FOREX CLASS 15

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.
38	Classic	CW Q BOOK	15
65	Classic	CW Q BOOK	26
39	Classic	CW Q BOOK	15
40	Classic	CW Q BOOK	16
41	Classic	CW Q BOOK	16

PART III: FX EXPOSURE AND HEDGING

Topic 13 EXPOSURE STRATEGY MATRIX

Question 38: SSEI CW Book Page No. 15

Place the following strategies by different persons in the Exposure Management Strategies Matrix.

Strategy 1: Kuljeet a wholesaler of imported items imports toys from China to sell them in the domestic market to retailers. Being a sole trader, he is always so much involved in the promotion of his trade in domestic market and negotiation with foreign supplier that he never pays attention to hedge his payable in foreign currency and leaves his position unhedged.

Strategy 2: Moni, is in the business of exporting and importing brasswares to USA and European countries. In order to capture the market he invoices the customers in their home currency. Lavi enters into forward contracts to sell the foreign exchange only if he expects some profit out of it other-wise he leaves his position open.

Strategy 3: TSC Ltd. is in the business of software development. The company has both receivables and payables in foreign currency. The Treasury Manager of TSC Ltd. not only enters into forward contracts to hedge the exposure but carries out cancellation and extension of forward contracts on regular basis to earn profit out of the same. As a result management has started looking Treasury Department as Profit Centre.

Strategy 4: DNB Publishers Ltd. in addition to publishing books are also in the business of importing and exporting of books. As a matter of policy the movement company invoices the customer or receives invoice from the supplier immediately covers its position in the Forward or Future markets and hence never leave the exposure open even for a single day.

(*Source: ICAI*)

ANSWER:

Strategy 1: This strategy is covered by High Risk: Low Reward category and worst as it leaves all exposures unhedged. Although this strategy does not involve any time and effort, it carries high risk.

Strategy 2: This strategy covers Low Risk: Reasonable reward category as the exposure is covered wherever there is anticipated profit otherwise it is left.

Strategy 3: This strategy is covered by High Risk: High Reward category as to earn profit, cancellations and extensions are carried out. Although this strategy leads to high gains but it is also accompanied by high risk.

Strategy 4: This strategy is covered by Low Risk : Low Reward category as company plays a very safe game.

Diagrammatically all these strategies can be depicted as follows:

High Risk

Low Reward			High Reward
	Strategy 1	Strategy 3	
	Strategy 4	Strategy 2	

Low Risk

PART IV: INTERNATIONAL PARITY CONDITIONS

Topic 21 FC VS MMC

Question 65: **SSEI CW Book Page No. 26**

H Ltd. is an Indian firm exporting handicrafts to North America. All the exports are invoiced in US$. The firm is considering the use of money market or forward market to cover the receivable of $50,000 expected to be realized in 3 months time and has the following information from its banker:

	Exchange Rates
Spot	₹ /$ 72.65/73
3-m forward	₹ I$ 72.95/73.40

The borrowing rates in US and India are 6 % and 12% p.a. and the deposit rates are 4% and 9% p.a. respectively.

i. Which option is better for H Ltd. ?

ii. Assume that H Ltd. anticipates the spot exchange rate in 3-months time to be equal to the current 3-months forward rate. After 3-months the spot exchange rate turned out to be ₹/$: 73/73.42. What is the foreign exchange exposure and risk of H Ltd.?

(*Source: ICAI*)

ANSWER:

i. Money market hedge

For money market hedge Indian Firm shall borrow in US$ and then translate them to Indian Rupee and shall make deposit in Indian Rupee.

For receipt of US$ 50,000 in 3 months (@ 1.5% interest) amount required to be borrowed now (US$ 50,000 ÷ 1.015) = US$ 49,261.08

With spot rate of 72.65 the Rupee deposit will be = ₹ 35,78,817.46

Deposit amount will increase over 3 months (@2.25% interest) will be = ₹ 36,59,340.85

Forward market hedge

Sell 3 months' forward contract accordingly, amount receivable after 3 months will be (US$ 50,000 x 72.95)

= ₹ 36,47,500

In this case, more will be received under the money market hedge hence it is better option.

ii. Exchange Exposure to H Ltd.

Expected Realisation as per Forward Rate (US$ 50,000 X 72.95)	₹ 36,47,500
Actual Realisation as per actual Spot Rate (US$ 50,000 X 73.00)	₹ 36,50,000
Gain	₹ 2,500

PART III: FX EXPOSURE AND HEDGING

Topic 14 TRANSACTION EXPOSURE

Question 39: SSEI CW Book Page No. 15

An automobile company in Gujarat exports its goods to Singapore at a price of SG$ 500 per unit. The company also imports components from Italy and the cost of components for each unit is € 200. The company's CEO executed an agreement for the supply of 20000 units on January 01, 2010 and on the same date paid for the imported components. The company's variable cost of producing per unit is Rs. 1,250 and the allocable fixed costs of the company are Rs. 1,00,00,000.

