

14/4/22

Business Finance-1

Q1) (d) IRR is the most reliable means of choosing b/w mutual exch.

Q2) (A)

Q3) (D)

Q4) 1000000

Q5) (i) Cashflow from the project at date
I is $2500 - 1500 = 1000$

$$\text{including Tax} = 1000 - (1000 \times 40\%) \\ = 1000 - 400 = 600$$

$$\text{ii) } NPV = 2500(1-20\%)^1 - 1500(1-20\%)^0 \\ = 800$$

$$\text{iii) } NPV = 2500(1-20\%)^1 - 1500(1-20\%)^0 \\ = 1040, NPV \text{ of the project} \\ \text{Increase.}$$

Q6) The efficiency ratios are insight of the effectiveness of the company's management of the working capital components

$$\text{Inventory T/O period} = \frac{\text{inventory}}{\text{cost of sale}} \times 365$$

$$\text{Trade credit T/O period} = \frac{\text{Trade receivable}}{\text{Credit sale}} \times 365$$

These ratios are generally measured in 1 year time.

- 5) • It doesn't ~~also~~ consider the qualification aspect of the business. It only accounts for the accounting.
- Price levels changes ~~due~~ owing to the historical cost principle are also ignored.
- ~~The~~ Accounting ratios are based on info. Thus if the account are subjected to window dressing personal bias.
- The variation in accounting practice ~~on~~, straight line depreciation ~~with~~ down method could affect the number & hence the ratio.

Q8) i) If $\beta < 1$, Risk rate is more than market risk premium.

ii) If $\beta > 1$, Risk rate is more than market risk premium.

If $\beta = 1$, hence the business ~~is not~~ good.

ii) $\beta = 1.1$

corporate tax = 30%

Equity to debt = 2:2

$$\beta_{\text{gear}} = \beta_{\text{ungear}} \left[1 + \frac{1}{2} (1 - 0.3) \right]$$

$$\beta_{\text{ungear}} = 0.8148$$

$$\beta_{\text{gear}} = \beta_{\text{ungear}} [1 + 0.7]$$

$$[\beta_{\text{gear}} = 1.38517]$$

99) (D) ~~It is general~~

810) i) There may be conflicts of the interest in the company.

→ Manager uses and has loads of information which they might be used to maximise shareholder wealth.

→ There also be chance that there is leak of info.

$$MPS = 70$$

$$DPS = 10$$

$$RF = 6\%$$

$$MRP = 5\%$$

$$\text{growth} = 8\%$$

$$\begin{aligned}\text{cost of equity} &= 10/70 + 8\% \\ &= 22.285\%\end{aligned}$$

$$R_{ie} = R_F + MRP \times \beta$$

$$\beta = 3.257$$

$$\begin{aligned}\text{New } \beta &= \text{old } \beta + 80\% \text{ of old } \beta \\ &= 3.257 + (0.8 \times 3.257) \\ &= 5.862\end{aligned}$$

~~Re~~

(i) Beta is the measure of the systematic risk.

$$\beta = \frac{\text{COV}(i, \text{mkt})}{\text{Var}_m} = \frac{\sigma_{im}}{\sigma_m^2}$$

$$\beta = \frac{\sigma_i \times \rho_{im}}{\sigma_m}$$

$$(i) \quad \rho = \frac{\text{COV}(i, \text{mkt})}{\text{Var}_m} = \frac{\sigma_{im}}{\sigma_m^2}$$

(ii) As an active stock market investor
i'd invest in β .

(iv) Cash.

Q12) $R_F = 7\%$
Market Rate premium = 5%.

$$\beta = 1.5$$

$$I_A = 25\%$$

$$\text{equity/debt} = \frac{I}{I}$$

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

$$(i) WACC = (r_d \times w_d) + (r_e \times w_e)$$

$$r_e = R_F + MRP \times \beta$$

$$= 7 + 5 \times 1.5$$

$$= 14.5\%$$

$$r_d = 9(7 - 0.25)$$

$$= 6.75$$

$$WACC = \left(14.5 \times \frac{1}{2}\right) + \left(6.75 \times \frac{1}{2}\right)$$

