FOREX CLASS 24

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.
71	Classic	CW Q BOOK	29
89	Classic	CW Q BOOK	38
90	Classic	CW Q BOOK	39
91	Classic	CW Q BOOK	39
93	Classic	CW Q BOOK	40

PART IV: INTERNATIONAL PARITY CONDITIONS

Topic 23 FC VS MMC VS LEADING AND LAGGING

Question 71: SSEI CW Book Page 29.

CQS plc is a UK company that sells goods solely within UK. CQS plc has recently tried a foreign supplier in Netherland for the first time and need to pay €250,000 to the supplier in six months' time. You as financial manager are concerned that the cost of these supplies may rise in Pound Sterling terms and has decided to hedge the currency risk of this account payable. The following information has been provided by the company's bank:

Spot rate (€ per £):	1·998 ± 0·002
Six months forward rate (€ per £):	1·979 ± 0·004

Money market rates available to CQS plc:

	Borrowing	Deposit
One year Pound Sterling interest rates:	6·1%	5·4%
One year Euro interest rates:	4·0%	3·5%

Assuming CQS plc has no surplus cash at the present time you are required to evaluate whether a money market hedge, a forward market hedge or a lead payment should be used to hedge the foreign account payable.

(Source: ICAI)

ANSWER:

CQS plc should place sufficient Euros on deposit now so that, with accumulated interest, the six-month liability of €250,000 can be met. Since the company has no surplus cash at the present time, the cost of these Euros must be met by a short-term Pound Sterling loan.

Six-month Euro deposit rate = 3·5/2 = 1·75%

Current spot selling rate = € 1·998 – 0·002 = €1·996 per £

Six-month Pound Sterling borrowing rate = 6·1/2 = 3·05%

Euros deposited now = 250,000/1·0175 = € 2,45,700

Cost of these Euros at spot = 245,700/1·996 = £ 1,23,096

Pound Sterling value of loan in six months' time = 123,096 x 1·0305 = £ 1,26,850

Forward market hedge

Six months forward selling rate =€ 1·979 – € 0·004 = € 1·975 per £

Pound Sterling cost using forward market hedge = € 2,50,000/1·975 = £ 1,26,582

Lead payment

Since the Euro is appreciating against the Pound Sterling, a lead payment may be worthwhile.

Pound Sterling cost now = € 2,50,000/1·996 = £ 1,25,251

This cost must be met by a short-term loan at a six-month interest rate of 3·05%

Pound Sterling value of loan in six months' time = £ 1,25,251 x 1·0305 = £1,29,071

Evaluation of hedges

The relative costs of the three hedges can be compared since they have been referenced to the same point in time, i.e. six months in the future. The most expensive hedge is the lead payment, while the cheapest is the forward market hedge. Using the forward market to hedge the account payable currency risk can therefore be recommended.

PART VI: RESIDUAL

Topic 28 CURRENCY OF INVOICING

Question 89: SSEI CW Book Page 38.

XP Pharma Ltd., has acquired an export order for ₹ 10 million for formulations to a European company. The Company has also planned to import bulk drugs worth ₹ 5 million from a company in UK. The proceeds of exports will be realize d in 3 months from now and the payments for imports will be due after 6 months from now. The invoicing of these exports and imports can be done in any currency i.e. Dollar, Euro or Pounds sterling at company's choice. The following market quotes are available.

	Spot Rate	Annualised Premium
₹/$	67.10/67.20	$ - 7%
₹ /Euro	63.15/63.20	Euro - 6%
₹ /Pound	88.65/88.75	Pound - 5%

Advice XP Pharma Ltd. about invoicing in which currency.

(Calculation should be upto three decimal places).

(Source: ICAI)

ANSWER:

i. Proceeds of Exports in INR = ₹ 10 Million

Position of Inflow under three currencies will be as follows:

Currency	Invoice at Spot Rate	Expected Rate after 3-months	Conversion in INR after 3-months
$	₹ 100,00,000/ ₹ 67.10 = $ 149031.297	₹ 67.10 (1 + 0.07/4) = ₹ 68.27	₹ 68.27 x $ 149031.297 = ₹ 1,01,74,367
€	₹ 100,00,000/ ₹ 63.15 = € 1,58,353.127	₹ 63.15 (1 + 0.06/4) = ₹ 64.10	₹ 64.10 x € 1,58,353.127 = ₹ 1,01,50,435
£	₹ 100,00,000/ ₹ 88.65 = £ 1,12,803.158	₹ 88.65 (1 + 0.05/4) = ₹ 89.76	₹ 89.76 x £ 1,12,803.158 = ₹ 1,01,25,211

ii. Payment of Import in INR = ₹ 5 Million

Position of outflow under three currencies will be as follows:

Currency	Invoice at Spot Rate	Expected Rate after 6-months	Conversion in INR after 6-months
$	₹ 50,00,000/ ₹ 67.20 = $ 74404.762	₹ 67.20 (1 + 0.07/2) = ₹ 69.55	₹ 69.55 x $ 74404.762 = ₹ 51,74,851
€	₹ 50,00,000/ ₹ 63.20 = € 79,113.924	₹ 63.20 (1 + 0.06/2) = ₹ 65.10	₹ 65.10 x € 79,113.924 = ₹ 51,50,316
£	₹ 50,00,000/ ₹ 88.75 = £ 56,338.028	₹ 88.75 (1 + 0.05/2) = ₹ 90.97	₹ 90.97 x £ 56,338.028 = ₹ 51,25,070

Advice: Since cash inflow is highest (1,01,74,367) in case of $ hence invoicing for Export should be in $. However, cash outflow is least (51,25,070) in case of £ the invoicing for import should be in £.

Question 90: SSEI CW Book Page 39.

Following information relates to M/s A Lt d. which is a manufacturing-cum-exporting unit. It is exporting some electronic components to Japan, USA and Europe on 90 days credit terms:
Cost and Sales Information:

	Japan	USA	Europe
Variable cost per unit	₹ 225	₹395	₹510
Export sale price per unit	Yen 650	$10.23	Euro 11.99
Receipts from sale due in 90 days	Yen 78,00,000	$ 1,02,300	Euro 95,920

Foreign exchange rate information:

	Japan Yen/Re	USA $/Re	Europe Euro/Re
Spot market	2.417-2.437	0.0214-0.0217	0.0177-0.0180
3 months forward	2.397-2.427	0.0213-0.0216	0.0176-0.0178
3 months spot	2.423-2.459	0.02144-0.02156	0.0177-0.0179

Advice the company by calculating average contribution to sales ratio whether it should hedge its currency risk or not.

(*Source: ICAI*)

ANSWER:

If foreign exchange risk is hedged

				Total (₹)
Sum due Yen	78,00,000	US$1,02,300	Euro 95,920	
Unit input price	Yen 650	US$10.23	Euro 11.99	
Unit sold	12000	10000	8000	
Variable cost per unit	₹225/-	₹395/-	₹510/-	
Variable cost	₹27,00,000	₹ 39,50,000	₹ 40,80,000	₹ 1,07,30,000
Three months forward rate for selling	2.427	0.0216	0.0178	
Rupee value of receipts	₹32,13,844	₹ 47,36,111	₹ 53,88,764	₹ 1,33,38,719
Contribution	₹5,13,844	₹ 7,86,111	₹ 13,08,764	₹ 26,08,719
Average contribution to sale ratio				19.56%
If risk is not hedged				
Rupee value of receipt	₹31,72,021	₹ 47,44,898	₹ 53,58,659	₹ 1,32,75,578
Total contribution				₹ 25,45,578
Average contribution to sale ratio				19.17%

AKC Ltd. Is advised to hedge its foreign currency exchange risk.

Topic 29 EXPOSURE AMBIGUOUS

Question 91: SSEI CW Book Page 39.

Following are the details of cash inflows and outflows in foreign currency denominations of XYZ Co. an Indian export firm, which have no foreign subsidiaries:

Currency	Inflow	Outflow	Spot rate	Forward rate
U.K. £	8,00,00,000	4,00,00,000	78.01	78.45
Swiss Frank (CHF)	4,00,00,000	1,60,00,000	8.45	8.50
US $	6,00,00,000	4,00,00,000	57.57	57.95
Indonesian rupiah	3,00,00,000	5,00,00,000	4.6	4.20

i. Determine the net exposure of each foreign currency in terms of Rupees.

ii. Are any of the exposure positions offsetting to some extent?

(Source: FOD)

ANSWER:

i. Net exposure of each foreign currency in Rupees

	Inflow (Millions)	Outflow (Millions)	Net Inflow (Millions)	Spread	Net Exposure (Millions)
UK£	80	40	40	0.44	17.60
CHF	40	16	24	0.05	1.20
US$	60	40	20	0.38	7.60
INDO RUPIAH	30	50	-20	-0.40	8.00

ii. The exposure of Indonesian rupiah position is being offset by a better forward rate

Topic 31 FORWARD VS FUTURES ARBITRAGE

Question 93: SSEI CW Book Page 40. (Modified)

In International Monetary Market an international forward bid for July, 15 on Swiss franc is $ 1.0816 at the same time that the price of IMM Swiss Franc future for delivery on July, 15 is $ 1.0802. The contract size of Swiss Franc is CHF 1,25,000. How could the dealer use arbitrage in profit from this situation and how much profit is earned?

(Source: ICAI)

ANSWER:

Buy CHF125000 × 1.0802	$ 1,35,025.00
Sell CHF125000 × 1.0816	$ 1,35,200.00
Profit	$ 175.00

Alternatively, if the market comes back together before July 15, the dealer could unwind his position (by simultaneously buying CHF 125000 forward and selling a futures contract. Both for delivery on July 15) and earn the same profit of $ 175.00