The exchange rates as on 1 January 2010 were as follows:

Spot	Rs./SG$	33.00/33.04
	Rs./€	56.49/56.56

Mr. A, the treasury manager of company is observing the movements of exchange rates on a day to day basis and has expected that the rupee would appreciate against SG$ and would depreciate against €.

As per his estimates the following are expected rates for 30th June 2010.

Spot	Rs./SG$	32.15/32.21
	Rs./€	57.27/57.32

You are required to find out:

a. The change in profitability due to transaction exposure for the contract entered into.

b. How many units should the company increases its sales in order to maintain the current profit level for the proposed contract in the end of June 2010.

(*Source: ICAI)*

ANSWER:

a. Let us first calculate the Company's existing profits

	Rs.	**Rs.**
Sales – 20000 x SG$500 x Rs.33		330,000,000
Variable Cost		
Imported Raw Material-20000 x €200 x Rs.56.56	226,240,000	
Manufacturing Cost- 20000 x Rs. 1,250	25,000,000	
Fixed Cost	10,000,000	
		261,240,000
Profit		68,760,000

After the Rupee appreciation against SG$ and depreciation against €, the company's profitability will be

	Rs.	**Rs.**
Sales – 20000 x SG$500 x Rs.32.15		321,500,000
Variable Cost		
Imported Raw Material-20000 x €200 x Rs.57.32	229,280,000	
Manufacturing Cost- 20000 x Rs. 1,250	25,000,000	
Fixed Cost	10,000,000	
		264,280,000
Profit		57,220,000

Thus profit will decrease by Rs. 11,540,000 (Rs. 68,760,000 – Rs. 57,220,000)

b. Let the number of units that need to be sold for keeping the profits at pre appreciation level be X.

Then

Rs. 68,760,000 = [500 × Rs. 32.15 × X] – [(1250 × X) + (200 × 57.32X) + 10,000,000]

68,760,000 = [16075X – (1250X + 11464X + 10,000,000)]

68,760,000 + 10,000,000= 16075X – 12714X

78,760,000 = 3361X

X = 23433.50 or, 23434 units.

Thus, the company should increase its existing supply from 20000 to 23434 to maintain the current profit level of Rs. 68,760,000.

Question 40: SSEI CW Book Page No. 16

Shanti exported 200 pieces of a designer jewellery to USA at $ 200 each. To manufacture and design this jewellery she imported raw material from Japan of the cost of JP¥ 6000 for each piece.

The labour cost and variable overhead incurred in producing each piece of jewellery are ₹ 1,300 and ₹ 650 respectively.

Suppose Spot Rates are:

₹/ US$	₹ 65.00 – ₹ 66.00
JP¥/ US$	JP¥ 115 – JP¥ 120

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:

₹/ US$	₹ 68.90 – ₹ 69.25
JP¥/ US$	JP¥ 105 – JP¥ 112

You are required to calculate the resultant transaction exposure.

(Source: ICAI)

ANSWER:

Profit as per Spot Rates

	₹
Sales Revenue (US$ 200 X 200 X ₹ 65)	26,00,000
Less: Cost of Imported Raw Material $\left(200 \times \frac{6000}{115} \times ₹66\right)$	6,88,696
Labour Cost (200 X ₹ 1,300)	2,60,000
Variable Overheads (200 X ₹ 650)	1,30,000
Profit	15,21,304

Profit as per expected Spot Rates

	₹
Sales Revenue (US$ 200 X 200 X ₹ 68.90)	27,56,000
Less: Cost of Imported Raw Material $\left(200 \times \frac{6000}{105} \times ₹\ 69.25\right)$	7,91,429
Labour Cost (200 X ₹ 1,300)	2,60,000
Variable Overheads (200 X ₹ 650)	1,30,000
Profit	15,74,571
Increase/ (Decrease) in Profit due to Transaction Exposure (₹ 15,74,571 – ₹ 15,21,304)	₹ 53,267

Question 41: SSEI CW Book Page No. 16

Fleur du lac, a French co., had shipped on Jan 2, 2012 goods to an American importer under a letter of credit arrangement, which calls for payment at the end of 90 days. The invoice is for $ 124,000. On the date of shipment the exchange rate was 5.70 French francs to the $ if the French franc were to strengthen by 5% by the end of 90 days what would be the transactions gain or loss in French francs? If it were to weaken by 5%,what would happen?

(Note: may calculate in francs per $) ***(Source: ICAI)***

ANSWER:

The French franc strengthening by 5 percent means an exchange rate of 5.70 ×.95 = 5.415 French francs to the dollar. The French franc weakening by 5 percent means an exchange rate of 5.70 × 1.05 = 5.985 French francs to the dollar.

French franc strengthens	French franc weakens
Before: $124,000 × 5.70 = FF 706,800	Before: $124,000 × 5.70 = FF 706,800
After: 124,000 × 5.415 = FF 671,460	After: 124,000 × 5.985 = FF 742,140
Transaction loss - FF 35,340	Transaction gain + FF 35,340