D+E} \right)$$

r_A and r_D are constant for all degrees of **LEV**. Given this, the cost of equity can be expressed as:

$$r_E = r_A + (r_A - r_D) (D/E)$$

The above behaviour of r_D , r_E and r_A in response to changes in (D/E) is shown in *graph III. B*.

Graph III.B

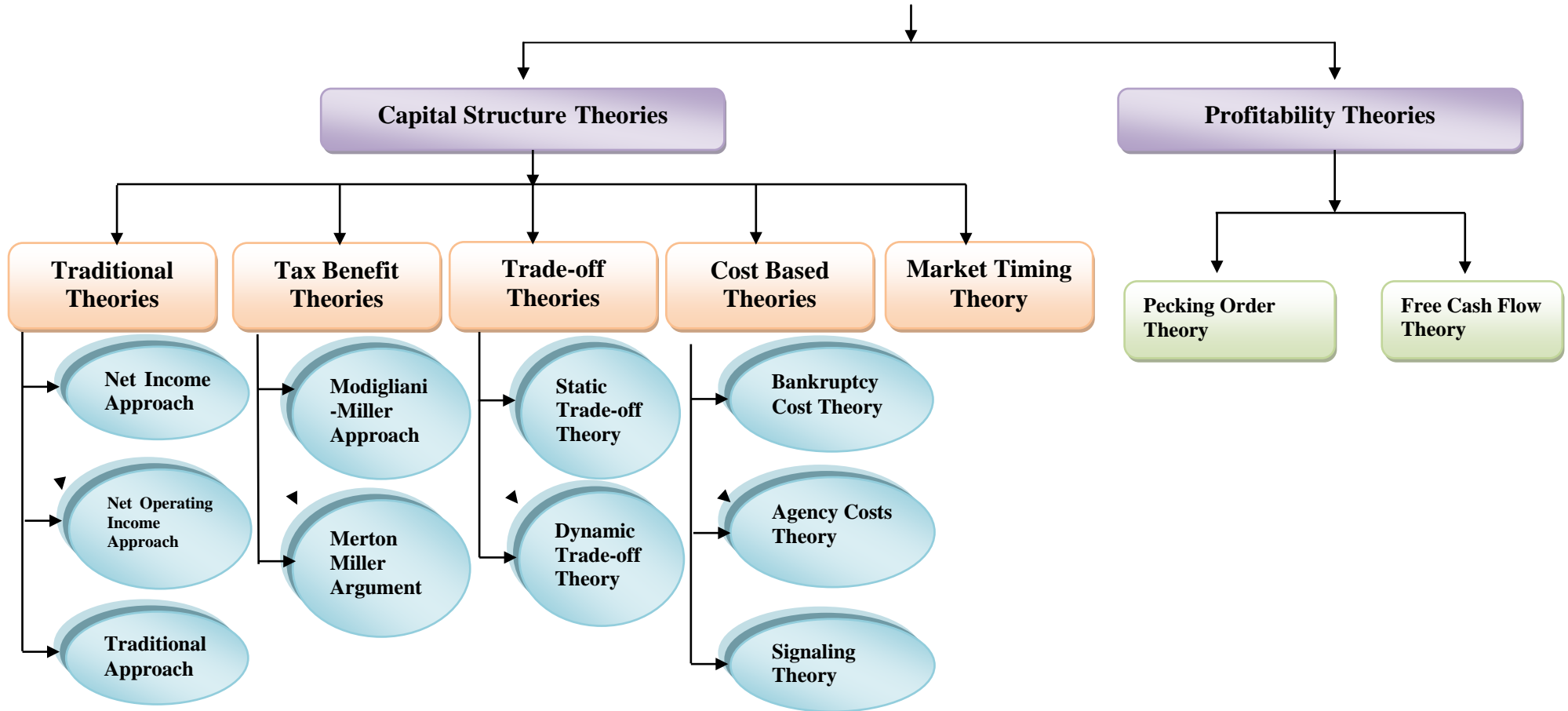
Behaviour of r_A , r_D and r_E as per the Net Operating Income Approach

The critical premise of this approach is that the market capitalises the firm as a whole at a discount rate which is independent of the firm's debt-equity ratio. As a consequence, the division between debt and equity is irrelevant. An increase in the use of debt funds which are 'apparently cheaper' is offset by an increase in the equity capitalization rate. This happens because equity investors seek higher compensation as they are exposed to greater risk arising from increase in the degree of *LEV*. They increase the capitalisation rate r_E (lower the price-earnings ratio, P/E), as the degree of *LEV* increases⁸.

