

PAPER – 2: STRATEGIC FINANCIAL MANAGEMENT

QUESTIONS

Project Planning and Capital Budgeting

1. Skylark Airways is planning to acquire a light commercial aircraft for flying class clients at an investment of ₹ 50,00,000. The expected cash flow after tax for the next three years is as follows: (₹)

Year 1		Year 2		Year 3	
CFAT	Probability	CFAT	Probability	CFAT	Probability
14,00,000	0.1	15,00,000	0.1	18,00,000	0.2
18,00,000	0.2	20,00,000	0.3	25,00,000	0.5
25,00,000	0.4	32,00,000	0.4	35,00,000	0.2
40,00,000	0.3	45,00,000	0.2	48,00,000	0.1

The Company wishes to take into consideration all possible risk factors relating to airline operations. The company wants to know:

- The expected NPV of this venture assuming independent probability distribution with 6 per cent risk free rate of interest.
- The possible deviation in the expected value.
- How would standard deviation of the present value distribution help in Capital Budgeting decisions?

Leasing Decisions

2. Agrani Ltd. is in the business of manufacturing bearings. Some more product lines are being planned to be added to the existing system. The machinery required may be bought or may be taken on lease. The cost of machine is ₹ 40,00,000 having a useful life of 5 years with the salvage value of ₹ 8,00,000. The full purchase value of machine can be financed by 20% loan repayable in five equal instalments falling due at the end of each year. Alternatively, the machine can be procured on a 5 years lease, year-end lease rentals being ₹ 12,00,000 per annum. The Company follows the written down value method of depreciation at the rate of 25%. Company's tax rate is 35 per cent and cost of capital is 16 per cent:
- Advise the company which option it should choose – lease or borrow.
 - Assess the proposal from the lessor's point of view examining whether leasing the machine is financially viable at 14% cost of capital (Detailed working notes should be given. Calculations can be rounded off to ₹ lakhs).

Dividend Decisions

3. X Ltd. is a Shoes manufacturing company. It is all equity financed and has a paid-up Capital of ₹ 10,00,000 (₹ 10 per share)

X Ltd. has hired Swastika consultants to analyse the future earnings. The report of Swastika consultants states as follows:

- (i) The earnings and dividend will grow at 25% for the next two years.
- (ii) Earnings are likely to grow at the rate of 10% from 3rd year and onwards.
- (iii) Further, if there is reduction in earnings growth, dividend payout ratio will increase to 50%.

The other data related to the company are as follows:

Year	EPS (₹)	Net Dividend per share (₹)	Share Price (₹)
2010	6.30	2.52	63.00
2011	7.00	2.80	46.00
2012	7.70	3.08	63.75
2013	8.40	3.36	68.75
2014	9.60	3.84	93.00

You may assume that the tax rate is 30% (not expected to change in future) and post-tax cost of capital is 15%.

By using the Dividend Valuation Model, calculate

- (a) Expected Market Price per share
- (b) P/E Ratio.

Indian Capital Market

4. A trader is having in its portfolio shares worth ₹ 85 lakhs at current price and cash ₹ 15 lakhs. The beta of share portfolio is 1.6. After 3 months the price of shares dropped by 3.2%.

Determine:

- (i) Current portfolio beta
- (ii) Portfolio beta after 3 months if the trader on current date goes for long position on ₹ 100 lakhs Nifty futures.

5. From the following data for certain stock, find the value of a call option:

Price of stock now	=	₹ 80
Exercise price	=	₹ 75
Standard deviation of continuously compounded annual return	=	0.40

Maturity period	=	6 months
Annual interest rate	=	12%

Given

Number of S.D. from Mean, (z)	Area of the left or right (one tail)
0.25	0.4013
0.30	0.3821
0.55	0.2912
0.60	0.2743

$$e^{0.12 \times 0.5} = 1.062$$

$$\ln 1.0667 = 0.0646$$

6. A Inc. and B Inc. intend to borrow \$200,000 and \$200,000 in ¥ respectively for a time horizon of one year. The prevalent interest rates are as follows:

Company	¥ Loan	\$ Loan
A Inc	5%	9%
B Inc	8%	10%

The prevalent exchange rate is \$1 = ¥120.

They entered in a currency swap under which it is agreed that B Inc will pay A Inc @ 1% over the ¥ Loan interest rate which the later will have to pay as a result of the agreed currency swap whereas A Inc will reimburse interest to B Inc only to the extent of 9%. Keeping the exchange rate invariant, quantify the opportunity gain or loss component of the ultimate outcome, resulting from the designed currency swap.

Security Analysis and Valuation

7. ABC Ltd. has ₹ 300 million, 12 per cent bonds outstanding with six years remaining to maturity. Since interest rates are falling, ABC Ltd. is contemplating of refunding these bonds with a ₹ 300 million issue of 6 year bonds carrying a coupon rate of 10 per cent. Issue cost of the new bond will be ₹ 6 million and the call premium is 4 per cent. ₹ 9 million being the unamortized portion of issue cost of old bonds can be written off no sooner the old bonds are called off. Marginal tax rate of ABC Ltd. is 30 per cent. You are required to analyze the bond refunding decision.
8. Following Financial data are available for PQR Ltd. for the year 2008:

	(₹ in lakh)
8% debentures	125

10% bonds (2007)	50
Equity shares (₹ 10 each)	100
Reserves and Surplus	300
Total Assets	600
Assets Turnovers ratio	1.1
Effective interest rate	8%
Effective tax rate	40%
Operating margin	10%
Dividend payout ratio	16.67%
Current market Price of Share	₹14
Required rate of return of investors	15%

You are required to:

- Draw income statement for the year
- Calculate its sustainable growth rate of earnings
- Calculate the fair price of the Company's share using dividend discount model, and
- What is your opinion on investment in the company's share at current price?

Portfolio Theory

9. Consider the following information on two stocks, A and B :

Year	Return on A (%)	Return on B (%)
2016	10	12
2017	16	18

You are required to determine:

- The expected return on a portfolio containing A and B in the proportion of 40% and 60% respectively.
 - The Standard Deviation of return from each of the two stocks.
 - The covariance of returns from the two stocks.
 - Correlation coefficient between the returns of the two stocks.
 - The risk of a portfolio containing A and B in the proportion of 40% and 60%.
10. XYZ Ltd. has substantial cash flow and until the surplus funds are utilised to meet the future capital expenditure, likely to happen after several months, are invested in a portfolio of short-term equity investments, details for which are given below:

Investment	No. of shares	Beta	Market price per share ₹	Expected dividend yield
I	60,000	1.16	4.29	19.50%
II	80,000	2.28	2.92	24.00%
III	1,00,000	0.90	2.17	17.50%
IV	1,25,000	1.50	3.14	26.00%

The current market return is 19% and the risk free rate is 11%.

Required to:

- Calculate the risk of XYZ's short-term investment portfolio relative to that of the market;
- Whether XYZ should change the composition of its portfolio.

Financial Services

- The credit sales and receivables of M/s M Ltd. at the end of the year are estimated at ₹ 3,74,00,000 and ₹ 46,00,000 respectively.

