

Option 1 Fx-Swap

- Buy ₹ 500 cr. today $\left(\frac{₹ 500 \text{ cr}}{₹ 50}\right) =$ $\frac{\$}{(10 \text{ cr})}$
 - Sell ₹ 500 cr. after 1 year $\left(\frac{₹ 500 \text{ cr}}{50}\right) =$ 10 cr.
 - Sell ₹ 240 cr. at 1 year Expected Rate $\left(\frac{₹ 240}{54}\right) =$ 4.444 cr.
 - Int $(\$10 \text{ cr.} \times 8\%) =$ (0.8 cr.)
- profit \$3.644 cr.

Option 2 Do Nothing

- Buy 500 cr. today
at SR $\left(\frac{500}{50}\right) =$ (10 cr.)
- Sell 740 cr. at
Expected SR $\left(\frac{740}{54}\right) =$ 13.704 cr.
- Int $=$ (0.8 cr.)
- \$2.904 cr.
- fx swap is better

QUESTION – 128

Airlines Company entered into an agreement with Airbus for buying latest plans for a total value of F.F. (French Francs) 1,000 Million payable after 6 months. The current spot exchange rate is INR (Indian Rupees) 6.60/FF. The Airlines Company cannot predict the exchange rate in the future. Can the Airlines Company hedge its Foreign Exchange risk? Explain by examples.

(Practice Manual)

(Page No. 184)

H.W

QUESTION - 108

M/s. Daksh Ltd is planning to import multipurpose machine from USA at a cost of \$15000. The company can avail loans at 19% Interest per annum with quarterly rests with which it can import the machine.

However, there is an offer from New York branch of an Indian based bank extending credit of 180 days at 2% per annum against opening of an irrevocable letter of credit.

Other Information:

Spot rate US\$ 1 = ₹ 75

180 days forward rate US \$ 1 = ₹ 77

Commission charges for letter of credit at 2% per 12 months.

(i) Justify why the offer from the foreign branch should be accepted?

→ (ii) Based on the present market condition company is not interested to take the risk of currency fluctuations and wanted to hedge with an additional expenses of ₹ 30,000. If so, what is your advise to the company?

Assume 360 days in the year.

(Exam May-2022)

(Page No. 154)

QUESTION – 82

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 realized 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	Annualized Premium
₹/\$	<u>67.10/67.20</u>	\$ - 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).

(Exam July – 2021)

(Page No. 120)

India

₹ 10,00,000
3 Months

Invoicing in \$

$\frac{10,00,000}{67.10} \times 5710 \times 1.0175$

\$

Invoicing in \$ = $\frac{₹ 10,00,000}{67.10}$
= \$ 149031.296

₹/\$ after 3 months : 67.10×1.0175
= 68.274

Cash Inflows = \$ 149031.296 × 68.274
= ₹ 10,17,4962

QUESTION - 123

With relaxation of norms in India for investment in international market upto \$ 2,50,000 Mr. X to hedge himself against the risk of declining Indian economy and weakening of Indian Rupee during last few years, decided to diversify in the international Market.

Accordingly, Mr. X invested a sum of ₹ 1.58 crore on 1.1.20 × 1 in standard & poor index. On 1.1.20 × 2 Mr. X sold his investment. The other relevant data is given below:

	1.1.20 × 1	1.1.20 × 2
Index of stock market in India	7,395	?
Standard & Poor index	2,028	1,919
Exchange Rate (₹/\$)	62.00/62.25	67.25/67.50

You are required to calculate:

- The return for a US investor.
- Holding period return to Mr. X.
- The value of index of stock market in India as on 1.1.20 × 2 at which Mr. X would be indifferent between investment in Standard & Poor index and India stock market.

