Leverage Analysis

The employment of an asset or source of funds for which the firm has to pay a fixed cost or fixed return is called leverage. The earnings available to the shareholders are getting affected due to leverage. **Leverage is Favourable when EBIT exceeds the fixed return requirement and it is Unfavorable when EBIT is less than the Fixed return requirement.**

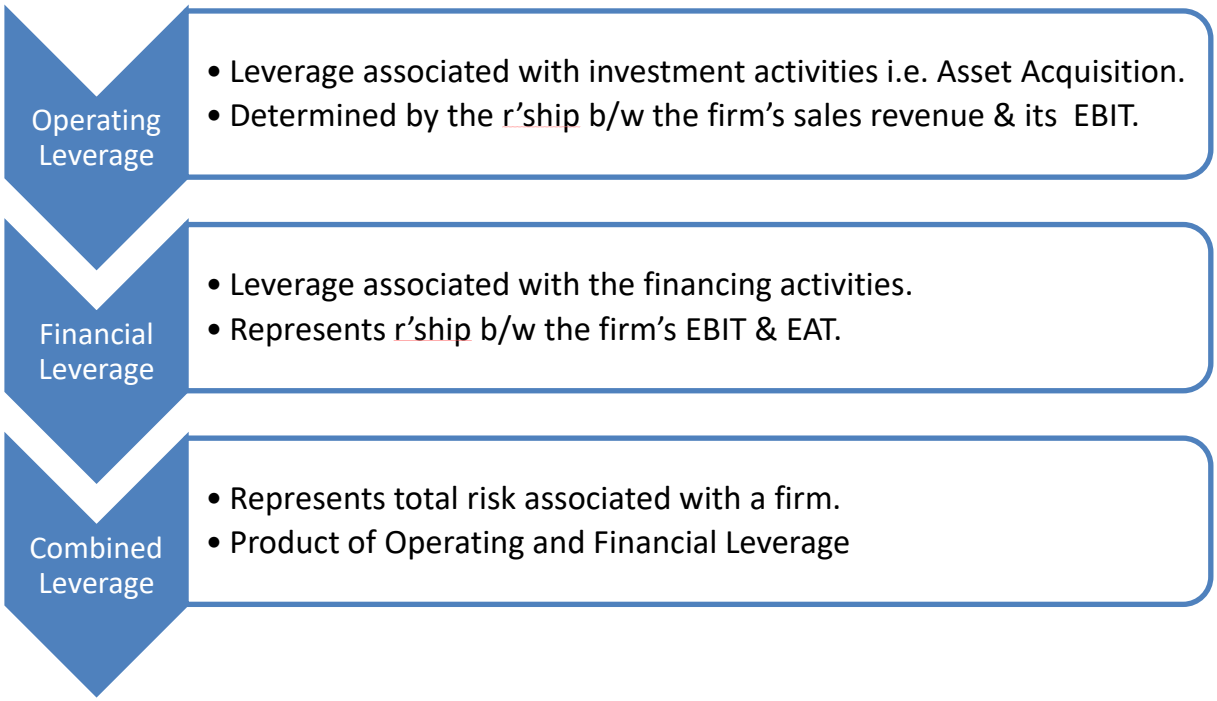

FIGURE1.1 MASTER TABLE FOR LEVERAGE CALCULATIONS

Sales	xxx
Less: Variable Cost	xxx

Contribution	xxx
Less: Fixed Cost	xxx

Earnings Before Interest and Taxes (OP) (EBIT)	xxx
Less: Interest	xxx

Earnings Before Tax (EBT)	xxx
Less: Tax	xxx

Earnings After Tax (EAT)	xxx
Less: Preference shareholders' dividend	xxx

Earnings Available to Equity Shareholders	xxx

Operating Leverage

The leverage associated with investment or acquisition activity is called operating leverage. Operating leverage is determined by the relationship between a firm's revenues and its EBIT. Operating leverage results from existence of fixed operating expenses in the firm's income stream. Operating leverage means the firm's ability to use fixed operating costs to magnify the effects of changes in sales on its EBIT. Operating leverage occurs any time when a firm has fixed costs which must be met regardless the volume of sales. We employ assets with fixed cost with a hope that we will generate revenues more than fixed and variable cost.

