

## Influential Factors and Approaches of Capital Structure Theory

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**Abstract:** This article reviews almost all the preliminary and fundamental capital structure theories. Capital structure is still an unsettled puzzle and scholars are constantly in search of those factors that help a firm to articulate optimal capital structure. The following explains theories of capital structure elucidate a theoretical platform for the firm's management that assist them to select optimal mixture of equity and debt. Therefore, the importance of these theories is not possible to ignore. This article is an attempt to discuss nearly all capital structure theories to deliver a comprehensive explanation for the firm's management which help them to formulate their capital structure in accordance with theoretical guidelines.

### 1. Introduction

The capital structure is a set of financing operations used by a firm through equity and debt. Equity refers to the ownership shares of a company and debt consists of loans or money borrowed that is to be paid back to the lender. While referring to the capital structure of a firm, their debt-to-equity (D/E) ratio is taken into consideration. The D/E ratio gives an understanding of how risky a particular firm's borrowing practices are (Tuovila, 2021). Debt is one way in which a company acquires capital in the markets. Apart from factors like tax-deduction, low-interest rates in the market result in higher accessibility of debt. It also allows the firm to keep its ownership unlike equities where a small part of the shares bought means partial ownership for the investors. Equities can benefit especially when the earnings are low and unlike debts, they are not due. However, an equity can be costly especially when the interest-rates are low in the market.

Capital structure of financial leverages decision how the firm's market value depends on its equities and debts. Thus, it is important to measure a firm's capital structure by using the required elements to seek out the best capital structure for a firm at a given time. One way to estimate a company's capital structure is through their balance sheet which gives an overview of their assets and liabilities. Knowing a firm's capital structure is especially important for potential investors as it helps weigh out the company's capital flow in the future.

#### 1.1 Certain Factors Influencing the Capital Structure

a) Nature of business – a firm's operational characteristics determine the ratio of capital structure. Certain firms rely more on equity while others more on debt. Manufacturing firms might require more equities to invest in equipment and tools.

b) Size of the firm – the size of a firm will impact capital structure decisions. Smaller firms might rely on funds while big scale firms are more reliant on debt.

c) Cost of capital – certain resources require more capital to invest in.

d) Flexibility- flexibility ensures enough room to adapt to different situations.

e) Interest rates – the rate of interest in the market will influence the capital structure decision making. If the interest rates are high, a firm might prefer equity and consequently if they are low, they might depend on debt.

f) Availability of funds – the available funds the market has at a given moment can also influence the capital structure decision. If there is a flow of capital, the firm may resort to debt. However, if the flow is weak, they may depend on equities.

## 1.2 What Are Company Values?

Company values, also known as core values, are the set of guiding beliefs upon which a business is based. Corporate values help people function together as one and shape the way employees (should) behave. The core values of an organization impact both internal and external affairs. They define not only how employees treat each other, but also the behaviour expected toward clients, partners, and the broader community. Company values are at the service of your organizational purpose. They define the desired behaviour to accomplish the company's 'why.' Once set, they should affect every aspect of the business, from reward models, compensation, and policies, to strategic decisions and public affairs. (Kunsmann, 2021)

## 2. Capital Structure Theory and Its Approaches

Capital structure theories are a set of approaches used to finance business activities through equities and liabilities. The theories explore the relationship between equity, debt and the market value of a firm (Ross, 2021). Capital structure theories guide the firms how to pick up a best mix of debt and equity to generate optimal capital structure. Furthermore, various scholars explained the theoretical relationship that provide a way for a firm to select its capital structure related choices in a way that increases market value of a firm and decreases its total weighted average capital cost (see for example Rehan and Abdul Hadi, 2019; Durand, 1959; Jensen and Meckling, 1976; Myers and Majluf, 1984; Modigliani and Miller, 1958). Likewise, various theories are introduced by earlier researchers with an expectation to deliver best solution that expresses optimal capital structure. Several theories have been developed during the past few decades and each has their own contrasting and conflicting points. We will take a look at a few of these theories and evaluate each of them.

