ADVANCED FINANCIAL MANAGEMENT
SEP 2025 RTP
BY CA. DINESH JAIN

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[RAMESH JAIN]

Important Links:

AFM Revision Strategy - https://youtu.be/EbSzj0vTAj0
Revised Entire AFM in 5.5 hours - https://youtu.be/ILrMlzMCX5c
AFM Concept Revision - https://www.youtube.com/playlist?list=PLNTx-1ClVxZLFF-O7-sO3wFUIGAlIkmqh
AFM Theory Videos - https://www.youtube.com/playlist?list=PLNTx-1ClVxZKTtrfxubOsigFRBBOlj1Ru
CA Final and Inter Notes (All notes at one place) https://drive.google.com/drive/u/3/folders/1Va5kzJcqqnSFBBn1XctFxhZpRfOh7Lbz
CA Final AFM Fast Track Classes for purchase – https://www.instamojo.com/bharadwajinstitute/ca-final-afm-fast-track-classesrefresher-cla/?ref=offer_page_more
CA Final AFM Regular Classes for Purchase – https://www.instamojo.com/bharadwajinstitute/ca-final-afm-google-drivepen-drive-classes-f/

Question No.1 [Same as Question No.29 of Chapter 3 – Question Bank (Edition three)]

ABC Ltd. plans to invest Rs. 16,00,000 in a new unit. The project is expected to have a useful life of 4 years, with no salvage value at the end of its life. The annual depreciation charge for the project is Rs. 400,000.

Projected revenues and costs for the project, ignoring inflation, are provided as follows:

Year	1	2	3	4
Revenues	12,00,000	14,00,000	16,00,000	16,00,000
Costs	6,00,000	8,00,000	8,00,000	8,00,000

BC Ltd. is subject to a corporate tax rate of 60%, and the cost of capital for the project, including inflation premium, is 10%. Depreciation provides a tax benefit, and inflation rates for revenues and costs over the project's lifespan are as follows:

Year	Revenues	Costs
1	10%	12%
2	9%	10%
3	8%	9%
4	7%	8%

Based on above information, answer the following questions:

Question No.1: The depreciation tax benefit for the project per year shall be			
a. Rs.3,00,000	b. Rs.2,40,000	c. Rs.3,60,000	d. Rs.4,00,000
Question No.2: The inflation-adjusted revenue in Year 2 shall be			
a. Rs.16,78,600	b. Rs.14,00,000	c. Rs.10,03,520	d. Rs.9,85,600
Question No.3: The total cash inflow in Year 1 after adjusting for inflation and tax benefit on depreciation shall be……			
a. Rs.6,72,000	b. Rs.6,60,000	c. Rs.9,85,600	d. Rs.4,99,200
Question No.4: The inflation-adjusted cost in Year 2 shall be			
a. Rs.16,78,600	b. Rs.14,00,000	c. Rs.10,032,520	d. Rs.9,85,600
Question No.5: The present value of cash inflow for the year 3 shall be approximately			
a. Rs.4,52,598	b. Rs.4,27,208	c. Rs.4,79,898	d. Rs.4,53,772

Answer:

Question No.1	Rs.2,40,000 (WN 3) Note: 4,00,000 x 60% tax rate = Rs.2,40,000
Question No.2	Rs.16,78,600 (WN 1)
Question No.3	Rs.4,99,200 (WN 3)
Question No.4	Rs.9,85,600 (WN 2)
Question No.5	Rs.4,79,898 (WN 4) Note: Rs.4,79,910 rounded off to Rs.4,79,898

WN 1: Computation of inflation adjusted revenues:

Year	**Cash flow**	**Inflation rate**	**Calculation**	**Inflation adjusted cash flows**
1	12,00,000	10%	12,00,000 x (1+10%)	13,20,000
2	14,00,000	9%	14,00,000 x (1+10%) x (1+9%)	16,78,600
3	16,00,000	8%	16,00,000 x (1+10%) x (1+9%) x (1+8%)	20,71,872
4	16,00,000	7%	16,00,000 x (1+10%) x (1+9%) x (1+8%) x (1+7%)	22,16,904

WN 2: Computation of inflation adjusted outflows:

Year	**Cash flow**	**Inflation rate**	**Calculation**	**Inflation adjusted outflows**
1	6,00,000	12%	6,00,000 x (1+12%)	6,72,000
2	8,00,000	10%	8,00,000 x (1+12%) x (1+10%)	9,85,600
3	8,00,000	9%	8,00,000 x (1+12%) x (1+10%) x (1+9%)	10,74,304
4	8,00,000	8%	8,00,000 x (1+12%) x (1+10%) x (1+9%) x (1+8%)	11,60,248

WN 3: Computation of cash flows after tax:

Particulars	**Year 1**	**Year 2**	**Year 3**	**Year 4**

Revenues	13,20,000	16,78,600	20,71,872	22,16,904
Less: Costs	-6,72,000	-9,85,600	-10,74,304	-11,60,248
PBDT	**6,48,000**	**6,93,000**	**9,97,568**	**10,56,656**
Less: Depreciation	-4,00,000	-4,00,000	-4,00,000	-4,00,000
PBT	**2,48,000**	**2,93,000**	**5,97,568**	**6,56,656**
Less: Tax	-1,48,800	-1,75,800	-3,58,541	-3,93,994
PAT	**99,200**	**1,17,200**	**2,39,027**	**2,62,662**
Add: Depreciation	4,00,000	4,00,000	4,00,000	4,00,000
CFAT	**4,99,200**	**5,17,200**	**6,39,027**	**6,62,662**

WN 4: Computation of NPV:

Year	Cash flow	PVF @ 10%	DCF
0	-16,00,000	1	-16,00,000
1	4,99,200	0.909	4,53,773
2	5,17,200	0.826	4,27,207
3	6,39,028	0.751	4,79,910
4	6,62,662	0.683	4,52,598
NPV			**2,13,488**

Question No.2 [New Question]

In a recent Board Meeting of N Ltd. following financials of N Ltd. for the year ending 31st March 2025 were presented:

Balance Sheet as on 31.03.2025

(in 000s)

Liabilities	Amount	Assets	Amount
Equity capital	4,80,000	Fixed Assets	2,42,000
10% Bonds	92,000	Cash	88,000
Sundry creditors	66,000	Sundry debtors	1,10,000
Bills Payable	88,000	Closing stock	3,30,000
Other Current Liabilities	44,000		
Total	**7,70,000**	**Total**	**7,70,000**

