

INTEREST RATE SWAPS:

This is some explanation for interest rate swap who find this topic difficult.
You will understand the concept just by going through the example.

What is interest rate swaps?

It is an OTC Derivative. (Over the counter derivative, it means that this type of derivative is not traded in any exchange).

Parties involved:

1. Two parties willing to borrow same amount.
2. Intermediary bringing in swap. (Sometimes there may be no intermediary if both parties gets into swap directly)
Intermediary earns commission as percentage of total savings

Steps to identify whether SWAP is possible:

1. Each party must be given two options for borrowing ie. Fixed rate and Floating rate in the problem. (identification)
2. In swapping, if one party chooses fixed, then other party will choose floating. (choices)
3. Find total interest rate payable by all the parties according to their own choices.
4. Find total interest rate payable by all the parties according to any other options.
5. if Own choice interest > Any Option, SWAP is possible.

DON'T WORRY IF YOU DON'T GET BY READING THE STEPS, SEE THE FOLLOWING EXAMPLE:

EXAMPLE 1:

Two companies A and B wants to borrow ₹ 1,000,000.

Company	Options given by the lenders:
A Ltd.	Fixed rate @ 10% OR Floating rate of L+3%
B Ltd.	Fixed rate @ 12% OR Floating rate of L+6%

A Ltd.	is interested in borrowing @ 10%
B Ltd.	is interested in borrowing @ L+6%

An Intermediary "M" arranges swap. The intermediary takes 0.10 of total savings as its commission and balance is shared equally by A and B.

Solutions:

Identification:

A Ltd.	is interested in borrowing @ 10%
B Ltd.	is interested in borrowing @ L+6%

This is own choice of each company.

Choices:

Options	A Ltd.	B Ltd.	Total	
Own Choice	10%	L+6%	10%+ L+6%	= L+16%
Other Option	L+3%	12%	L+3% +12%	= L+15%
	Savings			1% (L+16% - (L+15%))

As there is a saving of 1%, the intermediary may suggest to choose "Other Option"
That is,

A Ltd. choose borrowing @ L+3%
B Ltd. choose borrowing @12%

And 1 % savings will shared:

Sharing of Savings:

Intermediary	.10 of 1%	0.10
A Ltd.	.45 of 1%	0.45
B Ltd.	.45 of 1%	0.45

Now Operation of SWAP

A Ltd. Borrows @ L + 3%
B Ltd. Borrows @ 12%

But we know A is interested in fixed borrowing and B is interested in floating.
The following operation happens.

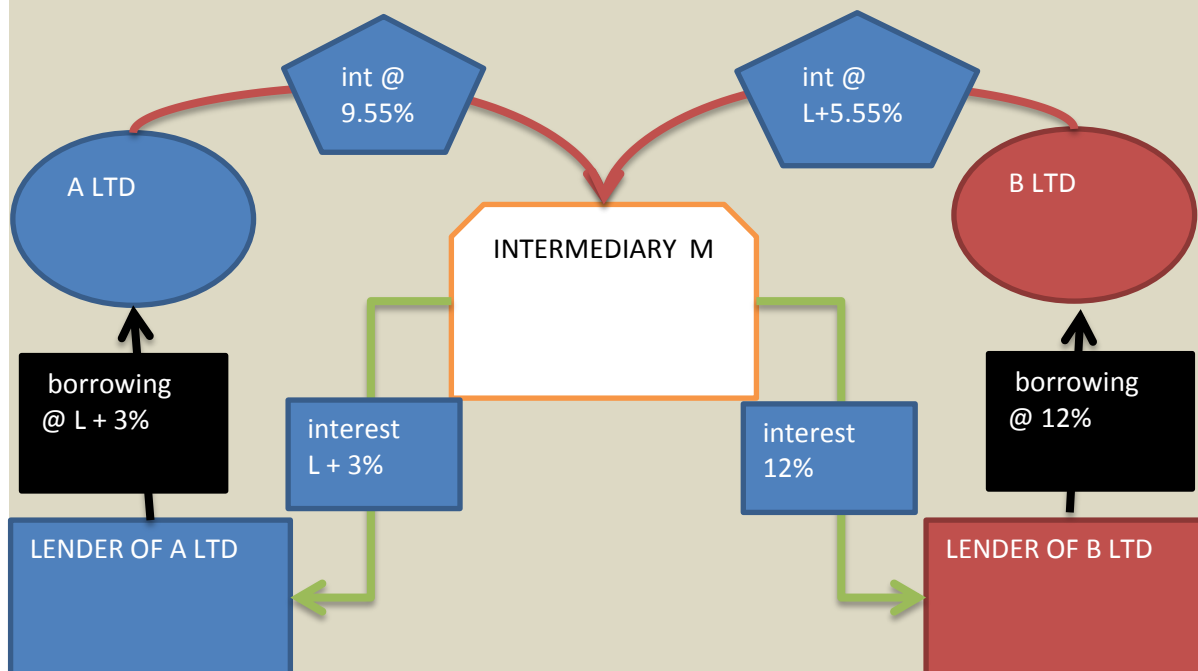
That is:

A wants to pay only fixed interest rate. Therefore will pay at a fixed rate of 9.55% .

