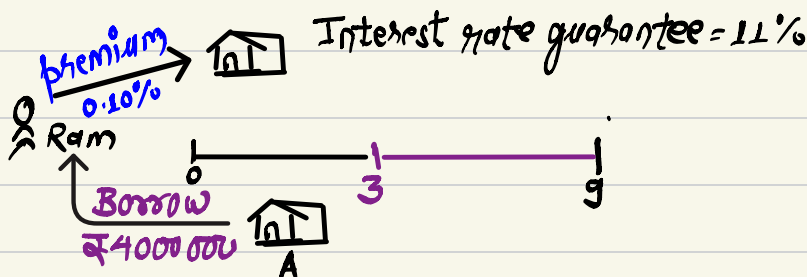


(II) Interest Rate Guarantee or option



① Actual rate of Interest = 13%

Interest paid to Bank = ₹ 260000

(+) premium $[4000000 \times 0.1\%] = ₹ 4000$

(-) option Exercised $[4000000 \times 13\%] = ₹ 400000$
₹ 224000

② Actual rate of Interest = 8%

Interest paid to Bank = ₹ 160000

(+) premium = ₹ 4000

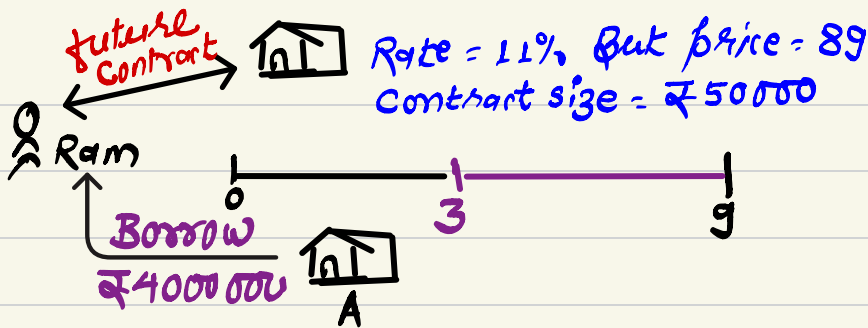
(-) option lapsed = 0

₹ 164000

(III) Euro-Dollar future

👉 Euro-Dollar future is future contract on Interest rate but price of future is 100-rate.

👉 Borrowing means afraid of Interest rate rising but we should take position on price means **short position**.



Step 1 position → short position at 89

Step 2 No. of Contracts

NOTE "Maximum period of Euro dollar future is 3 months"

$$\text{No. of Contracts} = \frac{₹4000000 \times \frac{6}{3}}{₹50000} = 160 \text{ Contracts short}$$

Step 3

① Actual rate of Interest = 13% [future price = 87]

$$\text{Interest paid to Bank} = ₹260000$$

$$(4000000 \times 13\% \times 6/12)$$

Gain on short position

$$(89 - 87) = 2\% \times 50000 \times 160 \times 3/12 = ₹40000$$

$$\underline{\underline{₹220000}}$$

② Actual rate of Interest = 8% [future price = 92]

$$\text{Interest paid } (4000000 \times 8\% \times 6/12) \quad ₹160000$$

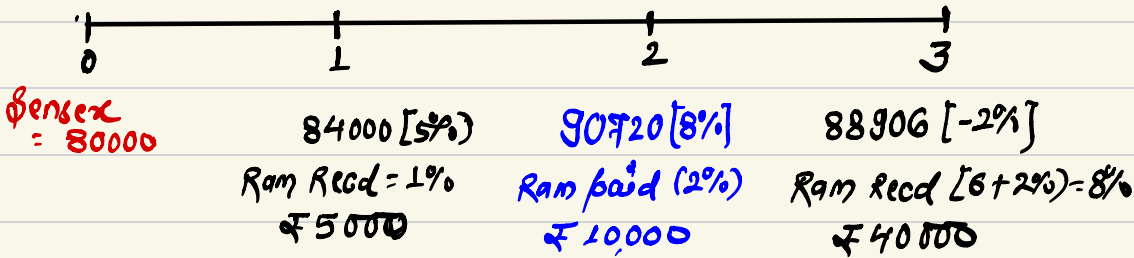
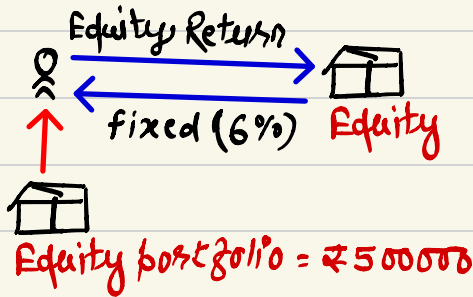
Loss on short position

$$(92 - 89) = 3\% \times 50000 \times 160 \times 3/12 = ₹60000$$

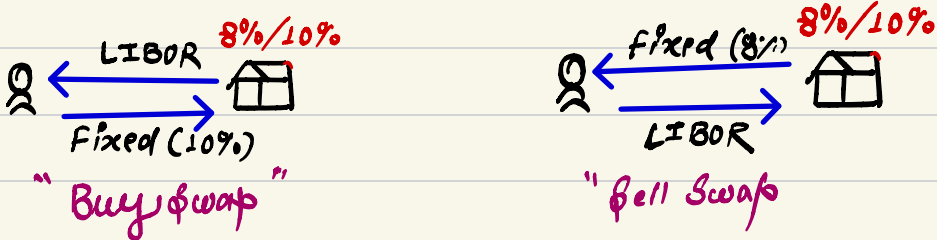
$$\underline{\underline{₹220000}}$$

IV Financial Swap

1. Equity Swap



2. Plain Vanilla Swap [Fixed v/s Floating]



3. Overnight Index Swap [MIBOR]

- 👉 One leg is fixed & other leg is MIBOR.
- 👉 MIBOR is subject to daily compounding
- 👉 On Saturday interest is calculated for 2 days Saturday & Sunday.

4 Two party swap

	A Ltd.	B Ltd.
Fixed Rate	10%*	12%
Floating Rate	LIBOR + 1%	LIBOR + 4%*

Step 1 Advantage

A Ltd absolute advantage in fixed as well floating but has comparative advantage in floating.

Step 2 Effective cost

$$\begin{aligned}\text{Difference in floating (3\%)} - \text{Difference in fixed (2\%)} &= 1\% \\ (-) \text{ Commission} &= 0.5\% \\ \hline \text{Net Gain} &= 0.5\%\end{aligned}$$

EC = Desired borrowing - share in Net Gain

$$\text{A Ltd.} = 10 - 0.5 \times \frac{1}{2} = 9.25\%$$

$$\text{B Ltd} = \text{LIBOR} + 4 - 0.25 = \text{LIBOR} + 3.75\%$$

Step 3 Design

