

FOREIGN EXCHANGE EXPOSURE & RISK MANAGEMENT

Selling SR	= 41.5200
(+) 3 Month Swap	= 0.93%
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	= 41.91
(+) Margin	= 0.20%
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New FR	= 41.99

Question – 50

On 15th January 2015 you as a banker booked a forward contract for US\$ 2,50,000 for your import customer deliverable on 15th March 2015 at ₹ 65.3450. On due date customer request you to cancel the contract. On this date quotation for US\$ in the inter-bank market is as follows:

Spot	₹ 65.2900/2975 per US\$
Spot/April	3,000/3,100
Spot/May	6,000/6,100

Assuming that the flat charges for the cancellation is ₹ 100 and exchange margin is 0.10%, then determine the cancellation charges payable by the customer.

Solution:

Calculation of Cancellation Charges

Selling Rate of Bank	= ₹ 65.3450
Buying Rate of Bank (65.2900 – 0.10%)	= ₹ 65.2250
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Gain to Bank	= ₹ 0.1200
(×) Contract Size	= \$ 2,50,000
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Gain to Bank	= ₹ 30,000
(+) Flat Charges	= 100
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	= 30,100

Question – 51

A customer with whom the bank had entered into 3 months forward purchase contract for Swiss Francs 1,00,000 at the rate of ₹ 36.25 comes to the bank after two months and requests cancellation of the contract. On this date, the rates are:

Spot	CHF 1 = ₹ 36.30	36.35
One month forward	36.45	36.52

Determine the amount of profit or loss to the customer due to cancellation of the contract.

(SM TYK – 44)

Solution:

Profit/Loss to Customer

Buying rate = 36.25

Selling rate = 36.52

Gain to bank = ₹ 0.27

(×) Contract Size = SF 1,00,000

Loss to the customer = ₹ 27,000

Question – 52

Suppose you are a banker and one of your export customer has booked a US\$ 1,00,000 forward sale contract for 2 months with you at the rate of ₹ 62.5200 and simultaneously you covered yourself in the interbank market at 62.5900. However on due date, after 2 months you customer comes to you and requests for cancellation of the contract and also requests for extension of the contract by one month. On this date quotation for US\$ in the market was as follows:

Spot ₹ 62.7200/62.6800

1 month forward ₹ 62.6400/62.7400

Determine the extension charges payable by the customer assuming exchange margin of 0.10% on buying as well as selling.

Solution:

Calculation of Extension Charge

Particular	Amount
Buying Rate of Bank	₹ 62.5200
Selling Rate of Bank (62.7200 + 0.10%)	₹ 62.7825
Gain to Bank	₹ 0.2625
(×) Contract Size	\$ 1,00,000
Extension Charge	₹ 26,250

New Forward Rate

Particular	Amount
Buying Rate (1 Month)	₹ 62.6400
(-) Margin	0.10%
	62.5774
New FR	62.5775

Question – 53

A bank enters into a forward purchase TT covering an export bill for Swiss Francs 1,00,000 at ₹ 32.4000 due 25th April and covered itself for same delivery in the local inter bank market at ₹ 32.4200. However, on 25th March, exporter sought for cancellation of the contract as the tenor of the bill is changed.

In Singapore market, Swiss Francs were quoted against dollars as under:

Spot	USD 1 = Sw. Fcs.	1.5076/1.5120
One month forward		1.5150/ 1.5160
Two months forward		1.5250 / 1.5270
Three months forward		1.5415/ 1.5445

and in the interbank market US dollars were quoted as under:

Spot	USD 1 = ₹	49.4302/.4455
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Spot / April	4100/.4200
Spot/May	.4300/.4400
Spot/June	.4500/.4600

Calculate the cancellation charges, payable by the customer if exchange margin required by the bank is 0.10% on buying and selling.