### 2.1 Net Income Approach

This approach was suggested by David Durand in 1952. According to him, a change in financial leverage causes a change in the cost of capital. In other words, it means that the profit available to a firm after it settles the interests and loans. Thus, the income available after the cost of capital explains the market value of the firm and is explained by Net Operating Income (NOI) and income available for stockholders after settlement is explained by Net Income (NI). This theory is called the Net Income Approach because it emphasizes on the idea that a firm's market value and price of its equity share depend on its total income that is available for its shareholders (Khan & Rehan, 2021). Thus, it means that any change in a firm's capital structure results in a change in that firm's market value. Net income approach depends on the following suppositions:

- 1) There are two sources of finance for all firms, i.e. equity and debt.
- 2) There is absence of corporate taxes, transaction cost and retained earnings.
- 3) The cost of equity is higher as compared to debt cost.
- 4) The total percent of equity capital and debt capital remains equal.

Clearly, this approach explains that the firms have option to optimize their capital structure by availing maximum level of debt which is less costly than employing equity. Therefore, if debt level of a firm increases, which is also considered as the cheapest source of finance, the total capital cost of a firm decreases and then the value of the firm and the price of its equity shares increases. Later, Durand (1959) reveals the weaknesses of NI proposition and amends it to NOI approach

### 2.2 Net Operating Income (NOI) Approach

According to the suggestions of net operating income, the market value of a firm depends on the revenue available for its shareholders after settling all incurred expenses except interest on attained debt. Therefore, the income that is available for stockholders or for estimation of value of a firm is called net operating income approach. Technically, NI approach is appropriate for the determination of firm's capital structure. It suggests that value of firm and its weighted average cost of capital (WACC) are affected by firm's capital structure related decisions. On the contrary, NOI method explains that the decisions related to capital structure are irrelevant, hence, financial leverage level

does not affect the company's WACC and its overall market value. Therefore, firm's capital structure does not determine the value of firm. (Kenton,2011). The NOI theory depends on following presumptions:

- 1) There are two sources of finance for all firms, i.e. equity and debt.
- 2) There is absence of corporate taxes, transaction cost and retained earnings.
- 3) The value of firms is calculated by EBIT / Overall cost of capital.
- 4) Debt cost is always less than the equity cost.
- 5) Altogether the capital cost of debt and the capital cost of equity capital remain same.
- 6) Firm's worth depends on presumed NOI and its overall rate of capitalization.
- 7) The level of acquired debt does not impact on firm's net operating income.
- 8) Uncertainty situation of a firm does not settle with the alteration in capital structure.
- 9) There is no change in the value of WACC due to alteration in the structure of leverage.
- 10) The proportion of dividend pay-out is 100%.

Theoretically, the approach of net operating income is divided into two propositions. Proposition I explains that the value of a firm depends on its return and risk associated with its operations. Whereas, the second Proposition explains that in comparison with equity, debt is less expensive item for formulating firm's capital structure, therefore, when a firm uses extra debt, its cost for capital remains constant.

### 2.3 Modigliani Miller Theorem

The Modigliani-Miller theorem explains the relationship between a company's capital asset structure and dividend policy and its market value and cost of capital; the theorem demonstrates that how a manufacturing company funds its activities is less important than the profitability of those activities. The basic theory assumes a perfectly efficient market, without issues of taxes and other financial costs. The first proposition of the M&M says that the value of leveraged firms (capital structure with a mix of debt and equity) and unleveraged firms (capital structure with only equity) are the same. If not, there would be an arbitrage opportunity and will eventually become equal. Arbitrage is the opportunity to earn profit through market fluctuations with the common practice of buying at a lower price to sell at a higher price immediately. (Cohen, 2004)

$$V (\text{unlevered}) = V (\text{levered})$$

(Where V (unlevered) = company with no debt financing and V (levered) = company with some debt financing)

Investors that purchase shares of a leveraged firm, one with a mix of debt and equity financing, would receive the same profits as when buying shares of an unleveraged firm, which is financed entirely by equity. The second proposition states under the theory with no taxes suggests that the cost of equity of a company is proportional to the company's debt level.

When debts increase in a company, there are more chances of going default.

