



SNS College of Technology

Coimbatore - 35



23BAT611- Financial Management

Unit - III

COST OF CAPITAL & CAPITAL STRUCTURE



Presented by

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Design Thinker

1st Indian Institution to Implement Design Thinking Curriculum
Redesigning Common Mind and Business Towards Excellence



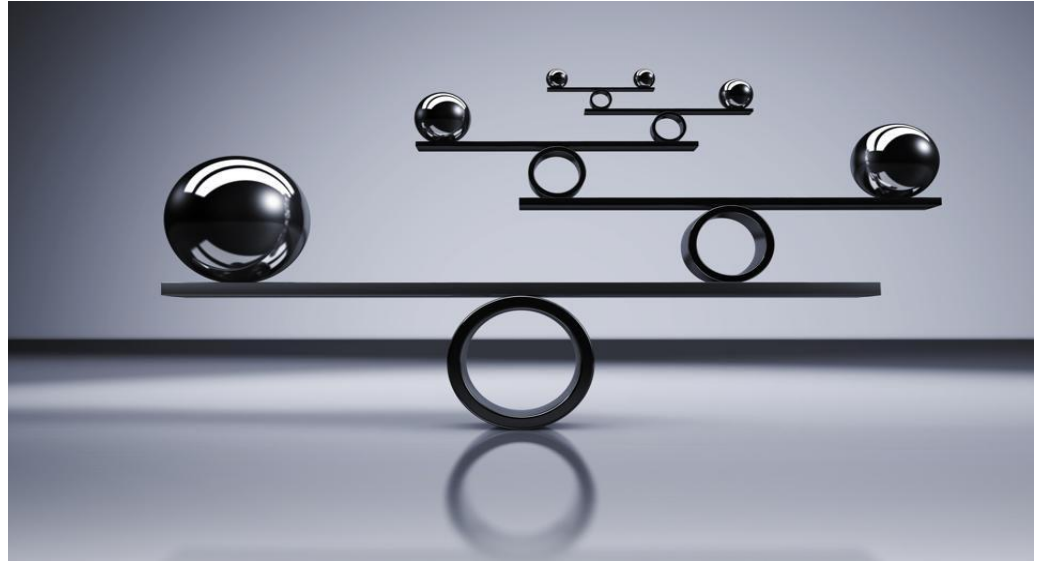
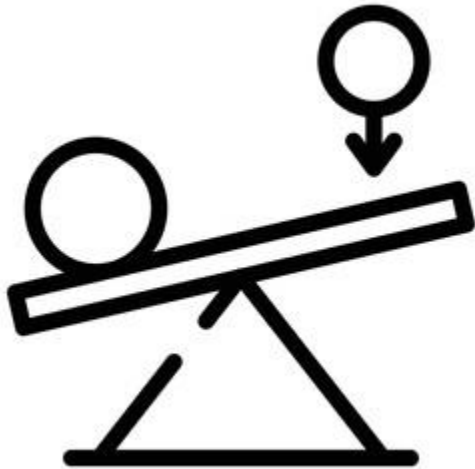
Recall



Discussed Problem related to Equity Share capital and retained earning



Topic





Leverage



Leverage.





Leverage

Problem : 3

The following projections have been give in respect of companies X and Y.

Particulars	Company X	Company Y
Volume of output & Sales	80,000 units	1,00,000 Units
Variable cost per unit	Rs. 4	Rs. 3
Fixed Cost	Rs. 2,40,000	Rs. 2,50,000
Interest burden on debt	Rs. 1,20,000	Rs. 50,000
Selling price per unit	Rs. 10	Rs. 8



Leverage



On the basis of above information calculate (a) Operating Leverage (b) Financial Leverage (c) Combined Leverage (d) operating break – Even point (e) Financial break – even point.



Leverage - Statement of Profit

Particulars	Company X	Company Y
Sales (80,000*10) Company X (100,000*8) Company y	8,00,000	8,00,000
Less : Variable Costs (80,000*4) Company X (100,000*3) Company y	3,20,000	3,00,000
Contribution	4,80,000	5,00,000
Less : Fixed Costs	2,40,000	2,50,000
Operating Profit (EBIT)	2,40,000	2,50,000
Less : Interest	1,20,000	50,000
Profit Before Tax (PBT) EBT	1,20,000	2,00,000



Leverage

Formula for Leverage

- a) **Operating Leverage = Contribution / Operating Profit (or) Contribution / EBIT**
- b) **Financial Leverage = Operating Profit / Profit Before Tax (or) EBIT / EBT**
- c) **Combined Leverage = Operating Leverage * Financial Leverage**
- d) **Operating B.E.P Units = Fixed Costs / Contribution p.u**
- e) **Financial B.E.P (in Rs.) = Fixed Costs / Contribution p.u * S.P. p.u**



Leverage - Solution

Formula for Leverage

a) **Operating Leverage = Contribution / Operating Profit (or) Contribution / EBIT**

$$\text{Operating Leverage X} = 4,80,000 / 2,40,000 = 2 \text{ Times}$$

$$\text{Operating Leverage Y} = 5,00,000 / 2,50,000 = 2 \text{ Times}$$

b) **Financial Leverage = Operating Profit / Profit Before Tax (or) EBIT/ EBT**

$$\text{Financial Leverage X} = 2,40,000 / 1,20,000 = 2 \text{ Times}$$

$$\text{Financial Leverage Y} = 2,50,000 / 2,00,000 = 1.25 \text{ Times}$$



Leverage - Solution

Formula for Leverage

c) **Combined Leverage = Operating Leverage * Financial Leverage**

$$\text{Combined Leverage X} = 2 * 2 = 4 \text{ Times}$$

$$\text{Combined Leverage Y} = 2 * 1.25 = 2.5 \text{ Times}$$

d) **Operating B.E.P Units = Fixed Costs / Contribution p.u**

$$\text{Operating B.E.P Units X} = 2,40,000/6 = 40,000 \text{ Units}$$

$$\text{Operating B.E.P Units Y} = 2,50,000/5 = 50,000 \text{ Units}$$



Leverage

e) **Financial B.E.P (in Rs.) = Fixed Costs / Contribution p.u * S.P. p.u**

Financial B.E.P (in Rs.) X = 2,40,000/6*10 = Rs. 4,00,000

Financial B.E.P (in Rs.) Y = 2,50,000/5*8 = Rs. 4,00,000



Summarize

Leverage





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