

Test Series: May, 2020

MOCK TEST PAPER 1
FINAL (OLD) COURSE: GROUP – I
PAPER – 2: STRATEGIC FINANCIAL MANAGEMENT
SUGGESTED ANSWERS/HINTS

1. (a) First of all we shall calculate premium payable to bank as follows:

$$P = \frac{rp}{\left[(1+i)^t - \frac{1}{i \times (1+i)^t} \right]} \times A \text{ or } \frac{rp}{PVAF(3.5\%,4)} \times A$$

Where

P = Premium

A = Principal Amount

rp = Rate of Premium

i = Fixed Rate of Interest

t = Time

$$= \frac{0.01}{\left[(1/0.035) - \frac{1}{0.035 \times 1.035^4} \right]} \times \text{£}15,000,000 \text{ or } \frac{0.01}{(0.966 + 0.933 + 0.901 + 0.871)} \times \text{£}15,000,000$$

$$= \frac{0.01}{\left[(28.5714) - \frac{1}{0.04016} \right]} \times \text{£}15,000,000 \text{ or } \frac{\text{£}150,000}{3.671} = \text{£} 40,861$$

Please note above solution has been worked out on the basis of four decimal points at each stage.

Now we see the net payment received from bank

Reset Period	Additional interest due to rise in interest rate	Amount received from bank	Premium paid to bank	Net Amt. received from bank
1	£ 75,000	£ 75,000	£ 40,861	£34,139
2	£ 112,500	£ 112,500	£ 40,861	£71,639
3	£ 150,000	£ 150,000	£ 40,861	£109,139
TOTAL	£ 337,500	£ 337,500	£122,583	£ 214,917

Thus, from above it can be seen that interest rate risk amount of £ 337,500 reduced by £ 214,917 by using of Cap option.

Note: It may be possible that student may compute upto three decimal points or may use different basis. In such case their answer is likely to be different.

- (b) (i) The Betas of two stocks:

$$\text{Aggressive stock} \quad - \quad 40\% - 4\%/25\% - 7\% = 2$$

$$\text{Defensive stock} \quad - \quad 18\% - 9\%/25\% - 7\% = 0.50$$

Alternatively, it can also be solved by using the Characteristic Line Relationship as follows:

$$R_s = \alpha + \beta R_m$$

Where

α = Alpha

β = Beta

R_m = Market Return

For Aggressive Stock

$$4\% = \alpha + \beta(7\%)$$

$$40\% = \alpha + \beta(25\%)$$

$$36\% = \beta(18\%)$$

$$\beta = 2$$

For Defensive Stock

$$9\% = \alpha + \beta(7\%)$$

$$18\% = \alpha + \beta(25\%)$$

$$9\% = \beta(18\%)$$

$$\beta = 0.50$$

(ii) Expected returns of the two stocks:-

$$\text{Aggressive stock} \quad - \quad 0.5 \times 4\% + 0.5 \times 40\% = 22\%$$

$$\text{Defensive stock} \quad - \quad 0.5 \times 9\% + 0.5 \times 18\% = 13.5\%$$

(iii) Expected return of market portfolio = $0.5 \times 7\% + 0.5 \times 25\% = 16\%$

$$\therefore \text{Market risk prem.} = 16\% - 7.5\% = 8.5\%$$

$$\therefore \text{SML is, required return} = 7.5\% + \beta_i 8.5\%$$

(iv) $R_s = \alpha + \beta R_m$

For Aggressive Stock

$$22\% = \alpha_A + 2(16\%)$$

$$\alpha_A = -10\%$$

For Defensive Stock

$$13.5\% = \alpha_D + 0.50(16\%)$$

$$\alpha_D = 5.5\%$$

(c) In this case the company has paid dividend of Rs.2 per share during the last year. The growth rate (g) is 5%. Then, the current year dividend (D_1) with the expected growth rate of 5% will be Rs.2.10

$$\begin{aligned} \text{The share price is } P_0 &= \frac{D_1}{K_e - g} \\ &= \frac{\text{Rs.2.10}}{0.155 - 0.05} = \text{Rs.20} \end{aligned}$$

In case the growth rate rises to 8% then the dividend for the current year. (D_1) would be Rs.2.16 and market price would be-

$$= \frac{\text{Rs.2.16}}{0.155 - 0.08} = \text{Rs. 28.80}$$

In case growth rate falls to 3% then the dividend for the current year (D_1) would be Rs.2.06 and market price would be-

$$= \frac{\text{Rs. 2.06}}{0.155 - 0.03}$$

$$= \text{Rs. 16.48}$$

So, the market price of the share is expected to vary in response to change in expected growth rate is dividends.

