BHI-404 Fundamental Financial Management Unit -4

Int. MBA(HA)-4th Semester

Leverage Analysis

Leverage has been defined as "the action of a lever is , and mechanical advantage gained by it". The term leverage, in general, refers to a relationship between two interrelated variables with reference to a business firm, these variables may be costs, output, sales revenue , EBIT, Earnings per share (EPS) etc.

Leverage is the means which a business firm can increase the profits. The force will be applied on debt, the benefit of this reflected in the form of higher returns to equity shareholders.

Master table to calculate the leverage

Particulars	**Amount(Rs)**		
Sales	xxxx		
less: variable cost	xxx		
Contribution		XXX	
Less: Fixed cost	xxx		
Earning before Interest and tax		xxx	
Less: interest		xxx	
Earning before tax	xxx		
Less: tax	xxx		
Earning after tax	xxx		
Less: Preference dividends		xxx	
Earning available for equity share holder			xxx

Financial Leverage

- Financial leverage is a tool with which a financial manager can maximize the returns to the equity shareholders.
- Financial leverage signifies the relationship between the earning power on equity capital and rate interest on borrowed capital.
- Financial leverage helps the finance manager to select an appropriate mix of capital structure. Capital is required for the purpose of meeting both long-term & short-term financial requirement of a business unit. This could be raised through long term as well as short term sources, namely, Equity shares, debentures, preference shares, public deposits.

The Financial Leverage (FL) measures the relationship between the EBIT and the EPS and it reflects the effect of change in EBIT on the level of EPS. The FL measures the responsiveness of the EPS to a change in EBIT and is defined as the % change in EPS by the % change in EBIT.

Degree of Financial Leverage = % change in EPS/ % change in EBIT

EPS= (EBIT-Interest)*(1-t)/Number of Shares

Operating Leverage

The operating leverage has a bearing on fixed costs. There is a tendency of the profits to change, if the firm employs more of fixed cost in its production process, greater will be the operating cost irrespective of the size in its production. The operating leverage will be at a low degree when fixed costs are less in the production process. Operating leverage show the ability of a firm to use fixed operating cost to increase the effect of change in sales on its operating profits.

When the sales level increases or decreases, the EBIT also changes. The operating leverage measures the relationship between the sales revenue and the EBIT or in other words it measures the effect of change in sales revenue on the level of EBIT. The operating leverage is calculated by dividing the % change in sales revenue, or

Degree of Operating Leverage (OL) = % Change in EBIT/% Change In sale revenue

Combined Leverage

This leverage shows the relationship between a change in sale & the corresponding variation in taxable income.

So far the OL and FL have been analyzed separately. The OL explains the business risk complexion of the firm whereas the FL deals with the financial risk of the firm. But firm has to look into the overall risk or total risk of the firm, which is business risk plus the financial risk. Therefore, a financial manager should consider both the OL and FL simultaneously.

Illustration

1. Calculate the Degree of Operating Leverage (DOL), Degree of Financial Leverage (DFL) and the Degree of Combined Leverage (DCL) for the following firms.

	Firm A	Firm B	Firm C
1. Output (Units)	60,000	15,000	1,00,000
2. Fixed costs (Rs)	7,000	14,000	1,500
3. Variable Costs per unit (Rs.)	0.22	1.50	0.02
4. Interest on borrowed funds (Rs.)	4,000	8,000	----
5. Selling price per unit (Rs.)	0.60	5.00	0.10

2. 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% rate of Interest. What aare the operating, financial and combined leverages. If the firm wants to double its Earnings Before Interest and TaX (EBIT) , how much of a rise in sales would be needed on a percentage basis?