

Class: MSc

Subject : Business Finance

Chapter: Unit 2 Chapter 1

Chapter Name: Capital structure & Financial Leverage

Topics to be covered

1. What is Capital Structure?
2. How Do Managers Decide on Capital Structure?
3. Financial Leverage and Gearing
4. Degree of acceptable gearing/leverage
5. Factors affecting gearing decisions
6. Current and Non Current Assets
7. Business Risk
8. Financial Risk
9. Cost of Capital and Taxation
10. Life cycle and market view/preference
11. Modigliani – Miller : Capital Structure Irrelevance Theory

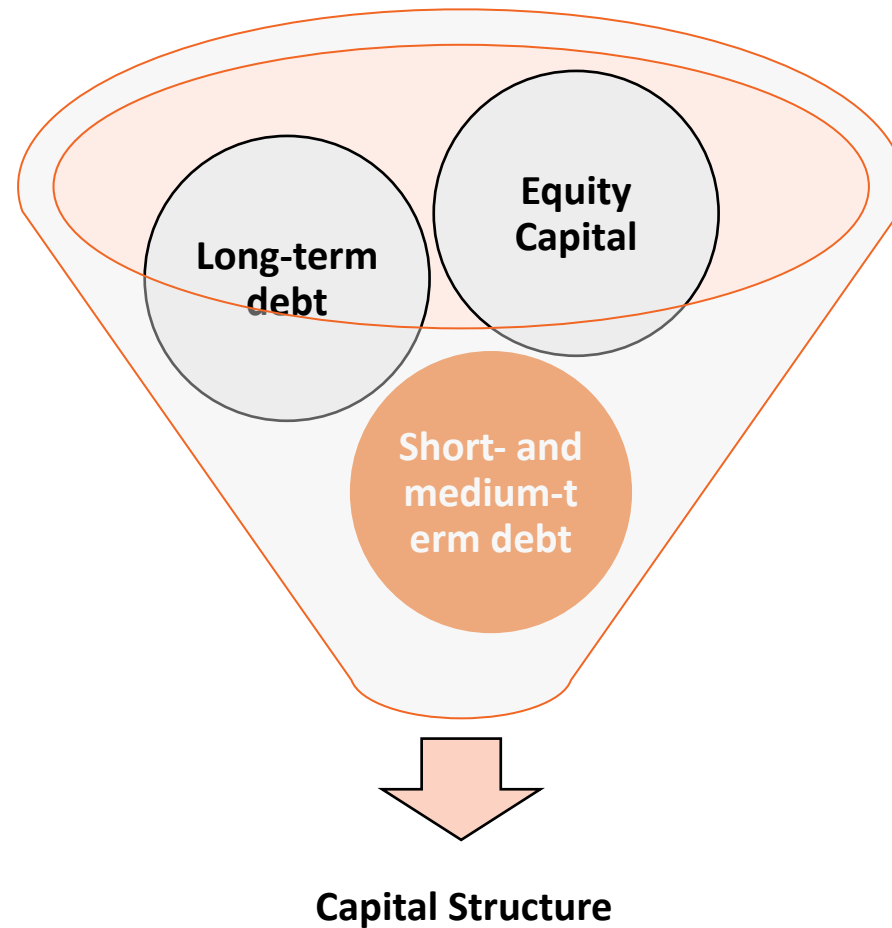
1 What is Capital Structure?



Capital Structure is the mix of debt, preferred stock, and common equity that is used to finance the firm's assets.

- A firm's capital structure is typically expressed as a debt-to-equity or debt-to-capital ratio.
- Equity capital arises from ownership shares in a company and claims to its future cash flows and profits.
- Debt comes in the form of bond issues or loans, while equity may come in the form of common stock, preferred stock, or retained earnings.
- Short-term debt is also considered to be part of the capital structure.

1 What is Capital Structure?



2 How Do Managers Decide on Capital Structure?

- Debt and equity capital are used to fund a business's operations, capital expenditures, acquisitions, and other investments.
- There are tradeoffs firms have to make when they decide whether to use debt or equity to finance operations, and managers will balance the two to find the optimal capital structure.
- Firms' actual capital structures change over time, and for two quite different reasons:
 - **Deliberate actions:** If a firm is not currently at its target, it may deliberately raise new money in a manner that moves the actual structure toward the target.
 - **Market actions:** The firm could incur high profits or losses that lead to significant changes in book value equity as shown on its balance sheet and to a decline in its stock price. Similarly interest rate changes due to changes in the general level of rates and/or changes in the firm's default risk could cause significant changes in its debt's market value. Such changes in the market value of the debt and/or equity could result in large changes in its measured capital structure.
 - **Excess cash:** If a business finds itself with excess cash that it cannot profitably use, it returns this to shareholders by way of a share 'buyback'.