(d) CALCULATION OF NPV

	Rs.
PV of cash inflows (Rs. 45,000 x 3.169)	1,42,605
Initial Project Cost	<u>1,20,000</u>
NPV	<u>22,605</u>
If initial project cost is varied adversely by 10%*	
NPV (Revised) (Rs. 1,42,605 - Rs. 1,32,000)	Rs. 10,605
Change in NPV (Rs. 22,605 – Rs. 10,605) / Rs. 22,605 i.e.	53.08 %
If annual cash inflow is varied adversely by 10%*	
Revised annual inflow	Rs. 40,500
NPV (Revised) (Rs. 40,500 x 3.169) – (Rs. 1,20,000)	(+) Rs. 8,345
Change in NPV (Rs. 22,605 – Rs. 8,345) / Rs. 22,605	63.08 %
If cost of capital is varied adversely by 10%*	
NPV (Revised) (Rs. 45,000 x 3.103) – Rs. 1,20,000	(+) Rs. 19,635
Change in NPV (Rs. 22,605 – Rs. 19,635) / Rs. 22,605	13.14 %

Conclusion: Project is most sensitive to 'annual cash inflow'.

*Note: Students may please note that they may assume any other percentage rate other than 10 % say 15%, 20 % 25 % etc.

2. (a) (i) If company borrows in \$ then outflow would be as follows:

Let company borrows \$ 100	\$ 100.00
Add: Interest for 6 months @ 5.5%	<u>\$ 2.75</u>
Amount Repayable after 6 months	<u>\$ 102.75</u>
Applicable 6 month forward rate	36.40
Amount of Cash outflow in Indian Rupees	Rs. 3,740.10
If company borrows equivalent amount in Indian Rupee, then outflow would be as follows:	
Equivalent Rs. amount Rs. 36.10 x 100	Rs. 3,610.00
Add: Interest @11.50%	<u>Rs. 207.58</u>
<u>Rs. 3817.58</u>	

Since cash outflow is more in Rs. borrowing then borrowing should be made in \$.

- (ii) (a) Let 'i_r' be the interest rate of Rs. borrowing make indifferent between 3 months borrowings and 6 months borrowing then

$$(1 + 0.03) (1 + i_r) = (1 + 0.0575)$$

$$i_r = 2.67\% \text{ or } 10.68\% \text{ (on annualized basis)}$$

- (b) Let 'i_d' be the interest rate of \$ borrowing after 3 months to make indifference between 3 months borrowings and 6 months borrowings. Then,

$$(1 + 0.015) (1 + i_d) = (1 + 0.0275)$$

$$i_d = 1.232\% \text{ or } 4.93\% \text{ (on annualized basis)}$$

- (b) (i) Calculation of loan installment:

$$\text{Rs. } 10,00,000 / (1 + \text{PVIFA } 12\%, 4)$$

$$\text{Rs. } 10,00,000 / (1 + 3.038) = \text{Rs. } 2,47,647$$

Debt Alternative: Calculation of Present Value of Outflows

(Amount in Rs.)

(1) End of year	(2) Debt Payment	(3) Interest	(4) Dep.	(5) Tax Shield [(3)+(4)]x0.3	(6) Cash outflows (2) – (5)	(7) PV factors @ 10%	(8) PV
0	2,47,647	0	0	0	2,47,647	1.000	2,47,647
1	2,47,647	90,282	1,60,000	75,085	1,72,562	0.909	1,56,859
2	2,47,647	71,398	1,60,000	69,419	1,78,228	0.826	1,47,216
3	2,47,647	50,249	1,60,000	63,075	1,84,572	0.751	1,38,614
4	2,47,647	26,305*	1,60,000	55,892	1,91,755	0.683	1,30,969
5	0	0	1,60,000	48,000	(48,000)	0.621	(29,808)
							7,91,497
Less: Salvage Value Rs.2,00,000 x 0.621							1,24,200
Total Present Value of Outflow							6,67,297

*balancing figure

Leasing Decision: Calculation of Present Value of Outflows

$$\text{Yrs. } 1-5 \quad \text{Rs. } 2,40,000 \times (1 - 0.30) \times 3.790 = \text{Rs. } 6,36,720$$

Decision: Leasing option is viable.