The net operating income position has been advocated eloquently by **David Durand**, who argued that the market value of a firm depends on its net operating income and business risk. The change in the degree of *LEV* employed by a firm cannot change these underlying factors. It merely changes the distribution of income and risk between debt and equity without affecting the total income and risk which influence the market value of the firm.

Diagram III. B

THEORIES OF CAPITAL STRUCTURE AND PROFITABILITY



Source: Compiled from secondary sources

Modigliani and Miller, in a seminal contribution made in **1958**, forcefully advanced the proposition that the cost of capital of a firm is independent of its *CS*⁹.

It assumes that r_A is constant, regardless of the degree of *LEV*. The use of supposedly “cheaper” debt funds is offset exactly by the increase in the required equity return, r_E , thereby, it implies that there is no one optimal *CS*.

III. 3.3 Traditional Approach

The main propositions of the traditional approach are:

- The cost of debt capital, r_D , remains more or less constant up to a certain degree of *LEV* but rises thereafter at an increasing rate.
- The cost of equity capital, r_E , remains more or less constant or rises only gradually up to a certain degree of *LEV* and rises sharply thereafter.
- The average cost of capital, r_A , as a consequence of the above behaviour of r_E and r_D , (i) decreases up to a certain point; (ii) remains more or less unchanged for moderate increases in *LEV* thereafter; and (iii) rises beyond a certain point.

The principal implication of the traditional position is that the cost of capital is dependent on the *CS* and there is an optimal *CS* which minimises the cost of capital¹⁰. **Staking and Babbel (1955)**¹¹ findings also supports this approach as their result show that the market value of equity at first grows but then later declines as *LEV* increases.

III 3.4 Modigliani-Miller Proposition

Modigliani and Miller (MM)¹², in their original proposition advocated that the relationship between *LEV* and the cost of capital is explained by the net operating income approach. They make a formidable attack on the traditional position by offering behavioural justification for having the cost of capital, r_A , remain constant throughout all degrees of *LEV*.

The theory assumed a perfect capital market where there is no problem of asymmetric information: there are no transaction costs; no bankruptcy cost and

the securities are infinitely divisible. Managers act in the interest of shareholders and the firms can be grouped into equivalent risk classes on the basis of their business risk; and they assumed that there is no tax¹³.

In their *proposition I* they considered the value of the firm to be independent of its *CS*. This proposition was more or less similar to that of the net operating income approach. They viewed the value of a firm as a function of expected operating income divided by the discount rate appropriate to its risk class, and proved that the average cost of capital within a given class is independent of the degree of *LEV*¹⁴.

The *proposition II* held that financial leverage increases to expected earnings per share (*EPS*) while the share price remains constant. This is because the change in the expected earnings is offset by a corresponding change in the return required by the shareholders¹⁵.

Their *proposition III* made an attempt to develop the Theory of Investment, wherein they concluded that an investment financed by common stock is advantageous to the current stockholders if and only if its yield exceeds the capitalization rate. When a corporate income tax, under which interest is a deductible expense, is considered, gain can accrue to stockholders from having debt in the *CS*, even when capital markets are perfect¹⁶.

III 3.4.1 Criticisms of MM Theory

The *LEV* irrelevance theorem of *MM* is valid if the perfect market assumptions underlying their analysis are true. The real world, however, is characterised by various imperfections such as existence of tax, bankruptcy costs, agency costs, and informational asymmetries, hence these imperfections led to the development of further studies in the area.