Income Statement for the Year ending 31.03.2025

Particulars	Amount (in '000s)	Amount (in '000s)
Sales		11,77,000
Less: Cost of Goods Sold		
Material Cost	4,18,000	
Wages Cost	2,64,000	
Factory Overheads	1,29,800	8,11,800
Gross Profit		**3,65,200**
Less: Selling and distribution cost	1,10,000	
Administrative cost	1,22,800	2,32,800
Earnings before Interest and Taxes		**1,32,400**
Less: Interest charges		9,200
Earnings before tax		**1,23,200**
Less: Taxes @ 50%		61,600
Net profit (PAT)		**61,600**

During the Board Meeting:

(i) Director A said that the company can maintain a certain growth even though the net profit margin remains constant, and assets increases proportionately to sales and it distributes its 30% of its net profit. To maintain this growth rate, it will not require any external funds.

(ii) Director B proposed that just by maintaining a target capital structure and without issuing additional equity and maintaining target dividend pay-out ratio as proposed by Director A, more growth rate can be achieved.

(iii) Director C though agreed with views of Director A and Director B, but is of the view that in the coming year it is expected that sales is likely to rise by 15%, hence if required we can go for issue of equity shares, bonds or debentures to achieve the same growth in sales.

From the information given above, choose the correct answer to the following questions:

Question No.1: The Director A is talking about	
a. Internal Growth Rate	b. Sustainable Growth Rate
c. External Funding Requirements	d. External Growth Rate
Question No.2: The Director B is talking about	
a. Internal Growth Rate	b. Sustainable Growth Rate
c. External Funding Requirements	d. External Growth Rate
Question No.3: The Director C is talking about	
a. Internal Growth Rate	b. Sustainable Growth Rate
c. External Funding Requirements	d. External Growth Rate
Question No.4: If we go by the proposal of Director C, then approximately……..funds shall be raised from in form of equity or debt, assuming that dividend as proposed by Director A is paid out and assets and current liabilities are increased in the same proportion as increase in sales.	
a. Rs.1,15,500 thousand	b. Rs.85,800 thousand
c. Rs.79,332 thousand	d. Rs.36,212 thousand

Answer:

Question No.1	Internal Growth Rate **Note:** It is the maximum growth a firm can achieve **without external financing**, **retaining only internal funds**.
Question No.2	Sustainable Growth Rate **Note:** It is the growth rate a company can sustain **without issuing new equity**, while **maintaining constant debt-equity ratio** and **payout ratio**.
Question No.3	External Funding Requirements **Note:** This reflects a situation where the growth target exceeds internal and sustainable growth, thus requiring external funding
Question No.4	Rs.36,212 thousand

Particulars	Calculation	Amount
Existing capital employed	7,70,000 – 44,000 – 88,000 – 66,000	5,72,000
Revenue Growth		15%
Extra funding needed	5,72,000 x 15%	85,800
Retained earnings of next year	(61,600 + 15%) x 70%	-49,588
External funding needed		36,212

Question No.3 [Same as Question No.45 of Chapter 5 – Question Bank (Edition Three)]

XYZ company has current earnings of Rs.3 per share with 5,00,000 shares outstanding. The company plans to issue 40,000, 7% convertible preference shares of Rs. 50 each at par. The preference shares are convertible into 2 shares for each preference shares held. The equity share has a current market price of Rs. 21 per share.

i. What is preference share's conversion value?
ii. What is conversion premium?
iii. Assuming that total earnings remain the same, calculate the effect of the issue on the basic earning per share (a) before conversion (b) after conversion.
iv. If profits after tax increases by Rs. 1 million what will be the basic EPS (a) before conversion and (b) on a fully diluted basis?

Answer:

WN 1: Computation of conversion value and conversion premium:

Particulars	Calculation	Amount
Conversion value	CMP of share x conversion ratio 21 x 2	Rs.42
Conversion premium		
Per preference share	50 -42	Rs.8 per preference share
Per equity share	$\frac{8}{2}$	Rs.4 per equity share
% of conversion value	$\frac{8}{42} \times 100$	19.05% of conversion value

Note:

- Conversion premium can be expressed as per convertible instrument/per equity share/as a % of conversion value

WN 2: Computation of EPS if overall earnings remain same:

Particulars	Before conversion	After Conversion
Profit after tax (5,00,000 x 3)	15,00,000	15,00,000
Less: Preference Dividend (20,00,000 x 7%)	(1,40,000)	-
Earnings available to equity shareholders	13,60,000	15,00,000
Number of equity shares	5,00,000	5,80,000 [5,00,000 + 40,000 x 2]
Earnings per share (EAES/No of shares)	**2.72**	**2.59**

WN 3: Computation of EPS if overall earnings increase by Rs.10,00,000:

Particulars	Before conversion	After Conversion
Profit after tax [15,00,000 + 10,00,000]	25,00,000	25,00,000
Less: Preference Dividend (20,00,000 x 7%)	(1,40,000)	-
Earnings available to equity shareholders	23,60,000	25,00,000
Number of equity shares	5,00,000	5,80,000 [5,00,000 + 40,000 x 2]
Earnings per share (EAES/No of shares)	**4.72**	**4.31**

Question No.4 [Same as Question No.81 of Chapter 5 – Question Bank (Edition Three)]

The following data are available for three bonds A, B and C. These bonds are used by a bond portfolio manager to fund an outflow scheduled in 6 years. Current yield is 9%. All bonds have face value of Rs.100 each and will be redeemed at par. Interest is payable annually.

Bond	Maturity (Years)	Coupon Rate
A	10	10%
B	8	11%
C	5	9%

i. Calculate the duration of each bond

ii. The bond portfolio manager has been asked to keep 45% of the portfolio money in Bond A. Calculate the percentage amount to be invested in bonds B and C that need to be purchased to immunize the portfolio

iii. After the portfolio has been formulated, an interest rate change occurs, increasing the yield to 11%. The new duration of these bonds are: Bond A = 7.15 years, Bond B = 6.03 years and Bond C = 4.27 years. Is the portfolio still immunized? Why or why not?

iv. Determine the new percentage of B and C bonds that are needed to immunize the portfolio. Bond A remains at 45% of the portfolio.