The operating leverage takes place when a change in sales revenue produces a greater change in EBIT. It indicates the impact of changes in sales on operating income. A firm with a high operating leverage has a relatively greater effect on EBIT for small changes in sales. A small rise in sales may enhance profits considerably, while a small decline in sales may reduce and even wipe out the EBIT. Naturally, no firm likes to operate under conditions of a high operating leverage because that creates a high-risk situation. It is always safe for a firm to operate sufficiently above the break-even point to avoid dangerous fluctuations in sales and profits. The operating leverage is related to fixed costs. A firm with relatively high fixed costs uses much of its marginal contribution to cover fixed costs. It is interesting to note that beyond the break-even point, the marginal contribution is converted into EBIT. The operating leverage is the highest near the break-even point. After a firm reaches this point, even a small increase in sales results in a big increase in EBIT.

The extent of the operating leverage at any single sales volume is calculated as follows:

$$\text{DOL} = \frac{\%\Delta\ \text{EBIT}}{\%\Delta\ \text{Sales}}$$

$$\text{DOL} = \frac{Q(p-v)}{Q(p-v)-FC} = \frac{\text{Sales} - VC}{\text{EBIT}}$$

$$\text{Operating Leverage} = \frac{\text{Marginal Contribution}}{\text{EBIT}} \text{ or } \frac{C}{\text{EBIT}} \text{ or } = \frac{\text{Revenue - Variable Costs}}{\text{Revenue - Variable Costs - Fixed Costs}}$$

When a firm has fixed operating costs, if the percentage change in EBIT is more than percentage change in Sales than Operating Leverage is favourable (DOL > 1). When the percentage change in EBIT is less than percentage changes in sales than the leverage is unfavourable (DOL < 1)

If DOL is 5; it means that with 1% change in sales there will be 5% change in EBIT in the direction of the change in Sales. (If sales increases, EBIT also increases and vice-versa)

The change in the rate of earnings is based on the operating leverage resulting from the fact that some costs do not move proportionally with changes in production. This leverage operates both positively and negatively, increasing profits at a rapid rate when sales are expanding and reducing them or causing losses when operations decline. If all the costs were variable, the rate of profit would show fewer changes at different operating levels. The operating leverage, then, is the process by which profits are raised or lowered in greater proportion than the changes in the volume of production because of the inflexibility of some costs. The higher the fixed costs, the greater the leverage and the more frequent the changes in the rate of profit (or loss) with alternations in the volume of activity.

Illustration

Sales - 20,000 units @ Rs. 8 per unit.
Variable Costs - Rs. 2 per unit.
Fixed Costs - Rs. 30,000

$$\text{Operating Leverage} = \frac{160000 - 40000}{160000 - 40000 - 30000} = \frac{120000}{90000} = 1.33{:}1 \text{ or } 1.33 \text{ times}$$

The operating leverage decreases with an increase in sales above the break- even point. The reason is that fixed costs become relatively smaller than the revenues and the variable costs

once the break-even point is reached. The extent of the operating leverage depends on the employment of fixed assets in the production process. The higher the fixed costs a firm employs in the production process, the greater is its operating leverage. This operating leverage is measured with the help of following formula:

Financial Leverage

Leverage associated with financing activities is called Financial Leverage. Financial leverage represents the relationship between the firm's EBIT and the earnings available to equity shareholders.

The sources from which funds can be raised by the firm can be categorised into the funds carry a fixed financial charge i.e. debt, bonds, loans and preference shares and second category of those firms which do not involve fixed payments i.e. equity shares. The firm which has raised funds through Debt (Debentures, Pref. Shares, Loans, and Bonds) is called **Levered firm** and the firm having only equity shares is called **Unlevered firm.**

Financial leverage results from the presence of fixed financial charges in the firm's income stream. Financial Leverage is concerned with the effects of changes in EBIT on the Earnings available to equity shareholders.

It is defined as the ability of the firm to use fixed financial charges to magnify the effects of changes in EBIT on EPS. Favourable financial leverage occurs when the firms earns more on assets than the fixed cost. The financial leverage is based on the assumption that the firm is going to earn more on its assets on which a fixed rate of payment to be made.