The average variable overdraft interest rate is 5%. M Ltd. is considering a proposal for factoring its debts on a non-recourse basis at an annual fee of 3% on credit sales. As a result, M Ltd. will save ₹ 1,00,000 per year in administrative cost and ₹ 3,50,000 as bad debts. The factor will maintain a receivables collection period of 30 days and advance 80% of the face value thereof at an annual interest rate of 7%. Evaluate the viability of the proposal.

Note: 365 days are to be taken in a year for the purpose of calculation of receivables.

Mutual Funds

- Orange purchased 200 units of Oxygen Mutual Fund at ₹ 45 per unit on 31st December, 2009. In 2010, he received ₹ 1.00 as dividend per unit and a capital gains distribution of ₹ 2 per unit.

Required:

- Calculate the return for the period of one year assuming that the NAV as on 31st December 2010 was ₹ 48 per unit.
- Calculate the return for the period of one year assuming that the NAV as on 31st December 2010 was ₹ 48 per unit and all dividends and capital gains distributions have been reinvested at an average price of ₹ 46.00 per unit.

Ignore taxation.

- On 1-4-2012 ABC Mutual Fund issued 20 lakh units at ₹ 10 per unit. Relevant initial expenses involved were ₹ 12 lakhs. It invested the fund so raised in capital market

instruments to build a portfolio of ₹ 185 lakhs. During the month of April 2012 it disposed off some of the instruments costing ₹ 60 lakhs for ₹ 63 lakhs and used the proceeds in purchasing securities for ₹ 56 lakhs. Fund management expenses for the month of April 2012 was ₹ 8 lakhs of which 10% was in arrears. In April 2012 the fund earned dividends amounting to ₹ 2 lakhs and it distributed 80% of the realized earnings. On 30-4-2012 the market value of the portfolio was ₹ 198 lakhs.

Mr. Akash, an investor, subscribed to 100 units on 1-4-2012 and disposed off the same at closing NAV on 30-4-2012. What was his annual rate of earning?

International Financial Management

14. Odessa Limited has proposed to expand its operations for which it requires funds of \$ 15 million, net of issue expenses which amount to 2% of the issue size. It proposed to raise the funds through a GDR issue. It considers the following factors in pricing the issue:

- (i) The expected domestic market price of the share is ₹ 300
- (ii) 3 shares underly each GDR
- (iii) Underlying shares are priced at 10% discount to the market price
- (iv) Expected exchange rate is ₹ 60/\$

You are required to compute the number of GDR's to be issued and cost of GDR to Odessa Limited, if 20% dividend is expected to be paid with a growth rate of 20%.

Foreign Exchange exposure and Risk Management

15. You, a foreign exchange dealer of your bank, are informed that your bank has sold a T.T. on Copenhagen for Danish Kroner 10,00,000 at the rate of Danish Kroner 1 = ₹ 6.5150. You are required to cover the transaction either in London or New York market. The rates on that date are as under:

Mumbai-London	₹ 74.3000	₹ 74.3200
Mumbai-New York	₹ 49.2500	₹ 49.2625
London-Copenhagen	DKK 11.4200	DKK 11.4350
New York-Copenhagen	DKK 07.5670	DKK 07.5840

In which market will you cover the transaction, London or New York, and what will be the exchange profit or loss on the transaction? Ignore brokerages.

16. An importer customer of your bank wishes to book a forward contract with your bank on 3rd September for sale to him of SGD 5,00,000 to be delivered on 30th October.

The spot rates on 3rd September are USD 49.3700/3800 and USD/SGD 1.7058/68. The swap points are:

USD / ₹		USD/SGD	
Spot/September	0300/0400	1 st month forward	48/49
Spot/October	1100/1300	2 nd month forward	96/97
Spot/November	1900/2200	3 rd month forward	138/140
Spot/December	2700/3100		
Spot/January	3500/4000		

Calculate the rate to be quoted to the importer by assuming an exchange margin of 5 paisa.

17. Zaz plc, a UK Company is in the process of negotiating an order amounting €2.8 million with a large German retailer on 6 month's credit. If successful, this will be first time for Zaz has exported goods into the highly competitive German Market. The Zaz is considering following 3 alternatives for managing the transaction risk before the order is finalized.
- Mr. Peter the Marketing head has suggested that in order to remove transaction risk completely Zaz should invoice the German firm in Sterling using the current €/£ average spot rate to calculate the invoice amount.
 - Mr. Wilson, CE is doubtful about Mr. Peter's proposal and suggested an alternative of invoicing the German firm in € and using a forward exchange contract to hedge the transaction risk.
 - Ms. Karen, CFO is agreed with the proposal of Mr. Wilson to invoice the German first in €, but she is of opinion that Zaz should use sufficient 6 month sterling further contracts (to the nearest whole number) to hedge the transaction risk.

Following data is available

Spot Rate	€ 1.1960 - €1.1970/£
6 months forward points	0.60 – 0.55 Euro Cents.
6 month further contract is currently trading at	€ 1.1943/£
6 month future contract size is	£62,500
After 6 month Spot rate and future rate	€ 1.1873/£

You are required to

- Calculate (to the nearest £) the £ receipt for Zaz plc, under each of 3 above proposals.
- In your opinion which alternative you consider to be most appropriate.

Mergers, Acquisitions and Reconstructing

18. The following information relating to the acquiring Company Abhiman Ltd. and the target Company Abhishek Ltd. are available. Both the Companies are promoted by Multinational Company, Trident Ltd. The promoter's holding is 50% and 60% respectively in Abhiman Ltd. and Abhishek Ltd.:

	Abhiman Ltd.	Abhishek Ltd.
Share Capital (₹)	200 lakh	100 lakh
Free Reserve and Surplus (₹)	800 lakh	500 lakh
Paid up Value per share (₹)	100	10
Free float Market Capitalisation (₹)	400 lakh	128 lakh
P/E Ratio (times)	10	4

Trident Ltd. is interested to do justice to the shareholders of both the Companies. For the swap ratio weights are assigned to different parameters by the Board of Directors as follows:

Book Value 25%

EPS (Earning per share) 50%

Market Price 25%

- (a) What is the swap ratio based on above weights?
 - (b) What is the Book Value, EPS and expected Market price of Abhiman Ltd. after acquisition of Abhishek Ltd. (assuming P.E. ratio of Abhiman Ltd. remains unchanged and all assets and liabilities of Abhishek Ltd. are taken over at book value).
 - (c) Calculate:
 - (i) Promoter's revised holding in the Abhiman Ltd.
 - (ii) Free float market capitalization.
 - (iii) Also calculate No. of Shares, Earning per Share (EPS) and Book Value (B.V.), if after acquisition of Abhishek Ltd., Abhiman Ltd. decided to:
 - (a) Issue Bonus shares in the ratio of 1: 2; and
 - (b) Split the stock (share) as ₹ 5 each fully paid.
19. A valuation done of an established company by a well-known analyst has estimated a value of ₹ 500 lakhs, based on the expected free cash flow for next year of ₹ 20 lakhs and an expected growth rate of 5%.
- While going through the valuation procedure, you found that the analyst has made the mistake of using the book values of debt and equity in his calculation. While you do not know the book value weights he used, you have been provided with the following information:
- (i) Company has a cost of equity of 12%,
 - (ii) After tax cost of debt is 6%,
 - (iii) The market value of equity is three times the book value of equity, while the market value of debt is equal to the book value of debt.
- You are required to estimate the correct value of the company.