Investors demand a greater return on their investments with an increase in risk.

$$r_e = r_a + D/E (r_a - r_d)$$

(Where  $r_e$  = cost of levered equity,  $r_a$  = cost of unlevered equity,  $r_d$  = cost of debt,  $D/E$  = ratio of debt to equity)

In the real world, companies are not free from the obligation to pay taxes and other transactional costs. Considering this, the Modigliani-Miller Theorem has been revised to accommodate the real-world scenarios better. The first proposition under this revised theorem suggests that the value of a levered company is greater than the value of an unlevered company, with the tax-deductible interest expense. The assumption implies that companies operating in the world of perfectly efficient markets do not pay any taxes, the trading of securities is executed without any transaction costs, bankruptcy is possible but there are no bankruptcy costs and information is perfectly symmetrical. The second proposition considers the relationship between the cost of equity and the level of debt, as risks are still involved. An increase in leverage level induces higher default probability to a company. Therefore, investors tend to demand a higher cost of equity (return) to be compensated for the

additional risk.

Technically, MM irrelevance theory is very sound but its provided assumptions especially for capital market that exists without taxes are not realistic and impractical in real world. Therefore, to make these propositions more realistic and strong, Modigliani Miller (1963) added the influence of corporate taxes on the firm's value and on the capital cost. Hence, in the existence of tax shield, the firm's value increases with the increase in debt. Remarkably, interest cost on debt is treated as a deductible expense from firm's profit margin and thus it reduces the overall net tax liability of firm. This explains that using debt capital is beneficial for the firm and it lowers its capital cost. Due to its impractical and unjustified assumptions, MM theory has constantly been debateable among scholars and it provides a way of entering for new theories.

## **2.4 Pecking Order Theory**

The pecking order theory given by Myers and Majluf in 1984 suggests the order in which a firm prefers to make decisions in order to finance its business. According to this theory, the firm follows the following order to make investment decisions - first they use internal funds for financing itself, then depend on debt and use equity as the last resort. Certain firms prefer to finance their new investments first through internal funding's (Al-tally, 2014). Thus, Myers and Majluf (1984) argue that firms prefer equity as the last resort because when a firm issues a new equity, it makes an investor believe that the firm is overvalued and thus they make a lower value claim on the newly issued equity. The debt ratio of a firm, the total figure of a firm for external financing and a firm with a higher profit use less debt capital.

The pecking order theory is important because it gives investors and insight into a firm's performance. Internal financing means the firm is strong. If a firm utilises debt, it means it is able to adhere to its monthly obligations. Using equity is usually a negative sign as stated above, it makes investors think the firm is overvalued (Tarver, 2021).

## **2.5 Market Timing Theory**

The Market Timing theory (MTT) explains how firms make financial decisions for their investments either by using debt or equity. Market timing theory given by Baker and Wurgler (2002) states that a firm will issue a new equity when the prices of their shares are overvalued and buy them back when the shares are undervalued. Further Baker and Wurgler (2002) explain that consistent with the pecking order theory of capital structure market timing theory does not move to target leverage as equity transactions are completely time to stock market conditions (Abeywardhana, 2017). This simply means that firms do not focus on whether they want to use debt or equity for fundings, they simply choose depending on what is more valued at the time in a financial market.

## **3. Conclusion**

This paper discourses numerous dissimilar capital structure theories. Visibly, there is no concept of optimal capital structure in preliminary capital structure theories that are Net Income (NI) and Net Operating Income (NOI) approaches. However, another primary theory that is traditional theory of capital structure postulates that optimal capital structure exists for the firms. After that, Miller and Modigliani proposition I enlightens that in a perfect capital market where no tax shield exists capital structure of firms has no influence on its value. Later, in another proposition II they add interest tax shield and describe that using debt in firms leverage the influence on its overall market value. Market timing theory suggests that market time is an important factor for a firm and should be considered before declaring equity shares. It explains that a firm only announces equity when its shares price is overvalued and purchased back when they are available at lower price. Agency Cost theory explains that cost arises because of conflict between the owners and the firms of the firm owners and the managers. Considering all of the above discussed theories, it is clear that there is no unique theory of capital structure which integrates all important concepts and aspects about selection of optimal capital structure. Evidently, this concludes that capital structure is still an unresolved puzzle.

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