- (ii) From Lessor's Point of View

		(Rs.)
Cost of Machine		(-) 10,00,000
PV of Post tax lease Rental (Rs.2,40,000 x 0.7 x 3.605)	6,05,640	
PV of Depreciation tax shield (Rs.1,60,000 x 0.3 x 3.605)	1,73,040	
PV of salvage value (Rs.2,00,000 x 0.567)	<u>1,13,400</u>	<u>8,92,080</u>
NPV		(-) <u>1,07,920</u>

Decision – Leasing proposal is not viable.

3. (a) Working Notes:

$$(1) \text{ Inventory Turnover Ratio} = \frac{\text{COGS}}{\text{Closing Stock}}$$

$$\text{X Ltd.} \\ 5 = \frac{\text{COGS}}{15,00,000}$$

$$\text{COGS} = \text{Rs. } 75,00,000$$

Gross Profit Ratio = 20% means COGS is 80% of Sales, then

$$\text{Sales} = \frac{75,00,000 \times 100}{80} = \text{Rs. } 93,75,000$$

$$\text{Y Ltd.} \\ 4 = \frac{\text{COGS}}{5,00,000}$$

$$\text{COGS} = \text{Rs. } 20,00,000$$

$$\text{Sales} = \frac{75,00,000 \times 100}{80} = \text{Rs. } 25,00,000$$

Statement of Profit

	X Ltd.	Y Ltd.
Sales	93,75,000	25,00,000
Less: Operating Exp.	80,62,500	19,50,000
EBIT	13,12,500	5,50,000
Less: Interest	1,20,000	1,44,000
EBT	11,92,500	4,06,000
Less: Tax@30%	3,57,750	1,21,800
EAT	8,34,750	2,84,200

(2)

	X Ltd.	Y Ltd.
No. of Shares	1,00,000	60,000
EPS (EAT/ No. of Shares)	8,34,750/1,00,000 = Rs. 8.34	2,84,200/60,000 = Rs. 4.74
Market Price Share (Market Capitalisation/ No. Shares)	75,00,000/ 1,00,000 = Rs. 75	90,00,000/ 60,000 = Rs. 150
PE Ratio (MPS/ EPS)	75/ 8.34 = 8.99	150/ 4.74 = 31.65

$$(i) \text{ Swap Ratio} = \frac{\text{Target Co.}}{\text{Acquirer Co.}}$$

	Acquirer Co. X Ltd.	Target Co. Y Ltd.	Weight
EPS	0.34	4.74	0.40
MPS	75	150	0.60

EPS	$\frac{4.74}{8.34} \times 0.40 =$	0.227
MPS	$\frac{150}{75} \times 0.60$	1.200
		1.427

(ii) Post Merger EPS

$$= \frac{EAT_x + EAT_y}{\text{No. of Shares of Both Cos.}}$$

$$= \frac{834750 + 284200}{1,00,000 + (60,000 \times 1.227)}$$

$$= \frac{1118950}{1,85,620}$$

$$= 6.03$$

(iii) Post Merger market price assuming same PE of X Ltd.

$$\text{MPS} = \text{PE} \times \text{EPS}$$

$$= 8.99 \times 6.03$$

$$= \text{Rs. } 54.21$$

(iv) Gain or Loss to the share holders

	Pre-Merger EPS	Post Merger EPS
X Ltd.	Rs. 8.34	Rs. 6.99
Y Ltd.	Rs. 4.74	Rs. 6.99 x 1.427 = Rs. 9.97

While Shareholders of X Ltd. will lose EPS of Rs. 1.35 (Rs. 8.34 - Rs. 6.99) per share the shareholders of Y Ltd. stands to gain EPS of Rs. 5.23 (Rs. 9.97 - Rs. 4.74) per share.