20. Write short notes on:

- Financial Planning
- Contents of a Project Report
- Distinction between Capital Market and Money Market
- Instruments of International Finance
- Factors affecting Economic Analysis

SUGGESTED ANSWERS

1. (i) Expected NPV

(₹ in lakhs)

Year I			Year II			Year III		
CFAT	P	CF×P	CFAT	P	CF×P	CFAT	P	CF×P
14	0.1	1.4	15	0.1	1.5	18	0.2	3.6
18	0.2	3.6	20	0.3	6.0	25	0.5	12.5
25	0.4	10.0	32	0.4	12.8	35	0.2	7.0
40	0.3	<u>12.0</u>	45	0.2	<u>9</u>	48	0.1	<u>4.8</u>
	$\bar{x}$ or $\overline{CF}$	<u>27.0</u>		$\bar{x}$ or $\overline{CF}$	<u>29.3</u>			$\bar{x}$ or $\overline{CF}$ <u>27.9</u>

NPV	PV factor @ 6%	Total PV
27	0.943	25.461
29.3	0.890	26.077
27.9	0.840	<u>23.436</u>
	PV of cash inflow	74.974
	Less: Cash outflow	<u>50.000</u>
	NPV	<u>24.974</u>

(ii) Possible deviation in the expected value

Year I				
$X - \bar{X}$	$X - \bar{X}$	$(X - \bar{X})^2$	P_1	$(X - \bar{X})^2 P_1$
14 – 27	-13	169	0.1	16.9
18 – 27	-9	81	0.2	16.2

25 – 27	-2	4	0.4	1.6
40 – 27	13	169	0.3	<u>50.7</u>
				<u>85.4</u>

$$\sigma_1 = \sqrt{85.4} = 9.241$$

Year II				
$X - \bar{X}$	$X - \bar{X}$	$(X - \bar{X})^2$	P_2	$(X - \bar{X})^2 \times P_2$
15-29.3	-14.3	204.49	0.1	20.449
20-29.3	-9.3	86.49	0.3	25.947
32-29.3	2.7	7.29	0.4	2.916
45-29.3	15.7	246.49	0.2	<u>49.298</u>
				<u>98.61</u>

$$\sigma_2 = \sqrt{98.61} = 9.930$$

Year III				
$X - \bar{X}$	$X - \bar{X}$	$(X - \bar{X})^2$	P_3	$(X - \bar{X})^2 \times P_3$
18-27.9	-9.9	98.01	0.2	19.602
25-27.9	-2.9	8.41	0.5	4.205
35-27.9	7.1	50.41	0.2	10.082
48-27.9	20.1	404.01	0.1	<u>40.401</u>
				<u>74.29</u>

$$\sigma\sigma_3 = \sqrt{74.29} = 8.619$$

Standard deviation about the expected value:

$$= \sqrt{\frac{85.4}{(1.06)^2} + \frac{98.61}{(1.06)^4} + \frac{74.29}{(1.06)^6}} = 14.3696$$

- (iii) Standard deviation is a statistical measure of dispersion; it measures the deviation from a central number i.e. the mean.

In the context of capital budgeting decisions especially where we take up two or more projects giving somewhat similar mean cash flows, by calculating standard deviation in such cases, we can measure in each case the extent of variation. It can then be used to identify which of the projects is least riskier in terms of variability of cash flows.

A project, which has a lower coefficient of variation will be preferred if sizes are heterogeneous.

Besides this, if we assume that probability distribution is approximately normal we are able to calculate the probability of a capital budgeting project generating a net present value less than or more than a specified amount.

2. (i) **P.V. of Cash outflow under lease option**

(in ₹)

Year	Lease Rental after tax	PVIFA @ 13%	Total P.V.
1 – 5	12,00,000 (I – T) = 7,80,000	20% (I – T) 3.517	27,43,260

Cash Outflow under borrowing option

5 equal instalments

₹ 40,00,000 ÷ 2.991 (PVIFA 20%) = 13,37,345

Tax Advantage

Year	Loan Instalments	On Interest	On Depreciation	Net Cash Outflow	PVIF 13%	Total PV
1	13,37,345	2,80,000	3,50,000	7,07,345	.885	6,26,000
2	13,37,345	2,48,386	2,62,500	8,26,459	.783	6,47,117
3	13,37,345	1,97,249	1,96,875	9,43,221	.693	6,53,652
4	13,37,345	1,43,085	1,47,656	10,46,604	.613	6,41,568
5	13,37,345	77,635	1,10,742	11,48,968	.543	<u>6,23,890</u>
						<u>31,92,227</u>
Total PV						31,92,227
Less: PV Salvage value adjusted for Tax savings on loss of sale of machinery (₹ 8,00,000 × .543 = ₹ 4,34,400) + (₹ 28,359)						4,62,759
(See Working Note on Depreciation)						
9,49,219 – 8,00,000 =						
1,49,219 × .35 × .543 = 28,359						
Total present value of cash outflow						<u>27,29,468</u>

Decision: PV of cash outflow of lease option is greater than borrow option and hence borrow option is recommended.

Working Notes:**(a) Debt and Interest Payments**

Year	Loan Instalments	Loan at the beginning of the year	Interest	Principal	Balance at the end of year
1	13,37,345	40,00,000	8,00,000	5,37,345	34,62,655
2	13,37,345	34,62,655	6,92,531	6,44,814	28,17,841
3	13,37,345	28,17,841	5,63,568	7,73,777	20,44,064
4	13,37,345	20,44,064	4,08,813	9,28,532	11,15,532
5	13,37,345	11,15,532	2,21,813*	11,15,532	-

* Balancing Figure

(b) Year		Depreciation
1	$40,00,000 \times .25$	10,00,000
2	$30,00,000 \times .25$	7,50,000
3	$22,50,000 \times .25$	5,62,500
4	$16,87,500 \times .25$	4,21,875
5	$12,65,625 \times .25$	3,16,406

B.V. of machine = $12,65,625 - 3,16,406 = 9,49,219$.**(ii) Proposal from the View Point of Lessor****Lessor's Cash Flow**

	1	2	3	4	5
Lease Rentals	12,00,000	12,00,000	12,00,000	12,00,000	12,00,000
Less: Dep. (A)	<u>10,00,000</u>	<u>7,50,000</u>	<u>5,62,500</u>	<u>4,21,875</u>	<u>Nil</u>
EBT	2,00,000	4,50,000	6,37,500	7,78,125	12,00,000
Less: Tax @ 35%	<u>70,000</u>	<u>1,57,500</u>	<u>2,23,125</u>	<u>2,72,344</u>	<u>4,20,000</u>
EAT (B)	<u>1,30,000</u>	<u>2,92,500</u>	<u>4,14,375</u>	<u>5,05,781</u>	<u>7,80,000</u>
CFAT	11,30,000	10,42,500	9,76,875	9,27,656	7,80,000
PV factor @ 14%	.877	.769	.675	.592	.519
PV	9,91,010	8,01,683	6,59,391	5,49,172	4,04,820

PV of Lease Rent 34,06,076

Add: PV of Salvage Value 4,15,200

Add: PV of Tax Saving on loss of sale of asset	<u>84,581</u>
Total PV of cash inflow	39,05,857
Cost of Machine	<u>40,00,000</u>
NPV	<u>(94,143)</u>

Decision: Lease rate is not financially viable. Hence, not recommended.