Answer:

WN 1: Computation of duration of bond:

Computation of Duration of Bond A:

Year	Cash flow	PVF @ 9%	DCF	Weight	Product
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	0.65	6.5	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	0.46	4.6	0.043	0.387
10	110	0.422	46.42	0.436	4.36
Total			**106.36**		**6.852**

- Duration of Bond A = 6.85 years

Computation of Duration of Bond B:

Year	Cash flow	PVF @ 9%	DCF	Weight	Product
1	11	0.917	10.09	0.091	0.091
2	11	0.842	9.26	0.083	0.166

3	11	0.772	8.49	0.076	0.228
4	11	0.708	7.79	0.07	0.28
5	11	0.65	7.15	0.064	0.32
6	11	0.596	6.56	0.059	0.354
7	11	0.547	6.02	0.054	0.378
8	111	0.502	55.72	0.502	4.016
Total			**111.08**		**5.833**

- Duration of Bond B = 5.83 years

Computation of Duration of Bond C:

Year	Cash flow	PVF @ 9%	DCF	Weight	Product
1	9	0.917	8.25	0.083	0.083
2	9	0.842	7.58	0.076	0.152
3	9	0.772	6.95	0.07	0.21
4	9	0.708	6.37	0.064	0.256
5	109	0.65	70.85	0.709	3.545
Total			**100**		**4.246**

- Duration of Bond C = 4.25 years

WN 2: Computation of percentage amount to be invested in Bond B and C to immunize the portfolio:

- The portfolio manager has scheduled outflow after 6 years and hence his investment horizon will be of 6 years. We should ensure the weighted duration of portfolio is of 6 years
- Let us assume b to be the proportion of investment in Bond B
- Proportion of investment in Bond C = 1 – 0.45 - b

Bond	Weight	Duration	Product
A	0.45	6.85	3.0825
B	b	5.83	5.83b
C	1 – 0.45 – b	4.25	4.25 – 1.9125 – 4.25b
Total			**5.42 +1.58b = 6**

Investment in Bond B:

$$5.42 + 1.58b = 6; 1.58b = 0.58; b = \frac{0.58}{1.58} = 0.3671$$

- Hence 36.71 percent of investment is to be made in Bond B

Investment in Bond C:

- Investment in Bond C = 100 – 45% - 36.71% = 18.29%
- Hence 18.29 percent of investment is to made in Bond C

WN 3: Checking on immunization with revised duration:

Bond	Weight	Duration	Product
A	0.45	7.15	3.2175
B	0.3671	6.03	2.2136
C	0.1829	4.27	0.7810
Total			**6.2121**

- Portfolio is not immunized as the duration of the portfolio has increased from 6 years to 6.21 years

WN 4: Computation of percentage investment to immunize the portfolio with revised duration of bonds:

- Let us assume b to be the proportion of investment in Bond B
- Proportion of investment in Bond C = 1 – 0.45 - b

Bond	Weight	Duration	Product
A	0.45	7.15	3.2175
B	b	6.03	6.03b
C	1 – 0.45 – b	4.27	4.27 – 1.9215 – 4.27b
Total			**5.566 + 1.76b = 6**

Investment in Bond B:

$$5.566 + 1.76b = 6; 1.76b = 0.434; b = \frac{0.434}{1.76} = 0.2466$$

- Hence 24.66 percent of investment is to be made in Bond B

Investment in Bond C:

- Investment in Bond C = 100 – 45% - 24.66% = 30.34%
- Hence 30.34 percent of investment is to made in Bond C

Question No.5 [Same as Question No.53 of Chapter 6 – Question Bank (Edition three)]

Equity of KGF Limited (KGFL) is Rs.410 crores, its debt, is worth Rs.170 Crores. Printer Division segments value is attributable to 74%, which has an Asset Beta of 1.45, balance value is applied to spares and consumables Division, which has an Asset beta of 1.20. KGFL Debt beta is 0.24.

You are required to calculate:

i. Equity beta
ii. Ascertain Equity Beta, if KGF Limited decides to change its Debt Equity position by raising further debt and buying back of equity to have its Debt Equity Ratio at 1.90. Assume that the present Debt Beta is 0.35 and any further funds raised by way of Debt will have a Beta of 0.40
iii. Whether the new Equity Beta justifies increase in the value of equity on account of leverage?

Answer:

WN 1: Computation of Asset Beta of KGF Limited

Source	Beta	Weight	Product
Printer	1.45	0.74	1.073
Spares	1.20	0.26	0.312
Total	**1.385**	**1.00**	**1.385**

- Asset Beta of KGF Limited = 1.385 Times

WN 2: Computation of equity Beta of KGF Limited

Let us assume equity Beta of KGF Limited to be A

Source	Beta	Weight	Product
Equity	**A**	410	410A
Debt	0.24	170	40.80
Total	**1.385**	**580**	**803.30**

- 410A + 40.80 = 803.30
- 410A = 762.50
- **Equity Beta = 1.8596 Times (762.50/410)**

WN 3: Computation of equity Beta post buy-back:

Let us assume equity Beta to be A

Source	Beta	Weight	Product
Equity	**A**	200	200A
Old Debt	0.35	170	59.50
New Debt	0.40	210	84.00
Total	**1.385**	**580**	**803.30**

- 200A + 59.50 + 84.00 = 803.30
- 200A = 659.80
- Equity Beta =3.299 Times (659.80/200)

Note: Computation of debt raised

- Total capital of company (existing) = 410 + 170 = 580 Crores
- Target debt equity ratio = 1.90 Times
- Debt = 1.90 Equity
- Debt + Equity = 580; 1.90Equity + Equity = 580; 2.90Equity = 580; Equity = 200 Crores
- Debt = 380 crores
    - Old debt = 170 Crores
    - New debt = 210 Crores

Conclusion:

- Since there is no increase in the value of equity after buyback, it does not justify the increase in the equity beta.

Question No.6A [Same as Question No.32 of Chapter 9 – Question Bank (Edition three)]

A Rice Trader has planned to sell 22000 kg of Rice after 3 months from now. The spot price of the Rice is Rs. 60 per kg and 3 months Futures on the same is trading at Rs. 59 per kg. Size of the contract is 1000 kg.

Required:

- What the trader can do to mitigate its risk of reduced profit if the price is expected to fall as low as Rs. 56 per kg, 3 months hence.
- Suppose if trader decides to make use of Futures, what would be the effective realized price from its sale when after 3 months, spot price is Rs. 57 per kg and Futures contract price for 3 months is Rs. 58 per kg?

