

Assignment

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Business Finance - 2

Q1.] D

Q2.] A

Q3.] D

Q4.] D

Q5.] i.] Sales = 2500 Cost = 1500
Cashflow at date 1 = $1 + 2500 - 1500$

ii.] NPV = $1000 \times \left(\frac{1}{0.20} \right) = 8.33 \cdot 833.33$

iii.]

Q6.] The TO measure business efficiency we can use the following ratios

i.] Inventory turn over ratio

Inventory turn over ratio = $\frac{\text{inventories}}{\text{cost of sales}} \times 365$

and work in progress. Inventories include finished goods, raw material

This ratio helps to understand how long the inventory can be held on an average. The ratio helps to keep a balance between how much the stock is used & how much it's yet to be sold

ii.] Trade receivables turn over period

Receivables turn over period = $\frac{\text{trade receivables}}{\text{credit sales}} \times 365$

This ratio helps to understand how long it takes for trade receivable for the payout. The It is better if the company receives its money as quickly as possible as it ~~shows~~ lowers the value of the company.

iii.] Trade payables turnover period
Payables turnover period =

$$\frac{\text{trade payables}}{\text{credit purchases}} \times 365$$

This ratio helps to understand how long it takes for the company to pay its suppliers. If the ratio is very high it means that the company takes a long time to pay its suppliers.

97.]

98.] i.] Reasons why stocks trade at different betas in the stock market

a.] The beta of an ungeared company varies from the beta of a geared company.

b.] If a company is more exposed to the market it comparatively has more systematic risk than the company which is less exposed.

$$\text{Geared Beta} = \text{ungeared beta} \times \left(1 + \frac{\text{debt} : \text{equity ratio}}{(1 - \text{tax rate})}\right)$$

Q107

Q97 D

Q103

Q11.3] i] Beta is a measure of systematic risk. A greater beta greater than 1 indicates a stock that has, historically, amplified the return of the whole market.

A beta close to zero would indicate a stock that provided a more stable return than the market as a whole.

A negative beta would signify a stock whose performance was counter cyclical offsetting the overall market experience.

$$\text{Beta } (\beta) = \frac{\text{Cov}(R_e, R_m)}{\text{Var}(R_m)}$$

R_e = return on an individual stock

R_m = return on the overall stock

ii] Beta can be determined by as the ratio of covariance of the stock return & the returns of the overall market and the market variance of the market index.

iii] As an active stock market investor, I would invest with a Beta of 1 as it shows amplified the return of the whole market whether the market is down or up.

iv] Market Index linked bond

Q12.] Debt: equity ratio = 1:1

Risk free rate of return = 7%

Equity risk premium = 5%

Gross cost of debt = 9%

beta = 1.5

Tax = 25%

$$i.] \quad WACC = \frac{\text{Market value of debt}}{\text{Market value of debt} + \text{equity}} \times \text{net cost of debt} + \frac{\text{Market value}}{\text{Market value of debt} + \text{equity}} \times \text{cost of equity}$$

$$\text{Cost of equity} = 7\% + (1.5 \times 5\%) = 14.5\%$$

$$\text{Net cost of debt} = 9\% \times (1 - 25\%) = 6.75\%$$

$$WACC = \frac{1}{2} \times 6.75\% + \frac{1}{2} \times 14.5\% = 10.625\%$$

ii.] The required return to equity will change if the company were to reissue all its debt.

$$1.5 = \beta(u) \times (1 + \frac{1}{1} (1 - 25\%))$$

$$\beta(u) = 0.6428$$

$$\text{Cost of equity} = 7\% + 0.642 \times (0.08) \\ = 0.1021$$

Q14] i] a] Current Ratio = $\frac{\text{Current Asset}}{\text{Current Liabilities}}$

It is a liquidity ratio. This ratio is used to assess whether the company will be able to pay its bill over the next few months.

Miller & Modigliani

Q15] iii] 3. Particular known as theory of irrelevance of capital structure. Under a certain assumptions gearing will be irrelevant to the value of the company.

- It proposed the market value of its investment decisions.

- Assumptions

1] NO taxes

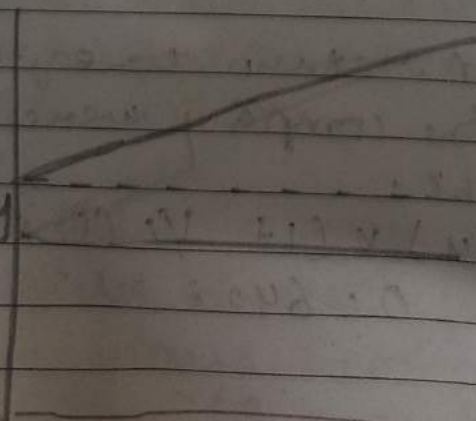
2] Unlimited borrowing allowed to corporation as well as individual investors at same rate of interest.

3] Debt is risk free

4] Perfect market.

iv.] WACC

Cost of debt
Cost of equity



A highly gearing company offers a higher return on equity, but also has a higher cost of equity. These two features shall cancel out each other hence value of the firm shall remain same. [WACC same]

$$v) a.) R_E = R_F + E/P \times \beta$$

$$6\% + (5\% \times 1.4) = R_E$$

$$R_E = 13\%$$

$$b.) \text{Beta geared} = \text{Beta ungeared} \times \left[1 + \frac{D}{E} \left(\frac{1 - t_c}{1}\right)\right]$$

$$\text{Beta geared} = 1.4 \times (1 + 1.07)$$

$$= 2.38$$

$$R_E = 6\% + (5\% \times 2.38)$$

$$R_E = 17.9\%$$

c.) The cost of equity represents the opportunity cost of capital - the rate foregone by shareholders investing in the project rather than investing in alternative securities.