3. (a) The formula for the Dividend valuation Model is

$$P_0 = \frac{D_1}{K_e - g}$$

K_e = Cost of Capital

g = Growth rate

D_1 = Dividend at the end of year 1

On the basis of the information given, the following projection can be made:

Year	EPS (₹)	DPS (₹)	PVF @15%	PV of DPS (₹)
2015	12.00 (9.60 x 125%)	4.80 (3.84 x 125%)	0.870	4.176
2016	15.00 (12.00 x 125%)	6.00 (4.80 x 125%)	0.756	4.536
2017	16.50 (15.00 x 110%)	8.25* (50% of ₹ 16.50)	0.658	<u>5.429</u>
				<u>14.141</u>

*Payout Ratio changed to 50%.

After 2017, the perpetuity value assuming 10% constant annual growth is:

$$D_1 = ₹ 8.25 \times 110\% = ₹ 9.075$$

Therefore P_0 from the end of 2017

$$\frac{₹ 9.075}{0.15 - 0.10} = ₹ 181.50$$

This must be discounted back to the present value, using the 3 year discount factor after 15%.

	₹
Present Value of P_0 (₹ 181.50 × 0.658)	119.43
Add: PV of Dividends 2015 to 2017	<u>14.14</u>
Expected Market Price of Share	<u>133.57</u>

(b) P/E Ratio

$$\begin{aligned} \text{P/E Ratio} &= \frac{\text{Expected Market Price of Share } (P_1)}{\text{EPS}} \\ &= \frac{\text{₹ } 133.57}{\text{₹ } 9.60} = \text{₹ } 13.91 \end{aligned}$$

4. (i) **Current Portfolio Beta**

Current Beta for share portfolio = 1.6

Beta for cash = 0

Current portfolio beta = $0.85 \times 1.6 + 0 \times 0.15 = 1.36$

(ii) **Portfolio beta after 3 months:**

$$\begin{aligned} \text{Beta for portfolio of shares} &= \frac{\text{Change in value of portfolio of share}}{\text{Change in value of market portfolio (Index)}} \\ 1.6 &= \frac{0.032}{\text{Change in value of market portfolio (Index)}} \end{aligned}$$

Change in value of market portfolio (Index) = $(0.032 / 1.6) \times 100 = 2\%$

Position taken on 100 lakh Nifty futures: Long

Value of index after 3 months = ₹ 100 lakh $\times (1.00 - 0.02)$
= ₹ 98 lakh

Mark-to-market paid = ₹ 2 lakh

Cash balance after payment of mark-to-market = ₹ 13 lakh

Value of portfolio after 3 months = ₹ 85 lakh $\times (1 - 0.032) + ₹ 13 \text{ lakh}$
= ₹ 95.28 lakh

Change in value of portfolio = $\frac{\text{₹ } 100 \text{ lakh} - \text{₹ } 95.28 \text{ lakh}}{\text{₹ } 100 \text{ lakh}} = 4.72\%$

Portfolio beta = $0.0472 / 0.02 = 2.36$

5. Applying the Black Scholes Formula,

Value of the Call option now:

The Formula $C = SN(d_1) - Ke^{(-rt)} N(d_2)$

$$d_1 = \frac{\ln(S/K) + (r + \sigma^2 / 2)t}{\sigma\sqrt{t}}$$

$$d_2 = d_1 - \sigma\sqrt{t}$$

Where,

C = Theoretical call premium

S = Current stock price

t = time until option expiration

K = option striking price

r = risk-free interest rate

N = Cumulative standard normal distribution

e = exponential term

σ = Standard deviation of continuously compounded annual return.

ln = natural logarithm

$$d_1 = \frac{\ln(1.0667) + (12\% + 0.08)0.5}{0.40\sqrt{0.5}}$$

$$= \frac{0.0646 + (0.2)0.5}{0.40 \times 0.7071}$$

$$= \frac{0.1646}{0.2828}$$

$$= 0.5820$$

$$d_2 = 0.5820 - 0.2828 = 0.2992$$

$$N(d_1) = N(0.5820)$$

$$N(d_2) = N(0.2992)$$

$$\text{Price} = SN(d_1) - Ke^{(-rt)} N(d_2)$$

$$= 80 \times N(d_1) - (75/1.062) \times N(d_2)$$

Value of option

$$= 80 N(d_1) - \frac{75}{1.062} \times N(d_2)$$

$$N(d_1) = N(0.5820) = 0.7197$$

$$N(d_2) = N(0.2992) = 0.6176$$

$$\text{Price} = 80 \times 0.7197 - \frac{75}{1.062} \times 0.6176$$

$$= 57.57 - 70.62 \times 0.6176$$

$$= 57.57 - 43.61$$

$$= ₹13.96$$

Teaching Notes:

Students may please note following important point:

Values of $N(d_1)$ and $N(d_2)$ have been computed by interpolating the values of areas under respective numbers of SD from Mean (Z) given in the question.

It may also be possible that in question paper areas under Z may be mentioned otherwise e.g. Cumulative Area or Area under Two tails. In such situation the areas of the respective Zs given in the question will be as follows:

Cumulative Area

Number of S.D. from Mean, (z)	Cumulative Area
0.25	0.5987
0.30	0.6179
0.55	0.7088
0.60	0.7257

Two tail area

Number of S.D. from Mean, (z)	Area of the left and right (two tail)
0.25	0.8026
0.30	0.7642
0.55	0.5823
0.60	0.5485

6.

Opportunity gain of A Inc under currency swap	Receipt	Payment	Net
Interest to be remitted to B. Inc in \$ 2,00,000x9%=\$18,000 Converted into (\$18,000x¥120)		¥21,60,000	
Interest to be received from B. Inc in \$ converted into ¥ (6%x\$2,00,000 x ¥120)	¥14,40,000	-	

Interest payable on ¥ loan	<u>-</u>	<u>¥12,00,000</u>	
	¥14,40,000	¥33,60,000	
Net Payment	<u>¥19,20,000</u>	<u>-</u>	
	<u>¥33,60,000</u>	<u>¥33,60,000</u>	
\$ equivalent paid ¥19,20,000 x (1/¥120)			\$16,000
Interest payable without swap in \$			<u>\$18,000</u>
Opportunity gain in \$			<u>\$ 2,000</u>

