MBA(HA)2nd semester code- MHA-206

UNIT-3

EBIT-EPS Analysis in Leverage:

EBIT-EPS analysis gives a scientific basis for comparison among various financial plans and shows ways to maximize EPS. Hence EBIT-EPS analysis may be defined as 'a tool of financial planning that evaluates various alternatives of financing a project under varying levels of EBIT and suggests the best alternative having highest EPS and determines the most profitable level of EBIT'.

Concept of EBIT-EPS Analysis:

The EBIT-EBT analysis is the method that studies the leverage, i.e. comparing alternative methods of financing at different levels of EBIT. Simply put, EBIT-EPS analysis examines the effect of financial leverage on the EPS with varying levels of EBIT or under alternative financial plans.

It examines the effect of financial leverage on the behavior of EPS under different financing alternatives and with varying levels of EBIT. EBIT-EPS analysis is used for making the choice of the combination and of the various sources. It helps select the alternative that yields the highest EPS.

We know that a firm can finance its investment from various sources such as borrowed capital or equity capital. The proportion of various sources may also be different under various financial plans. In every financing plan the firm's objectives lie in maximizing EPS.

Advantages of EBIT-EPS Analysis:

We have seen that EBIT-EPS analysis examines the effect of financial leverage on the behavior of EPS under various financing plans with varying levels of EBIT. It helps a firm in determining optimum financial planning having highest EPS.

Various advantages derived from EBIT-EPS analysis may be enumerated below:

Financial Planning:

Use of EBIT-EPS analysis is indispensable for determining sources of funds. In case of financial planning the objective of the firm lies in maximizing EPS. EBIT-EPS analysis evaluates the alternatives and finds the level of EBIT that maximizes EPS.

Comparative Analysis:

EBIT-EPS analysis is useful in evaluating the relative efficiency of departments, product lines and markets. It identifies the EBIT earned by these different departments, product lines and from various markets, which helps financial planners rank them according to profitability and also assess the risk associated with each.

Performance Evaluation:

This analysis is useful in comparative evaluation of performances of various sources of funds. It evaluates whether a fund obtained from a source is used in a project that produces a rate of return higher than its cost.

Determining Optimum Mix:

EBIT-EPS analysis is advantageous in selecting the optimum mix of debt and equity. By emphasizing on the relative value of EPS, this analysis determines the optimum mix of debt and equity in the capital structure. It helps determine

the alternative that gives the highest value of EPS as the most profitable financing plan or the most profitable level of EBIT as the case may be.

Limitations of EBIT-EPS Analysis:

Finance managers are very much interested in knowing the sensitivity of the earnings per share with the changes in EBIT; this is clearly available with the help of EBIT-EPS analysis but this technique also suffers from certain limitations, as described below

No Consideration for Risk:

Leverage increases the level of risk, but this technique ignores the risk factor. When a corporation, on its borrowed capital, earns more than the interest it has to pay on debt, any financial planning can be accepted irrespective of risk. But in times of poor business the reverse of this situation arises—which attracts high degree of risk. This aspect is not dealt in EBIT-EPS analysis.

Contradictory Results:

It gives a contradictory result where under different alternative financing plans new equity shares are not taken into consideration. Even the comparison becomes difficult if the number of alternatives increase and sometimes it also gives erroneous result under such situation.

Over-capitalization:

This analysis cannot determine the state of over-capitalization of a firm. Beyond a certain point, additional capital cannot be employed to produce a return in excess of the payments that must be made for its use. But this aspect is ignored in EBIT-EPS analysis.

Illustration

A Ltd. Has a share capital of Rs .1,00,000 divided into share of Rs. 10 each. It has a major expansion program requiring an investment of another Rs. 50,000.

The Management is considering the following alternatives for raising this amount :

Issue of 5,000 equity shares of Rs. 10 each

Issue of 5000, 12% preference shares of Rs. 10 each

Issue of 10% debentures of Rs. 50,000

The company's present Earning Before Interest and Tax (EBIT) are Rs. 40,000 per annum subject to tax @ 50%. You are required to calculate the effect of the above financial plan on the earnings per share presming:

(a) EBIT continues to be the same even after expansion
(b) EBIT increases by Rs. 10,000

Solution

(a) When EBIT is Rs. 40,000 Per Annum

PROJECTED EARNING PER SHARE

	PLAN I	**PLAN II**	**PLAN III**
EBIT	Rs. 40000	Rs. 40,000	Rs. 40,000
-Interest	------	-------	5,000
Profit before Tax	40,000	40,000	35,000
-Tax @ 50%	20,000	20,000	17,000
Profit for Tax	20,000	20,000	17,000
-Pref. Dividend	-----	6,000	------
Profit for Equity	20,000	14,000	17,000
Number of Equity shares	15,000	10,000	10,000
EPS (Rs)	1.33	1.40	1.75

(b) When EBIT is expected to increase by Rs. 10,000:

	PLAN I	PLAN II	PLAN III
EBIT	Rs. 50,000	Rs. 50,000	Rs. 50,000
-Interest	------	-------	5,000
Profit before Tax	50,000	50,000	45,000
-Tax @ 50%	25,000	25,000	22,000
Profit for Tax	25,000	25,000	22,000
-Pref. Dividend	-----	6,000	------
Profit for Equity	25,000	19,000	22,000
Number of Equity shares	15,000	10,000	10,000
EPS (Rs)	1.67	1.90	2.25

So, under both assumptions of EBIT, the EPS would be highest in Plan III.

Indifference Points:

The indifference point, often called as a breakeven point, is highly important in financial planning because, at EBIT amounts in excess of the EBIT indifference level, the more heavily levered financing plan will generate a higher EPS. On the other hand, at EBIT amounts below the EBIT indifference points the financing plan involving less leverage will generate a higher EPS.

i. Concept:

Indifference points refer to the EBIT level at which the EPS is same for two alternative financial plans. According to J. C. Van Home, 'Indifference point refers to that EBIT level at which EPS remains the same irrespective of debt equity mix'. The management is indifferent in choosing any of the alternative financial plans at this level because all the financial plans are equally desirable. The

indifference point is the cut-off level of EBIT below which financial leverage is disadvantageous. Beyond the indifference point level of EBIT the benefit of financial leverage with respect to EPS starts operating.

The indifference level of EBIT is significant because the financial planner may decide to take the debt advantage if the expected EBIT crosses this level. Beyond this level of EBIT the firm will be able to magnify the effect of increase in EBIT on the EPS.

In other words, financial leverage will be favorable beyond the indifference level of EBIT and will lead to an increase in the EPS. If the expected EBIT is less than the indifference point then the financial planners will opt for equity for financing projects, because below this level, EPS will be more for less levered firm.

Financial Breakeven Point:

In general, the term Breakeven Point (BEP) refers to the point where the total cost line and sales line intersect. It indicates the level of production and sales where there is no profit and no loss because here the contribution just equals to the fixed costs. Similarly financial breakeven point is the level of EBIT at which after paying interest, tax and preference dividend, nothing remains for the equity shareholders.

In other words, financial breakeven point refers to that level of EBIT at which the firm can satisfy all fixed financial charges. EBIT less than this level will result in negative EPS. Therefore EPS is zero at this level of EBIT. Thus financial breakeven point refers to the level of EBIT at which financial profit is nil.