(Page No. 179)

1. Return for US Investor

$$\text{Return} = \frac{1919 - 2028}{2028} \times 100 \\ = -5.37\%$$

2. HPR of Mr. X

- Buy \$: $\frac{₹ 15800000}{62.25} = \$ 253815.26$
- Cash Inflow after 1 year in \$
 $\frac{\$ 253815.26}{2028} \times 1919 = \$ 240173.32$
- Sell \$ $(\$ 240173.32 \times 67.25) = ₹ 16151656$

$$\text{HPR} = \frac{16151656 - 15800000}{15800000} \times 100 \\ = 2.23\%$$

(iii) Value of Stock Index in India on
1/1/2012 at Indifference Return

$$7395 \times 1.0223 = 7560$$

QUESTION – 125

ABC Ltd. of UK has exported goods worth Can \$ 5,00,000 receivable in 6 months. The exporter wants to hedge the receipt in the forward market. The following information is available:

Spot Exchange Rate	Can \$ 2.5/£
Interest Rate in UK	12%
Interest Rate In Canada	15%

The forward rates truly reflect the interest rates differential. Find out the gain/loss to UK exporter if Can \$ spot rates (i) declines 2%, (ii) gains 4% or (iii) remains unchanged over next 6 months.

(Study Material & PM)

(Page No. 181)

UK (£)

Can (Can\$)

↖ Can \$ 500,000 ↗
6 months

Forward Rate as per IRP

$$\begin{aligned} f &= S \times \frac{1+i}{1+i} \\ &= \text{Can \$ } 2.50 \times \frac{1.075}{1.06} \\ &= \text{Can \$ } 2.535 \end{aligned}$$

If Can \$ declines by 2%

Spot Rate after 6 months = Can \$ 2.5 $\times$ 1.02 = Can \$ 2.55

Cash Inflows at FR = $\frac{\text{Can \$ 500,000}}{2.535} = \text{£ 197,238.66}$

Cash Inflows at 6 month rate = $\frac{\text{Can \$ 500,000}}{2.55} = \text{£ 196,078.43}$

Gain due to FC

£ 1,161

If Can \$ Gains by 4%

spot rate after 6 months : Can \$ 2.5 $\times$ 0.96 = Can \$ 2.40

QUESTION – 127

Your forex dealer had entered into a cross currency deal and had sold US \$ 10,00,000 against EURO at US \$ 1 = EURO 1.4400 for spot delivery.

However, later during the day, the market became volatile and the dealer in compliance with his management's guidelines had to square – up the position when the quotations were:

Spot US \$ 1 INR 31.4300/4500

1 month margin 25/20

2 months margin 45/35

Spot US \$ 1 EURO 1.4400/4450

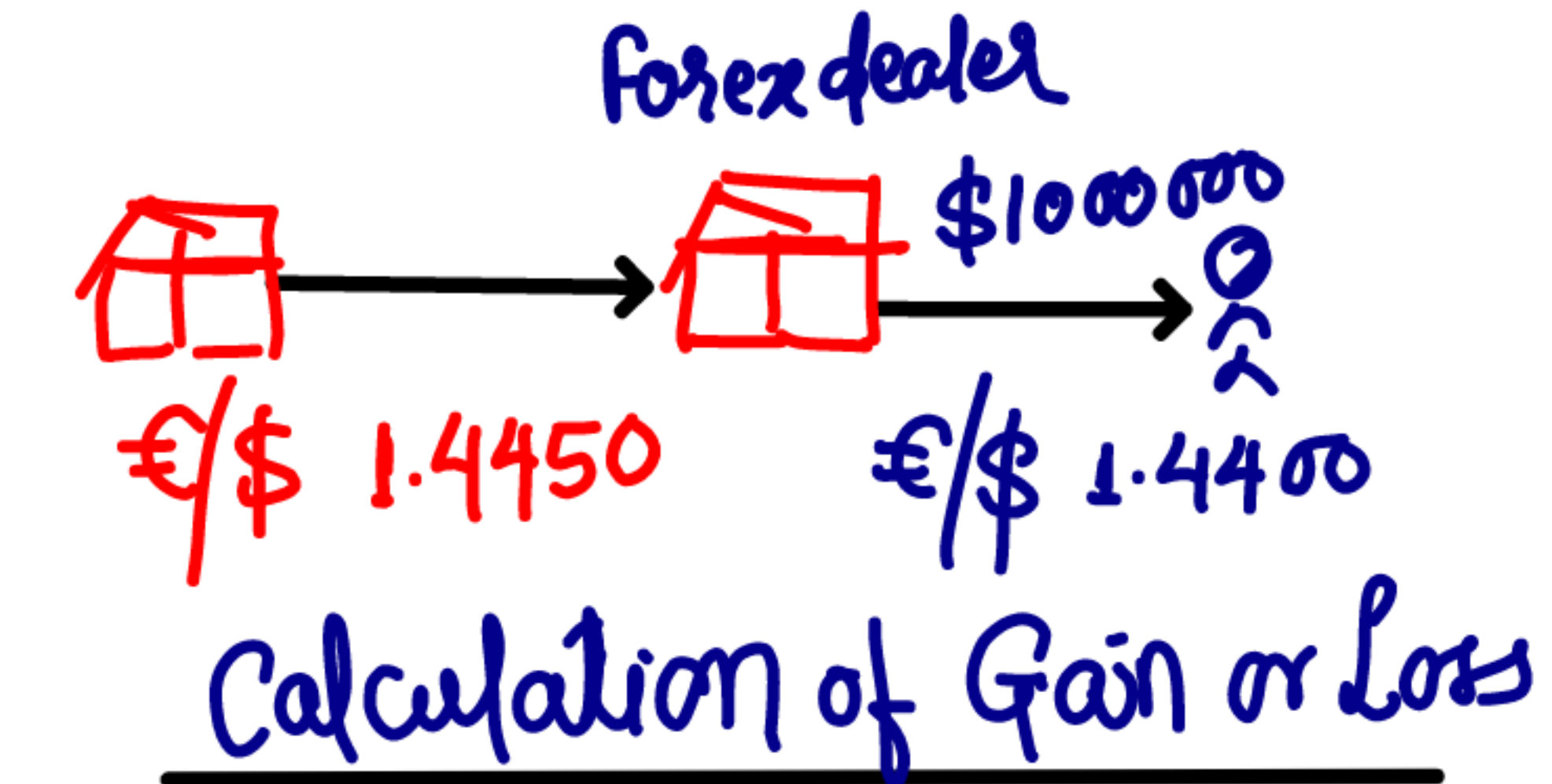
1 month forward 1.4425/4490

2 months forward 1.4460/4530

What will be the gain or loss in the transaction?

(Study Material & PM)

(Page No. 183)



$$\begin{aligned} \text{Sell \$ } & (\$10,00,000 \times 1.4400) = \text{€ } 14,40,000 \\ \text{Buy \$ } & (\$10,00,000 \times 1.4450) = \text{€ } 14,45,000 \\ \hline & \text{Loss } \text{€ } 5,000 \end{aligned}$$

Assume that forex dealer from India

Loss = € 5000, hence Buy € 5000 from ₹

₹/\$ 31.4500

€/£ 1.4400

₹/€ $31.4500 \times \frac{1}{1.4400} = ₹ 21.84$

Loss(₹) = € 5000 $\times$ 21.84 = ₹ 109200

QUESTION – 52

A US investor chose to invest in Sensex for a period of one year. The relevant information is given below.

Size of investment (\$)	20,00,000
Spot rate 1 year ago (₹/\$)	42.50/60
Spot rate now (₹/\$)	43.85/90
Sensex 1 year ago	3,256
Sensex now	3,765
Inflation in US	5%
Inflation in India	9%

- Compute the nominal rate of return to the US investor.
- Compute the real depreciation /appreciation of Rupee.
- What should be the exchange rate if relevant purchasing power parity holds good?
- What will be the real return to an Indian investor in Sensex?

(RTP May – 2022 & January – 2021)

(Page No. 76)

1 Nominal Return to US Investor

Sell \$ at 1 year ago rate

$$\text{\$}20,00,000 \times 42.50 = \text{₹}850,00,000$$

Cash Inflows after 1 YEAR (₹)

$$\frac{\text{₹}850,00,000}{3256} \times 3765 = \text{₹}98,28,777.6$$

$$\text{Buy \$ from ₹} = \frac{\text{₹}98,28,777.6}{43.90} = \text{\$}2,23,890.1$$

$$\begin{aligned} \text{Nominal Return} &= \frac{\text{\$}2,23,890.1 - \text{\$}20,00,000}{\text{\$}20,00,000} \times 100 \\ &= 11.94\% \end{aligned}$$