It is generally accepted that investors seek to maximize their return on investments, subject to given risk constraints, and that they demand a higher return for the greater risk involved in an investment. The proportion of debt in the capital structure of a company is limited by two factors:

1. Investors risk preference
2. Business risk associated with the nature of a company's operations.

The determination of this limit, which is known as the corporate debt capacity, is an important aspect of the financial policy of a company to get the maximum benefit from debt financing.

While the investors' risk preference is difficult to assess because it varies from individual to individual, business risk can be determined objectively.

A highly geared capital structure, or what is known as high leverage, distorts the profit earning capacity. Frank H. Jones rightly says that the profit earning capacity of ordinary shares in a well-financed company is not always fully appreciated. Leverage is thus the utilisation of fixed costs to effect disproportionate changes in income. It may be defined as the employment of an asset or funds for which a firm pays a fixed cost or fixed return. David Francis observes that a fixed cost or return may be looked upon as the fulcrum of leverage.

Financial leverage occurs when a corporation earns a bigger return on fixed cost funds than it pays for the use of such funds. It refers to typical situation in which a firm has fixed charges, securities, such as preferred stock and debentures, and its return on investment must not be equal to fixed charges. It exits in both these conditions. If these conditions are not present, financial leverage is absent. The reason is that, if a firm earns exactly as much as it pays for the use of its capital, there is no use making any borrowings. In other words, there is no financial leverage in this situation. If the ROT (return on investment exceeds the rate of interest, a firm has a favourable financial leverage) and is in a position to pass part of this advantage to its equity stockholders by resorting to borrowings.

The phrase trading equity is a financial jargon which indicates the utilisation of non-equity sources of funds in the capital structure of an enterprise. At a high debt-equity ratio, a firm may not be able to borrow funds at a cheaper rate of interest it may not able to borrow funds at all. This is so because creditors lose confidence in the company which has a high debt-equity ratio. How can creditors have confidence in the company which has only creditors and no equity stockholders? The company will, therefore, have to strive hard to regain a reasonable debt-equity ratio so that the expectations of the market may be satisfied. In fact, equity financing by way of a public sale of stock offers real value of a firm. Traditionally, it has served as a spearhead for expansion of resources and productive capacity involving risk.

Extent of Financial Leverage

Financial leverage depends upon the ratio of debt and preferred stock together to common stock equity. There are three ratios which the degree of financial leverage implies.

$$DFL = \frac{\%\Delta EPS}{\%\Delta EBIT}$$

$$DFL = \frac{EBIT}{EBT} = \frac{EBIT}{EBIT - Interest}$$

If the firm has issued Preference Shares

$$DFL = \frac{EBIT}{EBIT - Interest - Dp/(1-t)}$$

The effect of financial leverage in a firm's capital structure may be analysed from the following information given below.

llustration

EXHIBIT 2

	Firm P	Firm Q	Firm R	Firm S
Equity	80,000	50,000	50,000	50,000
Debt	- (8%)	30,000 (10%)	30,000 (7%)	30,000 (8%)
Total Assets	80,000	80,000	80,000	80,000
EBIT	8,000	8,000	7,200	5,600
ROI (EBIT/Total Assets)	10%	10%	9%	7%
Interest	NIL	3,000	2,100	2,400
EBT	8,000	5,000	5,100	3,200
Taxes (40%)	3,200	2,000	2,040	1,280
EAT	4,800	3,000	3,060	1,920
No. of shares of Rs. 10 each	8,000	5,000	5,000	5,000
EPS	.60	.60	.612	.384
After-tax return per share	6%	6%	6.12%	3.84%
Leverage'	No leverage	No leverage	Favourable leverage	Unfavourable leverage

When the firm P issued no debt, the shareholders received a 6 percent after - tax return. In spite of the firm Q issuing a debt of Rs. 30,000, it had no leverage, for the ROI (10 per cent) was equal to the interest (10 per cent). The firm issued a similar debt and enjoyed a favourable leverage, for its ROI (9 per cent) was higher than its interest (7 per cent). However, the firm S suffered from an adverse or unfavourable leverage, for its ROI (7 per cent) was less than its interest rate (8 per cent). The principle of capital structure management is then simple. It is logical for a firm to borrow reasonable amounts; If it earns higher rate than it pays for its borrowings. Similarly, when ROI is high, the firms with a favourable financial leverage are bound to enjoy high earnings.

Advantages of Financial Leverage

1. The advantage of trading on equity is that it makes it possible for a company to distribute higher dividends per share than it would have, if it has been financed by stock alone.

