

FOREX CLASS 16

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.
42	Classic	CW Q BOOK	15
Extra Q	Classic	CW ANS BOOK	70

PART III: FX EXPOSURE AND HEDGING

Topic 15 ECONOMIC EXPOSURE

Question 42: SSEI CW Book Page No. 17

Poomphar Electronic Ltd in Chennai exports refrigerators to Belgium by importing all the components from south Korea. Imports are invoiced in Hong Kong dollars and exports in Euro. The company is exporting 6000 unit at a price of Euro 165 per unit. The cost of imported components is HK\$ 75. The fixed cost and other variable costs per unit per unit are ₹1200 and ₹2500 respectively. The cash flows in foreign currencies are due in six months. The current exchange rates are as follows :

₹/Euro : 59.60/62

₹/HK\$: 5.96/5.98

After six months the exchange rates (at the time of receipts and payments of foreign currency) turn out as follows :

₹/Euro : 60.30/32

₹/HK\$: 6.23/25

You are required to :

- Calculate the loss/gain due to the transaction exposure.
- Based on the following additional information, calculate the loss/gain due to transaction and operating exposure if the life contracted price of washing machine is ₹9500.
 - The current exchange rates change to
 - ₹/Euro : 59.85/87
 - ₹/HK\$: 6.00/02
 - Price elasticity of demand of the product in Germany is estimated as 2.5.
 - Payment and receipts are to be settled/received at the end of six months.

(Source: FOD)

ANSWER:

i. Profit based on current exchange rate

$$\begin{aligned} & \text{Revenue} - \text{Import Cost} - \text{FC} - \text{VC} \\ & = (6000 \times 165 \times 59.60) - (6000 \times 75 \times 5.98) - 6000(1,200 + 2,500) = ₹98,94,000 \end{aligned}$$

Project based on exchange rate after 6 month

$$\begin{aligned} & \text{Revenue} - \text{Import Cost} - \text{FC} - \text{VC} \\ & = (6000 \times 165 \times 60.30) - (6000 \times 75 \times 6.25) - 6000(1,200 + 2,500) = ₹93,72,000 \end{aligned}$$

$$\therefore \text{Loss due to transaction exposure} = ₹98,94,000 - ₹93,72,000 = ₹5,22,000$$

Project based on new units, ₹ invoicing and exchange rate after 6m

$$= (6063 \times 9,500) - (6063 \times 750 \times 6.25) - 6063 \times 2500 - 6000 \times 1200 = ₹68,20,687.5$$

$$\therefore \text{Loss due to economic exposure} = 77,10,000 - 68,20,687.5 = ₹8,89,312.5$$

EXTRA QUESTION

Topic 14 TRANSACTION EXPOSURE

Question: **CW ANS BOOK PAGE 70**

Mr. Khanna an Indian manufacturer exports handcrafted gift articles to US. On 1st Jan 2023 he received an order for export of 18000 gift articles when the exchange rate is 82.00 INR/USD. He priced the item at USD 30 per piece. It costed INR 1800 to produce each item. The price elasticity of this product in the US market is 1.30. Mr. Khanna will receive the amount on 31st March 2023 when the expected rate of INR/USD is 90.

You are required to calculate:

1. The change in profit due to transaction exposure.
2. The change in profit due to economic exposure, if the current exchange rate changes to 86.32 INR/USD before shipment and company passes on the benefit of depreciation to the buyer.

(Source: FOD)

ANSWER: **CW ANS BOOK PAGE 70**

1. Profit as per the current exchange rate

Revenue = $18,000 \times 30 \times 82$	4,42,80,000
Less: Cost of Production = $18,000 \times 1800$	3,24,00,000
	1,18,80,000

Profit as per expected spot rate after 3 months

Revenue = $18,000 \times 30 \times 90$	4,86,00,000
Less: Cost of Production = $18,000 \times 1800$	3,24,00,000
	1,62,00,000

$$\therefore \text{Change in profit due to transaction exposure} = 1,62,00,000 - 1,18,80,000$$

$$= 43,20,000 \text{ rupees}$$

2. The current exchange rate changed to 86.32 so decided to pass on this benefit to the customer:

$$\therefore \text{New price} = 30 \times \frac{82}{86.32} = 28.5$$

i.e., price decreased by 5%

$$\& e_d = 1.3$$

$$\therefore \text{Units will increase by } 1.3 \times 5 = 6.5\%$$

$$\text{New units} = 18,000 \times 1.065 = 19,170 \text{ units.}$$

New profit = (Based on expected rate after 3m) & 19,170 units

Revenue = $19,170 \times 28.5 \times 90$	4,91,71,050
Less: Cost of production = $19,170 \times 1,800$	3,45,06,000
	1,46,65,050

Old profit (Based on rate today i.e., 86.32) at 18,000 quantity

Revenue = $18,000 \times 30 \times 86.32$	4,66,12,800
Less: Cost of production = $18,000 \times 1800$	3,24,00,000
	1,42,12,800

Change in profit due to economic exposure = 4,52,250 rupees