III 3.5 Taxes and Capital Structure

Since the publication of **Modigliani and Miller's (M&M)** path-breaking article in 1958, the issue of whether an optimal capital structure exists has generated considerable interest within academic circles, hence the irrelevance of *CS* rests on an absence of market imperfections. One of the most important

imperfections is the presence of taxes. When taxes are very much applicable to corporate income, debt financing is advantageous. **Modigliani and Miller (1963)**¹⁷ in the work “*Corporate Income Taxes and the Cost of Capital: A Correction*” have made a correction to bring out the tax advantages of debt financing. In this work they viewed the value of the firm as a function of *LEV* and the tax rate. While dividends and retained earnings are not deductible for tax purposes, interest on debt is a tax- deductible expense. As a result, the total income available for both the shareholders and debt holders is greater when debt capital is used. The tax deductibility of corporate interest payments favours the use of debt. This simple effect however, can be complicated by the existence of personal taxes (**Miller 1977**)¹⁸ and non-debt tax shields (**DeAngelo and Masulis 1980**)¹⁹. **Castanias (1983)**²⁰ cross-sectional test of *CS* irrelevance hypothesis and the tax shelter-bankruptcy cost hypotheses showed results inconsistent with the *CS* irrelevance hypothesis but consistent with the tax shelter-bankruptcy cost hypotheses. **Stulz (1990)**²¹ argued that debt can have both a positive as well as negative effect on the value of the firm (even in the absence of corporate taxes and bankruptcy cost). **Stulz (1990)** assumed that managers have no equity ownership in the firm and receive utility by managing a larger firm. The “power of manager” may motivate the self-interested managers to undertake negative present value project. To solve this problem, shareholders force firms to issue debt however, if firms are forced to pay out funds, they may have to forgo positive present value projects. Therefore, the optimal debt structure is determined by balancing the optimal agency cost of debt and the agency cost of managerial discretion.

But there are few controversial findings. **Schnabel (1984)**²² showed that an optimal *CS* does not involve exclusive reliance on debt financing in contrast to the classic result of **Modigliani and Miller**. **Berens and Cuny (1995)**²³ have revisited the *CS* puzzle in the perspective of growth. Nominal firm growth, due to inflation or real growth, distorts the debt ratio as a measure of tax shielding. Firms typically issue debt characterized by fixed interest payments, even when they expect positive growth in earnings. To totally shield itself from corporate tax, a firm should not set debt equal to firm value. Instead, it should set its current interest payments equal to current earnings.

III 3.6 Merton Miller Argument

Merton Miller argued that the original *MM proposition*, which says that financial *LEV* does not matter in a tax free world, is valid in a world where both corporate and personal taxes exist. He stated that changes in *CS* have no effect on the firm's total valuation. This position is the same as **Modigliani-miller's** original proposition in a world of no taxes, but it contrasts sharply with their 1959 corporate tax adjustment article, in which they found that debt had substantial advantage, companies will issue debt till the tax rate for the marginal bondholder, t_{pd} , is the same as the corporate tax rate, t_c . Beyond this point, there is no tax advantage to companies from issuing debt. **Miller's** equilibrium has the personal tax effect entirely offsetting the corporate tax advantage. Accordingly, his model implies that at the margin, the personal tax rate on debt income, t_{pd} must equal the corporate tax rate, t_c . When $t_{pd} = t_c$ changes in the proportion of debt in the *CS* do not change the total after-tax income to investor. As a result, *CS* decisions by the corporation would be irrelevant²⁴.

III 3.7 Trade-off Theory

The term *trade-off theory* is used by different authors to describe a family of related theories. Management running a firm evaluates the various costs and benefits of alternative *LEV* plans and strives to bring a trade-off between them. Often it is assumed that an interior solution is obtained so that marginal costs and marginal benefits are balanced. Thus, *trade-off theory*, implies that company's *CS* decision involves a trade-off between the tax benefits of debt financing and the costs of financial distress. When firms adjust their *CS*, they tend to move toward a target debt ratio that is consistent with theories based on tradeoffs between the costs and benefits of debt. **Hovakimian, Opler, and Titman (2001)**²⁵ empirical work, explicitly account for the fact that firms may face impediments to movements toward their target ratio, and that the target ratio may change over time as the firm's profitability (*P*) and stock price change.