Answer:

Part 1:

- The trader can mitigate its risk of reduced profit by hedging his position by selling Rice Futures.
- Gain on futures position = (59 – 56) x 22,000 KG = Rs.66,000
- Revenue from sale of rice = 22,000 x 56 = Rs.12,32,000
- Total Realization = 12,32,000 + 66,000 = Rs.12,98,000
- Cash flow per KG of Rice = (12,98,000/22,000) = Rs.59.00 per KG
- 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.

Part 2:

Computation of futures profit/loss:

Date	Position	Action	Reference Date	Rate
Day 0	Original Position	Sell	3 months	59.00
3 months	Opposite Position	Buy	3 months	(58.00)
Net profit per Kg in futures market				**1.00**

- ❖ Investor originally entered into contract to sell rice at the rate of Rs.59.00 in futures market. The same would be cancelled in month 3 to get the net profit/loss
- ❖ The contract would be cancelled in month 3 at the futures rate of Rs.58.00 and hence the net profit per Kg of rice is Rs.1.00

Computation of effective realized price:

Particulars	Amount
Realization in the spot market	57.00
Futures Profit	1.00
Effective realization	**58.00**

Question No.6B [Same as Question No.21 of Chapter 9 – Question Bank (Edition Three)]

A company is long on 10 MT of copper @ Rs. 534 per kg (spot) and intends to remain so for the ensuing quarter. The variance of change in its spot and future prices are 16% and 36% respectively, having correlation coefficient of 0.75. The contract size of one contract is 1,000 kgs.

Calculate:

(i) Calculate the Optimal Hedge Ratio for perfect hedging in Future Market.
(ii) Advice the position to be taken in Future Market for perfect hedging.
(iii) Determine the number and the amount of the copper futures to achieve a perfect hedge.

Answer:

WN 1: Computation of Beta (optimal hedge ratio):

$$\text{Beta} = \frac{\text{SD of changes in spot market}}{\text{SD of changes in in futures market}} \text{x Correlation coefficient}$$

$$\text{Beta} = \frac{\sqrt{16}}{\sqrt{36}} \text{x } 0.75 = 0.50$$

WN 2: Position to be taken:

Since the company is long position in Spot (Cash) Market it shall take Short Position in Future Market

WN 3: Computation of futures position for perfect hedge:

Security	Beta	Weight	Product
Spot market	0.50	53,40,000 (534 x 10,000)	26,70,000
Futures	1.00	(26,70,000)	(26,70,000)
Total	**0.00**	**53,40,000**	**0**

- We have to short futures worth Rs.26,70,000 for perfect hedge

- Size of one contract = 1,000 kgs x 534 = Rs.5,34,000
- No of contracts for perfect hedge = (26,70,000/5,34,000) = 5 Contracts

Question No.7 [Same as Question No.13 of Chapter 12 – Question Bank (Edition Three)]

Electraspace is consumer electronics wholesaler. The business of the firm is highly seasonal in nature. In 6 months of a year, firm has a huge cash deposits and especially near Christmas time and other 6 months firm cash crunch, leading to borrowing of money to cover up its exposures for running the business. It is expected that firm shall borrow a sum of €50 million for the entire period of slack season in about 3 months.

A Bank has given the following quotations:

- Spot 5.50% - 5.75%
- 3 × 6 FRA 5.59% - 5.82%
- 3 × 9 FRA 5.64% - 5.94%

3 month €50,000 future contract maturing in a period of 3 months is quoted at 94.15 (5.85%).

You are required to determine:

- How a FRA, shall be useful if the actual interest rate after 6 months turnout to be:
  - 4.5%
  - 6.5%
- Advise the position to be taken in Future Market by the firm to hedge its interest rate risk and demonstrate how 3 months Future contract shall be useful for the firm if interest rate turns out as mentioned in part (a) above.

Answer:

WN 1: Effect of FRA:

- The company wants to borrow after 3 months for entire slack season of 6 months. This would mean borrowing from M3 to M9.
- The company should enter into 3x9 FRA to hedge interest rate risk
- **Relevant 3x9 FRA borrowing rate is 5.94%**

Particulars	Actual rate of 4.50%	Actual rate of 6.50%
1. Payment to original lender	4.50%	6.50%
2. Payment by Electraspace to bank (FRA settlement)	1.44%	-
3. Receipt by Electraspace from Bank (FRA settlement)	-	(0.56%)
4. Net borrowing cost	**5.94%**	**5.94%**
5. FRA Payment/Receipt	3,60,000 [50 mn x 1.44% x ½]	(1,40,000) [50 mn x 0.56% x ½]
6. Interest on actual basis	11,25,000 [50 mn x 4.50% x ½]	16,25,000 [50 mn x 6.5% x ½]
7. Net outflow	**14,85,000**	**14,85,000**

Thus, by entering into FRA, the firm has committed itself to a rate of 5.94% shown as follows:

$$\frac{14,85,000}{50,000,000} \text{ x } 100 \text{ x} \frac{12}{6} = \mathbf{5.94\%}$$

WN 2: Hedging through interest rate futures:

- The company wants to borrow 50 million for 6 months. Futures contracts are available only for 3 months and hence we should adjust the value of futures contract
- Borrowing 50 million for 6 months is similar to borrowing 100 million for 3 months
- The company is a borrower and hence it should sell interest rate futures

$$\text{No of futures contracts} = \frac{\text{Amount to be hedged}}{\text{Size of one contract}} = \frac{100 \text{ million}}{50,000} = 2,000 \text{ Contracts}$$

Actual interest rate is 4.50%

Particulars	Calculation	Amount
1. Interest to be paid on original loan	50 million x 4.50% x 6/12	11,25,000
2. Futures settlement (Note 1)		3,37,500
3. Total outflow		**14,62,500**
4. Effective borrowing cost	$\mathbf{\frac{14,62,500}{50 \text{ million}} x \left(\frac{12}{6}\right) x 100}$	**5.85%**

Note 1: Computation of futures settlement:

Date	Position	Action	Reference Date	Rate
Day 0	Original Position	Borrow	Day 90	5.85%
Day 90	Opposite Position	Lend	Day 90	4.50%
Loss in %				1.35%
Loss in rupees (100 million x 1.35% x $\left(\frac{3}{12}\right)$				3,37,500

