

# Chapter Tests of SFM of CA Ashish Lalaji 9825856155

## Solution of Test of Foreign Exchange Risk Management

Q 1  
(a)

**Due Date: 24<sup>th</sup> November**  
**Settlement Date: 24<sup>th</sup> October**

**Early delivery by 1 month from the due date:**

**Outlay of funds on 24<sup>th</sup> October:**

Client >>> Buys USD >>> Dealer Sells USD >>> Offer Rate

Client buys on 24<sup>th</sup> October at Rs.79.5800 instead of contracted rate of Rs.79.6700 per \$. This swaps the contracted rate to Rs.79.5800 per \$.

Cash inflow to client = 7,00,000 (78.6700 – 79.5800) = Rs.63,000

The above shall be passed on to client on original due date i.e. 1 month from now.

Interest to client = 63,000 X 12% X 1/12 = Rs.630

**Swap Charges:**

Early delivery is deemed to cancellation of forward contract at swapped rate.

Spot rate for selling on due date i.e. November	79.3550
Client >>> Sells USD >>>	
Dealer Buys USD >>> Bid Rate	
Forward rate for buying	79.5800
Loss per \$	0.225
Deal size (\$)	7,00,000
Swap Charges (Rs.)	1,57,500

**Total Charges for Early Delivery:**

Swap Charges	1,57,500
Flat Charges	100
Interest to client	(630)
Total Charges	<u>1,56,970</u>

**Total amount to be recovered from the customer:**

	<b>Rs.</b>
Amount as per Forward Contract (7,00,00 X 79.6700)	5,57,69,000
Add: Charges for early delivery	<u>1,56,970</u>
	<u>5,59,25,970</u>

Solution prepared by **CA. Ashish Lalaji**

**(b) (i) Analysis of Forward Cover:**

USD paid after 6 months =  $3,64,897 \times 1.5609 = \$5,69,568$

**(ii) Analysis of Money Market Cover:**

Deposit [ $\pounds 3,64,897 / 1 + (0.045 \times 6/12)$ ] i.e.  $\pounds 3,56,867$  today.

\$ equivalent is -

$3,56,867 \times 1.5673$  i.e.  $\$5,59,318$

Borrow  $\$5,59,318$  @7% p.a. for 6 months

USD payable after 6- months =  $\$5,59,318 + \$5,59,318 \times 7\% \times 6/12$   
=  $\$5,78,894$

**(iii) Analysis of Currency Options Contract:**

Details of call as well as put option are given. Premium is quoted in USD i.e. options details are of in USA (domestic / local country). Hence, the US firm shall buy GBP (call option) in USA to receive GBP.

Standard size is  $\pounds 12,500$

Number of contracts =  $3,64,897 / 12,500 = 29.19$   
i.e. 29 contracts

Deal size in  $\pounds = 29 \times 12,500 = \pounds 3,62,500$

Premium is \$ 0.036 per  $\pounds$

GBP	USD	
1	0.036	
3,62,500	?	= \$13,050

Interest foregone on premium =  $13,050 \times 7\% \times 6/12 = \$457$

Effective premium =  $13,050 + 457 = \$13,507$

Spot rates in F & O and Cash Market after 6 months is not given. It is assumed that spot rate is the same as the strike rate. In such a situation, call option shall be allowed to expire resulting into loss of premium paid.

USD payable after 6- months =  $(3,64,897 \times 1.56) + 13,507$   
=  $\$ 5,82,746$

**Conclusion:**

Hedging through Forward Contract is most preferable in view of least payment after 6 months in USD.

**Solution prepared by CA. Ashish Lalaji**

Subscribe to my YouTube Channel:

Scan:



(c) Quote between USD and GBP is indirect.

Direct quotes are:

$$1\$ = \text{Rs. } 79.3625 / 79.3700$$

$$1\$ = \text{£ } 0.6382 / 0.6553$$

Target: 1 INR = ? GBP

INR

----

GBP

Given: USD    USD

-----

INR    GBP

USD    USD

----- ÷ -----

GBP    INR

Cross rate is:

Buy USD >>> Dealer sells >>> £0.6553 / \$

Sell USD >>> Dealer buys >>> Rs.79.3625 / \$

i.e.  $0.6553 / 79.3625$  i.e.  $1 \text{ INR} = \text{£ } 0.0083$

£-equivalent of Rs.25 million =  $2,50,00,000 \times 0.0083 = \text{£}2,07,500$

**Q 2**

**(a) Contracted Forward Rate:**

$812.5 / \$10 = \text{Rs.}81.25$  per \$

**Futures Rate:**

Currency futures is cash settled. So, requisite \$ shall be sold after 3-months in cash market at then prevailing spot rate.

Cash inflow at spot rate in cash market =  $10 \times 81.30 = \text{Rs.}813$  lakhs.

However, company received only Rs.800 lakhs. This means currency futures resulted into loss of Rs.13 lakhs.

Loss per \$ =  $13 / 10 = \text{Rs.}1.3$

Company shall sell at contracted futures rate and buy at spot rate in futures market i.e. Rs.81.35 and suffer loss of Rs.1.3. Thus, contracted futures rate is –

$81.35 - 1.3 = \text{Rs.}80.05$  per \$.

**Solution prepared by CA. Ashish Lalaji**

**WhatsApp:** 9825856155

**Telegram:** <https://t.me/AshishLalaji>

**Instagram:** <https://www.instagram.com/ashishlalaji/>

**Facebook:** <https://www.facebook.com/ashish.lalaji.3/>

**(b)** Exchange rates are tabulated as under:

	<b>Bid Rate</b>	<b>Offer Rate</b>
Spot	79.25	79.55
3-month forward	78.90	79.30

Deal size = 5,000 X 20 = \$1,00,000

**(i) Analysis of Paying in 3 months:**

\$ payable after 3 months	1,01,500
(1,00,000 + 1,00,000 X 6% X 3/12)	
Forward offer rate for 3 months	<u>79.30</u>
INR payable after 3 months	<u>80,48,950</u>

**(ii) Analysis of Settling Right Now:**

INR paid as on today (\$1,00,000 X 79.55)	79,55,000
Add: Overdraft interest (79,55,000 X 12% X 3/12)	<u>2,38,650</u>
INR payable after 3 months	<u>81,93,650</u>

**Conclusion:**

Option 1 is better in view of lower payment in INR after 3 months.

Solution prepared by **CA. Ashish Lalaji**

Subscribe to my YouTube Channel:

Link:

[https://www.youtube.com/channel/Uct0mAUGloc\\_qG\\_EgCrpuzbA](https://www.youtube.com/channel/Uct0mAUGloc_qG_EgCrpuzbA)

Or Scan:



WhatsApp: 9825856155

Telegram: <https://t.me/AshishLalaji>

Instagram: <https://www.instagram.com/ashishlalaji/>

Facebook: <https://www.facebook.com/ashish.lalaji.3/>

e-mail: [ashishlalaji@rediffmail.com](mailto:ashishlalaji@rediffmail.com)