

your overall performance is very good . you have good knowledge about each question but try to work on your weak points.

Calc. of cross exchange rates:-

$$\frac{\text{£}}{\text{HKD}} = \frac{\text{£}}{\text{GBP}} \times \frac{\text{GBP}}{\text{HKD}}$$

6 Marks

TM- 34.5

$$\text{HKD} = 82.05 \times \frac{1}{9.93}$$

Spot Rate 1 HKD = £ 8.2628

keep up the good work

Expected Rate of HKD for August 2014 = $\frac{84.83}{10.89} \times 1 = \text{£} 7.7877$

Forward Rate for HKD for August 2014 = $86.33 \times \frac{1}{10.77} = \text{£} 8.0158$

(i) calc. of expected loss without hedging:-

Value of export at the time of export (HKD 12,000,000 X £ 8.2628) = £ 99,15,360

Estimated payment to be received on Aug 2014.
(HKD 12,000,000 X £ 7.7877) = £ 93,47,640

expected loss = £ 5,67,720

Hedging of loss under forward cover:-

Value of export at the time of export (HKD 12,000,000 X £ 8.2628) = £ 99,15,360

Payment to be received under forward cover (HKD 12,000,000 X £ 8.0158) = £ 96,18,960

loss = £ 2,96,400

(ii) Actual Rate on 31st August, 2014 = $82.09 \times \frac{1}{9.99} = \text{£} 8.2172$

Value of export at the time of export (HKD 12,000,000 X £ 8.2628) = £ 99,15,360

Payment to be received on Aug. 2014 (HKD 12,000,000 X £ 8.2172) = £ 98,60,640

loss = £ 54,720

You done this question very nicely, well done.

The decision to take forward cover is not justified because loss under forward cover was bigger i.e., £ 2,96,400.

7.5 Marks

Q2 (a) using forward hedge:-

$$1 \text{ £} = \text{₹} 0.01458$$

$$1 \text{ \$} = \text{₹} 68.5871 \left(\frac{1}{0.01458} \right)$$

$$\text{The expected receipt from forward hedge} = \$6,00,000 \times \text{₹} 68.5871 \\ = \text{₹} 4,11,52,260$$

(b) using future hedge:-

$$\text{S/R} = 1 \text{ £} = \text{₹} 0.01449$$

$$1 \text{ \$} = \left(\frac{1}{0.01449} \right) \times \text{₹} 69.0131$$

$$\text{The expected receipt from future hedge} = \$6,00,000 \times \text{₹} 69.0131 \\ = \text{₹} 4,14,07,860$$

$$\text{Now, each future contract is} = \text{₹} 30,00,000$$

$$\text{No. of contracts would be bought} = \frac{\text{Value of exposure}}{\text{Value of each contract}}$$

$$= \frac{4,14,07,860}{30,00,000} = 13.80 \text{ or } 13 \text{ contracts}$$

well solved

cal. of gain/loss:-

$$\text{₹ Gain} = \$0.01462 - \$0.01449 = \$0.00013 \times 48$$

$$\text{Gain} = \$0.0013 \times 13 \times 30,00,000 = \$5070$$

required explanation is missing in your answer

cal. of total Receivables:-

$$= \$6,00,000 \times \frac{1}{0.01461} \text{ ₹} + \$5070 \times \frac{1}{0.01461} = \text{₹} 4,14,14,784.39$$

cost of margin:-

$$8.5\% \text{ cost of initial margin of } \text{₹} 16,000 = 13 \times 16,000 \times 8.5\% \times \frac{3}{12} = \text{₹} 4,420$$

$$\text{Total proceeds from future hedge} = \text{₹} 4,14,14,784.32 + 4,420 \\ = \text{₹} 4,14,19,204.32$$

all components are accurately considered here

(c) 100 hedge! -

$$1\text{£} = \$0.01461$$

$$1\text{£} = \text{£}68.4463$$

You have good practical understanding of this question

$$\text{Total Receivables} = \$6,00,000 \times \text{£}68.4463 = \text{£}4,10,67,780$$

Decision:-

most advantageous is the future contracts hedge with proceeds of
 $\text{£}4,14,10,364.39$

P3 step 1: cal. of cash flow after tax:-

8 Marks

Selling Price	£ 15
(-) V. cost	5.20
contribution	9.8
Quantity	16 million units
annual cost	158.8 million
(-) cash flow cost	4 million
EBIT	152.8 million
(-) Dep. (500/5)	100 "
EBIT	52.80 million
(-) Tax @ 40%	21.12 "
NOPAT	31.68 million
(+) Dep.	100 "
cash flow after tax	131.68 million