(b) (i) Pre-tax Income required on investment of Rs.20,00,000

Let the period of Investment be 'P' and return required on investment Rs.1,00,000 (Rs.20,00,000 x 5%)

Accordingly,

$$\left(\text{Rs.}20,00,000 \times \frac{9}{100} \times \frac{P}{12} \right) - \text{Rs.}50,000 = \text{Rs.}1,00,000$$

$$P = 10 \text{ months}$$

(ii) Break-Even its investment expenditure

$$\left(\text{Rs.}20,00,000 \times \frac{9}{100} \times \frac{P}{12} \right) - \text{Rs.}50,000 = 0$$

$$P = 3.33 \text{ months}$$

4. (a) Expected Turnover = Rs. 4.80 crore + 25% i.e. Rs. 1.20 crore = Rs. 6.00 crore

	Rs. in Lacs	Rs. in Lacs
<i>Advance to be given:</i>		
Debtors Rs.6.00 crore x 90/360	150.00	
Less: 10% withholding	<u>15.00</u>	135.00
Less: Commission 2%		<u>3.00</u>
Net payment		132.00
Less: Interest @16% for 90 days on Rs.132 lacs		<u>5.28</u>
		<u>126.72</u>

Calculation of Average Cost:		
Total Commission Rs.6.00 crore x 2%		12.00
Total Interest Rs. 5.28 lacs x 360/90		<u>21.12</u>
		33.12
Less: Admin. Cost	6.00	
Saving in Bad Debts (Rs.600 lacs x 1.75% x 80%)	<u>8.40</u>	<u>14.40</u>
		<u>18.72</u>
Effective Cost of Factoring $\frac{\text{Rs.18.72 lacs}}{\text{Rs.126.72 lacs}} \times 100$		14.77%

- (b) (i) The trader can mitigate its risk of reduced profit by hedging his position by selling Rice Futures.

So, the gain on futures contract

$$= (\text{Rs. } 59 - \text{Rs. } 56) \times 22,000 \text{ kg.} = \text{Rs. } 66,000$$

Revenue from the sale of Rice

$$= 22,000 \times \text{Rs. } 56 = \text{Rs. } 12,32,000$$

$$\text{Total Cash Flow} = \text{Rs. } 12,32,000 + \text{Rs. } 66,000 = \text{Rs. } 12,98,000$$

$$\text{Cash Flow per kg. of Rice} = \frac{12,98,000}{22,000} = \text{Rs. } 59$$

So, Rice Trader's cash flow per kg. is equal to the futures price. This way his loss from physical sale is compensated by gain from the futures contract.

- (ii) The effective realized price for its sale after 3 months if spot price is Rs. 57 per kg and Future Price is Rs. 58 per kg.

The gain on futures contract

$$= (\text{Rs. } 59 - \text{Rs. } 58) \times 22,000 \text{ kg.} = \text{Rs. } 22,000$$

Revenue from the sale of Rice

$$= 22,000 \times \text{Rs. } 57 = \text{Rs. } 12,54,000$$

$$\text{Total Cash Flow} = \text{Rs. } 12,54,000 + \text{Rs. } 22,000 = \text{Rs. } 12,76,000$$

$$\text{Cash Flow per kg. of Rice} = \frac{\text{₹ } 12,76,000}{22,000} = \text{Rs. } 58$$

5. (a) (i) **Calculation of Bond Duration**

Bond A

Year	Cash flow	P.V. @ 9%		Proportion of bond value	Proportion of bond value x time (years)
1	10	0.917	9.17	0.086	0.086
2	10	0.842	8.42	0.079	0.158
3	10	0.772	7.72	0.073	0.219
4	10	0.708	7.08	0.067	0.268
5	10	0.650	6.50	0.061	0.305
6	10	0.596	5.96	0.056	0.336

7	10	0.547	5.47	0.051	0.357
8	10	0.502	5.02	0.047	0.376
9	10	0.460	4.60	0.043	0.387
10	110	0.4224	46.46	0.437	4.370
			106.40	1.000	6.862

Duration of the bond is 6.862 years or 6.86 year

Bond B

Year	Cash flow	P.V. @ 9%		Proportion of bond value	Proportion of bond value x time (years)
1	11	0.917	10.087	0.091	0.091
2	11	0.842	9.262	0.083	0.166
3	11	0.772	8.492	0.076	0.228
4	11	0.708	7.788	0.070	0.280
5	11	0.650	7.150	0.064	0.320
6	11	0.596	6.556	0.059	0.354
7	11	0.547	6.017	0.054	0.378
8	111	0.502	55.772	0.502	4.016
			111.224	1.000	5.833

