##  CAFC $\rightarrow$ INTER CA $\rightarrow$ FINAL CA



## DIVIDEND POLICY

Q.1. $A B C$ Ltd. is a construction company following a residual dividend policy. The total capital budget for next year can be ₹ 20 lakhs, ₹ 30 lakhs or ₹ 40 lakhs. The forecasted level of potential retained earnings next year is ₹ 20 lakhs. The optimal/target capital structure is debt ratio of $40 \%$. Compute the amount of the dividend and dividend payout ratio for each of the 3 capital expenditure amounts.
Q.2. Vouge Ltd. maintains a capital structure of $70 \%$ debt and $30 \%$ equity. The profit after tax for the current year is ₹ 60,000 .
(i) How much capital expenditure can be incurred without raising fresh issue (a) If the company adopts the residual approach and does not bother about capital structure? (b) If the company adopts the residual approach and bothers about the capital structure?
(ii) If the company plans to spend $₹ 1,50,000$ in the upcoming year as capital expenditure, what dividend will it be in a position to pay if it follows the (a) residual approach and believes in not maintaing its capital structure intact? (b) residual approach and believes in maintaing its capital structure?
Q.3. Calculate the value of the share from the following information :

Profit of the company
Equity capital of company
Par value of share
Debt ratio of company
Long run growth rate of the co.
Beta
Risk free interest rate
Market returns
Capital expenditure per share
Depreciation per share
Change in working capital
₹ 290 crores
₹ 1,300 crores
₹ 40 each
0.27

8\%
0.1
8.7\%
10.3\%
₹ 47
₹ 39
₹ 3.45 per share
Q.4. CMC plc has an all-common-equity capital structure. If has 200,000 share of $₹ 2$ par value equity shares outstanding. When CMC's founder, who was also its research director and most successful inventor, retired unexpectedly to settle down in the South Pacific in late 2005, CMC was left suddenly and permanently with materially lower growth expectations and relatively few attractive new investment opportunities. Unfortunately, there was no way to replace the founder's contributions to the firm. Previously, CMC found it necessary to plough back most of its earnings to finance growth, which averaged $12 \%$ per year. Future growth at a $5 \%$ rate is considered realistic; but that level would call for an increase in the dividend payout. Further, it now appears that new investment projects with at least the $14 \%$ rate of return required by CMC's shareholders (ke = 14\%) would amount to only ₹ 800,000 for 2006 in comparison to a projected ₹ $2,000,000$ of net income. If the existing $20 \%$ dividend payout were continued, retained earnings would be ₹ $16,00,000$ in 2006, but, as noted, investments that yield the $14 \%$ cost of capital would amount to only ₹ 800,000 . The one encouraging thing is that the high earnings from existing assets are expected to continue, and net income of $₹ 20,00,000$ is still expected for2006. Given the dramatically changed circumstances. CMC's board is reviewing the firm's dividend policy.
(a) Assuming that the acceptable 2006 investment projects would be financed entirely by earnings retained during the year, calculate DPS in 2006, assuming that CMC uses the residual payment policy.
(b) What payout ratio does your answer to part a imply for 2006 ?
(c) If a $60 \%$ payout ratio is adopted and maintained for the foreseeable future, what is your estimate of the present market price of the equity share? How does this compare with the market price that should have prevailed under the assumptions existing just before the news about the founder's retirement? If the two values of P0 are different. Comment on why?
(d) What would happen to the price of the share if the old $20 \%$ payout were continued? Assume that if this payout is maintained, the average rate of return on the retained earnings will fall to $7.5 \%$ and the new growth rate will be $\mathrm{G}=(1.0-$ Payout ratio $) \times($ ROE $)=(1.0-0.2)(7.5 \%)=(0.8)(7.5 \%)=6.0 \%$.
Q.5. A Ltd. has earning of ₹ 4 per share this year. Dividend per share last year was ₹ 1.50 suppose the target pay-out ratio is $60 \%$ \& the adjustment rate is $50 \%$, what would be the dividend per share for the current year under Lintner's Model.
Q.6. The target payout ratio for Jupiter Ltd. is 0.4 . The dividend per share for the current year is ₹ 14 . The dividend per share in previous year was ₹ 12 . The Adjustment ratio is 0.60 . The number of equity shares outstanding in the company is $10,00,000$. If the $P / E$ multiple is 9 , applying Lintner Model of dividend policy to the company, compute the market capitalization of the company.
Q.7. Ghanshyam Limited is relatively a new company in the industry of automobiles. The earnings per share of a company is ₹ 30 and dividend payout ratio is $60 \%$. If the share price of the company is ₹ 56 whereas cost of capital and internal rate of return is $15 \%$ and $18 \%$ respectively. What is the multiplier applicable to the company according to the Graham and Dodd model?
Q.8. ABC Ltd. has a capital of ₹ 10 lakhs in equity shares of $₹ 100$ each. The shares are currently quoted at par. The company proposes declaration of a dividend of $₹ 10$ per share at the end of the current financial year. The capitalisation rate for the risk class to which the company belongs is $12 \%$.
What will be the market price of the share at the end of the year if
(i) A dividend is not declared?
(ii) A dividend is declared?

Assuming that the company pays the dividend and has net profits of ₹ $5,00,000$ and makes new investments of ' 10 lakhs during the period, how many new shares must be issued? Use the M.M. model.
Q.7. Diamond Engineering Company has $10,00,000$ equity shares outstanding at the start of the accounting year 2003. The ruling market price per share is ₹ 150 . The Board of Directors of the Company contemplates declaring ₹ 8 share as dividend at the end of the current year. The rate of Capitalization appropriate to the risk-class to which the company belongs is $12 \%$.
(a) Based on Modigliani-Miller Approach, calculate the market price per share of the company when the contemplated dividend is (i) declared and (ii) not declared.
(b) How many new shares are to be issued by the company at the end of the accounting year on the assumption that the Net Income for the year is ₹ 2 crores? Investment budget is ₹ 4 crores and (i) the above dividends are distributed and (ii) they are not distributed.
(c) Show that the total market value of the shares at the end of the accounting year will remain the same whether dividends are either distributed or not distributed. Also find out the current market value of the firm under both situations.