2. The advantages and attractiveness of trading on equity for the owners of equity capital are all too apparent. Some of these have already been explained while discussing the requirements for trading on equity.

Limitations of Financial Leverage

1. It may cause dividends to disappear altogether and, indeed, may be responsible for the insolvency and even bankruptcy of a corporation.

2. Companies enjoying a fairly regular income can employ borrowed funds more safely than those with widely fluctuating incomes.

3. Beyond a certain point, additional capital cannot be employed to produce a return in excess of the payments which must be made for its use or sufficiently in excess thereof to justify its employment.

4. The bigger the amount of funds borrowed, the higher the interest rate the corporation may be forced to pay in order to market its successive issues of bonds. Such increase in interest rates, if carried far off, may offset all the advantages of trading on equity. But such a general principle does not inevitably follow. A growing company which is progressively increasing its

net earnings through trading on equity may present such an earning exhibit as to make it possible for further trading on equity at low or lower rates. Moreover, money rates may fall.

EBIT – EPS Analysis

It is a method to study the effect of leverage. It essentially involves the comparison of alternative methods of financing under various assumptions of EBIT. A firm has the choice to raise funds for financing its investment proposals from different sources in different proportions. It will include:

1. Exclusively use Equity Capital
2. Exclusively use Debt
3. Exclusively use Preference Capital
4. A combination of Equity and Debt in different proportions
5. A combination of Equity and Preference capital in different proportions
6. A combination of Equity, Preference and Debt in different proportions etc.

The choice of the combination of various sources would be one which ensures the largest EPS given the level of EBIT. **For Illustration, refer to Sum 6 of Class work.**

Total Leverage

Operating and financial leverages are inter-dependent. At any given level of a firm's operations, the total extent of leverage may be measured by the following formula:

Degree of Total Leverage = Degree of Operating Leverage x Degree of Financial Leverage or

$$DCL = \frac{\%\Delta EBT}{\%\Delta Sales} = \frac{\%\Delta EBIT}{\%\Delta Sales} \times \frac{\%\Delta EPS}{\%\Delta EBIT} = DOL \times DFL$$

Indifference Point

The EBIT level at which the EPS is same for two alternative financial plans is referred to as the Indifference Point. The indifference point may be defined as the level of EBIT beyond which the benefits of financial leverage begin to operate with respect to EPS.

In operational terms, if the expected level of EBIT is to exceed the indifference level of EBIT, then the used of debt will be advantageous from the viewpoint of EPS. Financial leverage will be favourable and lead to an increase in the EPS available to shareholders. If the expected level is less than indifference level than the advantage of EPS will be available from the use of equity capital.

Determination of Indifference Point

X = EBIT at the indifference point
N1 = Number of equity shares outstanding if only equity shares are issued
N2 = Number of equity shares outstanding if both debentures and equity shares are issued
N3 = Number of equity shares outstanding if both preference shares and equity shares are issued
N4 = Number of equity shares outstanding if both preference shares and debentures are issued
I = Amount of interest on debentures
DP = Amount of dividend on Preference shares
t = Corporate Income Tax Rate
Dt = Tax on Preference Dividend

(A) Determination of Indifference Point for a New Company

(1) Equity Shares versus Debentures: $$\frac{X(1-t)}{N_1} = \frac{(X-I)(1-t)}{N_2}$$

(2) Equity Shares versus Pref. Shares: $$\frac{X(1-t)}{N_1} = \frac{X(1-t)-D_p}{N_3}$$

(3) **Equity Shares versus Pref. Shares with tax on Preference Dividend:**

$$\frac{X(1-t)}{N_1} = \frac{X(1-t)-D_p(1+dt)}{N_3}$$

(4) Equity Shares versus Preference Shares and Debentures:

$$\frac{X(1-t)}{N_1} = \frac{(X-I)(1-t)-D_p}{N_4}$$

(B) Determination of Indifference Point for Existing Company

$$\frac{(X-I_1)(1-t)}{N_1} = \frac{(X-I_1-I_2)(1-t)}{N_2}$$

Operating Leverage

Que 1.: A firm's sales and expenses details are as follows:

Sales: Rs. 600 lakh

Variable cost: Rs. 360 lakh

Fixed cost: Rs. 140 lakh

(a) Calculate the DOL.
(b) Interpret the result in (a).
(c) How will the profit change if sale increase by10%?
(d) How will the profit change if sales decreased by10%?

