(iii) No hedge.

Assume that the variation in margin would be settled on the maturity of the futures contract.

(Exam May - 2023)

(Question Paper Que. 01 (b))

## QUESTION – 72

Zaz plc, a UK Company is in the process of negotiating an order amounting €2.8 million with a large German retailer on 6 month's credit. If successful, this will be first time for Zaz has exported goods into the highly competitive German Market. The Zaz is considering following 3 alternatives for managing the transaction risk before the order is finalized.

(a) Mr. Peter the Marketing head has suggested that in order to remove transaction risk completely Zaz should invoice the German firm in Sterling using the current €/£ average spot rate to calculate the invoice amount.

(b) Mr. Wilson, CE is doubtful about Mr. Peter's proposal and suggested an alternative of invoicing the German firm in € and using a forward exchange contract to hedge the transaction risk.

(c) Ms. Karen, CFO is agreed with the proposal of Mr. Wilson to invoice the German first in €, but she is of opinion that Zaz should use sufficient 6 month sterling further contracts (to the nearest whole number) to hedge the transaction risk.

€ 2800000

€/£ 1.1960 | 1.1970

1.1965

£ 2340159

H.W.

C.W (COPY)

Following data is available

| | |
|---|---|
| Spot Rate | € 1.1960 – €1.1970/£ |
| 6 months forward points | 0.60 – 0.55 Euro Cents. |
| 6 month further contract is currently trading at | € 1.1943/£ |
| 6 month future contract size is | £62,500 |
| After 6 month Spot rate and future rate | € 1.1873/£ |

You are required to

(a) Calculate (to the nearest £) the £ receipt for Zaz plc, under each of 3 above proposals.

(b) In your opinion which alternative you consider to be most appropriate.

(Study Material & PM)

(Page No. 102)

**QUESTION – 73**

Nitrogen Ltd, a UK company is in the process of negotiating an order amounting to €4 million with a large German retailer on 6 months credit. If successful, this will be the first time that Nitrogen Ltd has exported goods into the highly competitive German market. The following three alternatives are being considered for managing the transaction risk before the order is finalized.

(i) Invoice the German firm in Sterling using the current exchange rate to calculate the invoice amount.

(ii) Alternative of invoicing the German firm in € and using a forward foreign exchange contract to hedge the transaction risk.

(iii) Invoice the German first in € and use sufficient 6 months sterling future contracts (to the nearly whole number) to hedge the transaction risk.

Following data is available:

| | |
|---|---|
| Spot Rate | € 1.1750 - €1.1770/£ |
| 6 months forward premium | 0.55-0.60 Euro Cents |
| 6 months future contract is currently trading at | €1.1760/£ |
| 6 months future contract size is | £62500 |

## Alternative I Invoicing

€ Receivables = €4000000

Invoicing in £ using SR

$$\text{Cash Inflows} = \frac{€4000000}{1.1770} = £3398471$$

## Alternative 2 Forward Cover

6M FR

| | |
|---|---|
| SR | 1.1770 |
| (+) 6M Swap | 0.0060 |
| | 1.1830 |

$$\text{Cash Inflows} = \frac{€4000000}{1.1830} = £3381234$$

# Alternative 3 Currency future

- Since € receivable & we afraid from € falling but we have to take position on £ hence we should take Long position on €/£ at 1.1760

- No. of Contracts

  Export Exposure = €4000000

  $$\text{Export Exposure } (£) = \frac{€4000000}{1.1760} = £3401360$$

  $$\text{No. of contracts} = \frac{£3401360}{£62500}$$

  $$= 54.42$$

  54 contracts Long

- Cash Inflows

Gain or Loss on Currency future    1.1760 T

On Maturity €/£ 1.1785 hence Gain on Long position

Variation Margin $(€1.1785 - 1.1760) \times £62500 \times 54$

$= €\ 8437.50$

| | |
|---|---|
| € Receivable = | €4000000 |
| (+) Variation margin = | €8437.50 |
| | €4008437.50 |

Sell € at 6 months SR $\dfrac{€4008437.50}{1.1785}$

$= £3401305$

Currency future is the best due to Higher Cash Inflows.

Spot rate and 6 months future rate €1.1785/£

Required:

(a) Calculate to the nearest £ the receipt for Nitrogen Ltd, under each of the three proposals.

(b) In your opinion, which alternative would you consider to be the most appropriate and the reason thereof.

(Study Material, PM & Exam November – 2011)

(Page No. 105)

Hw

H.W COPY

## QUESTION – 74

Telereal Trillium, a UK Company is in the process of negotiating an order amounting €5.5 million with a large German retailer on 6 month's credit. If successful, this will be first time for Telereal Trillium has exported goods into the highly competitive German Market. The Telereal Trillium is considering following 3 alternatives for managing the transaction risk before the order is finalized.

(i) Mr. Grand, the Marketing head has suggested that in order to remove transaction risk completely Telereal Trillium should invoice the German firm in Sterling using the current €/£ average spot rate to calculate the invoice amount.

(ii) Mr. John, CE is doubtful about Mr. Grand's proposal and suggested an alternative of invoicing the German firm in € and using a forward exchange contract to hedge the transaction risk.

(iii) Ms. Royce, CFO is agreed with the proposal of Mr. John to invoice the German first in €, but she is of opinion that Telereal Trillium should use sufficient 6 month sterling future contracts (to the nearest whole number) to hedge the transaction risk.

Following data is available

| | |
|---|---|
| Spot Rate | € 1.1980 - €1.1990/£ |
| 6 months forward points | 0.60 – 0.55 Euro Cents. |
| 6 month future contract is currently trading at € | 1.1943/£ |
| 6 month future contract size is | £70,500 |
| After 6 month Spot rate and future rate | € 1.1873/£ |

You are required to

(a) Advise the alternative you consider to be most appropriate.

(b) Interpret the proposal of Mr. Grand from non-financial point of view.

Note: Calculate (to the nearest £) the £ receipt.

(RTP May - 2021)

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# Currency option [option Hedging]

There are two options

1. Call option
   - price Rise (Right to buy)
2. Put option
   - price fall (Right to sell)

**EXAMPLE – 74**

**[Type - A]**

$ Payables = $1,00,000 in 3 months

SR ₹/$ = ₹70.50

3 months FR = ₹72.75

3 months currency option

Strike price = ₹ 70.25

Premium Call option = ₹ 0.45 per $

Put option = ₹ 0.20 per $

Rate of Interest = 12% p.a.

**Price of $ on Maturity**

| Price | Probability |
|---|---|
| 70.10 | 0.3 |
| 71.50 | 0.2 |
| 72.25 | 0.5 |

Which option is better?

(i) Currency option.

(ii) Forward contract.

(Page No. 17)

Since $ payable & afraid from $ rising, hence we Buy Call option at EP 70.25 & paid premium ₹ 0.45 per $