FOREX CLASS 8 PART II

CLASS WORK COVERAGE

To streamline our learning process, I've categorized the questions we'll tackle in class into four distinct groups:

1. ***Classic:*** *These questions are exactly as presented in your book, providing a familiar foundation.*
2. ***Transformed:*** *Here, we've converted book questions into multiple-choice format to enhance your analytical skills.*
3. ***Adapted:*** *These are similar to book questions but with altered numbers or names, presented as multiple-choice questions for varied practice.*
4. ***Original:*** *These are entirely new questions not found in your book, designed to challenge and expand your understanding.*

This structure will help us navigate through a range of problems, ensuring a comprehensive grasp of the material. Looking forward to our next session!

Q. No	Type	Book	Page No.	Q No.
1	***Classic***	CW Q BOOK	6	17
2	***Classic***	CW Q BOOK	7	20
3	***Original***	-	-	-
4	***Original***	-	-	-

Question 1:

A Japanese Company effected sales to X Ltd., an Indian Company, the payment being due after 3 months. The invoice amount is JPY 216 lakhs, at today's spot rate it is equivalent to ₹ 50 lakhs. It is anticipated that exchange rate will decline by 8% over the 3 months period and in order to protect the JPY payments, the importer proposes to take appropriate action in the foreign exchange market. The 3 months forward rate is presently quoted as JPY 4.12 per rupee.

You are required to calculate the expected loss and show how it can be hedged by a forward contract.

(Source: ICAI)

Answer:

Spot rate of ₹ 1 against yen = JPY 216 lakhs/ ₹ 50 lakhs	= JPY 4.32
3 months forward rate of Re. 1 against JPY	= JPY 4.12
Anticipated decline in Exchange rate	= 8%.
Expected spot rate after 3 months	= JPY 4.32 – 8% of 4.32
	= JPY 4.32 – JPY 0.35
	= JPY 3.97 per rupee

	₹ (in Lakhs)
Present cost of JPY 216 Lakhs	50.00
Cost after 3 months: JPY 216 Lakhs / JPY 3.97	54.41
Expected exchange loss	4.41

If the expected exchange rate risk is hedged by a Forward contract:

	₹ (in Lakhs)
Present cost of JPY 216 Lakhs	50.00
Cost after 3 months if forward contract is taken JPY 216 lakhs /JPY 4.12	52.43
Expected exchange loss	2.43

Suggestion: If the exchange rate risk is not covered with forward contract, the expected exchange loss is ₹ 4.41 Lakhs. This could be reduced to ₹ 2.43 Lakhs if it is covered with Forward contract. Hence, taking forward contract is suggested.

Question 2:

JKL Ltd., an Indian company has an export exposure of JPY 10,000,000 receivable August 31, 2014. Japanese Yen (JPY) is not directly quoted against Indian Rupee.

The current spot rates are:

INR/US $ = ₹ 62.22
JPY/US$ = JPY 102.34

It is estimated that Japanese Yen will depreciate to 124 level and Indian Rupee to depreciate against US $ to ₹ 65.

Forward rates for August 2014 are

INR/US $ = ₹ 66.50
JPY/US$ = JPY 110.35

Required:

i. Calculate the expected loss, if the hedging is not done. How the position will change, if the firm takes forward cover?
ii. If the spot rates on August 31, 2014 are:
INR/US $= ₹ 66.25
JPY/US$ = JPY 110.85

Is the decision to take forward cover justified? ***(Source: ICAI)***

Answer:

Since the direct quote for ¥ and ₹ is not available it will be calculated by cross exchange rate as follows:

₹/$ x $/¥ = ₹/¥

62.22/102.34 = 0.6080

Spot rate on date of export 1¥ = ₹ 0.6080

Expected Rate of ¥ for August 2014 = ₹ 0.5242 (₹ 65/¥124)

Forward Rate of ¥ for August 2014 = ₹ 0.6026 (₹ 66.50/¥110.35)

i. Calculation of expected loss without hedging

Value of export at the time of export (₹ 0.6080 x ¥10,000,000)	₹ 60,80,000
Estimated payment to be received on Aug. 2014 (₹ 0.5242 x ¥10,000,000)	₹ 52,42,000
Loss	₹ 8,38,000

Hedging of loss under Forward Cover

₹ Value of export at the time of export (₹ 0.6080 x ¥10,000,000)	₹ 60,80,000
Payment to be received under Forward Cover (₹ 0.6026 x ¥10,000,000)	₹ 60,26,000
Loss	₹ 54,000

By taking forward cover loss is reduced to ₹ 54,000.

ii. Actual Rate of ¥ on August 2014 = ₹ 0.5977 (₹ 66.25/¥110.85)

Value of export at the time of export (₹ 0.6080 x ¥10,000,000)	₹ 60,80,000
Estimated payment to be received on Aug. 2014 (₹ 0.5977 x ¥10,000,000)	₹ 59,77,000
Loss	₹ 1,03,000

The decision to take forward cover is still justified.

