

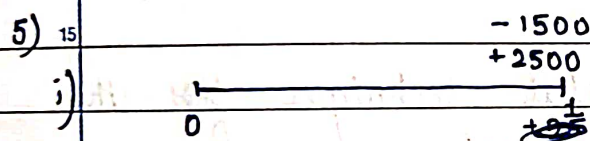
Business Finance 2 - Assignment.

1) c) IRR has the benefit of ~~achieving~~ highlighting the return achieved by the project.

2) a)
$$\text{Price earnings Ratio} = \frac{\text{Market price of share}}{\text{Earnings per share}}$$

3) d) All of the above
Inventories include Finished goods, work-in-progress, Raw material

4) c) ~~40,000~~ 9,00,000



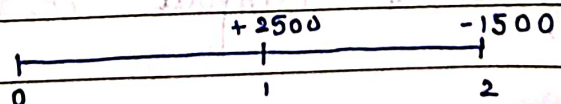
The cash flow of the project at date 1 is inflow of 2500 in sales and outflow of 1500 in costs

ii) NPV of the project :

tax = 40% ; discount = 20%

$$\begin{aligned} \therefore \text{NPV} &= (2500 - 1500)(1 - 0.2) \\ &= 1000(0.8) \\ &= 800 \end{aligned}$$

iii) New cash flow :



$$\therefore \text{NPV} =$$

$$2500(1 - 0.2) + (-1500)(1 - 0.2)^2$$

$$= 2500(0.8) - (1500)(0.8)^2$$

$$= 2000 - 960$$

$$= 1040$$

The NPV of the project changes as compared to the previous question because the ^{cost of} cash outflow ~~is~~ is postponed to a year later which on calculating NPV gets discounted ~~for~~ for two years thus reducing its value.

- 6) The efficiency ratios are related to the liquidity ratios which give an insight into the effectiveness of the company's management of the components of working capital ratios which tend to be multiplied by 365 and is expressed as a period of time.

$$\text{Inventory Turnover Ratio} = \frac{\text{Gross Sales}}{C \cdot E}$$

- 7) Ratio analysis is a very useful technique for the interpretation of financial statements. Some limitations are as follows.

- It diverts attention from figures and statement themselves.
- It is important to look at aspects such as the share size of the company. A larger company will have more borrowing power.
- Comparisons can be affected by different accounting policies or by other external factors.
- There could be peculiarities of the trade which make it difficult to interpret certain ratios.

- 8) The possible reasons for different stocks are :

- Beta is an indicator of symmetric risk associated with a particular stock.
- Nature of the business → what type of sector is the company in.

→ Risk involved in the business

ii) $\beta_A = 1.1$

Debt - Equity Ratio = 1:2

Corporate tax = 30%

$\beta_A = ?$ if $D/E = 2:2$

$$\therefore \beta_A = \beta_{V_A} \left[1 + \frac{D}{E} (1-t) \right]$$

$$\therefore 1.1 = \beta_{V_A} [1 + 0.5(1-0.3)]$$

$$\therefore \beta_{V_A} = \frac{1.1}{1 + 0.35} = 0.814$$

$\therefore$ New β_A if $D/E = 2:2$

$$\therefore \beta_A = \beta_{V_A} [1 + D/E (1-t)]$$

$$= 0.814 [1 + 1(1-0.3)]$$

$$= 0.814 [1.07]$$

$$= \underline{\underline{1.3852}}$$

(9) c) In general the market value of investment trust is equal to the net present value.

(P.T.O)

There are many problems that may arise within a company due to its objective. This is called Agency Theory which tells us about these problems. The main reason could be it does not align with that the short term goals of director does not align with long term goals of shareholders.

$$CPM = ₹70 \text{ (current Dividend per share)}$$

$$\text{Dividend} = ₹10$$

$$\text{growth} = 8\% \quad \beta \text{ increases by } 80\%$$

$$\text{Risk free Rate} = 6\%$$

$$\text{MRP} = 5\%$$

$$\therefore \text{Value of Stock} = \frac{EDPS}{CCE - DGR}$$

$$\therefore 70 = \frac{10}{CCE - 8\%}$$

$$\therefore CCE = \frac{1}{7} - 8\% = 0.222857$$

$$\therefore CCE = R_F \times MRP \times \beta$$

$$\therefore \beta = \frac{CCE}{R_F \times MRP} = 3.256$$

$$\therefore \text{New } \beta = 3.256 (1 + 80\%) = 5.8608$$

$$\therefore \text{New CCE} = 35.304\%$$

$$\therefore \text{Value of Stock} = \frac{10}{35.304 - 8} = ₹36.62$$

g11) i) we can compare individual stock with the overall market by assessing the beta (β) of the stock.

