

Assignment - 1

- 1) Which of the following statements is NOT true about Internal Rate of Return (IRR) method of project appraisal.
- D) IRR is the most reliable means of choosing between...
- 2) Which of the following is correct formula for the price earnings ratio?
- A) Market price of share / Earning per share.
- 3) While calculating Inventory turnover period, Inventories include.
- D) All of the above
- 4) What is company's cash inflow from operating activities for the year ended 2019?
- D) 10,00,000

- 6)
- i) Inventory turnover ratio.
 - ii) Asset turnover ratio.
 - iii) Receivables turnover ratio.

- i) The inventory turnover ratio measures a company's ability to manage its inventory efficiently and provides insight into the sales of a company.
- ii) The asset turnover ratio measures a company's ability to efficiently generate revenues ~~for~~ from its assets.
- iii) The receivables turnover ratio measures how efficiently a company can actively collect its debts and extends its credits.

- 7)
- (i) Limited use of single ratio.
 - (ii) No inter firm comparison.
 - (iii) Lack of adequate standards.
 - (iv) Complicated and misleading conclusion.
 - (v) Inherent limitations of accounting.
 - (vi) Time lag in calculation and communication.

9) Which of the following statements is true?

→ B) In general the market value of investment trust is lower ~~than~~ than the present value.

$$\begin{aligned}
 12) \text{ (i) Cost of equity} &= \text{Risk-free rate} + \text{beta} \times \text{Equity risk premium} \\
 &= 7\% + 1.5 \times 5\% \\
 &= 14.5\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Cost of debt} &= \text{Cost of debt} \times (1 - \text{Tax Rate}) \\
 &= 9\% \times (1 - 25\%) \\
 &= 6.75\%
 \end{aligned}$$

$$\begin{aligned}
 \text{WACC} &= 0.5 \times 14.5\% + 0.5 \times 6.75\% \\
 &= 10.625\%
 \end{aligned}$$

(ii) Ungeared beta needs to be calculated.

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

$$\begin{aligned}
 1.5 &= \text{Ungeared beta} \times (1 + 1/1 (1 - 25\%)) \\
 &= \text{Ungeared beta} \times 1.75
 \end{aligned}$$

$$\begin{aligned}
 \text{Ungeared beta} &= 1.5 / 1.75 \\
 &= 0.857143
 \end{aligned}$$

$$\begin{aligned}
 \text{New cost of equity} &= \text{Risk-free rate} + \text{Ungeared beta} \times \\
 &\quad (\text{Equity risk premium}) \\
 &= 7\% + 0.857143 \times 5\% \\
 &= 11.29\%
 \end{aligned}$$

13) (i) $NPV = 40,000 \times 2.855 = ₹ 1,14,200$

(ii) Profitability Index at cost of capital = 1.064
 $1.064 = \frac{\text{Present value of cashflows at cost of capital}}{1,14,200}$

Present value of Cash inflows - at cost of capital
= ₹ 1,21,509

Net present value at cost of capital = $1,21,509 - 1,14,200$
= ₹ 7,309

(iii) Cumulative P.V.A.F at cost of capital (1-4)
= $\frac{\text{Present value of cashflows}}{\text{Annual Cashflows}}$

= $\frac{121509}{40000} = 3.038$

Refrence to Cumulative P.V.A.F table gives us the cost of capital 12%

(iv) Payback period = $\frac{1,14,200}{40,000} = 2.855 \text{ years.}$

14) i) a) Current Ratio :

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

Use :

To assess whatever the company will be able to pay its bills over the next few months. It provides a comparison of an estimate of the amount of money due to be received in short term with an estimate of the amount of money to be paid over the same period.

b) Debtors turnover period :

$$\text{Debtors turnover period} = \frac{\text{debtors (trade receivables)}}{\text{credit sales}} \times 365$$