Actual interest rate is 6.50%

Particulars	Calculation	Amount
1. Interest to be paid on original loan	50 million x 6.50% x 6/12	16,25,000
2. Futures settlement (Note 1)		(1,62,500)
3. Total outflow		**14,62,500**
4. Effective borrowing cost	$\frac{14,62,500}{50\ million} x \left(\frac{12}{6}\right) x\ 100$	**5.85%**

Note 1: Computation of futures settlement:

Date	Position	Action	Reference Date	Rate
Day 0	Original Position	Borrow	Day 90	5.85%
Day 90	Opposite Position	Lend	Day 90	6.50%
Profit in %				**0.65%**
Profit in rupees (100 million x 0.65% x $\left(\frac{3}{12}\right)$				**1,62,500**

Thus, the firm locked itself in interest rate of 5.85% using interest rate futures

Question No.8 [Same as Question No.4 of Chapter 6 – Question Bank (Edition Three)]

X Ltd. Invested on 1.4.2009 in certain equity shares as below:

Name of Company	No of shares	Cost
M Limited	1,00,000 (Rs.100 each)	2,00,00,000
N Limited	50,000 (Rs.10 each)	1,50,00,000

In September 2009, 10% dividend was paid out by M Limited and in October,2009,30% dividend paid out by N Limited. On 31.3.2010 market quotations showed a value of Rs. 220 and Rs. 290 per share for M Limited and N Limited respectively.

On 1.4.2010, investment advisors indicate

- that the probabilities of dividends from M Ltd. and N Ltd. for the year ending 31.3.2011 are as below:

Probability	Dividend from M Limited	Dividend from N Limited
0.20	10	15
0.30	15	20
0.50	20	35

- that the probabilities of the market quotations on 31.3.2011 are as below:

Probability	Price per share of M Limited	Price per share of N Limited
0.20	220	290
0.50	250	310
0.30	280	330

You are required to:

- Calculate the average return from the portfolio for the year ended 31.3.2010
- Calculate the average expected return from the portfolio for the year 2010-11
- Calculate comparative risk in the two investments by calculating the standard deviation in each case.

Answer:

WN 1: Computation of return of portfolio for 2009-10

Return of Security M	=	$\frac{(D_1) + (P_1 - P_0)}{P_0} = \frac{10 + (220 - 200)}{200}$ x 100 = 15%
Return of Security N	=	$\frac{(D_1) + (P_1 - P_0)}{P_0} = \frac{3 + (290 - 300)}{300}$ x 100 = −2.33%

Portfolio Return:

Security	Return	Weight	Product
M	15%	2,00,00,000	30,00,000
N	-2.33%	1,50,00,000	-3,50,000
Portfolio	**7.57%**	**3,50,00,000**	**26,50,000**

- **Portfolio return of 2009-10 = 7.57%**

WN 2: Computation of risk and return of Security M for 2010-11

Dividend	Probability	Price	Probability	Capital appreciation	Total return	Total return %	Joint Probability
10	0.20	220	0.20	-	10	4.55	0.04
10	0.20	250	0.50	30	40	18.18	0.10
10	0.20	280	0.30	60	70	31.82	0.06
15	0.30	220	0.20	-	15	6.82	0.06
15	0.30	250	0.50	30	45	20.45	0.15
15	0.30	280	0.30	60	75	34.09	0.09
20	0.50	220	0.20	-	20	9.09	0.10
20	0.50	250	0.50	30	50	22.73	0.25
20	0.50	280	0.30	60	80	36.36	0.15

Return and risk calculation:

Return	Probability	Product	Deviation	Pd^2
4.55	0.04	0.18	-17.95	12.89
18.18	0.10	1.82	-4.32	1.87
31.82	0.06	1.91	9.32	5.21
6.82	0.06	0.41	-15.68	14.75
20.45	0.15	3.07	-2.05	0.63
34.09	0.09	3.07	11.59	12.09
9.09	0.10	0.91	-13.41	17.98
22.73	0.25	5.68	0.23	0.01
36.36	0.15	5.45	13.86	28.81
Total		**22.50**		**94.24**

Expected return (%)	22.50%
Standard deviation (%)	$\sqrt{94.24}$ = 9.71%
Standard deviation (in Rs.)	9.71% x 220 = Rs.21.36

WN 3: Computation of risk and return of Security N for 2010-11

Dividend	Probability	Price	Probability	Capital appreciation	Total return	Total return %	Joint Probability
1.5	0.2	290	0.2	0	1.5	0.52	0.04
1.5	0.2	310	0.5	20	21.5	7.41	0.1
1.5	0.2	330	0.3	40	41.5	14.31	0.06
2	0.3	290	0.2	0	2	0.69	0.06
2	0.3	310	0.5	20	22	7.59	0.15
2	0.3	330	0.3	40	42	14.48	0.09
3.5	0.5	290	0.2	0	3.5	1.21	0.1
3.5	0.5	310	0.5	20	23.5	8.1	0.25
3.5	0.5	330	0.3	40	43.5	15	0.15

Return and risk calculation:

Return	Probability	Product	Deviation	Pd^2
0.52	0.04	0.02	-7.98	2.55
7.41	0.1	0.74	-1.09	0.12
14.31	0.06	0.86	5.81	2.03
0.69	0.06	0.04	-7.81	3.66

7.59	0.15	1.14	-0.91	0.12
14.48	0.09	1.3	5.98	3.22
1.21	0.1	0.12	-7.29	5.31
8.1	0.25	2.03	-0.4	0.04
15	0.15	2.25	6.5	6.34
Total		**8.50**		**23.39**

Expected return (%)	8.50%
Standard deviation (%)	$\sqrt{23.39} = 4.84\%$
Standard deviation (in Rs.)	4.84% x 290 = Rs.14.04

Although Expected Return is higher in case of M Ltd. but it also has higher risk due to High S.D.

