

P R I S T I N E

Derivatives II

Characteristics

- A swap is an agreement to exchange cash flows at specified future dates according to certain specified rules:
 - Interest Rate Swaps
 - Currency Swaps
- Are customized to suit the needs of the parties to the contract
- Are not traded on any exchange
- Interest rate Swaps do not require the actual exchange of the notional amount of the contract.
- Currency Swaps requires the exchange of principal in the respective currencies on initiation and termination of the contract.
- Swaps act as a good hedge instrument. However, one major risk in entering into a Swap is default risk, risk that the counter party may not honour its obligation.
- Ways to terminate the contract:
 - Mutual Termination
 - Offsetting contract
 - Resale of Swap to another party
 - Swaption

Plain Vanilla Interest Rate Swap

- An agreement by Microsoft to receive 6-month LIBOR & pay a fixed rate of 5% per annum every 6 months for 3 years on a notional principal of \$10 million

Period	Libor rate	Floating Leg	Fixed Leg	Net Cash Flow
0	4.20%	210,000	250,000	(40,000)
1	4.80%	240,000	250,000	(10,000)
2	5.30%	265,000	250,000	15,000
3	5.50%	275,000	250,000	25,000
4	5.60%	280,000	250,000	30,000
5	5.90%	295,000	250,000	45,000
6	6.40%	320,000	250,000	70,000

Net (For fixed rate payer) = (Swap fixed rate – LIBOR) (No. of days/360) (Notional Principal)

- Uses of an Interest Rate Swap
- Converting a liability from
 - Fixed rate to floating rate
 - Floating rate to fixed rate
- Converting an investment from
 - Fixed rate to floating rate
 - Floating rate to fixed rate

The Comparative Advantage Argument

- Consider the diagram below. Company X (seeking a floating rate loan) and Y (seeking a fixed rate loan) go to the bank for a loan and they get the following offers if they were to borrow in fixed rates or floating rates.
 - X advantageous on fixed rate
 - Y advantageous on floating rate

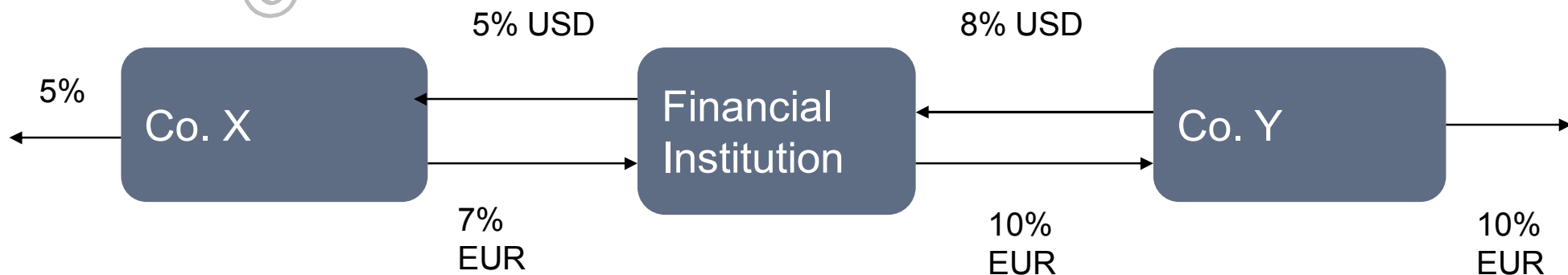
Company	Fixed borrow	Floating borrow
X	5%	Libor
Y	7%	Libor + 100 bps



Company	USD borrowing	EURO borrowing
X	5%	8%
Y	9%	10%

- In the below example, X pays 7% instead of 8% on its Euro loan and Y pays 8% instead of 10% on its USD loan by entering into a Swap. →

Company	USD borrowing (EURO)	EURO borrowing (USD)
X	5% (7%)	8%
Y	9%	10% (8%)



Equity Swap

- Equity Swaps refers to an arrangement where one party pays the returns received on the stock in exchange for a return imitating a fixed rate or a floating rate bond.
- In case of a floating for equity return swap, both the parties are uncertain about the payments they will receive at the end of the period.

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Sample Material