Use :-

This is a measure of the average length of time taken for debtors (~~trab.~~ trade receivables) to settle their balance. It is desirable for this period to be as short as possible.

ii) The finance manager should track the quick ratio

$$\text{Quick ratio} = \frac{\text{Current assets} - \text{inventories (stocks)}}{\text{current Liabilities}}$$

- 15) i) Investors will invest in the shares of this company:
- a. To diversify the portfolio (minimise systemic risk)
 - b. To maximise return as they would be believing in earning higher returns (increasing idiosyncratic risk)
 - c. Other reasons specific to the investor eg. personal attachment with the company, own faith and beliefs.
- The suitable cost of capital is anything slightly higher than 6% ($8\% \times 0.5 + 4\% \times 0.5$).

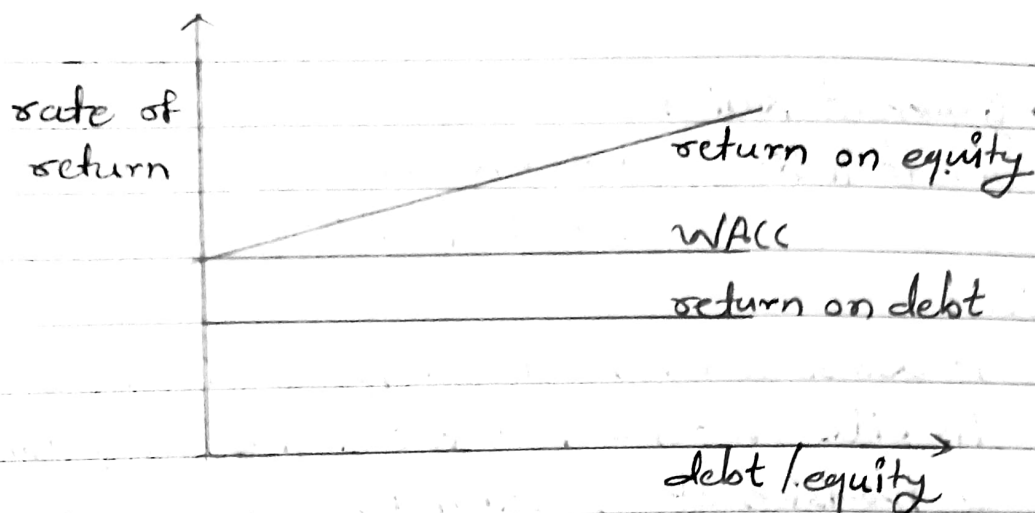
ii) Debt is cheaper than equity finance, so as gearing increases, the WACC should fall. However, increasing the proportion of debt finance increases the risk to shareholders so shareholders demand a greater return for this increased risk. Therefore beyond a certain level of gearing, the downward effect on the WACC of increasing the debt finance in the business will be more than offset by the increase in the return required by shareholder.

iii) First proposition of Modigliani and Miller :-
The market value of any firm is independent of its capital structure.

The following are the assumptions:

- a. There are no taxes in the economy.
- b. Unlimited personal and company borrowing is possible at the same rate of interest.
- c. Debt is risk-free.
- d. There are no agency costs.
- e. There are no information asymmetries.

iv



v a. Cost of equity = risk-free return + beta $\times$ (equity risk premium)

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

$$= 6\% + 7\% = 13\%$$

b. Gearing equity ~~data~~ beta =

Ungearing Beta $\times [1 + (\text{Debt: Equity Ratio}) \times (1 - t)]$
 Here the Debt: Equity ratio is based on market capitalisation, therefore,

$$\text{Gearing equity beta} = 1.4 \times [1 + (0.5/0.5) \times (1 - 0.3)]$$

$$= 1.4 \times (1 + 0.7)$$

$$= 1.4 \times 1.7$$

$$= 2.38$$

c. Cost of equity = risk-free return + beta $\times$ (equity risk premium)

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

$$= 17.9\%$$