Opportunity gain of B inc under currency swap	Receipt	Payment	Net
Interest to be remitted to A. Inc in (\$ 2,00,000 x 6%)		\$12,000	
Interest to be received from A. Inc in ¥ converted into \$ =¥21,60,000/¥120	\$18,000		
Interest payable on \$ loan@10%	<u>-</u>	<u>\$20,000</u>	
	\$18,000	\$32,000	
Net Payment	<u>\$14,000</u>	<u>-</u>	
	<u>\$32,000</u>	<u>\$32,000</u>	
¥ equivalent paid \$14,000 X ¥120			¥16,80,000
Interest payable without swap in ¥ (\$2,00,000X¥120X8%)			<u>¥19,20,000</u>
Opportunity gain in ¥			<u>¥ 2,40,000</u>

Alternative Solution**Cash Flows of A Inc****(i) At the time of exchange of principal amount**

Transactions		Cash Flows
Borrowings	\$2,00,000 x ¥120	+ ¥240,00,000
Swap		- ¥240,00,000
Swap		<u>+\$2,00,000</u>
Net Amount		<u>+\$2,00,000</u>

(ii) At the time of exchange of interest amount

Transactions		Cash Flows
Interest to the lender	¥240,00,000X5%	¥12,00,000
Interest Receipt from B Inc.	¥2,00,000X120X6%	¥14,40,000
Net Saving (in \$)	¥2,40,000/¥120	\$2,000

Interest to B Inc.	\$2,00,000X9%	<u>-\$18,000</u>
Net Interest Cost		<u>-\$16,000</u>

A Inc. used \$2,00,000 at the net cost of borrowing of \$16,000 i.e. 8%. If it had not opted for swap agreement the borrowing cost would have been 9%. Thus there is saving of 1%.

Cash Flows of B Inc

(i) At the time of exchange of principal amount

Transactions		Cash Flows
Borrowings		+ \$2,00,000
Swap		- \$2,00,000
Swap	\$2,00,000X¥120	<u>+¥240,00,000</u>
Net Amount		<u>+¥240,00,000</u>

(ii) At the time of exchange of interest amount

Transactions		Cash Flows
Interest to the lender	\$2,00,000X10%	- \$20,000
Interest Receipt from A Inc.		+\$18,000
Net Saving (in ¥)	-\$2,000X¥120	- ¥2,40,000
Interest to A Inc.	\$2,00,000X6%X¥120	<u>- ¥14,40,000</u>
Net Interest Cost		<u>- ¥16,80,000</u>

B Inc. used ¥240,00,000 at the net cost of borrowing of ¥16,80,000 i.e. 7%. If it had not opted for swap agreement the borrowing cost would have been 8%. Thus, there is saving of 1%.

7. (i) Calculation of initial outlay:-

	₹ (million)
a. Face value	300
Add:-Call premium	<u>12</u>
Cost of calling old bonds	<u>312</u>
b. Gross proceed of new issue	300
Less: Issue costs	<u>6</u>
Net proceeds of new issue	<u>294</u>
c. Tax savings on call premium and unamortized cost 0.30 (12 + 9)	6.3
∴ Initial outlay = ₹ 312 million – ₹ 294 million – ₹ 6.3 million = ₹ 11.7 million	

(ii) Calculation of net present value of refunding the bond:-

Saving in annual interest expenses	₹ (million)
$[300 \times (0.12 - 0.10)]$	6.00
Less:- Tax saving on interest and amortization $0.30 \times [6 + (9-6)/6]$	<u>1.95</u>
Annual net cash saving	<u>4.05</u>
PVIFA (7%, 6 years)	4.766
∴ Present value of net annual cash saving	₹ 19.30 million
Less:- Initial outlay	<u>₹ 11.70 million</u>
Net present value of refunding the bond	<u>₹ 7.60 million</u>

Decision: The bonds should be refunded

8. Workings:

Asset turnover ratio	= 1.1
Total Assets	= ₹ 600
Turnover ₹ 600 lakhs × 1.1	= ₹ 660 lakhs
Effective interest rate	= $\frac{\text{Interest}}{\text{Liabilities}} = 8\%$
Liabilities	= ₹ 125 lakhs + 50 lakhs = 175 lakh
Interest	= ₹ 175 lakhs × 0.08 = ₹ 14 lakh
Operating Margin	= 10%
Hence operating cost	= $(1 - 0.10) ₹ 660 \text{ lakhs} = ₹ 594 \text{ lakh}$
Dividend Payout	= 16.67%
Tax rate	= 40%

(i) Income statement

	(₹ Lakhs)
Sale	660
Operating Exp	<u>594</u>
EBIT	66
Interest	<u>14</u>
EBT	52
Tax @ 40%	<u>20.80</u>
EAT	31.20
Dividend @ 16.67%	<u>5.20</u>
Retained Earnings	<u>26.00</u>

(ii) $SGR = ROE (1-b)$

$$ROE = \frac{PAT}{NW} \text{ and } NW = ₹ 100 \text{ lakh} + ₹ 300 \text{ lakh} = 400 \text{ lakh}$$

$$ROE = \frac{₹ 31.2 \text{ lakhs}}{₹ 400 \text{ lakhs}} \times 100 = 7.8\%$$

$$SGR = 0.078(1 - 0.1667) = 6.5\% \text{ or } \frac{0.078 \times 0.8333}{1 - 0.078 \times 0.8333} = 6.95\%$$

(iii) Calculation of fair price of share using dividend discount model

$$P_0 = \frac{D_0(1+g)}{k_e - g}$$

$$\text{Dividends} = \frac{₹ 5.2 \text{ lakhs}}{₹ 10 \text{ lakhs}} = ₹ 0.52$$

Growth Rate = 6.5% or 6.95%

$$\text{Hence } P_0 = \frac{₹ 0.52(1+0.065)}{0.15-0.065} = \frac{₹ 0.5538}{0.085} = ₹ 6.51 \text{ or } \frac{0.52(1+0.0695)}{0.15-0.0695}$$

$$= \frac{0.5561}{0.0805} = ₹ 6.91$$

(iv) Since the current market price of share is ₹ 14, the share is overvalued. Hence the investor should not invest in the company.

9. (i) Expected return of the portfolio A and B

$$E(A) = (10 + 16) / 2 = 13\%$$

$$E(B) = (12 + 18) / 2 = 15\%$$

$$R_p = \sum_{i=1}^N X_i R_i = 0.4(13) + 0.6(15) = 14.2\%$$

(ii) Stock A:

$$\text{Variance} = 0.5 (10 - 13)^2 + 0.5 (16 - 13)^2 = 9$$

$$\text{Standard deviation} = \sqrt{9} = 3\%$$

Stock B:

$$\text{Variance} = 0.5 (12 - 15)^2 + 0.5 (18 - 15)^2 = 9$$

$$\text{Standard deviation} = 3\%$$

(iii) Covariance of stocks A and B

$$\text{Cov}_{AB} = 0.5 (10 - 13) (12 - 15) + 0.5 (16 - 13) (18 - 15) = 9$$

(iv) Correlation of coefficient

$$r_{AB} = \frac{\text{Cov}_{AB}}{\sigma_A \sigma_B} = \frac{9}{3 \times 3} = 1$$