2 How Do Managers Decide on Capital Structure?

- The financial managers of a company seek to maximize the return to the owners of the equity, within the parameters they have set out. These involve:

The variability of anticipated returns (having regard to the nature of the business)

The degree to which risk should be carried by the owners

The owners' desire for immediate profit rather than future high growth;

The willingness (or otherwise) of the owners to put additional capital into the business

Their willingness to see a reduction in the proportion of the business which they own.

2 How Do Managers Decide on Capital Structure?

- The need for change in capital structure also arises from the desire to expand the business or start new or additional capital projects.
- Due to the cost, delay and unpopularity of raising new equity finance (particularly for comparatively small sums), other forms of finance are typically used, at least initially.
- The alternative forms of finance are:
 - Retained earnings;
 - Equity Finance and
 - Other forms of Finance

2 How Do Managers Decide on Capital Structure?

1. Retained earnings

Retained profits are the simplest and most accessible source of finance. However:

- Shareholders may demand immediate release of profits as dividends.
- There may not be sufficient accumulated funds to finance projects when required.

2. Equity finance

Due to the cost, delay and unpopularity of raising new equity finance (particularly for comparatively small sums), other forms of finance are typically used – at least initially.

2 How Do Managers Decide on Capital Structure?

3. Other forms of finance

Most businesses can choose alternatives such as borrowing, lease of assets, sale and leaseback or the use of trade credit to finance turnover.

The use of these alternative forms of finance is constrained by:

- ☐ the nature of the business and its assets
- ☐ the degree of gearing considered acceptable
- ☐ the effects of taxation and these are reflected in the credit-worthiness rating of the business.

However, these alternative financing solutions have their drawbacks. Leased assets may become of lower value than expected before the expiry of the lease (due to innovation or a change in business strategy). Sale and leaseback forgoes flexibility and the possible future appreciation in the value of the property. Borrowing to finance projects is, therefore, typically required

3 Financial Leverage and Gearing



Leverage is the use of debt (borrowed capital) in order to undertake an investment or project.

Gearing shows the extent to which a firm's operations are funded by lenders versus shareholders—in other words, it measures a company's financial leverage.

- Leverage results from using borrowed capital as a funding source when investing to expand the firm's asset base and generate returns on risk capital.
- Leverage is an investment strategy of using borrowed money—specifically, the use of various financial instruments or borrowed capital—to increase the potential return of an investment. Leverage can also refer to the amount of debt a firm uses to finance assets.
- Gearing can be thought of as leverage, where it's measured by various leverage ratios, such as the debt-to-equity (D/E) ratio.
- The appropriate level of gearing for a company depends on its sector and the degree of leverage of its corporate peers.

$$\text{Gearing} = \frac{\text{Debt}}{\text{Equity}}$$

4 Degree of acceptable gearing/leverage

- As a business expands its gearing – the ratio of debt to equity – the costs of financial failure rise.
- In the end, losses can wipe out not merely the assets financed by the loans, but also those financed by the equity, at which point the business is bankrupt. The greater the debt, the less likely it is that the available assets (possibly realized in 'distress' circumstances) will be able to pay off all the creditors in full.
- In addition, the holders of the equity will become concerned that, should the business hit a bad patch, the interest burden will leave nothing for them.



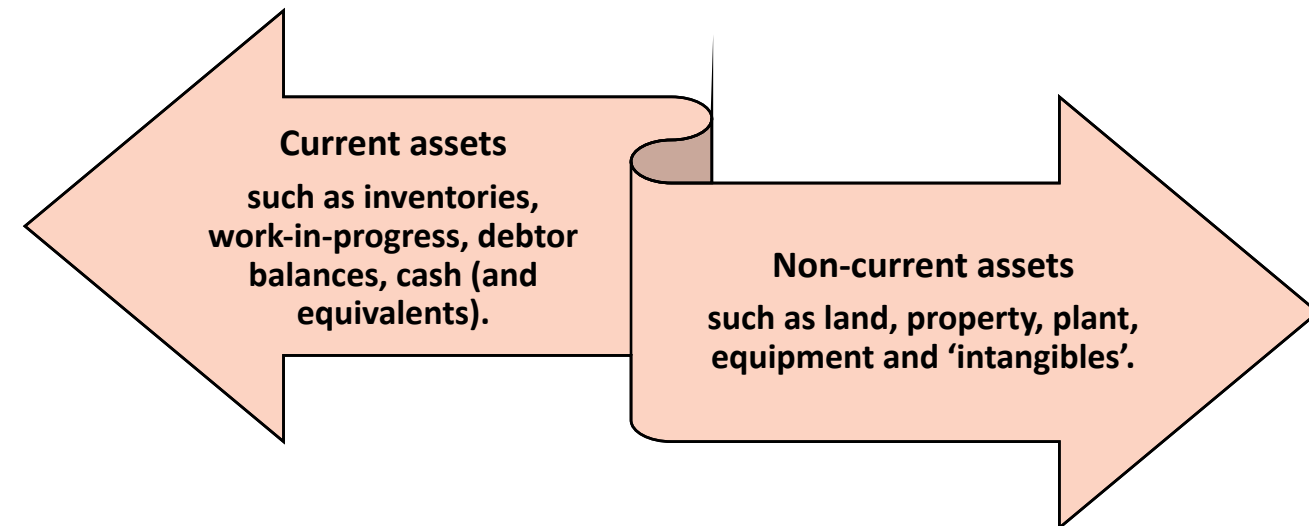
5 Factors affecting gearing decisions

Gearing decisions by corporates are affected by the following factors:

- Current and Non Current Assets
- Business Risk
- Financial Risk
- Cost of Debt (Interest) and Equity (Dividends + Residual Profits)
- Taxation

6 Current and Non Current Assets

- Current assets less current liabilities form the working capital of the business and a certain level of liquidity will be needed for a business to survive.
- Also, in cyclical businesses current assets (and current liabilities) will fluctuate with the cycle in that industry. Therefore, both non-current and current assets need to be financed on a long-term basis.
- Factors deciding these Financing Decisions are:
 - Nature of Business and Assets
 - Financial Risk
 - Cost of Debt and Equity
 - Taxation
 - Availability of Finance
 - Control over business operations



7 Business Risk

- Business risk is the single most important determinant of capital structure, and it represents the amount of risk that is inherent in the firm's operations even if it uses no debt financing.
- The use of debt, or financial leverage, concentrates the firm's business risk on the stockholders.
- Business risk depends on a number of factors, including the following:
 - Competition
 - Demand variability
 - Sales price variability
 - Input cost variability
 - Product obsolescence, etc.

8 Financial Risk

- Financial risk is the additional risk placed on the common stockholders as a result of the decision to finance with debt.
- Conceptually, stockholders face a certain amount of risk that is inherent in the firm's operations—this is its business risk. If a firm uses debt (financial leverage), this concentrates the business risk on common stockholders.

8 Financial Risk

Assets (Utilisation of Funds)	Liabilities (Sources of Funds)
Property – 40	Equity – 20
Cash – 10	Debt – 30
Total: 50	Total: 50

- Debt to Equity Ratio = $30/20 = 1.5$ times
- Debt to Capital Ratio = $30/(30+20) = 60\%$

Value of Property falls by 50%, Equity owners would have lost their complete investment

Assets (Utilisation of Funds)	Liabilities (Sources of Funds)
Property – 60	Equity – 20
Cash – 10	Debt – 50
Total: 70	Total: 70

- Debt to Equity Ratio = $50/20 = 2.5$ times
- Debt to Capital Ratio = $50/(50+20) = 5/7\%$

Value of Property falls by 33.3%, Equity owners would have lost their complete investment

9 Cost of Capital and Taxation

- Businesses design their capital structure in such a manner that their overall WACC (weighted average cost of capital) i.e. the rate at which the company can raise money on average, minimizes.
- It's also affected by the credit worthiness of firms and the liquidity in markets.
- The main features of company taxation imply that:
 - Interest payments are tax deductible.
 - Capital allowances on new plant and equipment are deductible.
 - Lease of plant and equipment receives tax relief.
 - Property rental payments are tax deductible.
- It may seem that the cost of financing a business by debt capital is diminished by the reduction in corporation tax, thus giving rise to a substantial tax advantage to debt finance.
- However, it should be borne in mind that the providers of debt capital may well have to pay tax on the interest.
- Nevertheless, profits (the return on equity capital) are taxed more heavily than interest (the return on debt capital) in most tax systems.

10 Life cycle and market view/preference

- The life cycle or the stage at which a business is of great importance when deciding which capital structure is suitable for it.
- Companies change their leverage as per their cash flows and financing needs.
- Equity is preferred for high growth and high risk business while mature businesses can afford debt better.

Stage	Features
Introduction	Planning, Primary Business Requirements, Limited Return, Product Discovery, Market Presence, Raising Initial Capital 70% companies that don't progress
Growth	Exponential Growth of business, Increasing spend on Market Making, Increasing penetration in the industry, Improve Cash Flows, not to fall short of financial resources
Mature	Efficiency in Investment Strategies, Profit Retention
Decline	

11 Modigliani – Miller : Capital Structure Irrelevance Theory

MM Theory:

- Assumptions – Decision maker is a rational person with decisions based truly on logic and science

“Capital Structure (Financing Decision) doesn’t affect the market value of the company, the MV (market value) of the company is affected by the Investment Decision that the Finance Manager would take....”

- which is not completely true in real life scenarios: Reliance Communications (80% Debt and 20% Equity)
- Debt is cheaper than Equity – Rely on greater debt – overall cost of funding the business is lower ($K_d < K_e$); Assumed is that if more debt is resorted to off course debt is cheaper; equity will expect a higher return and accordingly, the cost to company will always match
- Where, K_d = Cost of Debt & K_e = Cost of Equity