

Practice Questions FIN622 Lesson 19-45

Lecture 19

Question:

In a listed company's capital structure, equity is 55% while debt is 45%. The cost of debt is 12% after taxes, whereas the cost of equity is 18%. What will the company's weighted average cost of capital be?

Lecture 20

Question:

ABC company is thinking of pursuing a project in an industry distinct from its present one. The industry's existing beta is 1.2, whereas the new industry's beta is 1.6 and its debt-to-equity ratio is 40:60. To determine the un-gearred equity beta, apply the pure play method if the company wants to keep 100% equity in the capital structure. Let us assume a 32% tax rate.

Question:

If the Un-gearred equity beta of Company A is 0.84 then find geared equity beta by using pure play method. Keep in the mind that the company wishes to maintain 30:70 debt to equity ratio. Assume a tax rate of 32%.

Lecture 21

Question:

A listed company has an estimated 22% cost of equity in case of no debt. The company took a loan of 800,000 at 11%, and the cost of equity capital is 20%. Moreover, the company has a debt-equity ratio of 40:60, and corporate tax is 34%.

Required: Calculate WACC and compare it when the company has no debt.

Question:

The following information is available for a listed company. What will be the value of the levered firm under the Miller and Modigliani (MM) Model (with taxes)? Hint (*Calculate the value of the un-levered firm first and then calculate the value of the levered firm*)

Earnings Before Interest and Taxes (EBIT)	Rs. 200,000
Debt @ 12%	Rs. 60,000
Interest expense	Rs. 14,400
Rate of return (Un-levered)	20%
Tax rate	35%

Question:

The financial information of an un-levered listed company is as:

Total Value	=Rs.800,000.
cos of equity	= 16%.
Applicable Tax rate	=35 %

The management of the company decided to issue a Rs.400,000 debt instrument at 10% and to repurchase shares from this amount.

Requirement:

- a. What will be the value of levered company?
- b. Calculate the amount of equity of the levered company.
- c. What will be the cost of equity of the levered company?

Lecture 23

Question:

A list firm has debt to equity ratio of 0.5. The firm earned Rs. 400,000 after-tax profit in current year and intends to retain all its profit. The firm is considering following investment plans for expansion

- Plan A requires investment of Rs.800,000
- Plan B requires investment of Rs.700,000

Required: Calculate additional amount of equity and debt required for each investment so that the company's current debt to equity ratio remain unchanged?

Lecture 24

Question:

A company forecasted sales and recovery for the first six months of trading up.

Sales in Jan, Feb and March = Rs. 150,000 per month

Sales in Apr, May and June = Rs. 200,000 per month

70% of the sales are on cash basis, 10% are on one month's credit while remaining 20% are on two month's credit. Calculate total cash receipt for each month from February 2014 to June 2014. (Show complete working)

Lecture 25

Question:

The financial information of a manufacturing company shows that it has Rs.500,000 as the cost of goods sold and Rs.150,000 as average accounts payable. The operating cycle of the company is 180 days. Calculate the cash cycle of the company if the company has a financial year of 365 days.

Question:

Following data has been extracted from the financial statements of ACompany:

Item	Year 2022	Year 2023
Revenue	800,000	-
Cost of Goods Sold	400,000	-
Inventory	100,000	200,000
Accounts Receivable	10,000	20,000
Accounts Payable	80,000	90,000

Calculate cash conversion cycle (CCC) of the company for the year 2023. Show complete calculations. (Assume 365 days in year)

Lecture 28

Question:

A business entity uses up cash at a steady rate of Rs. 500,000 per year. The interest rate is 6% and each sale of securities costs Rs. 30. Determine the optimal cash balance for the business entity.

Lecture 29

Question:

Calculate the Spread using the Miller-Orr Model from the following data:

Transaction cost of selling & buying securities	Rs. 750
Minimum cash balance	Rs. 120,000
Daily cash flow variance	Rs. 2,200,000
Interest rate	9% per annum

Question:

Calculate the upper limit and return point of a company by using the Miller Model from the following data

Transaction cost of selling & buying securities	Rs. 750
Minimum cash balance	Rs. 260,000
Daily cash flow variance	Rs. 1,000,000
Spread	Rs. 30,000
Interest rate	12% per annum

If cash has reached to a minimum cash balance (Rs. 100,000), how company can bring this balance to the return point?