WN 4: Portfolio Return for 2010-11

Security	Return	Weight	Product
M	22.50%	2,20,00,000 [1,00,000 x 220]	49,50,000
N	8.50%	1,45,00,000 [50,000 x 290]	12,32,500
Portfolio	**16.94%**	**3,65,00,000**	**61,82,500**

- **Portfolio return of 2010-11 = 16.94%**

Question No.9 [same as Question No.102 of Chapter 10 – Question Bank (Edition three)]

On 1st February 2020, XYZ Ltd. a laptop manufacturer imported a particular type of Memory Chips from SKH Semiconductor of South Korea. The payment is due in one month from the date of Invoice, amounting to 1190 Million South Korean Won (SKW). Following Spot Exchange Rates (1st February) are quoted in two different markets:

USD/INR	85.00/85.50	in Mumbai
USD/SKW	1390.00/1390.90	in New York

Since hedging of Foreign Exchange Risk was part of company's strategic policy and no contract for hedging in SKW was available at any in-shore market, it approached an off-shore Non-Deliverable Forward (NDF) Market for hedging the same risk.

In NDF Market a dealer quoted one-month USD/ SKW at 1390.00/1390.60 to be settled at reference rate declared by Bank of Korea. After 1 month (1 st March 2020) the dealer agreed for SKW 1385/ USD as rate for settlement and on the same day the Spot Rates in the above markets were as follows:

USD/INR	85.50/85.75	in Mumbai
USD/SKW	1388.00/1388.60	in New York

Analyze the position of company under each of the following cases, comparing with Spot Position of 1st February:
(i) Do Nothing.
(ii) Opting for NDF Contract.
Note: Both Rs./ SKW Rate and final payment (to be computed in Rs. Lakh) to be rounded off upto 4 decimal points

Answer:

Note: The rates have been interpreted as INR/USD and SKW/USD as per current exchange rates

WN 1: Analysis of No-hedge scenario:

Outflow on Feb 1:

- Known component = 11,900 Lacs SKW
- Unknown component = ? INR

$\text{INR} = \text{SKW x} \left(\frac{\text{INR}}{\text{SKW}}\right)$
$\text{INR} = \text{SKW x ASK} \left(\frac{\text{INR}}{\text{SKW}}\right)$
$\text{ASK} \left(\frac{\text{INR}}{\text{SKW}}\right) = \text{ASK}(\frac{\text{INR}}{\text{USD}} \text{x} \frac{\text{USD}}{\text{SKW}})$
$\text{ASK} \left(\frac{\text{INR}}{\text{SKW}}\right) = 85.50 \text{ x } \left(\frac{1}{1{,}390}\right) = 0.0615$
$\text{INR} = 11{,}900 \text{ x } 0.0615 = \text{INR } 731.8500 \text{ Lacs}$

Outflow on Mar 1:

- Known component = 11,900 Lacs SKW
- Unknown component = ? INR

$\text{INR} = \text{SKW x} \left(\frac{\text{INR}}{\text{SKW}}\right)$
$\text{INR} = \text{SKW x ASK} \left(\frac{\text{INR}}{\text{SKW}}\right)$
$\text{ASK} \left(\frac{\text{INR}}{\text{SKW}}\right) = \text{ASK}(\frac{\text{INR}}{\text{USD}} \text{x} \frac{\text{USD}}{\text{SKW}})$
$\text{ASK} \left(\frac{\text{INR}}{\text{SKW}}\right) = 85.75 \text{ x } \left(\frac{1}{1{,}388}\right) = 0.0618$
$\text{INR} = 11{,}900 \text{ x } 0.0618 = \text{INR } 735.4200 \text{ Lacs}$
Loss under no-hedge scenario = 731.8500 lacs – 735.4200 lacs **Loss under no-hedge scenario = INR 3.5700 lacs**

WN 2: Analysis of Non-deliverable forward contract:

- Under a forward contract the delivery is normally made and hence the settlement at the end of contract happens by delivery of foreign currency
- However, in case of NDF, the delivery will not happen and hence from analysis point of view it will be same as futures. It will involve profit/loss on NDF position and actual settlement will happen at spot rate

Note 1: NDF settlement:

- We are planning to buy SKW and hence we will be selling USD

Exposure amount for contract $= \frac{11900}{1390} = 8.5612$ lacs

Date	Position	Action	Reference Date	Rate
Feb 1	Original Position	Sell (BID)	Mar 1	SKW 1,390/USD
Mar 1	Opposite Position	Buy (ASK)	Mar 1	(SKW 1,385/USD)
Profit per USD				SKW 5.00/USD
Total Profit (5.00 x 8.5612)				**SKW 42.806 lacs**
Conversion of Profit into USD $\left(42.806 \text{ x } \frac{1}{1{,}385}\right)$ (Using settlement rate)				**USD 3,091**

Note 2: Final payment:

Outflow on Mar 1:

Outflow for 11,900 lacs SKW = INR 735.4200 lacs (WN 1)
NDF Profit = USD 3,091 x 85.50 = INR 2.6428 lacs
Net cash outflow = 735.4200 – 2.6428 = 732.7772 lacs
Loss under NDF scenario = 731.8500 lacs – 732.7772 lacs **Loss under no-hedge scenario = INR 0.9272 lacs**

Decision: Since Exchange Loss is less in case of NDF same can be opted for.

Question No.10 [Same as Question No.77 of Chapter 10 – Question Bank (Edition three)]

Shanti exported 400 pieces of a designer jewellery to USA at $ 400 each. To manufacture and design this jewellery she imported raw material from Japan of the cost of JP¥ 12000 for each piece. The labour cost and variable overhead incurred in producing each piece of jewellery are ₹ 2,600 and ₹ 1300 respectively.

Suppose Spot Rates are:

- Rs./ US$ Rs. 80.00 – Rs. 81.00
- JP¥/ US$ JP¥ 135 – JP¥ 140

Shanti is expecting that by the time the export remittance is received and payment of import is made the expected Spot Rates are likely to be as follows:

- Rs./ US$ Rs. 83.90 – Rs. 84.25
- JP¥/ US$ JP¥ 125 – JP¥ 131

You are required to calculate the resultant transaction exposure.