Que 2 (Practice): Company A and company B have been operating in the same industry and in the same industry since last year. Both are quite comparable in terms of investment, products and capacity. The selected financial data of these two companies are given below.

('in Rs. "000)

Particulars	Company A	Company B
Sales revenue	1,000	1000
Variable cost	600	200
Operating fixed cost	200	600

Assuming a 10% increase in the sales revenue of both the firms.

Calculate the degree of operating leverage for each company.

Financial Leverage:

Que 3: Swagat corporation is considering a project costing Rs. 800 lakh. The project offers expected earnings of Rs. 100 lakhs under normal conditions. These earnings can change by +/- 50% under conditions of expansions and recession. Swagat corporation has two alternative financing plan: raise 100% equity financing through issue of 10 lakh shares of value Rs. 80 each, or avail of a loan of Rs. 800 lakhs –equivalent to 50% of the project cost –at interest of 10%, while rest 50% by issuing 5 lakh equity shares at Rs. 80 per share.

What is DFL of Swagat corporation under 100% equity financing arrangement, and under a 50% debt arrangement?

Que 4 (Practice):

A firm is considering a project with initial investment of Rs. 500 lakh. Under normal circumstances, the project is expected to earn Rs. 70 lakh. The expected earnings can change by +/- 30% in case of growth or recession. The firm can finance the project in two ways:

1. 100 per cent equity financing by 10 lakh shares of Rs. 50 each.
2. Mix of (50%) debt at 10% and 50% equity shares i.e. 5 lakh shares of Rs. 50 each

Calculate the DFL under both the options.

Combined Leverage:

Que 5: There are two firms, who are similar in nature. The firm A has financed all operations by equity whereas, the firm B has a combination of both equity and debts capital equally . The other informations for both the firms are mentioned below:

Sales revenue Rs. 2 crore
Selling price: Rs. 320
Variable cost (unit) Rs. 200
Fixed cost: Rs. 50,00,000
Interest on debt for firm B =Rs. 5,00,000
Calculate the degree of operating leverage, financial leverage and combined leverage for both firms.

Que 6 (Practice):

Following are relevant intonation pertaining to the two firm P and firm Q.:

(Rs. In lakh)

Particulars	Firm-P	Firm-Q
Sales	400	600
Variable cost	160	180
Fixed cost	120	200
Interest	40	60

Calculate the degree of operating leverage (DOL), degree of financial leverage (DFL) and degree of combined leverage (DCL) of the two firms and comment.

Que 7

Pasupati Acrylon Ltd. is a manufacturing company, has provided the following capital structure:

40,000 Equity shares of Rs. 50 each	Rs. 20,00,000
10% Debentures	Rs. 10,00,000
12% Preference Shares	Rs. 10,00,000
Long term debts at 11%	Rs. 5,00,000
Retained Earnings	Rs. 10,00,000
Total	Rs. 55,00,000

The present EBIT is Rs. 10,00,000. The company is contemplating an expansion programme requiring an additional investment of Rs. 10,00,000. It is expected that the company will be able to maintain the same rate of earnings. To raise the additional capital, the company has the following alternatives:

(i) To issue debentures at 11%.
(ii) To issue preference shares at 13%.
(iii) To raise the entire additional capital through equity shares.

Examine these alternatives and suggest which alternative is best for the company. Assume tax rate to be at 35%.

Que 8 (Practice): Blueline software Ltd. has appointed you as finance manager. The company wants to implement a project for expansion for which Rs. 20 lakhs (2 million) are required to be raised from the market. The company has an objective of maximising earning per share. The following three feasible financial plans are available:

(i) The company may issue 2 lakh equity shares of Rs. 10 each.
(ii) The company may issue 1,00,000 equity shares of Rs. 10 per share and 10,000 debentures of Rs. 100 denominations bearing 8% rate of interest.
(iii) The company may issue 1,00,000 equity shares of Rs. 10 per share and 10,000 preference shares at Rs. 100 per share carrying an 7% rate of dividend.

The expansion is expected to yield an annual EBIT of Rs. 3,20,000.