III 3.7.1 Static Trade-off Theory

In a *static trade-off* framework the firm is viewed as setting a target debt to value ratio and gradually moving towards it (**Myers 1984**)²⁶. The theory says

that every firm has an optimal debt–equity ratio that maximizes its value. The theory affirms that firms have optimal **CSs**, which they determine by trading off the costs against the benefits of the use of debt and equity. The benefits from debt tax shield are thus adjusted against cost of financial distress. Agency cost, informational asymmetry and transaction cost are some of the other costs to be mitigated. The theory predicts that an optimal target financial debt ratio exists, which maximizes the value of the firm. The optimal point can be attained when the marginal value of the benefits associated with debt issues exactly offsets the increase in the present value of the costs associated with issuing more debt (Myers 2001)²⁷.

III 3.7.2 Dynamic Trade-off Theory

Implementing the role of time is very significant in identifying the optimal **CS**. In a dynamic model, the correct financing decision typically depends on the financing margin that the firm anticipates in the next period. Some firms expect to pay out funds in the next period, while others expect to raise funds. Stiglitz (1972)²⁸ took the drastic step of assuming away uncertainty. The first dynamic models to consider the tax savings versus bankruptcy cost trade-off are Kane, Marcus, and MacDonald (1984)²⁹ and Brennan and Schwartz (1984)³⁰. Their models took into consideration: uncertainty, taxes, and bankruptcy costs, but no transaction costs. These firms maintain high levels of debt to take advantage of the tax savings and to adjust to shocks without any cost as there is no transaction cost. Strebulaev (2007)³¹ analyzed a model quite similar to that of Fischer, Heinkel, and Zechner (1989)³² and Goldstein, Ju, and Leland (2001)³³. Again, if firms optimally finance only periodically because of transaction costs, then the debt ratios of most firms will deviate from the optimum most of the time. In the model, the firm's **LEV** responds less to short-run equity fluctuations and more to long-run value changes.

III 3.8 Effects of Bankruptcy Cost

Another important imperfection affecting **CS** decision is the presence of bankruptcy cost. When a firm is unable to meet its obligations it results in financial distress that can lead to bankruptcy because a major contributor to financial distress is debt. The greater the level of debt, the larger the debt

servicing burden associated with it, the higher the probability of financial distress. If there is a possibility of bankruptcy, and if administrative and other costs associated with bankruptcy are significant, the levered firm may be less attractive to investors than that of the unlevered one. As a result, the investors are likely to penalize the price of the stock as *LEV* increases³⁴.

Expected bankruptcy cost rise when *P* declines, and the threat of this cost pushes less profitable firms toward lower *LEV* targets. Similarly, expected bankruptcy cost is higher for firms with more volatile earnings, which should drive smaller, less-diversified firms toward fewer targets *LEV*. Taxes have two offsetting effects on optimal *CS*. The deductibility of corporate interest payments pushes firms toward more target *LEV*, while the higher personal tax rate on debt, relative to equity, pushes them toward less *LEV*. **Baxter (1967)**³⁵ used the concept of bankruptcy costs to argue for the existence of an optimal capital structure. Expected bankruptcy cost depends on the cost of bankruptcy (eg., legal fees, loss of sales, employees and suppliers) and the probability of occurrence. Increased debt financing will increase the probability of bankruptcy and will in turn increase expected bankruptcy costs. The optimal debt ratio is reached when the marginal tax savings from debt financing is equal to the marginal loss from expected bankruptcy costs.

III 3.9 Agency Costs

Jensen and Meckling (1976)³⁶ put forward the concept of agency costs. There is an agency relationship between the shareholders and creditors of firms that have substantial amounts of debt. In such firms shareholders have little incentive to limit losses in the event of a bankruptcy. Agency theory recognizes that the interests of managers and shareholders may conflict and that, left on their own, managers may make major financial policy decisions, such as the choice of a *CS*, that are suboptimal from the shareholders' standpoint. The theory also suggests, however, that compensation contracts, managerial equity investment, and monitoring by the board of directors and major shareholders can reduce conflicts of interest between managers and shareholders **Mehran (1992)**³⁷. It is also suggested that *CS* models that ignore agency costs are incomplete. Debt financing is another crucial factor that limits the free cash flow available to

managers and thereby helps to control this agency problem **Jensen and Meckling (1976)**³⁸.