(v) Portfolio Risk

$$\begin{aligned}\sigma_P &= \sqrt{X_A^2 \sigma_A^2 + X_B^2 \sigma_B^2 + 2X_A X_B (\sigma_A \sigma_B \sigma_{AB})} \\ &= \sqrt{(0.4)^2 (3)^2 + (0.6)^2 (3)^2 + 2(0.4)(0.6)(3)(3)(1)} \\ &= \sqrt{1.44 + 3.24 + 4.32} = 3\%\end{aligned}$$

10. (i) Computation of Beta of Portfolio

Investment	No. of shares	Market Price	Market Value	Dividend Yield	Dividend	Composition	β	Weighted β
I	60,000	4.29	2,57,400	19.50%	50,193	0.2339	1.16	0.27
II	80,000	2.92	2,33,600	24.00%	56,064	0.2123	2.28	0.48
III	1,00,000	2.17	2,17,000	17.50%	37,975	0.1972	0.90	0.18
IV	1,25,000	3.14	3,92,500	26.00%	1,02,050	0.3566	1.50	0.53
			11,00,500		2,46,282	1.0000		1.46

$$\text{Return of the Portfolio} = \frac{2,46,282}{11,00,500} = 0.2238$$

$$\text{Beta of Port Folio} = 1.46$$

Market Risk implicit

$$0.2238 = 0.11 + \beta \times (0.19 - 0.11)$$

$$\text{Or, } 0.08 \beta + 0.11 = 0.2238$$

$$\beta = \frac{0.2238 - 0.11}{0.08} = 1.42$$

Market β implicit is 1.42 while the portfolio β is 1.46. Thus, the portfolio is marginally risky compared to the market.

(ii) The decision regarding change of composition may be taken by comparing the dividend yield (given) and the expected return as per CAPM as follows:

Expected return R_s as per CAPM is:

$$R_s = I_{RF} + (R_M - I_{RF}) \beta$$

$$\begin{aligned}
 \text{For investment I } R_s &= I_{RF} + (R_M - I_{RF}) \beta \\
 &= .11 + (.19 - .11) 1.16 \\
 &= 20.28\% \\
 \text{For investment II, } R_s &= .11 + (.19 - .11) 2.28 = 29.24\% \\
 \text{For investment III, } R_s &= .11 + (.19 - .11) .90 \\
 &= 18.20\% \\
 \text{For investment IV, } R_s &= .11 + (.19 - .11) 1.50 \\
 &= 23\%
 \end{aligned}$$

Comparison of dividend yield with the expected return R_s shows that the dividend yields of investment I, II and III are less than the corresponding R_s . So, these investments are over-priced and should be sold by the investor. However, in case of investment IV, the dividend yield is more than the corresponding R_s , so, XYZ Ltd. should increase its proportion.

11.

Particulars	₹
Estimated Receivables	46,00,000
Estimated Receivables under Factor $\left(3,74,00,000 \times \frac{30}{365} \right)$	30,73,973
Reduction in Receivables $(₹ 46,00,000 - ₹ 30,73,973)$	15,26,027

Total Savings (A)

Reduction in finance costs ₹ 15,26,027 @ 5%	76,301
Saving of Administration costs	1,00,000
Saving of Bad debts	3,50,000
Total	5,26,301

Total Cost of Factoring (B)

Interest on advances by Factor		
Advances 30,73,973 @ 80%	₹ 24,59,178	
Interest on ₹ 24,59,178 @ 7%	₹ 1,72,142	
Overdraft Interest rate 5%	<u>(₹ 1,22,959)</u>	49,183
Charges payable to Factor (₹ 3,74,00,000 @ 3%)		<u>11,22,000</u>
Total		<u>11,71,183</u>

Net Saving (A) – (B) (6,44,882)

Since, Net Saving is negative the proposal is not viable and cannot be accepted.

12. (i) Returns for the year

(All changes on a Per -Unit Basis)

Change in Price: ₹ 48 – ₹45 = ₹ 3.00

Dividends received: ₹ 1.00

Capital gains distribution ₹ 2.00Total reward ₹ 6.00Holding period reward: $\frac{₹ 6.00}{₹ 45} \times 100 = 13.33\%$ **(ii) When all dividends and capital gains distributions are re-invested into additional units of the fund @ (₹ 46/unit)**

Dividend + Capital Gains per unit = ₹ 1.00 + ₹ 2.00 = ₹ 3.00

Total received from 200 units = ₹ 3.00 x 200 = ₹ 600/-.

Additional Units Acquired = ₹ 600/₹ 46 = 13.04 Units.

Total No. of Units = 200 units + 13.04 units = 213.04 units.

Value of 213.04 units held at the end of the year = 213.04 units x ₹48 = ₹ 10225.92

Price Paid for 200 Units at the beginning = 200 units x ₹ 45 = ₹ 9000.00 of the year

Holding Period Reward = ₹1225.92
₹ (10225.92 – 9000.00)Holding Period Reward = $\frac{₹1225.92}{₹ 9000} \times 100 = 13.62\%$ **13.**

	Amount in ₹ lakhs	Amount in ₹ lakhs	Amount in ₹ lakhs
Opening Bank (200 - 185 -12)	3.00		
Add: Proceeds from sale of securities	63.00		
Add: Dividend received	<u>2.00</u>	68.00	
Deduct:			
Cost of securities purchased	56.00		
Fund management expenses paid (90% of 8)	7.20		
Capital gains distributed = 80% of (63 – 60)	2.40		

Dividend distributed = 80% of 2.00	<u>1.60</u>	<u>67.20</u>	
Closing Bank			0.80
Closing market value of portfolio			<u>198.00</u>
			198.80
Less: Arrears of expenses			<u>0.80</u>
Closing Net Assets			<u>198.00</u>
Number of units (Lakhs)			20
Closing NAV per unit (198.00/20)			9.90

Rate of Earning (Per Unit)

	Amount
Income received (₹ 2.40 + ₹ 1.60)/20	₹ 0.20
Loss: Loss on disposal (₹ 200 - ₹ 198)/20	<u>₹ 0.10</u>
Net earning	<u>₹ 0.10</u>
Initial investment	₹ 10.00
Rate of earning (monthly)	1%
Rate of earning (Annual)	12%

14. Net Issue Size = \$15 million

$$\text{Gross Issue} = \frac{\$15 \text{ million}}{0.98} = \$15.306 \text{ million}$$

Issue Price per GDR in ₹ (300 x 3 x 90%) ₹ 810

Issue Price per GDR in \$ (₹ 810 / ₹ 60) \$13.50

Dividend Per GDR (D_1) = ₹ 2* x 3 = ₹ 6

* Assumed to be on based on Face Value of ₹ 10 each share.

Net Proceeds Per GDR = ₹ 810 x 0.98 = ₹ 793.80

(a) Number of GDR to be issued $\frac{\$15.306 \text{ million}}{\$13.50} = 1.1338 \text{ million}$

(b) Cost of GDR to Odessa Ltd.

$$k_e = \frac{6.00}{793.80} + 0.20 = 20.76\%$$

15. Amount realized on selling Danish Kroner 10,00,000 at ₹ 6.5150 per Kroner = ₹ 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 ₹ 74.3200.

The rupee cost will be = ₹ 6,50,788

Profit (₹ 65,15,000 - ₹ 65,07,881) = ₹ 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 (DKK 10,00,000 ÷ 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 ₹ 49.2625.