Duration of the bond B is 5.833 years or 5.84 years

Bond C

Year	Cash flow	P.V. @ 9%		Proportion of bond value	Proportion of bond value x time (years)
1	9	0.917	8.253	0.082	0.082
2	9	0.842	7.578	0.076	0.152
3	9	0.772	6.948	0.069	0.207
4	9	0.708	6.372	0.064	0.256
5	109	0.650	70.850	0.709	3.545
			100.00	1.000	4.242

Duration of the bond C is 4.242 years or 4.24 years

(ii) Amount of Investment required in Bond B and C

Period required to be immunized	6.000 Year
Less: Period covered from Bond A	<u>3.087 Year</u>
To be immunized from B and C	<u>2.913 Year</u>

Let proportion of investment in Bond B and C is b and c respectively then

$$b + c = 0.55 \quad (1)$$

$$5.883b + 4.242c = 2.913 \quad (2)$$

On solving these equations, the value of b and c comes 0.3534 or 0.3621 and 0.1966 or 0.1879 respectively and accordingly, the % of investment of B and C is 35.34% or 36.21% and 19.66 % or 18.79% respectively.

(iii) With revised yield the Revised Duration of Bond stands

$$0.45 \times 7.15 + 0.36 \times 6.03 + 0.19 \times 4.27 = 6.20 \text{ year}$$

No portfolio is not immunized as the duration of the portfolio has been increased from 6 years to 6.20 years.

(iv) New percentage of B and C bonds that are needed to immunize the portfolio.

Period required to be immunized	6.0000 Year
Less: Period covered from Bond A	<u>3.2175 Year</u>
To be immunized from B and C	<u>2.7825 Year</u>

Let proportion of investment in Bond B and C is b and c respectively, then

$$b + c = 0.55$$

$$6.03b + 4.27c = 2.7825$$

$$b = 0.2466$$

On solving these equations, the value of b and c comes 0.2466 and 0.3034 respectively and accordingly, the % of investment of B and C is 24.66% or 25% and 30.34 % or 30.00% respectively.

(b) Calculation of monthly return on the mutual funds:

$$r = \frac{(\text{NAV}_t - \text{NAV}_{t-1}) + I_t + G_t}{\text{NAV}_{t-1}}$$

$$\text{Or, } r = \frac{(\text{₹ } 16.08 - \text{₹ } 16.00) + (\text{₹ } 0.04 + \text{₹ } 0.03)}{16}$$

$$= \frac{0.08 + 0.07}{16} = 0.009375 \quad \text{or, } r = 0.9375\% \text{ or } 11.25\% \text{ p.a.}$$

6. (a) Amount realized on selling Danish Kroner 10,00,000 at Rs. 6.5150 per Kroner = Rs. 65,15,000.

Cover at London:

Bank buys Danish Kroner at London at the market selling rate.

Pound sterling required for the purchase (DKK 10,00,000 ÷ DKK 11.4200) = GBP 87,565.67

Bank buys locally GBP 87,565.67 for the above purchase at the market selling rate of Rs. 74.3200.

The rupee cost will be = Rs. 65,07,88

Profit (Rs. 65,15,000 - Rs. 65,07,881) = Rs. 7,119

Cover at New York:

Bank buys Kroners at New York at the market selling rate.

Dollars required for the purchase of Danish Kroner (DKK10,00,000 ÷ 7.5670) = USD 1,32,152.77

Bank buys locally USD 1,32,152.77 for the above purchase at the market selling rate of Rs. 49.2625.

The rupee cost will be = Rs. 65,10,176.