Question 3:

JKL Ltd., an Indian company has an export exposure of JPY 10,000,000 receivable December 31, 2022. Japanese Yen (JPY) is not directly quoted against Indian Rupee.

The current spot rates are:

INR/US $ = ₹ 82.22
JPY/US$ = JPY 132.34

It is estimated that Japanese Yen will depreciate to 154 against US $ and Indian Rupee to depreciate to ₹ 85 against US $.

Forward rates as on date for 31st December 2022 are as follows:
INR/US $ = ₹ 86.50
JPY/US$ = JPY 140.35

Required:

i. Evaluate the expected loss based on estimated rates if the hedging is not done.

ii. Justify the decision to take forward cover even if actual rates on December 31, 2022 happens to be as follows:
INR/US $ = ₹ 86.25
JPY/US$ = JPY 140.85
Note: Make calculation of ¥ rate in ₹ upto 4 decimal points.

Answer:

Since the direct quote for ¥ and ₹ is not available it will be calculated by cross exchange rate as follows:

₹/$ x $/¥ = ₹/¥

82.22/132.34 = 0.6213

Spot rate on date of export 1 ¥ = ₹ 0.6213

Estimated Rate of ¥ for Dec.31, 2022 = ₹ 0.5519 (₹ 85/¥ 154)

Forward Rate of ¥ for Dec.31, 2022 = ₹ 0.6163 (₹ 86.50/ ¥ 140.35)

i. The expected loss without hedging

Value of export at the time of export (₹ 0.6213 x ¥ 10,000,000)	₹ 62,13,000
Expected payment to be received on 31st Dec. 2022 as per estimated rates (₹ 0.5519 x ¥ 10,000,000)	₹ 55,19,000
Loss	₹ 6,94,000

ii. a.

Hedging of loss under Forward Cover

Value of export at the time of export (₹ 0.6213 x ¥ 10,000,000)	₹ 62,13,000
Payment expected to be received under Forward Cover (₹ 0.6163 x ¥ 10,000,000)	₹ 61,63,000
Loss	₹ 50,000

Thus, by taking forward cover loss is reduced to ₹ 50,000 from ₹ 6,94,000

b. Actual Rate of ¥ on December 2022 = ₹ 0.6124 (₹ 86.25/ ¥ 140.85)

Value of export at the time of export (₹ 0.6213 x ¥ 10,000,000)	₹ 62,13,000
Payment to be received on 31st Dec. 2022 as per actual rate (₹ 0.6124 x ¥ 10,000,000)	₹ 61,24,000
Loss	₹ 89,000

From the above solution, we can find that net loss in actual situation is ₹ 89,000 while net loss when taken Forward Cover is only ₹ 50,000. Hence, the decision to take Forward Cover is justified even if the actual rate happens to be as prescribed.

Question 4:

Humata Ltd., a Japanese Corporation, has sold goods today to Peacock Ltd., an Indian company for an amount of JPY 74 Lakhs. The payment will be due in three months from the date of invoice. At today's spot rate, it is equivalent to INR 50 Lakhs. It is anticipated that the INR will decline by 10% over the 3-months period and in order to protect the Yen payments, Peacock decides to take appropriate action in the foreign exchange market. The 3-months forward rate is presently quoted at JPY/INR 1.44

You are required to calculate:

i. The expected loss to the importer and
ii. Impact of hedging by a forward contract

Answer:

Spot rate of ₹ 1 against yen = JPY 74 lakh/ ₹ 50 lakh = JPY 1.48

3 months forward rate of Re. 1 against JPY = JPY 1.44

Anticipated decline in Exchange rate = 10%.

Expected spot rate after 3 months = JPY 1.48 – 10% of 1.48 = JPY 1.48 – JPY 0.15
= JPY 1.33 per rupee

	₹ *(in Lakhs)*
Present cost of JPY 74 Lakhs	50.00
Cost after 3 months: JPY 74Lakhs/ JPY 1.33	55.64
Expected exchange loss	5.64
If the expected exchange rate risk is hedged by a Forward contract:	
Present cost	50.00
Cost after 3 months if forward contract	
is taken JPY 74 lakh / JPY 1.44	51.39
Expected loss	1.39

Suggestion: If the exchange rate risk is not covered with forward contract, the expected exchange loss is ₹5.64 Lakhs. This could be reduced to ₹1.39 Lakhs if it is covered with Forward contact. Hence, taking forward contract is suggested.