$$= 10.625\%$$

$$(ii) \beta_g = \beta_{unlevered} [1 + P/E(1-t)]$$

$$1.5 = \beta_{unlevered} [1 + I/A(1 - 0.25)]$$

$$\beta_{unlevered} = 0.8571$$

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

$$= 7\% + 5\% \times 0.8571$$

$$[R_e = 11.2855\%]$$

Q13) $IRR = 15\%$

$$40000 \times 9.7^{15} = n = 0$$

$$n = 40000 \left[\frac{1 - (1.15)^{-4}}{0.15} \right]$$

$$[n = 114199.1345]$$

cost of project ₹114199.1345

cost of capital = ~~40000~~ 114199.1345 $\times$ 11.2855%

$$= 3.037725$$

$$3.03769 = 1 - \frac{(1+i)^{-4}}{(i)}$$

$$3.03769 + (1+i)^{-1} - 1 = 0$$

Using the table function in calculator

$$i = 11.99\% \approx [12\%]$$

$$\text{Payback} = \frac{114199.14}{40060} = 2.85$$

$$NPV = 121507.89 - 114,199.14$$

$$= [7308.75]$$

Q14) i)

a) Current ratio $\rightarrow \frac{\text{Current asset}}{\text{Current liability}}$

$\rightarrow$ This ratio is used to assess whether the company will be able to pay bill over the few months.

b) Debt turnover Ratio

$$= \frac{\text{Net credit Sales}}{\text{Average Receivables accounts}} \times 365$$

It is used for measure the efficiency from which the company is able to collect on its receivable from its creditors

ii) To track the daily basis, the one can use the quick ratio or super quick ratio. It is a ratio of readily convertible current assets to current liabilities.

Q15) The shareholder may buy the share by seeing that the equity & debt of the company is equal.

→ Also the dividend yield is good

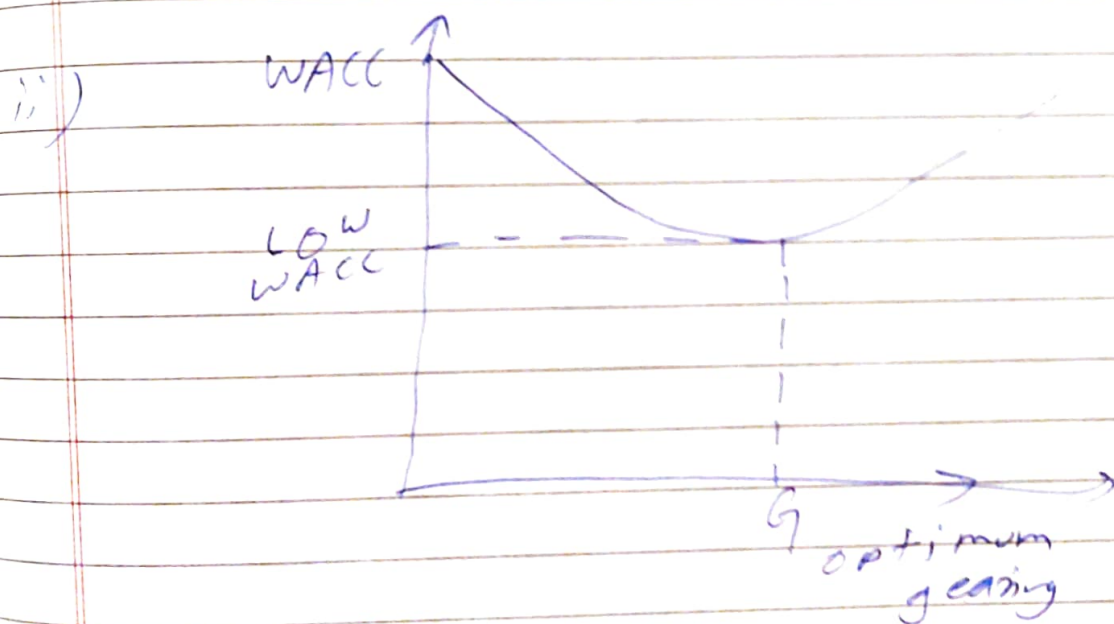
→ To diversify portfolio & reduce their risk.

→ Business prospect, potential.

$$COC = \left(8 \times \frac{1}{2}\right) + \left(4 \times \frac{1}{2}\right)$$

$$= 6\%$$

The suitable COC should be higher than 6%.



→ usually cost of debt > cost of equity

$$\rightarrow WACC = \left[\text{Net cost of debt} \times \left(\frac{\text{market value of debt}}{\text{market value of debt} + \text{market value of equity}} \right) + \left[\text{Net cost of equity} \times \frac{\text{market value of equity}}{\text{market value of debt} + \text{market value of equity}} \right] \right]$$

→ WACC & gearing are inversely proportional to each other.

→ The cost of equity ~~will~~ increase at faster rate than cost of equity.

(iii) → Assumption

① Debt + Equity

② No tax

③ Perfect information is available to all.

④ No Asymmetric.