Myers (1977)³⁹ put forth another type of agency cost of debt which arises from the underinvestment problem. When a firm has debt which matures after an investment option expires, shareholder save the incentive to reject projects that have positive net present values because the benefits from accepting the projects accrues to the bondholders without increasing the shareholders' wealth. The issuance of debt therefore leads to suboptimal investment for the firm, requiring this type of agency cost to be traded off against the tax savings of debt financing to determine the optimal **CS. Ang, Cole, and Lin (2000)**⁴⁰ on the other hand, stated that agency costs are significantly higher when an outsider rather than an insider manages the firm and lower with greater monitoring by banks.

III 3.10 Signalling Theory

The pioneering study of **Donaldson (1961)**⁴¹ examined how companies actually establish their **CS**.

- Firms prefer to rely on internal accruals, that is, on retained earnings and depreciation cash flow.
- Expected future investment opportunities and expected future cash flows influence target dividend payout ratios. Firms set the target payout ratios at such a level that capital expenditures, under normal circumstances are covered by internal accruals.
- Dividends tend to be sticky in the short run. Dividends are raised only when the firm is confident that the higher dividend can be maintained; dividends are not lowered unless things are very bad.
- If a firm's internal accruals exceed its capital expenditure requirements, it will invest in marketable securities, retire debt, raise dividend, and resort to acquisitions or buyback its shares.
- If a firm's internal accruals are less than its non-postponable capital expenditures, it will first draw down its marketable securities portfolio and then seek external finance. When it resorts to external finance, it will first

issue debt, then convertible debt, and finally equity stock, thus, there is a pecking order of financing.

Noting the inconsistency between trade-off theory and the observed pecking order of financing, **Myers and Majluf (1984)**⁴² proposed a new theory, called the **signalling, or asymmetric information theory** of **CS**. They demonstrated that with asymmetric information, equity issues are rationally interpreted on average as bad news, since managers are motivated to make issues when the stock is overpriced. **Ross's (1977)**⁴³ model suggests that the value of firms will rise with **LEV**, since increasing **LEV** increases the market's perception of value. **Asquith and Mullins (1983)**⁴⁴, **Masulis and Korwar (1986)**⁴⁵, and **Mikkelsen and Partch (1986)**⁴⁶ also empirically observed that announcements of new equity issues are greeted by sharp declines in stock prices. This is a major reason why equity issues are comparatively rare among large established corporations. Debt also plays an important role in allowing investors to generate information useful for monitoring management and implementing efficient operating decisions **Harris and Raviv (1990)**⁴⁷.

III 3.11 Market Timing Theory of Capital Structure

Baker and Wurgler (2002)⁴⁸ have suggested a new theory of **CS**: the "market timing theory of **CS**". This theory states that the current **CS** is the cumulative outcome of past attempts to time the equity market. Market timing implies that firms issue new shares when they perceive they are overvalued and that firms repurchase their own shares when they consider these to be undervalued. As a consequence, current **CS** is strongly related to historical market values. The results suggest the theory that **CS** is the cumulative outcome of past attempts to time the equity market.

III.4 Profitability Theories

P consists of two words *profit* and *ability*. It is necessary to differentiate between the term *Profit* and *Profitability* at this point. The term *Profit*, from

accounting point of view, is arrived at by deducting from total revenue of an enterprise all amount expended in earning that income while the term *Profitability* is defined as the ability of a given investment to earn a return from its use⁴⁹. The predictions on *P* are ambiguous. The *trade-off theory* predicts that profitable firms should be more highly levered to offset corporate taxes **Ross (1977)**⁵⁰. **Titman and Wessels (1988)**⁵¹ and **Fama and French (2002)**⁵² on the other hand, found profits and *LEV* to be negatively correlated. The theories discussed below will explain the relation between *P* and *CS*.