The rupee cost will be = ₹ 65,10,176

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

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

- 16.

USD/ ₹ on 3 rd September	49.3800
Swap Point for October	0.1300
	49.5100
Add: Exchange Margin	0.0500
	49.5600
USD/ SGD on 3 rd September	1.7058
Swap Point for 2 nd month Forward	0.0096
	1.7154

Cross Rate for SGD/ ₹ of 30th October

USD/ ₹ selling rate = ₹ 49.5600

SGD/ ₹ buying rate = SGD 1.7154

$$\begin{aligned}\text{SGD/ ₹ cross rate} &= ₹ 49.5600 / 1.7154 \\ &= ₹ 28.8912\end{aligned}$$

17. (i) Receipt under three proposals

(a) Proposal of Mr. Peter

$$\text{Invoicing in £ will produce} = \frac{€ 2.8 \text{ million}}{1.1965} = £ 2.340 \text{ million}$$

(b) Proposal of Mr. Wilson

$$\text{Forward Rate} = €1.1970 - 0.0055 = 1.1915$$

$$\text{Using Forward Market hedge Sterling receipt would be } \frac{€ 2.8 \text{ million}}{1.1915} = £ 2.35 \text{ million}$$

(c) Proposal of Ms. Karen

The equivalent sterling of the order placed based on future price (€1.1943)

$$= \frac{€ 2.8 \text{ million}}{1.1943} = £ 2,344,470 \text{ (rounded off)}$$

$$\text{Number of Contracts} = \frac{£2,344,470}{62,500} = 37 \text{ Contracts (to the nearest whole number)}$$

$$\text{Thus, € amount hedged by future contract will be} = 37 \times £62,500 = £23,12,500$$

Buy Future at €1.1943

Sell Future at €1.1873

€0.0070

$$\text{Total loss on Future Contracts} = 37 \times £62,500 \times €0.0070 = €16,188$$

After 6 months

Amount Received €28,00,000

Less: Loss on Future Contracts € 16,188€ 27,83,812

Sterling Receipts

$$\text{On sale of € at spot} = \frac{€27,83,812}{1.1873} = £ 2.3446 \text{ million}$$

- (ii) Proposal of option (b) is preferable because the option (a) & (c) produces least receipts. Further, in case of proposal (a) there must be a doubt as to whether this would be acceptable to German firm as it is described as a competitive market and Zaz is moving into it first time.

18. (a)

Swap Ratio

	Abhiman Ltd.	Abhishek Ltd.
Share Capital	200 Lakh	100 Lakh
Free Reserves	<u>800 Lakh</u>	<u>500 Lakh</u>
Total	<u>1000 Lakh</u>	<u>600 Lakh</u>
No. of Shares	2 Lakh	10 Lakh
Book Value per share	₹ 500	₹ 60
Promoter's holding	50%	60%
Non promoter's holding	50%	40%
Free Float Market Cap. i.e. relating to Public's holding	400 Lakh	128 Lakh
Hence Total market Cap.	800 Lakh	320 Lakh
No. of Shares	2 Lakh	10 Lakh
Market Price	₹ 400	₹ 32
P/E Ratio	10	4
EPS	40	8
Profits (₹ 2 X 40 lakh) (₹ 8 X 10 lakh)	₹ 80 lakh -	- ₹ 80 lakh

Calculation of Swap Ratio

Book Value	1 : 0.12 i.e.	0.12 x 25%	0.03
EPS	1 : 0.2	0.20 x 50%	0.10
Market Price	1 : 0.08	0.08 x 25%	<u>0.02</u>
		Total	<u>0.15</u>

Swap ratio is for every one share of Abhishek Ltd., to issue 0.15 shares of Abhiman Ltd. Hence total no. of shares to be issued.

10 Lakh x 0.15 = 1.50 lakh shares

(b) Book Value, EPS & Market Price

Total No of Shares	2 Lakh + 1.5 Lakh = 3.5 Lakh
Total Capital	₹ 200 Lakh + ₹ 150 Lakh = ₹ 350 Lakh
Reserves	₹ 800 Lakh + ₹ 450 Lakh = ₹ 1,250 Lakh
Book Value	$\frac{\text{₹ 350 Lakh} + \text{₹ 1,250 Lakh}}{3.5 \text{ Lakh}} = \text{₹ 457.14 per share}$

$$\text{EPS} = \frac{\text{Total Profit}}{\text{No. of Share}} = \frac{\text{₹ 80 Lakh} + \text{₹ 80 Lakh}}{3.5 \text{ Lakh}} = \frac{\text{₹ 160 Lakh}}{3.5} = \text{₹ 45.71}$$

$$\text{Expected Market Price} = \text{EPS (₹ 45.71)} \times \text{P/E Ratio (10)} = \text{₹ 457.10}$$

(c) (i) Promoter's holding

Promoter's Revised	Abhiman 50% i.e.	1.00 Lakh shares
Holding	Abhishek 60% i.e.	<u>0.90 Lakh shares</u>
	Total	1.90 Lakh shares

$$\text{Promoter's \%} = 1.90/3.50 \times 100 = 54.29\%$$

(ii) Free Float Market Capitalisation

$$\begin{aligned} \text{Free Float Market} &= (3.5 \text{ Lakh} - 1.9 \text{ Lakh}) \times \text{₹ 457.10} \\ \text{Capitalisation} &= \text{₹ 731.36 Lakh} \end{aligned}$$

(iii) (a) & (b)

Revised Capital	₹ 350 Lakh + ₹ 175 Lakh = ₹ 525 Lakh
No. of shares before Split (F.V ₹ 100)	5.25 Lakh
No. of Shares after Split (F.V. ₹ 5)	5.25 x 20 = 105 Lakh
EPS	160 Lakh / 105 Lakh = 1.523
Book Value	Cap. ₹ 525 Lakh + ₹ 1075 Lakh
No. of Shares	= 105 Lakh = ₹ 15.238 per share

19. Cost of capital by applying Free Cash Flow to Firm (FCFF) Model is as follows:-

$$\text{Value of Firm} = V_0 = \frac{\text{FCFF}_1}{K_c - g_n}$$

Where –

FCFF_1 = Expected FCFF in the year 1

K_c = Cost of capital

g_n = Growth rate forever

Thus, ₹ 500 lakhs = ₹ 20 lakhs / ($K_c - g$)

Since $g = 5\%$, then $K_c = 9\%$

Now, let X be the weight of debt and given cost of equity = 12% and cost of debt = 6%, then $12\% (1 - X) + 6\% X = 9\%$

Hence, $X = 0.50$, so book value weight for debt was 50%

∴ Correct weight should be 150% of equity and 50% of debt.

∴ Cost of capital = $K_c = 12\% (0.75) + 6\% (0.25) = 10.50\%$

And correct firm's value = ₹ 20 lakhs / $(0.105 - 0.05) = ₹ 363.64$ lakhs.

20. (a) Financial Planning

Financial planning is the backbone of the business planning and corporate planning. It helps in defining the feasible area of operation for all types of activities and thereby defines the overall planning framework. Financial planning is a systematic approach whereby the financial planner helps the customer to maximize his existing financial resources by utilizing financial tools to achieve his financial goals.

