Problem 2

Thursday, October 17, 2024 9:41 PM

Problem 2	
Notional Principle	$ 100,000,000.00
Semiannual fixed rate	3%
Remainin life (Months)	20
Previous 6 month IBOR fixed	4%
IBOR Forward rates (Months)	
2 to 8	4.50%
8 to 14	4.85%
14 to 20	5.25%

Payment Date	Floating Payment	Fixed Payment	Net Cash flow	OIS Rates Continous (Months	Discount Factor	PV
2	$ 2,000,000.00	$1,500,000.00	$ 500,000.00	3.25%	0.994597977	$ 497,298.99
8	$ 2,250,000.00	$1,500,000.00	$ 750,000.00	3.75%	0.975309912	$ 731,482.43
14	$ 2,425,000.00	$1,500,000.00	$ 925,000.00	4%	0.95440548	$ 882,825.07
20	$ 2,625,000.00	$1,500,000.00	$1,125,000.00	4.25%	0.931617149	$1,048,069.29
					Swap Value	$3,159,675.78

Problem 2						
Notional Principle	100000000					
Semiannual fixed rate	0.03					
Remainin life (Months)	20					
Previous 6 month IBOR fixed	0.04					
IBOR Forward rates (Months)						
2 to 8	0.045					
8 to 14	0.0485					
14 to 20	0.0525					
Payment Date	Floating Payment	Fixed Payment	Net Cash flow	OIS Rates Continous (Months)	Discount Factor	PV
2	=I8*I5*0.5	=$I$6*$I$5*0.5	=I17-J17	0.0325	=EXP(-L17*(H17/12))	= K17*M17
8	=I11*$I$5*0.5	=$I$6*$I$5*0.5	=I18-J18	0.0375	=EXP(-L18*(H18/12))	= K18*M18
14	=I12*$I$5*0.5	=$I$6*$I$5*0.5	=I19-J19	0.04	=EXP(-L19*(H19/12))	= K19*M19
20	=I13*$I$5*0.5	=$I$6*$I$5*0.5	=I20-J20	0.0425	=EXP(-L20*(H20/12))	= K20*M20
					Swap Value	=SUM(N17:N20)

The total Value of the swap is

$ 3,159,675.78