Financial Management:
Financial, Operating & Combined Leverages

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Meaning of Leverage

1. Simple and dictionary meaning of Leverage is "Use (of something) to maximize the benefit."
2. In the context of Business Leverage means "Use of fixed cost to maximize the profits"

Meaning of Financial, Operating and Combined Leverages:

Meaning of Financial Leverage
- Presence of Fixed Cost Capital or Debt in the Capital Structure of the Company

Meaning of Operating Leverage
- Presence of Fixed Cost in the Total Cost of Business Operation

Meaning of Combined Leverage
- Presence of both the Leverages in the business is known as combined Leverage

Objectives of Leverages

Objective of Financial Leverage
- To enhance the profitability (EPS) of shareholders through positive financial leverage

Objective of Operating Leverage
- To enhance the Profitability (EBIT) through enhancing sales and optimizing the fixed cost

Objective of Combined Leverage
- To optimize the use of both the leverages together

Formulas of Leverages

Operating Leverage = Contribution/EBIT

Financial Leverage = EBIT/EBT

Combined Leverage = OL x FL
= Contribution/EBIT x EBIT/EBT
= Contribution/EBT

Financial Leverage

Financial leverage means the use of debt or fixed cost capital in the capital structure. If a company uses high level of debt along with equity capital it said that the company has high financial leverage and vice versa.

Numericals on Financial Leverage

Formula:

FL= EBIT/EBT

Question1:

Co. X has a Capital Structure of 80 lakh consisting of 30 lakh debts at 12% and 50 lakh of equity. It has EBIT of 20 lakh. Find out its financial leverage.

What would be the financial leverage when the debts are 50 lakh at 12% and remaining 30 lakh is equity capital and EBIT is same?

Solution:

Financial leverage when debt is low:

FL = EBIT/EBT =20/20-3.6=20/16.4 =1.22

Financial leverage when debt is high:

FL =20/20-6=20/14= 1.43

Conclusion:

FL is low when debt is high and FL high when debt is high.

Question no.2

- If the tax rate is 30 percent, then find out whether the financial leverage positive or negative in both the cases?

Solution:

ROI when Equity 50 lakh and debt 30 lakh

ROI= EAT/Total Capital = EBT-Tax/Total Capital

= 20-3.6-4.92/80= 11.48/80 =0.1435or **14.35%**

ROI when Equity 30 lakh and debt 50 lakh

ROI= EAT/Total Capital = EBT-Tax/Total Capital

=20-6-4.2/80 =9.8/80 =0.1225 or **12.25%**

Rate of interest on debt = 12%

- Since the rate of interest on debt is lower than that of ROI, the financial leverage is POSITIVE in both the cases.

Question 3: Which level of debt is more preferable under the given situation high level of debt or low level of debt? The number of equity shares are 3 lakh when equity capital is 30 lakh andnumber of equity share are 5 lakh when equity share capital is 50 lakh in the company.

Total benefit of profit to owners under low level of debts=

Earnings on 50 lakh @14.35%=7.17 lakh plus 0.70 lakh [extra earnings from debt=30x(0.1435-0.12)= 0.70] = 7.87

EAT/No. of Equity shareholders

EPS = 7.87/5 = 1.57

Total benefit of profit to owners under high level of debts=

Earnings on 30 lakh @12.25% = 3.67plus 0.125 [extra earnings from debt =50x (0.1225-0.12)= 0.125 lakh] = 3.795 lakh

EAT/No. of Equity shareholders

EPS = 3.795/3 = 1.265

Conclusion:

Since EPS is higher under low level of debt, the low level of debts maximizes the earnings to owners and it is more preferable under the given situation.

Q no. 4

Co YZ has Total Capital of 60 Lakh. Out of which 20 Lakh is Equity Capital and 40 lakh is debt. Rate of interest payable on debt is 12%. The Sales Revenue of YZ Ltd is 100 lakh. Variable cost is 20% of Sales revenue and 30 lakh is the fixed cost of operation.