There are 3 major components of financial planning:

- Financial Resources (FR)
- Financial Tools (FT)
- Financial Goals (FG)

Financial Planning: $FR + FT = FG$

For an individual, financial planning is the process of meeting one's life goals through proper management of the finances. These goals may include buying a house, saving for children's education or planning for retirement. It is a process that consists of specific steps that helps in taking a big-picture look at where you financially are. Using these steps you can work out where you are now, what you may need in the future and what you must do to reach your goals.

Outcomes of the financial planning are the financial objectives, financial decision-making and financial measures for the evaluation of the corporate performance. Financial objectives are to be decided at the very outset so that rest of the decisions can be taken accordingly. The objectives need to be consistent with the corporate mission and corporate objectives. Financial decision making helps in analyzing the financial problems that are being faced by the corporate and accordingly deciding the course of action to be taken by it. The financial measures like ratio analysis, analysis of cash flow statement are used to evaluate the performance of the Company. The selection of these measures again depends upon the corporate objectives.

(b) Contents of a Project Report

The following aspects need to be taken into account for a Project Report -

1. **Promoters:** Their experience, past records of performance form the key to their selection for the project under study.
2. **Industry Analysis:** The environment outside and within the country is vital for determining the type of project one should opt for.

3. **Economic Analysis:** The demand and supply position of a particular type of product under consideration, competitor's share of the market along with their marketing strategies, export potential of the product, consumer preferences are matters requiring proper attention in such type of analysis.
4. **Cost of Project:** Cost of land, site development, buildings, plant and machinery, utilities e.g. power, fuel, water, vehicles, technical know how together with working capital margins, preliminary/pre-operative expenses, provision for contingencies determine the total value of the project.
5. **Inputs:** Availability of raw materials within and outside the home country, reliability of suppliers cost escalations, transportation charges, manpower requirements together with effluent disposal mechanisms are points to be noted.
6. **Technical Analysis:** Technical know-how, plant layout, production process, installed and operating capacity of plant and machinery form the core of such analysis.
7. **Financial Analysis:** Estimates of production costs, revenue, tax liabilities profitability and sensitivity of profits to different elements of costs and revenue, financial position and cash flows, working capital requirements, return on investment, promoters contribution together with debt and equity financing are items which need to be looked into for financial viability.
8. **Social Cost Benefit Analysis:** Ecological matters, value additions, technology absorptions, level of import substitution form the basis of such analysis.
9. **SWOT Analysis:** Liquidity/Fund constraints in capital market, limit of resources available with promoters, business/financial risks, micro/macro-economic considerations subject to government restrictions, role of Banks/Financial Institutions in project assistance, cost of equity and debt capital in the financial plan for the project are factors which require careful examinations while carrying out SWOT analysis.
10. **Project Implementation Schedule:** Date of commencement, duration of the project, trial runs, cushion for cost and time over runs and date of completion of the project through Network Analysis have all to be properly adhered to in order to make the project feasible.

(c) Distinction between Capital and Money Market:

- (1) In the Capital Market, there is classification between Primary Market and Secondary Market. However, there is no such sub-division in money market, as such. However, slowly a secondary market in greater form is coming up in Money Market also.
- (2) Capital Market deals for fund of long term requirement. In contrast, the Money Market generally supply fund for short term requirement.

- (3) If the volume of business of Capital Market is considered (both Primary and Secondary Markets), it will lag behind the total value of transaction in Money Market.
- (4) While the number of instruments dealt with in the Money Market are many like
- Interbank Call Money,
 - Notice Money upto 14 days
 - Short-term deposits upto 3 months
 - 91-days Treasury Bill
 - 182-days Treasury Bill
 - Commercial Paper etc.

The number of instruments in Capital Market are limited i.e. Shares and Debentures.

- (5) The players in Capital Market are general investors, brokers, Merchant Bankers, Registrar to the issue, underwriters, Corporate Investors, Foreign Financial Institutions (FII) and Bankers. While in money market the participants are Bankers, RBI and Government.
- (6) Rate of interest in money market is controlled by RBI or central bank of any country. But capital market's interest and dividend rate depends on demand and supply of securities and stock market's sensex conditions. The regulation of stock market is in the hands of SEBI.
- (7) The degree of risk is small in money market. The risk is much greater in capital market. The maturity of one year or less gives little time for a default to occur, so the risk is minimised. Risk varies both in degree and nature throughout the capital market.
- (8) The money market is closely and directly linked with central bank of the country. The capital market feels central bank's influence, but mainly indirectly and through the money market.

Distinction between Money Market and Capital Market

Basis	Money Market	Capital Market
1. Maturity of Instruments	1 year or less	More than 1 year
2. Risks	Less	More and varied
3. Instruments	Treasury bills, CDs, etc	Shares, bonds, etc
4. Finance	Short term	Long term
5. Relation with Central Bank	Direct	Indirect

(d) Instruments of International Finance

The various financial instruments dealt with in the international market are briefly described below :

1. **Euro Bonds:** A *Eurobond* is an international bond that is denominated in a currency not native to the country where it is issued. Also called external bond e.g. A Yen floated in Germany; a yen bond issued in France.
2. **Foreign Bonds:** These are debt instruments denominated in a currency which is foreign to the borrower and is denominated in a currency that is native to the country where it is issued. A British firm placing \$ denominated bonds in USA is said to be selling foreign bonds.
3. **Fully Hedged Bonds:** In foreign bonds, the risk of currency fluctuations exists. Fully hedged bonds eliminate that risk by selling in forward markets the entire stream of interest and principal payments.
4. **Floating Rate Notes:** These are debt instruments issued upto 7 years maturity. Interest rates are adjusted to reflect the prevailing exchange rates. They provide cheaper money than fixed rate debt instruments; however, they suffer from inherent interest rate volatility risk..
5. **Euro Commercial Papers:** Euro Commercial Papers (ECPs) are short-term money market instruments. They are for maturities for less than a year. They are usually designated in US dollars.

(e) Factors Affecting Economic Analysis

Some of the economy wide factors are discussed as under:

- (i) **Growth Rates of National Income and Related Measures:** For most purposes, what is important is the difference between the nominal growth rate quoted by GDP and the 'real' growth after taking inflation into account. The estimated growth rate of the economy would be a pointer to the prospects for the industrial sector, and therefore to the returns investors can expect from investment in shares.
- (ii) **Growth Rates of Industrial Sector:** This can be further broken down into growth rates of various industries or groups of industries if required. The growth rates in various industries are estimated based on the estimated demand for its products.
- (iii) **Inflation:** Inflation is measured in terms of either wholesale prices (the Wholesale Price Index or WPI) or retail prices (Consumer Price Index or CPI). The demand in some industries, particularly the consumer products industries, is significantly influenced by the inflation rate. Therefore, firms in these industries make continuous assessment about inflation rates likely to prevail in the near future so as to fine-tune their pricing, distribution and promotion policies to the anticipated impact of inflation on demand for their products.
- (iv) **Monsoon:** Because of the strong forward and backward linkages, monsoon is of great concern to investors in the stock market too.