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Business Finance - 2 Assignment

Q1)

→ c) IRR has the benefit of highlighting the return achieved by the project.

Q2.)

→ a) Market price of share / Earnings per share

Q3)

→ d) All of the above.

Q4)

→ c) 9,00,000-

Q5)

2500/-1500

| |

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$d = 20\%$, $t = 40\%$

Q6) (i) The cashflow at date 1 is $\Rightarrow 2500 - 1500 = 1000$ cash inflow

(ii) NPV = Present value of net cashflows.
 $= 2500(1 - 0.2)^1 + (-1500)(1 - 0.2)^1$
 $= 800$

(iii)

2500 -1500

| | |

$$= 2500(1 - 0.2)^1 + (-1500)(1 - 0.2)^2$$
$$= 1040$$

The NPV is reduced as they are allowed to pay supply year later.

Q6.)

→ The efficiency rates are related to the liquidity ratios give an insight into the effectiveness of the company's management of the components of ~~working~~ working capital. The ratios ~~are~~ tend to be multiplied by 365 and so expressed as a period of time.

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

Q7.)

→ Ratio Analysis is a very useful technique for the interpretation of financial statements. Some limitations of ratio analysis are:-

- * It diverts attentions from the figures and statements themselves. It is important to look at aspects such as the sheer 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.
- These could be peculiarities of the trade which make it difficult to interpret certain ratios.
- The statements could have been deliberately distorted by so called creative accounting.

Q8.)

- i) The possible reasons for different betas for different stocks are -
- Beta is an indicator of systematic risk associated with a particular stock.
 - Nature of the business → What type of sector is the company

- The Capital structure of a company, if its levered or not.
- Risks related to that particular business.

ii) $\beta_G = 1.1$
 $d/e = 1/2$
 $t = 30\%$

$$\beta_G = \beta_{Ug} \left[1 + \frac{D}{E} (1-t) \right]$$

$$\therefore 1.1 = \beta_{Ug} \left[1 + \frac{1}{2} (1-0.3) \right]$$

$$1.1 = \beta_{Ug} \left[1 + \frac{(0.7)}{2} \right]$$

$$1.1 = \beta_{Ug} \left[\frac{2+0.7}{2} \right]$$

$$\therefore \beta_{Ug} = 1.1 = \beta_{Ug} \left[\frac{2.7}{2} \right]$$

$$1.1 = \beta_{Ug} \left[\frac{2.7}{2} \right]$$

$$\beta_{Ug} = \frac{1.1 \times 20}{27}$$

$$\beta_{Ug} = \frac{22}{27}$$

$$\underline{\beta_{Ug} = 0.81481481}$$

$$B_q = B_{0q} \left[\frac{1 + \frac{D}{E} (1 - t)}{E} \right]$$

$$= 0.814 \left[\frac{1 + \frac{1}{1} (1 - 0.3)}{1} \right]$$

$$= 0.814 [1 + 0.7]$$

$$= 0.814 (1.7) = 0.814 (1.7)$$

$$B_q = 1.3838$$

$$\therefore \text{New } B_q = 1.3838$$

Q9.)

→ c) In general the market value of investment trust is equal to the Net Present Value (NPV).

Q10.)

→ ii) CPM = ₹ 70

Dividend = ₹ 10

β is increased by 80%.

$g = 8\%$

$R_f = 6\%$

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

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

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

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

$$\text{CCE} = \frac{10}{70} + 8\%$$

$$\text{CCE} = \frac{39}{175} = 0.222857143$$

$$CCE = R_f + MRP \times \beta$$

$$22.28\% = 6\% + 5\% \times \beta$$

$$\therefore \beta = 3.256$$

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

$$= 5.8608$$

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

$$\therefore \text{Value of stock} = \frac{\text{₹}10}{35.304\% - 8\%}$$

$$\text{Value of stock} = \text{₹}36.62$$

- ① There are many problems that could arise in a company with its objective for maximising shareholders wealth. This is called Agency Theory. It tells us these problems. It could arise because the short term goals of directors is not aligned with long-term goals of shareholders.

Q11.)

→ ① We can compare individual stocks with the overall market by assessing the beta (β) of the stock.

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

σ_m^2 is the variance of the market index and σ_{im} the covariance between the individual stock and that of the market.

③ It would depend on the market condition i.e. I would choose a $\beta = 1$ stock when market is improving while a $\beta = -1$ stock when market is declining.

④ A government bond has a β of 0.