That is its' choice minus savings : Fixed 10 - 0.45 = 9.55% to intermediary.

B wants to pay only floating rate. Therefore will pay at a floating rate of L + 5.55%.

That is its' choice minus savings : Floating L+6 - 0.45 = L+5.55% to intermediary.



The above as table

	A LTD	B LTD
PAYS INTEREST TO LENDER	(L+3%)	-12%
RECEIVES INTEREST FROM INTER	L+3%	12%
PAYS INTEREST TO INTER	9.55%	L+5.55%
NET COST	9.55%	L+5.55%
WHICH IS LOWER THAN OWNCHOICE	10%	L+6%

EXAMPLE 2 Concept Problem :SFM - V Pattabi Ram and SD Bala text book adapted)

Grades Ltd. Enjoys a high credit rating, and is capable of raising term funds either at a fixed rate of 10% pa or at a floating rate of 40 basis points over MIBOR.

Levels Ltd. Enjoys relatively a lower credit rating, and is able to borrow either at 80 basis points over MIBOR, or a fixed rate of 11%.

Level Ltd wants to borrow at fixed rate whereas Grades Ltd like to enjoy floating rate.

Structure a swap arrangement such that Grades gains 2/3rd of total gain.

Assume there are no intermediaries involved.

Solution

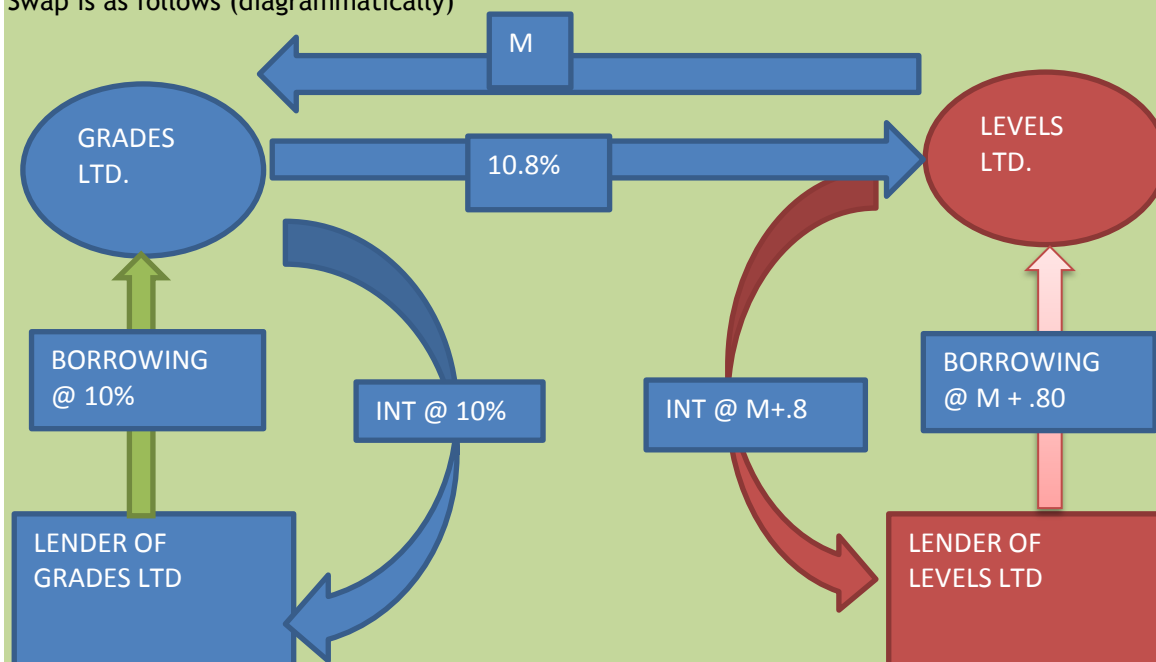
	Grades Ltd.	Levels Ltd.	Total
Own choice	M+0.40	11%	M+11.40
Other choice	10%	M+0.80	M+10.80
Savings (Profit)			0.6

Profit Sharing	Proportion	Share of Savings
Grades Ltd.	2/3	0.4
Levels Ltd.	1/3	0.2

Net Cost would be as follows

	Own Choice	Share of Savings	Net Cost
Grades Ltd.	M+0.40	0.4	M
Levels Ltd.	11%	0.2	10.8

Swap is as follows (diagrammatically)



Hope you enjoyed this:

Please do contact me for clarification @ caclubindia # jijuoommen....

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Thanks...