Profit (Rs. 65,15,000 - Rs. 65,10,176) = Rs. 4,824

The transaction would be covered through London which gets the maximum profit of Rs.7,119 or lower cover cost at London Market by (Rs.65,10,176 - Rs.65,07,881) = Rs.2,295

- (b) Financial Analysis whether to set up the manufacturing units in India or not may be carried using NPV technique as follows:

I. Incremental Cash Outflows

	\$ Million
Cost of Plant and Machinery	500.00
Working Capital	50.00
Release of existing Working Capital	(15.00)
	535.00

II. Incremental Cash Inflow after Tax (CFAT)

- (a) Generated by investment in India for 5 years

	\$ Million
Sales Revenue (5 Million x \$80)	400.00
Less: Costs	
Variable Cost (5 Million x \$20)	100.00
Fixed Cost	30.00
Depreciation (\$500Million/5)	100.00
EBIT	170.00
Taxes@35%	59.50
EAT	110.50
Add: Depreciation	100.00
CFAT (1-5 years)	210.50
Cash flow at the end of the 5 years (Release of Working Capital)	35.00

- (b) Cash generation by exports (Opportunity Cost)

	\$ Million
Sales Revenue (1.5 Million x \$80)	120.00
Less: Variable Cost (1.5 Million x \$40)	60.00
Contribution before tax	60.00
Tax@35%	21.00
CFAT (1-5 years)	39.00

- (c) Additional CFAT attributable to Foreign Investment

	\$ Million
Through setting up subsidiary in India	210.50
Through Exports in India	39.00
CFAT (1-5 years)	171.50

III. Determination of NPV

Year	CFAT (\$ Million)	PVF@12%	PV(\$ Million)
1-5	171.50	3.6048	618.2232
5	35	0.5674	19.8590
			638.0822
Less: Initial Outflow			535.0000
			103.0822

Since NPV is positive the proposal should be accepted.

7. (a) Capital investment is the springboard for wealth creation. In a world of economic uncertainty, the investors want to maximize their wealth by selecting optimum investment and financial opportunities that will give them maximum expected returns at minimum risk. Since management is ultimately responsible to the investors, the objective of corporate financial management should implement investment and financing decisions which should satisfy the shareholders by placing them all in an equal, optimum financial position. The satisfaction of the interests of the shareholders should be perceived as a means to an end, namely maximization of shareholders' wealth. Since capital is the limiting factor, the problem that the management will face is the strategic allocation of limited funds between alternative uses in such a manner, that the companies have the ability to sustain or increase investor returns through a continual search for investment opportunities that generate funds for their business and are more favourable for the investors. Therefore, all businesses need to have the following three fundamental essential elements:

- A clear and realistic strategy,
- The financial resources, controls and systems to see it through and

The right management team and processes to make it happen.

- (b) Generally, a big company takes over a small company. When the smaller company gains control of a larger one then it is called "Take-over by reverse bid". In case of reverse take-over, a small company takes over a big company. This concept has been successfully followed for revival of sick industries.

The acquired company is said to be big if any one of the following conditions is satisfied:

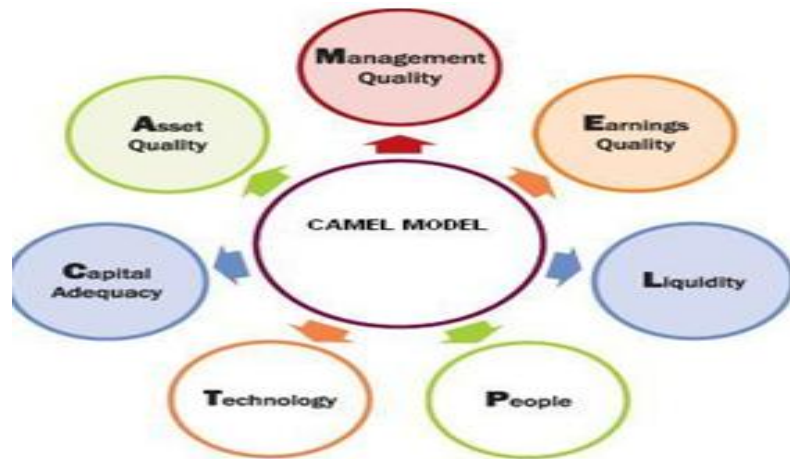
- (i) The assets of the transferor company are greater than the transferee company;
- (ii) Equity capital to be issued by the transferee company pursuant to the acquisition exceeds its original issued capital, and
- (iii) The change of control in the transferee company will be through the introduction of minority holder or group of holders.

The concept of take-over by reverse bid, or of reverse merger, is thus not the usual case of amalgamation of a sick unit which is non-viable with a healthy or prosperous unit but is a case whereby the entire undertaking of the healthy and prosperous company is to be merged and vested in the sick company which is non-viable.

- (c) Steps for simulation analysis.