(SM TYK – 45 & Exam November – 2015)

Solution:

Cancelation Rate

First customer buy \$ from ₹

SR	= 49.4455
(+) 1 Month Swap	= 0.4200
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	= 49.8655
(+) Margin	= 0.10%
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₹/ \$	= 49.9154

After that Customer Buy SF from \$

SF/\$ 1.5150

$$\begin{aligned} \text{Cancellation Rate } \text{₹/SF} &= \frac{49.9154}{1.5150} \\ &= \text{₹ } 32.9475 \end{aligned}$$

Calculation of Cancellation Charge

Buying rate of Bank (₹/SF)	= ₹ 32.4000
Selling rate of Bank (₹/SF)	= ₹ 32.9470
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Gain to Bank	= ₹ 0.5475
(×) Contract Size	= SF 1,00,000

Cancellation Charges = ₹ 54,750

Question – 54

NP and Co. has imported goods for US \$ 7,00,000. The amount is payable after three months. The company has also exported goods for US \$ 4,50,000 and this amount is receivable in two months. For receivable amount a forward contract is already taken at ₹ 48.90.

The market rates for Rupee and Dollar are as under:

Spot	₹ 48.50/70
Two months	25/30 points
Three months	40/45 points

The company wants to cover the risk and it has two options as under :

- (A) To cover payables in the forward market and
- (B) To lag the receivables by one month and cover the risk only for the net amount. No interest for delaying the receivables is earned. Evaluate both the options if the cost of Rupee Funds is 12%. Which option is preferable?

(SM TYK – 43 & Exam May – 2012)

Solution:

(A) Cover payable in forward market

Payable

Buy \$ 7,00,000 at 3 Month FR (48.70 + 0.45) = 49.15

Cash Outflows (7,00,000 × 49.15) (A) = ₹ 34,40,500

Receivable

Sell \$ 4,50,000 at 48.90 (4,50,000 × 48.90) = ₹ 2,20,05,000

Interest (2,20,05,000 × 12 × 1/12) = ₹ 2,20,050

Cash Inflows (B) = ₹ 2,22,25,050

Net Cash Outflow (A – B) = ₹ 1,21,79,950

(B) Leg the receivable by one month

Forward contract cancelled

Buying Rate of Bank	= ₹ 48 .90
(-) Selling Rate of Bank (48.70 + 0.30)	= ₹ 49.00
Gain to Bank	= ₹ 0.10
(×) Contract Size	= \$ 4,50,000
Cancellation Charges	= ₹ 45,000

Net \$ payable after 3 month

\$ Payable	= \$ 7,00,000
(-) \$ Receivable	= \$ 4,50,000
Net \$ Payable	= \$ 2,50,000

Cash Outflows

Buy \$ 2,50,000 at 3 month FR

(\$ 2,50,000 × 49.15)	= ₹ 1,22,87,500
(+) Cancellation Charges	= ₹ 45,000
Cash Outflow	= ₹ 1,23,32,500

Option A is better due to lower cash outflow.

(II) EARLY DELIVERY

Question – 55

On 19th January, Bank A entered into forward contract with a customer for a forward sale of US \$ 7,000, delivery 20th March at ₹ 46.67. On the same day, it covered its position by buying forward from the market due 19th March, at the rate of ₹ 46.655. On 19th February, the customer approaches the bank and requests for early delivery of US \$. Rates prevailing in the interbank markets on that date are as under:

Spot (₹/\$)	46.5725/5800
March	46.3550/3650

Interest on outflow of funds is 16 % and on inflow of funds is 12 %.

Flat charges for early delivery are ₹ 100.

What is the amount that would be recovered from the customer on the transaction?

Note: Calculation should be made on months basis than on days basis.

(Exam November – 2018)

Solution:

Amount receivable from customer

Sell \$ 7,000 at contracted rate $(7,000 \times 46.67) = ₹ 3,26,690$

Swap Loss/Gain

Bank enter into buy-sell swap where bank buy spot from other bank & sell 1 months forward to other Bank.

