

FOREIGN EXCHANGE EXPOSURE & RISK MANAGEMENT

Profit to Bank ₹ 4,67,000

- (iii) To some extent, we agree with views of Internal Auditor as the gain on the same transaction is bit lesser keeping in view the amount involved.

Question – 02

KK Ltd. operating in Japan has today affected sales to an Indian company 'LM Limited, the payment being due in 3 months from the date of invoice. The invoice amount is 855 lakh yen which at today's spot rate is equivalent to ₹ 500 lakh. Looking to the present market conditions, it is anticipated that the exchange rate will decline by 10% over the 3 months period. In order to protect the yen payments, the importer proposes to take appropriate action in the foreign exchange market. The 3 months forward rate is presently quoted as 1.68 yen per rupee.

You are required to

- (i) Calculate the Expected Gain/(Loss) under present situation.
- (ii) Calculate the Expected Gain/(Loss) if hedged by forward contract.
- (iii) Recommend which option from above (i) and (ii) will best for the company.

Calculation up to 3 decimal points.

(Exam September – 2025) (4 Marks)

Solution:

Spot rate of ₹ 1 against yen = 855 lakhs yen/₹ 500 lakhs = 1.71 yen

3 months forward rate of ₹ 1 against yen = 1.68 yen

Anticipated decline in Exchange rate = 10%.

Expected spot rate after 3 months = 1.71 yen – 10% of 1.71

= 1.71 yen – 0.171 yen

= 1.539 yen per rupee

	₹ (in lakhs)
Present cost of 855 lakhs yen	500.000

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Cost after 3 months: 855 lakhs yen/1.539 yen 555.556

Expected exchange loss 55.556

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

Present cost 500.000

Cost after 3 months if forward contract is taken
855 lakhs yen/ 1.68 yen 508.929

Expected loss 8.929

Suggestion: If the exchange rate risk is not covered with forward contract, the expected exchange loss is ₹ 55.556 lakhs. This could be reduced to ₹ 8.929 lakhs if it is covered with Forward contract. Hence, taking forward contract is suggested.

Question – 03

Quick & Smart Inc. is a leading software development company in the UK. It has a substantial portfolio of its trade in various countries including the USA. It has recently invoiced a USA customer the sum of USD (\$) 75,00,000 receivable in one year's time. Quick & Smart Inc.'s Chief Finance Officer (CFO) is considering two alternatives for hedging the exchange risk:

Alternative I : Borrowing present value of USD (\$) 75,00,000 now for one year, converting the amount into GBP (£), and repaying the loan out of eventual receipts.

Alternative II : Entering into a 12 month forward exchange contract with the company's bank to sell the USD (\$) 75,00,000.

The spot exchange rate is GBP (£) 1 = USD (\$) 1.3288

The 12 month forward exchange rate is GBP (£) 1 = USD (\$) 13128

Interest rates for 12 months are = USA 4.50%; and UK 5%,

You are required to –

Calculate net proceeds in GBP (£) under both the alternatives and advise the company.

Note : Ignore bank commission and decimals,

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(Exam September – 2025) (7 Marks)

Solution:

Alternative I

Borrowing PV of US\$ 75,00,000 (US\$ 75,00,000/1.045)	\$ 71,77,033
Converting it into GBP (£) at Spot Rate	\$ 1.3288
Converted Amount	£ 54,01,139
Add: Interest on the same @ 5%	£ 2,70,057
	£ 56,71,196

Alternative II

Applicable Forward Rate of 1 \$	\$ 1.3128
Amount Receivable in \$ after one year	\$ 75,00,000
Amount Receivable in \$ after	\$ 57,12,980

Advise: Since amount receivable is higher under alternative II the company should opt for it.

Normal Probability Distribution Table

Number of Standard Deviations From Mean (Z)	Area to the Left or Right (One Tail)	Number of Standard Deviations From Mean (Z)	Area to The Left or Right (One Tail)
0.00	0.5000	1.55	0.0606
0.05	0.4801	1.60	0.0548
0.10	0.4602	1.65	0.0495
0.15	0.4404	1.70	0.0446
0.20	0.4207	1.75	0.0401
0.25	0.4013	1.80	0.0359
0.30	0.3821	1.85	0.0322
0.35	0.3632	1.90	0.0287
0.40	0.3446	1.95	0.0256
0.45	0.3264	2.00	0.0228
0.50	0.3085	2.05	0.0202
0.55	0.2912	2.10	0.0179
0.60	0.2743	2.15	0.0158
0.65	0.2578	2.20	0.0139
0.70	0.2420	2.25	0.0122
0.75	0.2264	2.30	0.0107
0.80	0.2119	2.35	0.0094
0.85	0.1977	2.40	0.0082
0.90	0.1841	2.45	0.0071
0.95	0.1711	2.50	0.0062
1.00	0.1557	2.55	0.0054
1.05	0.1469	2.60	0.0047
1.10	0.3570	2.65	0.0040
1.15	0.1251	2.70	0.0035
1.20	0.1151	2.75	0.0030
1.25	0.1056	2.80	0.0026
1.30	0.0986	2.85	0.0022
1.35	0.0885	2.90	0.0019
1.40	0.0808	2.95	0.0016
1.45	0.0735	3.00	0.0013
1.50	0.0668		