III 4.1 Pecking Order Theory

Donaldson (1961)⁵³ followed by **Myers (1984)**⁵⁴ suggests that management followed a preference ordering when it comes to financing. His work suggests that the costs of issuing risky debt or equity overwhelm the forces that determine optimal *LEV* in the *trade-off model*, the result is the *pecking order*. He also argued that the trade-off theory fails to predict the wide degree of cross-sectional and time variation of observed debt ratios. The *pecking order theory* is mainly a behavioural explanation of why certain companies finance the way they do. It is consistent with some rationale arguments, such as asymmetric information and signalling, as well as with flotation costs. Moreover, it is consistent with the observation that the most profitable companies within an industry tend to have the least amount of *LEV*.

The pecking order theory explains why the bulk of external financing comes from debt; why more profitable firms borrow less: not because their target debt ratio is low.

The order followed is as follows:-

- Firms prefer internal finance
- If external finance is required, firms issued the safest security first. They start with debt, then possible hybrid securities such as convertible bonds then perhaps equity as a last resort.

This Pecking Order Theory suits large firms with high P and which has enough internal funds in the form of retained earnings and depreciation. These firms follow a stringent dividend policy and a target dividend payout ratio. Thus, this theory states that highly profitable firms prefer internal funds and when external funds are required the firm will borrow, rather than issuing equity. The pecking order theory predicts that high-growth firms, typically with large financing needs, will end up with high debt ratios because of a manager's reluctance to issue equity. **Smith and Watts (1992)**⁵⁵ and **Fama and French (2002)**⁵⁶ also suggested that high-growth firms consistently use less debt in their CS . Firms that choose to fund with equity today will leave less expensive sources of funding for future needs. If they choose debt funding now, then they will tend to have only more expensive funding available in the future. This reasoning made **Cornell and Shapiro (1987)**⁵⁷ to hypothesize that, firms with higher levels of net organizational capital, the firms should be predominantly equity financed and hold relatively large cash balances. Corporate managers are more likely to follow a financing hierarchy than to maintain a target debt- equity ratio **Pinegar and Wilbricht (1989)**⁵⁸.

III 4.2 Free Cash Flow Theory

This theory is also framed for matured firms that are prone to over invest. It says that high debt levels will increase value, despite the threat of financial distress, when a firm's operating cash flow significantly exceeds its profitable investment opportunities **Myers (2001)**⁵⁹. Thus, the profit earning capacity increases the value of the firm despite the threat of financial distress. Firms with a positive free cash flow use this cash flow to lower their debt ratio. Firms with a negative free cash flow increase their debt ratio to respond to the lack of internal funds. The percentage adjustment is smaller for firms with relatively more debt than for firms with relatively low debt.

III.5 Conclusion

CS is an area that is unresolved with scope to be looked into, though there are many theoretical and empirical works. The works of **Modigliani and Miller (1958)⁶⁰ & (1963)⁶¹** analyzed in detail the impact of tax benefit on determining the **CS** of a firm. The trade-off theory focused on the impact of other external factors on neutralising the benefits of use of debt and suggested an optimal **CS** to trade-off between benefits and cost involved in using debt capital. **Jensen and Meckling (1976)⁶²** pointed out the agency cost involved in conflict of interest between the managers and the shareholders which leads to finance investment opportunities through outside fund. **Myers (1984)⁶³** suggested a hierarchy for funding the **CS**. His pecking order theory suits to large size firms with considerably high **P**. The signaling theory pioneered by **Gordon Donaldson (1961)⁶⁴** and further developed by **Myers and Majluf (1984)⁶⁵** and others portrayed the bad signal that the firm would confer if they issue equity capital instead of debt capital which forces the firm to issue debt capital. All these works analysed in detail the role played by debt capital in determining the optimal **CS** to enable the firm to increase their **P** and thereby improve the value of the firm however, still determinants of optimal **CS** remains an unresolved puzzle.

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