Buy spot	= ₹ 46.5800
Sell forward	= ₹ 46.3550
Swap loss	= ₹ 0.225
(×) Contract size	= ₹ 7,000
Swap loss	= ₹ 1,575

Note: अगर Swap Gain होता तो Customer को Transfer करना पड़ता।

Interest on outlay of fund/inflow of fund (19/2)

Cash outflow on buy spot $(\$ 7,000 \times 46.5800) = ₹ 3,26,060$

Cash Inflows on sell to customer $(\$ 70,000 \times 46.67) = ₹ 3,26,690$

Net cash inflows = ₹ 630

Interest on Inflows of fund = ₹ 630 × 12% × 1/12 = ₹ 6.30

Total amount receivable from customer

$(₹ 3,26,690 + 1,575 - 6.30) = ₹ 3,28,258.70$

Question – 56

On 1st October, 2020 Mr. Guru, and exporter, enters into a forward contract with the Bank to sell USD 1,00,000 on 31st December 2020 at INR/USD 75.40. However, at the request of the importer, Mr. Guru received the amount on 30th November, 2020. Mr. Guru requested the bank take delivery of the remittance on 30th November, 2020 i.e. before due date.

The inter-bank rate on 30th November, 2020 was as follows:

Spot INR/USD 75.22 - 75.27

One Month Premium 10/15

Assume 365 days in a year.

- (i) If bank agrees to take early delivery then what will be net inflow to Mr. Guru assuming that the prevailing prime lending rate is 18% per annum.
- (ii) If Mr. Guru can deploy these funds in USD, he gets return at the rate of 3% per annum. Which is better? Why?

(Exam July – 2021)

Solution:

Option 1: Early Delivery

- Swap Loss or Gain

Swap difference on 30/11 Bank sell spot & buy 1 month forward

Selling rate = 75.22

Buying rate = 75.42

Swap loss = 0.20

(×) Customer size = \$ 1,00,000

Swap loss = ₹ 20,000

- Interest on inflows or outflows

Cash outflows (\$ 1,00,000 × 75.40) = ₹ 75,40,000

Cash inflows (\$ 1,00,000 × 75.22) = ₹ 75,22,000

Net outflows	= 18,000
Interest = $18,000 \times 18\% \times \frac{31}{365}$	= 275.18
Net inflow to Guru (\$ 1,00,000 × 75.40)	= ₹ 75,40,000
Swap loss	= - 20,000
Interest on outflow	= - 275.18
	= ₹ 75,19,724.62

Option 2: Invest in \$ Fund at 3% p.a.

Cash inflow in \$ on 31/12

Principal	= \$ 1,00,000
Interest (\$ 1,00,000 × 3% × 31/365)	= \$ 254.79
Cash inflows (₹)	
\$ 1,00,000 × 75.40	= 75,40,000
\$ 254.79 × 75.32 (75.22 + 0.10)	= 19,190.78
	= 75,59,190.78

Option 2 is better due to higher cash inflows

(III) OVERDUE FORWARD CONTRACT

Question – 57

An importer booked a forward contract with his bank on 10th April for USD 2,00,000 due on 10th June @ ₹ 64.4000. The bank covered its position in the market at ₹ 64.2800.

The exchange rates for dollar in the interbank market on 10th June and 13th June were:

	10th June	13th June
Spot	USD 1= ₹ 63.8000/8200	₹ 63.6800/7200
Spot/June	₹ 63.9200/9500	₹ 63.8000/8500

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July	₹ 64.0500/0900	₹ 63.9300/9900
August	₹ 64.3000/3500	₹ 64.1800/2500
September	₹ 64.6000/6600	₹ 64.4800/5600

Exchange Margin 0.10% and interest on outlay of funds @ 12%. The importer requested on 14th June for extension of contract with due date on 10th August.

Rates rounded to 4 decimal in multiples of 0.0025.

On 10th June, Bank Swaps by selling spot and buying one month forward.

Calculate:

- (i) Cancellation rate
- (ii) Amount payable on \$ 2,00,000
- (iii) Swap loss
- (iv) Interest on outlay of funds, if any
- (v) New contract rate
- (vi) Total Cost

Solution:

(i) Cancellation Rate

Particular	Amount
Buying Rate of Bank (13/6)	₹ 63.6800
(-) Margin	0.1%
Customer Rate	₹ 63.6163
Round Off	₹ 63.6175

(ii) Cancellation Charge

Particular	Amount
Selling Rate of Bank	₹ 64.4000
(-) Buying rate of Bank	₹ 63.6175
Gain to Bank	0.7825
(×) Contract Size	\$ 2,00,000
Amount Payable by Customer	₹ 1,56,500