1. Modelling the project- The model shows the relationship of N.P.V. with parameters and exogenous variables. (Parameters are input variables specified by decision maker and held constant over all simulation runs. Exogenous variables are input variables, which are stochastic in nature and outside the control of the decision maker).
2. Specify values of parameters and probability distributions of exogenous variables.
3. Select a value at random from probability distribution of each of the exogenous variables.
4. Determine N.P.V. corresponding to the randomly generated value of exogenous variables and pre-specified parameter variables.
5. Repeat steps (3) & (4) a large number of times to get a large number of simulated N.P.V.s.
6. Plot frequency distribution of N.P.V.

- (d) **CAMEL Model in Credit Rating:** Camel stands for Capital, Assets, Management, Earnings and Liquidity. The CAMEL model adopted by the rating agencies deserves special attention; it focuses on the following aspects-



- (i) *Capital*- Composition of external funds raised and retained earnings, fixed dividends component for preference shares and fluctuating dividends component for equity shares and adequacy of long term funds adjusted to gearing levels, ability of issuer to raise further borrowings.
- (ii) *Assets*- Revenue generating capacity of existing/proposed assets, fair values, technological/physical obsolescence, linkage of asset values to turnover, consistency, appropriation of methods of depreciation and adequacy of charge to revenues, size, ageing and recoverability of monetary assets like receivables and its linkage with turnover.
- (iii) *Management*- Extent of involvement of management personnel, team-work, authority, timeliness, effectiveness and appropriateness of decision making along with directing management to achieve corporate goals.
- (iv) *Earnings*- Absolute levels, trends, stability, adaptability to cyclical fluctuations, ability of the entity to service existing and additional debts proposed.
- (v) *Liquidity*- Effectiveness of working capital management, corporate policies for stock and creditors, management and the ability of the corporate to meet their commitment in the short run.

These five aspects form the five core bases for estimating credit worthiness of an issuer which leads to the rating of an instrument. Rating agencies determine the pre-dominance of positive/negative aspects under each of these five categories and these are factored in for making the overall rating decision.

(e) Determinants of dividend policy

Many factors determine the dividend policy of a company. Some of the factors determining the dividend policy are:

- (i) **Dividend Payout ratio:** A certain share of earnings to be distributed as dividend has to be worked out. This involves the decision to pay out or to retain. The payment of dividends results in the reduction of cash and, therefore, depletion of assets. In order to maintain the desired level of assets as well as to finance the investment opportunities, the company has to decide upon the payout ratio. D/P ratio should be determined with two bold objectives – maximising the wealth of the firms' owners and providing sufficient funds to finance growth.
- (ii) **Stability of Dividends:** Generally investors favour a stable dividend policy. The policy should be consistent and there should be a certain minimum dividend that should be paid regularly. The liability can take any form, namely, constant dividend per share; stable D/P ratio and constant dividend per share plus something extra. Because this entails – the investor's desire for current income, it contains the information content about the profitability

or efficient working of the company; creating interest for institutional investor's etc.

- (iii) **Legal, Contractual and Internal Constraints and Restriction:** Legal and Contractual requirements have to be followed. All requirements of Companies Act, SEBI guidelines, capital impairment guidelines, net profit and insolvency etc., have to be kept in mind while declaring dividend. For example, insolvent firm is prohibited from paying dividends; before paying dividend accumulated losses have to be set off, however, the dividends can be paid out of current or previous years' profit. Also there may be some contractual requirements which are to be honoured. Maintenance of certain debt equity ratio may be such requirements. In addition, there may be certain internal constraints which are unique to the firm concerned. There may be growth prospects, financial requirements, availability of funds, earning stability and control etc.
- (iv) **Owner's Considerations:** This may include the tax status of shareholders, their opportunities for investment dilution of ownership etc.
- (v) **Capital Market Conditions and Inflation:** Capital market conditions and rate of inflation also play a dominant role in determining the dividend policy. The extent to which a firm has access to capital market, also affects the dividend policy. A firm having easy access to capital market will follow a liberal dividend policy as compared to the firm having limited access. Sometime dividends are paid to keep the firms 'eligible' for certain things in the capital market. In inflation, rising prices eat into the value of money of investors which they are receiving as dividends. Good companies will try to compensate for rate of inflation by paying higher dividends. Replacement decision of the companies also affects the dividend policy.