ii)
$$\beta = \frac{\sigma_{im}}{\sigma_m^2}$$

5 where σ_m^2 is the variance of market index and σ_{im} is the co-variance between individual stock and that of the market

iii) It would depend on the market condition, i.e I would
⑤ choose a $\beta = 1$ stock when market is improving while
10 a $\beta = -1$ stock when market is declining.

iv) A government bond has a β of 0.

g12) i) $\frac{d}{c} = \frac{1}{1}$; $R_F = 7\%$; $MRP = 5\%$

15 $\text{debt} = 9\%$; $\beta = 1.5$

$t = 25\%$

Net cost of debt $= i(1-t)$
 $= 9\% (1 - 25\%)$

20 $= 6.75\%$

OR 0.0675

$COE = R_F + (MRP \times \beta)$

$= 7\% + (5\% \times 1.5)$

25 $= 14.5\%$

$WACC = \frac{1}{2} \times 0.0675 + \frac{1}{2} \times 0.145$

$= 10.625\%$

ii) $\beta_A = 1.5$

$\therefore \beta_A = \beta_{V_A} \left[1 + \frac{D}{E} (1-t) \right]$

$\therefore \beta_{V_A} = \frac{\beta_A}{1 + \frac{D}{E} (1-t)} = \frac{1.5}{1 + 0.75} = 0.8571$

$$\therefore \text{COE} = R_F + \text{MRP} \times \beta_{\text{equ}} \\ = 11.2875\%$$

Q14)

i) a) Current ratio = current assets / ~~current~~ current liabilities

This type of ratio ~~allows~~ is used to check whether the company will be able to pay its bills or not.

b) The debtors turnover period shows us how quickly can a company collect its credit given to the customer. The investors would prefer a company with a higher ratio for investing.

ii) We should use the quick ratio in this particular incident. It is aimed at looking at short-term liquidity. It focuses on readily available cash. The quick ratio considers what would happen if all creditors and debtors accounts were settled immediately.

Q15)

i) Investors may buy the shares to diversify his portfolio. The suitable WACC for this company could be

$$D/E = 1:1 ; i = 8\% ; \text{div. yield} = 4\%$$

$$\therefore \text{Approx WACC} = \frac{1}{2} \times 8\% + \frac{1}{2} \times 4\% = 6\%$$

$\therefore$ The WACC should be at least more than 6% for this particular company.

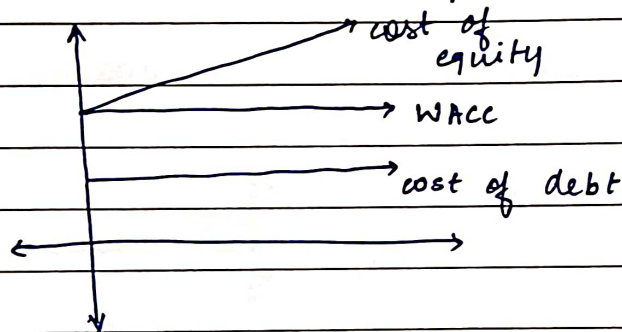
ii) The traditional view says that up till a point gearing helps us reduce the WACC. This point is known as optimal gearing. But as gearing increases, so does the beta and hence cost of equity also increases.

iii) It states that the capital structure of the company has no effect on the market value of the company.

The underlying assumptions are:

- Debt is risk free
- No taxes
- No agency costs
- No information asymmetry.

iv) The M&M model says that gearing has no effect on market value of the company and also its WACC.



v) a) $R_F = 6\%$; $MRP = 5\%$; $\beta = 1.4$

$\therefore COE = R_F + MRP \times \beta$
 $= 13\%$

b) $D/E = \frac{0.5}{0.5} = \frac{1}{1} = 1$

$B_G = B_{UG} [1 + D/E (1-t)]$
 $= 1.4 (1 + 1(1-0.3))$
 $= 2.38$

c) $\therefore \text{New COE} = R_F + MRP \times B_G$
 $= 6\% + 5\% \times 2.38$
 $= 17.9\%$