You have correctly solved this.

step 2:- Present value of Repatriated amount each year:- (£ in million)

year	Repatriated Amt. (60% of CFAT)	E(s)	Repatriated (£)	PV @ 15%
1	79.01	5.15	406.90	353.83
2	79.01	5.30	418.75	316.64
3	79.01	5.46	431.39	283.65
4	79.01	5.62	444.04	253.88
5	79.01	5.79	457.47	227.44

all calculations are accurate here

after applying 10% withholding tax, $PV = 1435.44 \times 0.9 = \text{£}1291.90$

Step 3:- Present value of block funds repatriated at the end:-

$$\text{Block fund each year} = 40\% \cdot \text{CFAT} = 40\% \text{ of } 131.68 \\ = 52.67$$

year	Block Fund	Reinvested @ 6%
1	52.67	66.49
2	52.67	62.73
3	52.67	59.18
4	52.67	55.83
5	52.67	52.67

FV of reinvested

296.9

cash flows withholds
tax @ 10%.

29.69

267.21

E(ss)

5.82

Expected (E) proceeds £155.16

PV @ 15%.

77.19

This shows you've really been studying.

Step 4:-

we assume that working capital of £30 million is received in full.

No withholding tax is charge on its repatriation.

You have great knowledge about this question.

So, amount repatriated = $30 \times 5.82 = \text{£}174.6 \text{ million}$

PV @ 15% = 786.81 million

$$\text{NPV} = \text{Step 2} + \text{Step 3} + \text{Step 4} - \text{Initial investment} \\ = 1291.90 + 773.19 + 86.81 - (530 \times 5) \\ = (-) 498.10$$

Project is not viable, because NPV is -ve.

Apply the same approach towards your exams.

P4 (ii)

If co. borrow in \$ then outflow would be as:-

6 Marks

Let company borrow \$100
 (+) Interest for 6 months @ 5.5%
 Amount repayable after 6 months
 Applicable 6 month forward rate
 Amount of cash outflow in '£'

$$\begin{array}{r}
 \$100 \\
 \$2.75 \\
 \hline
 \$102.75 \\
 36.40 \\
 \hline
 \text{£ } 3,740.10
 \end{array}$$

If co. borrow equivalent amount in '£', then outflow would be:-

$$\text{Equivalent } \$100 \times \text{£ } 36.10 = \text{£ } 3610$$

(+) Interest @ 11.50%.

$$\begin{array}{r}
 \text{£ } 207.58 \\
 \hline
 \text{£ } 3817.58
 \end{array}$$

You done this question very nicely, well done.

Since cash outflow is more in '£' borrowing then borrow should be made in '\$'.

(ii) Interest rate of £ borrowing make indifferent b/w 3 months & 6 months borrowing:-

$$\begin{aligned}
 (1 + 0.03)(1 + x) &= (1 + 0.0575) \\
 x &= 2.67\% \text{ for 3 months.}
 \end{aligned}$$

$$\text{Annualized} = 2.67\% \times 4 = 10.68\% \text{ p.a.}$$

Interest rate of '\$' borrowing make indifferent b/w 3 months & 6 months borrowing:-

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

$$x = 1.232\% \text{ for 3 months}$$

$$\text{Annualized} = 1.232\% \times 4 = 4.93\% \text{ p.a.}$$

You have attempted this question with great accuracy. Good job.

PS spot rate = $1\$ = 140 \text{ Yen}$

year end

1 $1\$ = 135 \text{ Yen}$

2 $1\$ = 130 \text{ Yen}$

3 $1\$ = 125 \text{ Yen}$

4 $1\$ = 120 \text{ Yen}$

or 140

7 Marks

keep up the good work

(a) Payment received by Yasufuku after 4 yrs :-

70 million $(1 + 0.10)^4 = 102.487 \text{ million}$

In \$ Equivalent = $\frac{102.487 \text{ million}}{120} = \$8,54,058$

Apply the same approach towards your exams.

(b) Payment received by MC. Donald after 4 yrs :-

$5,00,000 \times \$ (1 + 0.13)^4 = \$8,15,236.80$

(c) Yasufuku is in a better position than MC. Donald. This is because Yasufuku is receiving more dollars than MC. Donald.

\Rightarrow If Yen do not change in value :-

MC Donald after 4 yrs :-

good attempted

Amt received by Yasufuku (\$) = $102.487 \times \frac{1}{140} \text{ million}$
 $= \$7,32,050$

Amt. received by M.C Donald (\$) = $\$8,15,236.80$

If Yen did not change in value, MC. Donald will be in better position.

You have great knowledge about this question.