Q12.)

$$\rightarrow \textcircled{i} \frac{d}{e} = \frac{1}{1}$$

$$R_f = 7\%$$

$$\text{debt} = 9\%$$

$$t = 25\%$$

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

$$\beta = 1.5$$

$$\begin{aligned} \text{Net cost of debt} &= i(1-t) \\ &= 9\%(1-25\%) \\ &= 0.0675 \text{ or } 6.75\% \end{aligned}$$

$$\text{COE} = R_f + \text{MRP} \times \beta = 7\% + 5\% \times 1.5 = 14.5\%$$

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

$$\text{WACC} = 10.625\%$$

$$\textcircled{ii} B_q = 1.5$$

$$1.5 = B_{uq} \left[\frac{1 + \frac{D}{E}(1-t)}{E} \right]$$

$$1.5 = B_{uq} \left[\frac{1 + \frac{1}{1}(1-25\%)}{1} \right]$$

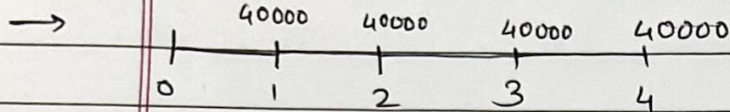
$$1.5 = B_{uq} [1 + 0.75]$$

$$B_{uq} = 0.8571$$

$$\begin{aligned} \therefore \text{COE} &= R_f + \text{MRP} \times \beta \\ &= 7\% + 5\% \times B_{uq} \end{aligned}$$

$$\text{COE} = 11.2857\%$$

Q13.)



IRR = 15%

$$NPV = 40000 (1 + 0.15)^{-1} + \dots$$

$$= 114199.1345$$

Q14.)

→ (i)

a) $\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$

This type of ratio is used to assess whether the company will be able to pay its bill over the next few months. A low ratio indicates the company may have problems paying its creditors.

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

(ii) We should use the quick ratio in the 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)

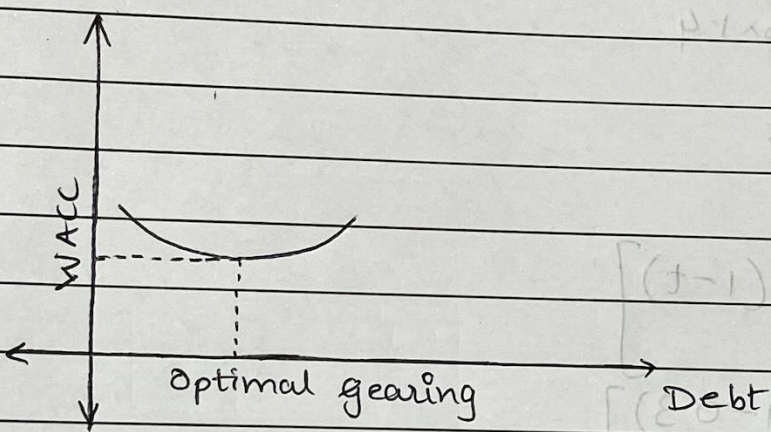
→ (i) Investor may buy the shares to diversify his portfolio. The suitable WACC for this company, may be

$$\frac{D}{E} = \frac{1}{1}, i = 8\%, \text{dividend yield} = 4\%$$

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

$\therefore$ The WACC has to be atleast more than 6% for this particular company.

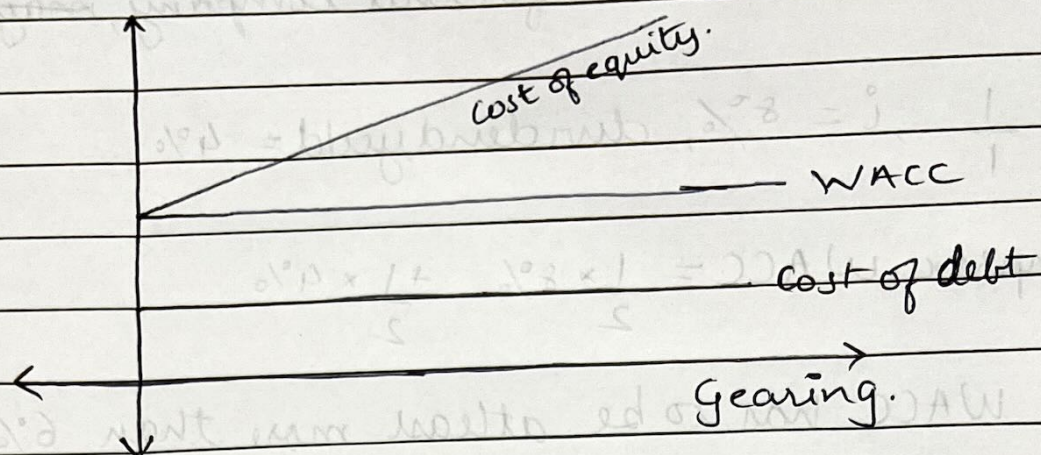
(ii) The traditional view says that uphill a point gearing helps us reduce the WACC. This point is known as Optimal gearing. But as gearing increases, so does the cost of equity as the beta also increases on more gearing.



(iii) It states that the capital structure of a company has no effect on the market value of the company. The assumption under it are:

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

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



✓

a) $R_f = 6\%$

$MRP = 5\%$

$\beta = 1.4$

$$COE = R_f + MRP \times \beta$$

$$= 6\% + 5\% \times 1.4$$

$$COE = 13\%$$

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

$$\beta_g = \beta_{ug} \left[1 + \frac{D}{E} (1 - t) \right]$$

$$= 1.4 [1 + 1(1 - 0.3)]$$

$$= 1.4(1 + 0.7)$$

$$= 2.38$$

c) $\therefore \text{New COE} = R_f + MRP \times \beta_g$

$$= 6\% + 5\% \times 2.38$$

$$\text{New COE} = 17.9\%$$