UNIT - III

LEVERAGES

The Leverage Defines "The employment of an asset or source of funds for which the firm has to pays a fixed cost or fixed return".

Three types of leverages

- Operating Leverage
- Financial Leverage
- Composite leverage

1. Operating Leverage

The fixed cost remaining same, the percentage change in operating revenue will be more than the percentage change in sales. The occurrence is known as operating leverage.

Operating leverage may be defined as the firm's ability to use operating cost to magnify the effects of changes in sales on its earnings before interest and taxes. Operating investment is associated with investment activities

Operating leverage in a firm is a function of three factors:

- The amount of fixed cost
- The contribution
- The volume of sales

$$\textbf{Operating Leverage} = \frac{\textbf{Contribution}}{\textbf{Operating Profit (or) EBIT}}$$

Operating leverage may be favourable or unfavourable. In case the contribution (i.e. sales less variable cost) exceed the fixed cost, there is favourable operating leverage. In a reverse case, the operating leverage will be termed as unfavourable.

Degree of Operating Leverage:

The Degree of operating leverage may be defined as percentage change in the profits resulting from a percentage change in sales.

Percentage of change in profits

Degree of Operating Leverage = ---------------------------------------

Percentage of change in sales

2. Financial leverage

The use of long-term fixed interest bearing debt and preference share capital along with equity share capital is called financial leverage or trading on equity.

The financial leverage may be defined as the tendency of the residual net income to vary disproportionately with operating profit. It indicates the change that takes place in the taxable income as a result of change in the operating income.

Operating profit

Financial Leverage =---------------------------------------

Earnings Before Tax

<u>Degree of Financial Leverage(DFL)</u>

Degree of financial leverage may be defined as the percentage change in taxable profit as a result of percentage of change in operating profit

Percentage Change in EPS

Degree of Financial Leverage = ----------------------------------

Percentage Change in EBIT

(or)

Percentage of Change in taxable income

= --

Percentage of change in the operating income

Financial leverage may be favourable or unfavourable depending upon whether the earnings made by the use of fixed interest or dividend-bearing securities exceed or not the explicit fixed cost.

Financial leverage unfavourable or negative leverage occurs when the firm does not earn as much as the funds cost.

Composite Leverage

Both financial and operating leverage magnify the revenue of the firm. Operating leverage affects the income which is the result of production. On other hand, the financial leverage is the result of financial decisions. The composite leverage focuses attention on the entire income of the concern.

Operating leverage measures percentage change in operating profit due to percentage change in sales. It explains the degree of operating risk. Financial leverage measures percentage change in taxable profit (or EPS) on account of percentage change in operating profit (i.e. EBIT). Thus, it explain the degree of financial risk. Both these leverages are closely concerned with firms capacity to meet its fixed costs (both financial & operating). In case both the leverages are combined, the result obtained will disclose the effect of change in sales over change in taxable profit (or EPS)

Composite leverage thus expresses the relationship between revenue on account of sales (I.e. contribution or sales less variable cost) and the taxable income.

Composite leverage = Operating Leverage x Financial Leverage

$$\text{Composite leverage} = \frac{C}{OP} \times \frac{OP}{EBT} = \frac{C}{EBT}$$