Assume a tax rate of 30%. Determine the EPS for three financing alternatives.

Class Work

Operating Leverage

1. A firm is selling 1000 units. It has a selling price of ₹ 300 per unit and variable cost of ₹200 per unit. Fixed cost is ₹ 20,000. Calculate degree of operating Leverage.

2. A firm is selling 500 units. It has a selling price of ₹ 1000 per unit and variable cost of ₹ 500 per unit. Fixed cost is ₹ 2,00,000. Calculate degree of operating Leverage if the firm would like to increase its sales to 600 units or would like to decrease its sales to 400 units.

3. A firm has sales of Rs. 10, 00,000, variable cost of Rs. 7, 00,000 and fixed costs of Rs. 2, 00,000 and debt of Rs. 5, 00,000 at 10% of interest. What are the operating, financial and combined leverages? If the firm wants to double up its EBIT, how much of a rise in sales would be needed on a percentage basis?

Financial Leverage & EBIT – EPS Analysis

4. A firm is having equity capital of ₹ 50,00,000 with 5,00,000 shares of 10 each. The firm has also issued 12% debentures of ₹ 4,00,000 and 10% preference shares of ₹4,00,000. Calculate EPS and financial leverage if the firm is having the EBIT of ₹ 5,00,000 with the tax rate of 40%

5. A firm is having its EBIT as ₹ 10,000. It has an equity capital of ₹ 10,000 having 1000 equity shares of 10 each. It has also issued 5% debentures of ₹ 25,000 and 8% debentures of ₹ 15,000. Calculate the EPS. Also calculate the effect on EPS if the EBIT changes to ₹ 5,000 or ₹ 15,000 (Calculate Degree of Financial Leverage)

6. A firm has a capital structure exclusively comprising of ordinary shares amounting to ₹ 10, 00,000. The firm now wishes to raise additional ₹ 10, 00,000 for expansion. The firm has four alternative financial plans.

i. It can raise the entire amount in the form of equity capital.

ii. It can raise 50% as equity capital and 50% as 5% debentures.

iii. It can raise entire amount by issuing 6% debentures.

iv. It can raise 50% as equity capital and 50% as 5% preference capital.

The existing EBIT of the firm is ₹ 1,20,000 and the tax rate is 35%. Outstanding equity shares are 10,000 and the market price per share is ₹ 100 under all four alternatives. Which financing plan should the firm select?

Combined Leverage

7. A firm sells 10,000 units with a selling price of ₹ 500 per unit and variable cost of ₹ 100 per unit. The firm has a fixed cost of ₹ 10,00,000. It has issued 10% debentures of ₹ 20,00,000 and 10% preference shares of ₹ 10,00,000. Calculate the degree of combined leverage.

Indifference Point

8. The financial manager of a company has formulated various financial plans to finance ₹ 30, 00,000 required to implement various projects:

i. Either equity capital of ₹ 30, 00,000 **or** ₹ 15, 00,000 of 10% debentures and ₹ 15, 00,000 equity.

ii. Either equity capital of ₹30, 00,000 **or** 13% preference shares of ₹10,00,000 and ₹ 20, 00,000 equity.

iii. Either equity capital of ₹30, 00,000 **or** 13% preference shares of ₹10,00,000 (Subject to dividend tax of 10%),10% debentures of ₹10,00,000 and ₹ 10, 00,000 equity.

iv. Either equity capital of ₹20, 00,000 and 10% debentures of ₹10,00,000 **or** 13% preference shares of ₹ 10,00,000, 10% debentures of ₹8,00,000 and ₹12, 00,000 equity.

You are required to determine the indifference point of EBIT for each financial plan, assuming 35% tax rate and the face value of equity shares as ₹100.

Home Work

1. An analytical statement of AB Co. is shown below. It is based on output level of 80,000 units.

Sales	9, 60,000
- V.C.	5, 60,000
Contribution	4, 00,000
Fixed Costs	2, 40,000
EBIT	1, 60,000
- Interest	60,000
EBT	1, 00,000
- Tax	50,000
EAT	50,000

Calculate (1) DOL

2. A firm has an EBIT of ₹ 2,00,000. It has issued 10% debentures of ₹5,00,000 and the preference dividend is ₹ 25,000. Calculate the degree of financial leverage if tax rate is 50%.