Answer:

WN 1: Computation of profit as per current spot rates:

Particulars	Calculation	Amount
Sales revenues	(USD 400 x 400 x 80)	1,28,00,000

Less: Cost of imported raw material	$\left(400\ x\ \left(\frac{12,000}{135}\right) x\ 81\right)$	-28,80,000
Labour cost	(400 x 2,600)	-10,40,000
Variable overheads	(400 x 1,300)	-5,20,000
Profit		**83,60,000**

WN 2: Computation of profit as per expected spot rates:

Particulars	Calculation	Amount
Sales revenues	(USD 400 x 400 x 83.90)	1,34,24,000
Less: Cost of imported raw material	$\left(400\ x\ \left(\frac{12,000}{125}\right) x\ 84.25\right)$	-32,35,200
Labour cost	(400 x 2,600)	-10,40,000
Variable overheads	(400 x 1,300)	-5,20,000
Profit		**86,28,800**
Increase in profit due to transaction exposure	**86,28,800 – 83,60,000**	**2,68,800**

- Transaction exposure is the change in profit due to variation in exchange rate. The same is calculated as difference between profit as per expected exchange rate – profit as per current exchange rates

Question No.11 [Same as Question No.42 of Chapter 14 – Question Bank (Edition three)]

C Ltd. and P Ltd. both companies operating in the same industry decided to merge and form a new entity S Ltd. The relevant financial details of the two companies prior to merger announcement are as follows:

Particulars	C Limited	P Limited
Annual earnings after tax [Rs. Lacs]	10,000	5,800
No of shares outstanding [lacs]	4,000	1,000
PE Ratio [No. of times]	8	10

The merger will be affected by means of stock swap (exchange) of 3 shares of C Ltd. for 1 share of P Ltd. After the merger it is expected that due to synergy effects, Annual Earnings (Post Tax) are expected to be 8% higher than sum of the earnings of the two companies individually. Further, it is expected that P/E Ratio of S Ltd. shall be average of P/E Ratios of two companies before the merger.

Evaluate the extent to which shareholders of P Ltd. will be benefitted per share from the proposed merger.

Answer:

Valuation of individual and merged entity:

Particulars	C Limited	P Limited	Merged
Annual earnings after tax [Rs. Lacs]	10,000	5,800	17,064 [15,800 x 1.08]
No of shares outstanding [lacs]	4,000	1,000	7,000 [4,000 + (1,000 x 3]
Earnings per share	2.50	5.80	2.4377
PE Multiple	8	10	9
MPS	20.00	58.00	21.9393
No of shares (in lacs)	4,000	1,000	7,000
Value of firm (in lacs)	**80,000**	**58,000**	**1,53,575**

Gain to shareholders:

Particulars	P Limited
Post-merger value	65,818 [3,000 x 21.9393]
Pre-merger value	58,000
Amount of gain [A]	7,818
Pre-merger number of shares [B]	1,000
Gain per share [A/B]	**7.82**

Question No.12 [Same as Question No.20 of Chapter 8 – Question Bank (Edition three)]

A mutual fund raised Rs. 150 lakhs on April 1, 2018 by issue of 15 lakh units at Rs. 10 per unit. The fund invested in several capital market instruments to build a portfolio of Rs. 140 lakhs, Initial expenses amounted to Rs. 8 lakhs. During the month of April, the fund sold certain instruments costing Rs. 44.75 lakhs for Rs. 47 lakhs and used the proceeds to purchase certain other securities for Rs. 41.60 lakhs. The fund management expenses for the month amounted to Rs. 6 lakhs of which Rs. 50,000 was in arrears. The fund earned dividends amounting to Rs. 1.5 lakhs

and it distributed 80% of the realized earnings. The market value of the portfolio on 30 th April, 2018 was Rs. 147.85 Iakhs.

An investor subscribed to 1000 units on April 1, 2018 and disposed it off at closing NAV on 30 th April, 2018. Determine his annual rate of earnings.

Answer:

WN 1: Computation of closing cash balance:

Particulars	Calculation	Amount (in lacs)
Inflow from unit holders	15 lacs x 10	150.00
Less: Initial expenses		-8.00
Less: Purchase of investments		-140.00
Add: sale of shares		47.00
Less: Purchase of investments		-41.60
Less: Fund management expenses		-5.50
Add: Receipt of dividends		1.50
Less: Payment of dividends	Note 1	-3.00
Closing cash balance		**0.40**

Note 1:

- The company has paid 80% of realized earnings as dividends. Realized earnings = Capital gain of Rs.2.25 lacs + Dividends of Rs.1.50 lacs. Dividends paid = 80% x 3.75 lacs = Rs.3 lacs

WN 2: Computation of NAV:

Particulars	Calculation	Amount (in lacs)
Assets:		
Market value of portfolio		147.85
Cash balance	WN 1	0.40
Total Assets (A)		**148.15**
Less: Liabilities		(0.50)
Net Assets		**147.75**
No of units		15
NAV per unit	**147.75/15**	**9.85**

WN 3: Computation of annual rate of earning:

$$\text{Annual rate of earning} = \frac{(\text{NAV}_1 - \text{NAV}_0) + \text{D}_1 + \text{CG}_1}{\text{NAV}_0} \text{ x} \frac{12}{\text{m}} \text{ x } 100$$

$$\text{Annual rate of earning} = \frac{(9.85 - 10.00) + (\frac{3}{15})}{10.00} \text{ x} \frac{12}{1} \text{ x } 100$$

$$\textbf{Annual rate of earning} = \frac{\mathbf{0.05}}{\mathbf{10.00}} \mathbf{x} \frac{\mathbf{12}}{\mathbf{1}} \mathbf{x\ 100 = 6\% \text{ per annum}}$$

Question No.13 [Same as Question No.96 of Chapter 10 – Question Bank (Edition three)]

The Treasury desk of a global bank incorporated in UK wants to invest GBP 200 million on 1st January 2019 for a period of 6 months and has the following options:

- ❖ The Equity Trading desk in Japan wants to invest the entire GBP 200 million in high dividend yielding Japanese securities that would earn a dividend income of JPY 1,182 million. The dividends are declared and paid on 29th June. Post dividend, the securities are expected to quote at a 2% discount. The desk also plans to earn JPY 10 million on a stock borrow lending activity because of this investment. The securities are to be sold on June 29 with a T+1 settlement and the amount remitted back to the Treasury in London
- ❖ The fixed income desk of US proposed to invest the amount in 6 month G-secs that provides a return of 5% p.a.

The exchange rates are as follows:

Currency Pair	Jan 1, 2019 (SPOT)	June 30, 2019 (Forward)
GBP-JPY	148.0002	150.0000
GBP-USD	1.28000	1.30331

As a treasurer, advise the bank on the best investment option. What would be your decision from a risk perspective. You may ignore taxation.