Question:

Annual demand of sugar for a well renowned bakery is 80,000 kg. The ordering cost of sugar is Rs.42 per order. Sugar is priced at Rs.55 per kg. Per kg holding cost of sugar is 2.5% of purchase price. The vendor offers 10% discount if minimum order size is 10,000 kg. What will be the annual total cost of sugar, if the company does not avail discount?

Lecture 30

Question:

Calculate the optimal economic order quantity (EOQ), when total usage of the inventory item is 210,000 units for the planning period, the cost per order is Rs. 200 and the carrying cost per unit for each period is Rs.6? Provide complete working.

Lecture 31

Question:

A firm need short-term financing. One alternative is to borrow from the bank at 19 percent annual interest rate while the second involves foregoing cash discounts from a supplier whose trade credit terms are 2/10, net 50. Which alternative has the lower effective interest cost? (Assume a 365-day year)

Lecture 36

Question:

A plant of ABC company costing Rs 2,000,000 earning 13% of its cost value and can be sold for Rs. 1,000,000. The company's hurdle rate is 24% and it decided to dispose of the plant based on the Return of Capital Employed (ROCE) criteria.

Required: Calculate ROCE and suggest is it feasible to dispose-off this plant?

If the same asset can be sold for Rs. 800,000, how it will affect the ROCE and the decision to dispose-off the plant?

Lecture 38

Question:

A Pakistani company import raw material from a supplier in USA on 1st March 2023. Pakistani importer needs to fix exchange rate now to avoid exchange rate fluctuations.

Following are the quoted PKR/US\$ exchange rates:

Spot rate	0.015523 – 0.015530
1 month	0.015541 – 0.015542
3 month	0.015545 – 0.015548

Pakistani importer must pay US\$ 420,000 to USA exporter at the end of first week of April. What will be the forward rate for this currency transaction and the cost to Pakistani importer?

Lecture 39

Question:

Suppose in a future currency contract, the US\$/PKR contract standard size is \$ 50,000/- If the Price is in PKR and tick size is Rs. 0.0004, what will be the value of each "Tick"?

Question:

A Pakistani importing firm bought goods for \$ 60,000 in January and needs to settle in April. owing to fluctuation of exchange rate of \$/PKR, the firm want to hedge this transaction exposure with currency futures. The \$/PKR April futures contract is currently priced at US \$ 1 = PKR 272. Futures contract is priced at Rs.273.5 in the month of settlement of transaction.

Required: Based on the above information, what position should the importing firm take in futures contract to earn gain in foreign currency exchange transaction? (show complete working for gain/loss)

Lecture 41

Question:

A well-known company is planning to borrow Rs. 4,000,000 for 3 months. The company wants to hedge this debt against rising interest rates. Company can borrow at KIBOR + 50 basis points. Current 3-month KIBOR rate (spot rate) is 17%.

- a. What would be the suitable contract (short term interest rate future or bond future) and the position (buying or selling) to hedge against increase in 3-month KIBOR?
- b. If the contract is available in denomination of Rs. 60,000, calculate the number of contracts for the contract

Question:

An investor purchased an option contract that is giving him right to sell the shares of ABC Company at strike price of Rs. 35 per share and the market price of underlying shares is Rs. 25 per share.

Required:

- a. Identify the type of option contract (call or put).
- b. What will be position of the option (in-the-money/out-of-money/at-the-money)?
- c. Will it be feasible for the investor to exercise the contract if market price increases to Rs. 40? Why or why not?

Lecture 42

Question:

An investor buys 6 options on shares at a price of Rs. 60 per share. Each option consists of 100 shares and premium paid is Rs. 4 per share. Calculate the total gain, total option cost and net gain for investor if the share price is Rs.70 at the expiry of option?