Required:

Calculate Financial, Operating and Combined Leverages

Solution:

OL = Contribution/EBIT or Sales-VC/EBIT

= 100-20/100-20-30 =80/50 =1.6

FL = EBIT/EBT = 50/50-4.8 =50/45.2 =1.11

CL = OL x FL =1.6x 1.11 = 1.776

Significance/Benefits of Leverages

Significance of Financial leverage

Financial leverage guides the finance manager to optimize debt equity mix in the capital structure with a view to optimize the capital structure and fulfill the objective of owners’ wealth maximization.

Significance of Operating Leverage

Operating leverage guides the finance manager for fixed investment decision and creating a proper mix between fixed and variable cost in the total cost of business operation. It leads sales and profits optimization.

Significance of combines leverage

Combined leverage views the leverage in totality of financial and operating leverage so that the overall business profits and ultimate wealth maximization objective can be fulfilled.

Limitations of Leverages

Limitations of financial Leverage

Financial leverage sometimes can be unfavorable causing a loss and financial risk to the business.

Limitations of Operating Leverage

If sales are not proper then the break-even point may not be realized. This situation is also harmful for the business

Limitations of combined leverage

Combined leverage monitors and balances both the leverages. Sometimes both of these or anyone of these can be unfavorable causing the disturbances in the combined leverage.

Distinctions between Operating and Financial leverages

Basis of Distinction	Operating Leverage	Financial Leverage
1. objective	Helps to boost up the operating profit (EBIT) with the change in sales	Helps to boos up the EPS with the change in EBIT
2. Relationship	Relates Sales with EBIT	Relates EBIT with EPS
3. Measurement	Measures the use of fixed cost of operation such as depreciation, fixes salary and other fixed expenses	Measures the use of fixed cost of funds or debts
3. Decision area	Concerned with investment decision	Concerned with financing decision
4. Type of Risk	It involves operating risk	It involves the financial risk
5. Balance sheet side	OL belongs to assets side of balance sheet	FL belongs to the liability side of balance sheet

Question no. 5

Which of the following four business situations, which one is the most suitable for a given business concern?

Business Situation	Operating leverage	Financial leverage
1.	High	High
2.	Low	Low
3.	High	Low
4.	Low	High

Answer of question no 5 :

Out of the four situations given in the question, situation no. 3 is the most suitable or preferable for a given concern because

Situation 1(both the leverages being high) means that the concern is vulnerable to a very high risky situation of both the risk very high. This is not an optimum situation. Both the risk being high is not a good option.

Situation 2 (both the leverages very low): This option is also not preferable as the concern is not taking benefit of any of the given leverages. Generally, it is not a good option.

Situation 3 and Situation 4: (one leverage being low and another being high) : one of these options is acceptable. Out of these two situations 4 (low OL and high FL) is better because high OL is not reversible low once it is achieved to high on the other hand high FL is reversible if not desirable. High FL can be reduced by paying off the redeemable debt. This can not be done in case of High OL because fixed assets can not be disinvested. Hence, Option 4 with low OL and high FL is the most appropriate situation.

Concluding Remarks:

1. Leverages are important for profit planning and for the achievement of financial objective of shareholders wealth maximization.
2. Financial leverage is related with capital structure or with financing function.
3. If debt is high FL is high and vice versa. Financial Leverage may be positive or negative.
4. Under Positive Financial leverage EPS is maximized and hence, positive financial leverage is always preferable
5. Negative FL is not preferable because it causes loss.
6. The choice of high or low financial leverage depends on the earnings i.e. on EBIT.
7. Operating leverage is related with investment into fixed assets or investment function
8. Combined leverage monitors both of these leverages
9. Both of these operating and financial leverages may be negative and harmful for the business. So these leverages have to be used carefully.
10. No business should ignore any of these leverages as these leverage offer good advantages for a given business.
11. High operating leverage is irreversible, hence has to be increased with great care.
12. Financial leverage is flexible. It can be increase or decrease with the help of redeemable debt.
13. The most preferable option of the combined leverage is low OL and high FL.