Answer:

WN 1: Computation of GBP at end of 6 months if investment is made in JPY:

Particulars	Calculation	Amount (in millions)
1. Amount of surplus		GBP 200
2. Surplus in JPY/Amount invested	200 x 148.0002	JPY 29600.04
Amount on maturity:		
3. Dividend income		JPY 1,182
4. Stock lending income		JPY 10
5. Value of shares sold	**29,600.04 x 98%**	JPY 29,008.04
6. Total amount on maturity (3+4+5)		**JPY 30,200.04**
7. Amount on maturity (GBP)	$\frac{30,200.04}{150}$	**GBP 201.33359**

WN 2: Computation of GBP at end of 6 months if investment is made in USD:

Particulars	Calculation	Amount (in millions)
1. Amount of surplus		GBP 200
2. Surplus in USD/Amount invested	200 x 1.28000	USD 256
3. Interest earned	256 x 5% x (6/12)	USD 6.4
4. Amount on maturity (USD)		**USD 262.40**
5. Amount on maturity (GBP)	$\frac{262.40}{1.30331}$	**GBP 201.33353**

Investment in Japanese Yen is preferred over the investment in USD G- Sec as there is a marginal gain. From a risk perspective, the company should go for Option-2 Investment in GSecs as they are risk free.

Question No.14A [Same as Question No.17 of Chapter 15 – Theory Book (Edition Three)]

What is a Unicorn startup? Who coined the term?

Answer:

A start-up is referred as a Unicorn if it has following features:

- A privately held start-up.
- Valuation of start-up reaches US$ 1 Billion.
- Emphasis is on the rarity of success of such start-up.
- Other common features are new ideas, disruptive innovation, consumer focus, high on technology etc.

However, it is important to note that in case the valuation of any start-up slips below US$ 1 billion it can lose its status of 'Unicorn'. Hence a start-up may be Unicorn at one point of time and may not be at another point of time. India has now emerged as the 3rd largest ecosystem for startups globally, after US and China, with over 59,000 DPIIT-recognized startups. The next milestone for a Unicorn to achieve is to become a Decacorn, i.e., a company which has attained a valuation of more than US$ 10 billion. This term was coined by venture capitalist Aileen Lee, first time in 2013.

Question No.14B [Same as Question No.4 of Chapter 7 – Theory Book (Edition Three)]

Secondary participants play a vital role in strengthening securitization transactions. Explain.

Answer:

Yes, this statement is correct to some extent because each secondary participants play a vital role in securitization process as mentioned below:

- **Obligors:** They are the main root of the whole securitization process. They are the parties who owe money to the firm and are assets in the Balance Sheet of Originator. The amount due from the obligor is transferred to SPV and hence they form the basis of securitization process and their credit standing is of paramount importance in the whole process.
- **Rating Agency:** Since the securitization is based on the pools of assets rather than the originators, the assets have to be assessed in terms of its credit quality and credit support available. Rating agency assesses the following:
    - Strength of the Cash Flow.
    - Mechanism to ensure timely payment of interest and principle repayment.
    - Credit quality of obligors.
    - Liquidity support.
    - Strength of legal framework.

- **Receiving and Paying agent (RPA):** Also, called Servicer or Administrator, it collects the payment due from obligor(s) and passes it to SPV. It also follows up with defaulting obligor and if required initiate appropriate legal action against them. Generally, an originator or its affiliates acts as servicer.
- **Agent or Trustee:** Trustees are appointed to oversee that all parties to the deal perform in the true spirit of terms of agreement. Normally, it takes care of interest of investors who acquire the securities.
- **Credit Enhancer:** Since investors in securitized instruments are directly exposed to performance of the underlying securities and sometime may have limited or no recourse to the originator, they seek additional comfort in the form of credit enhancement. In other words, they require credit rating of issued securities which also empowers marketability of the securities.
- **Structurer:** It brings together the originator, investors, credit enhancers and other parties to the deal of securitization. Normally, these are investment bankers also called arranger of the deal. It ensures that deal meets all legal, regulatory, accounting and tax laws requirements.

Question No.15A [Same as Question No.14 of Chapter 4 – Theory Book (Edition three)]

Briefly explain the various market indicators used in Technical Analysis.

Answer:

- **Breadth Index:** It is an index that covers all securities traded. It is computed by dividing the net advances or declines in the market by the number of issues traded.
- **Volume of Transactions:** The volume of shares traded in the market provides useful clues on how the market would behave in the near future. A rising index/price with increasing volume would signal buy behaviour because the situation reflects an unsatisfied demand in the market.
- **Confidence Index:** It is the ratio of high-grade bond yields to low-grade bond yields. It is used by market analysts as a method of trading or timing the purchase and sale of stock, and also, as a forecasting device to determine the turning points of the market.
- **Relative Strength Analysis:** The relative strength concept suggests that the prices of some securities rise relatively faster in a bull market or decline more slowly in a bear market than other securities i.e. some securities exhibit relative strength.
- **Odd - Lot Theory:** The odd-lot theory is used primarily to predict tops in bull markets, but also to predict reversals in individual securities.

Question No.15B [Same as Question No.4 of Chapter 4 – Theory Book (Edition three)]

How the Buy and Sell signals are provided by Moving Average Analysis?

Answer:

Buy Singal	Sell Signal
Stock price line rise through the moving average line when graph of the moving average line is flattering out	Stock Price line falls through moving average line when graph of the moving average line is flattening out
Stock price line falls below moving average line which is rising.	Stock price line rises above moving average line which is falling.
Stock price line which is above moving average line falls but begins to rise again before reaching the moving average line	Stock price line which is slow moving average line rises but begins to fall again before reaching the moving average line.

Question No.15C [Same as Question No.8 of Chapter 2 – Theory Book (Edition three)]

Discuss the parameters used to identify Currency Risk.

Answer:

- **Government Action:** The Government action of any country has visual impact in its currency. For example, the UK Govt. decision to divorce from European Union i.e. Brexit brought the pound to its lowest since 1980's.
- **Nominal Interest Rate:** As per interest rate parity (IRP) the currency exchange rate depends on the nominal interest of that country.
- **Inflation Rate:** Purchasing power parity theory discussed in later chapters impact the value of currency.
- **Natural Calamities:** Any natural calamity can have negative impact.
- **War, Coup, Rebellion etc.:** All these actions can have far reaching impact on currency's exchange rates.
- **Change of Government:** The change of government and its attitude towards foreign investment also helps to identify the currency risk.