Self Test Questions on Swaps- CA (Final)

Paper: Strategic Financial Management

Question 1

A company has been traditionally borrowing floating funds at a spread of 30 b.p. over 6 month LIBOR from its bankers. It finds that it can issue 5-year fixed rate bonds at 35 b.p. over treasuries which are yielding 8.20%. Fixed to floating swaps are trading at 10 b.p. over treasuries versus LIBOR. Show how the company can reduce the cost of its floating rate funding.

1. What is the floating rate of interest applicable to the company?
2. At what rate company can raise fixed rate debt?
3. What is the fixed rate that can be exchanged for LIBOR under Fixed-Floating swap?
4. What strategy the company would employ to synthetically create floating rate liability?
5. What is all-in-cost to the company under strategy chosen under (4)?
6. What is the net advantage available to the company?

For answer to this question please visit www.ascentfinancials.com

Question 2

TMC Corporation entered into Rs.3.5 million notional principal interest rate swap agreement. As per the agreement TMC is to pay a fixed rate and to receive a floating rate of LIBOR.

The payment will be made at the interval of 90 days for one year and it will be based on the adjustment factor 90/360. The term structure of LIBOR on the date of agreement is as follows:

Days Rate (%)

90	7.00
180	7.25
270	7.45
360	7.55

1. What is the present value factor corresponding to 270 days for given term structure?

2. What is the fixed rate for given term structure for fixed-floating plain vanilla swap?

3. For the first swap payment due in 90 days who pays whom?

4. What is the amount of netted liability?

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Question 3

ABC Company and XYZ Company need to raise Rs.1000 million for capital improvements and other long-term investments. ABC is a well-established firm with a strong credit rating, which is reflected in its lower fund raising costs. It can raise funds at 9% fixed rate or LIBOR+1% floating rate. XYZ, on the other hand, is new and has yet to establish its credibility. The rates offered to the company are 12% fixed and LIBOR+2% floating.

1. Which company has absolute advantage in securing funds?
2. Which company has comparative advantage and in which rate funding?
3. At which rate ABC Ltd. will take loan on the onset of swap?
4. What is the net advantage available to the companies?

5. What is the nature of liability of ABC after swap is effected?

6. What is all in cost to ABC Ltd. after swap arrangement, assuming swap benefits are distributed between ABC Ltd. and XYZ Ltd. in ratio 50:50.

7. What is the fixed rate paid under swap arrangement if floating rate exchanged is LIBOR+0.5%?

Assuming the arrangement is facilitated by a Swap Bank, which requires a spread of 100 basis points, now

8. What is the net advantage available to ABC and XYZ Ltd.?

9. What is all in cost to ABC Ltd. after swap arrangement, assuming swap benefits are distributed between ABC Ltd. and XYZ Ltd. in ratio 50:50?

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Question 4

Cusp Instruments enters into a 2 years $50 million notional principal interest rate swap in which it promises to pay a fixed rate and receive payments of LIBOR. The payments are made every 90 days based on the assumptions of 30 days per month and 360 days in a year. The term structure of LIBOR interest rates is as follows:

Days	Rate
90	8.75%
180	9.25%
270	9.60%
360	10.15%
450	10.45%
540	10.90%
630	11.30%
720	11.50%

1. What is the fixed rate on the swap?

2. Calculate the first net payment on the swap?

60 days into the life of the swap, the interest rate term structure changes to the following:

Days	**Rate**
30	8.95%
120	9.50%
210	9.90%
300	10.35%
390	10.65%
480	10.95%
570	11.40%
660	11.75%

3. What is the value of swap on 60th day after origination?

4. Which party will record swap as an asset in its book of accounts?

5. Will there be any change in the cash flows on the 90th day after origination of the swap (i.e. first payment date)?