3. A company intends to start a new manufacturing unit for which it needs Rs. 15, 00,000. The new factory is expected to yield an annual EBIT of Rs. 2, 50,000. In choosing a financial plan, the company has an objective of maximizing EPS. It has three alternatives of issuing debentures Rs. 1, 50,000, 6, 00,000 or Rs. 9, 00,000. The rate of interest in each case would be (1) up to Rs. 2, 00,000 at 10% (2) over Rs. 2, 00,000 up to Rs. 8, 00,000 at 11% and (3) over Rs. 8, 00,000 at 18%. The current market price per share is Rs. 30 and it is expected to drop to Rs. 24 if the funds are borrowed in excess of Rs. 7, 00,000. Assume tax rate at 50%. Give your opinion on the basis of EPS.

Assignment

1. From the following information, compute operating leverage of a firm.

Sales 1,50,000 units @ ₹1.20 per unit.

Varilable Cost 40 paise per unit

Fixed Cost ₹ 36,000

2. From the following Information, you are required to find out the extent of operating leverage in the year 1989.

EBIT (1988) ₹ 30,000

EBIT (1989) ₹ 35,000

Sales (1988) 1,50,000 units

Sales (1989) 1,80,000 units

3. A company is thinking of expansion and financing it by issuing equity stock of 50,000 shares of ₹ 100 per share or by Issuing 12% debentures of the same amount. The tax rate is 50% and the current equity capital structure amounts to 1,00,000 shares of ₹ 100 each. The earnings before interest and taxes are ₹ 50,00,000. You are required to explain the financial leverage underlying the second proposition.

4. The installed capacity of a factory is 700 units. The actual exploited capacity is 500 units. Selling price per unit is ₹ 10 and Variable cost is ₹ 6 per unit.

Calculate the operating leverage in each of the following situations:

I when fixed costs are ₹ 500

II when fixed costs are ₹ 1,100

III when fixed costs are ₹ 1,500

5. Calculate the operating leverage for each of the four firms A, B, C and D from the following price and cost data. What conclusions can you draw with respect to levels of fixed cost and the degree of operating leverage result? Number of units sold is 500.

	A	B	C	D
Sale Price per unit (₹)	20	32	50	70
Variable Cost per unit (₹)	6	16	20	50
Fixed Cost (₹)	80,000	40,000	2,00,000	Nil

6. A firm sells products for ₹ 100 per unit. It has a variable cost of ₹ 50 per unit and fixed operating costs of ₹50,000. The firm is currently producing 2000 units. Show the various levels of EBIT that would result from 1000 units and 3000 units. Calculate Operating Leverage.

7. A firm sells its products for ₹50 per unit, has variable costs at ₹30 per unit and fixed operating costs of ₹5,000 per year. Its current level of sales is 300 units. Determine the degree of operating leverage if sales changes as increase to 350 units and decrease to 250 units.

8. The financial manager of the Hypothetical Ltd. Expects that EBIT would amount to ₹10,000. The firm has 5% bonds aggregating ₹40,000, while the 10% preference shares amount to ₹20,000. What would be the EPS? Assuming the EBIT being (1) ₹ 6,000 and (2) ₹ 14,000, how would the EPS be affected? The tax rate is 35% and the number of outstanding shares is 1000.

9. A company has ₹1,00,000 10% debentures and 5,000 equity shares outstanding. Tax rate is 35%. Assuming three levels of EBIT (i) ₹30,000, (ii) ₹50,000 and (iii) ₹70,000, calculate the change in EPS. Base level of EBIT is ₹50,000.

10. A company intends to start a new manufacturing unit for which it needs Rs. 15, 00,000. The new factory is expected to yield an annual EBIT of Rs. 2, 50,000. In choosing a financial plan, the company has an objective of maximizing EPS. It has three alternatives of issuing debentures Rs. 1, 50,000, 6, 00,000 or Rs. 9, 00,000. The rate of interest in each case would be (1) up to Rs. 2, 00,000 at 10% (2) over Rs. 2, 00,000 up to Rs. 8, 00,000 at 11% and (3) over Rs. 8, 00,000 at 18%. The current market price per share is Rs. 30 and it is expected to drop to Rs. 24 if the funds are borrowed in excess of Rs. 7, 00,000. Assume tax rate at 50%. Give your opinion on the basis of EPS.