Basic Derivatives

An introduction to Interest Rate Derivatives

12 September 2004

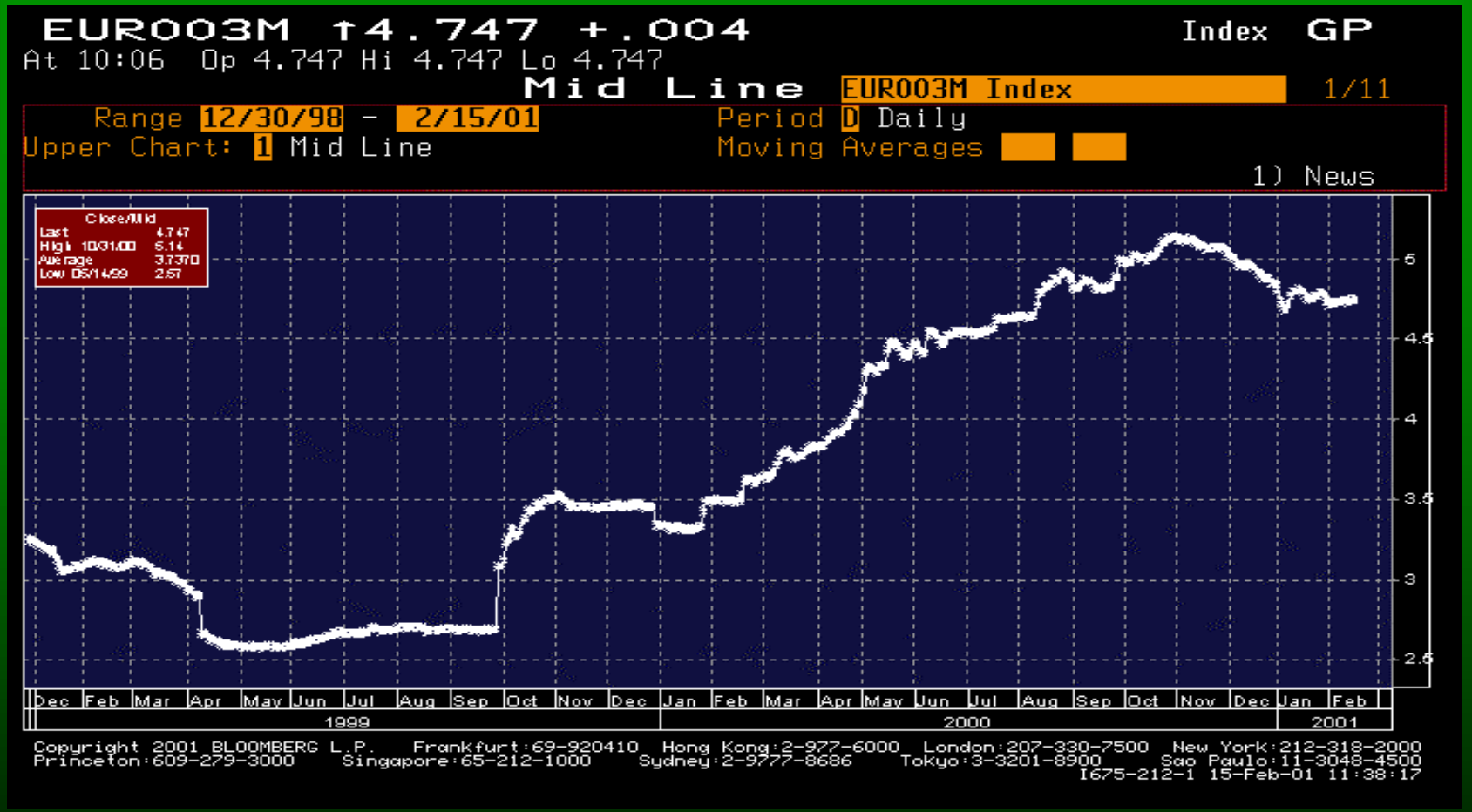
Rates Exposure

Movements in interest rates affect:

- Interest payments on debt
- Interest received on deposits/investments

How does a corporate / investor protect itself against adverse movements in rates ?

Historic Interest Rates



Source: Bloomberg

Why Interest Rates Move

- Macroeconomic factors / Inflation
- Political events
- Currency fluctuations
- Changes in interest rate policies in other parts of the World

The corporate / investor protects itself against adverse movements in rates

by HEDGING

Hedging

The act or a method of reducing the risk of financial loss on an investment, bet, etc.

Why Hedge ?

- To reduce uncertainty and minimise risk
- To help improve financial performance
- To put yourself in charge

"To do nothing is to speculate"

Before You Hedge

- **Identify…** the exposure by currency, amount, period, source etc.
- **Assess …** the consequences of a movement in rates - sensitivity analysis
- **Investigate...** the available products

Then …

- **Decide ...** on the appropriate action

Hedging Alternatives

Fixed Rate Borrowing

Interest Rate Swaps

Interest Rate Options (Caps, Floors & Collars)

Traditional Route

Fixed Rate Borrowing

Fixes an interest rate now for the duration of a loan

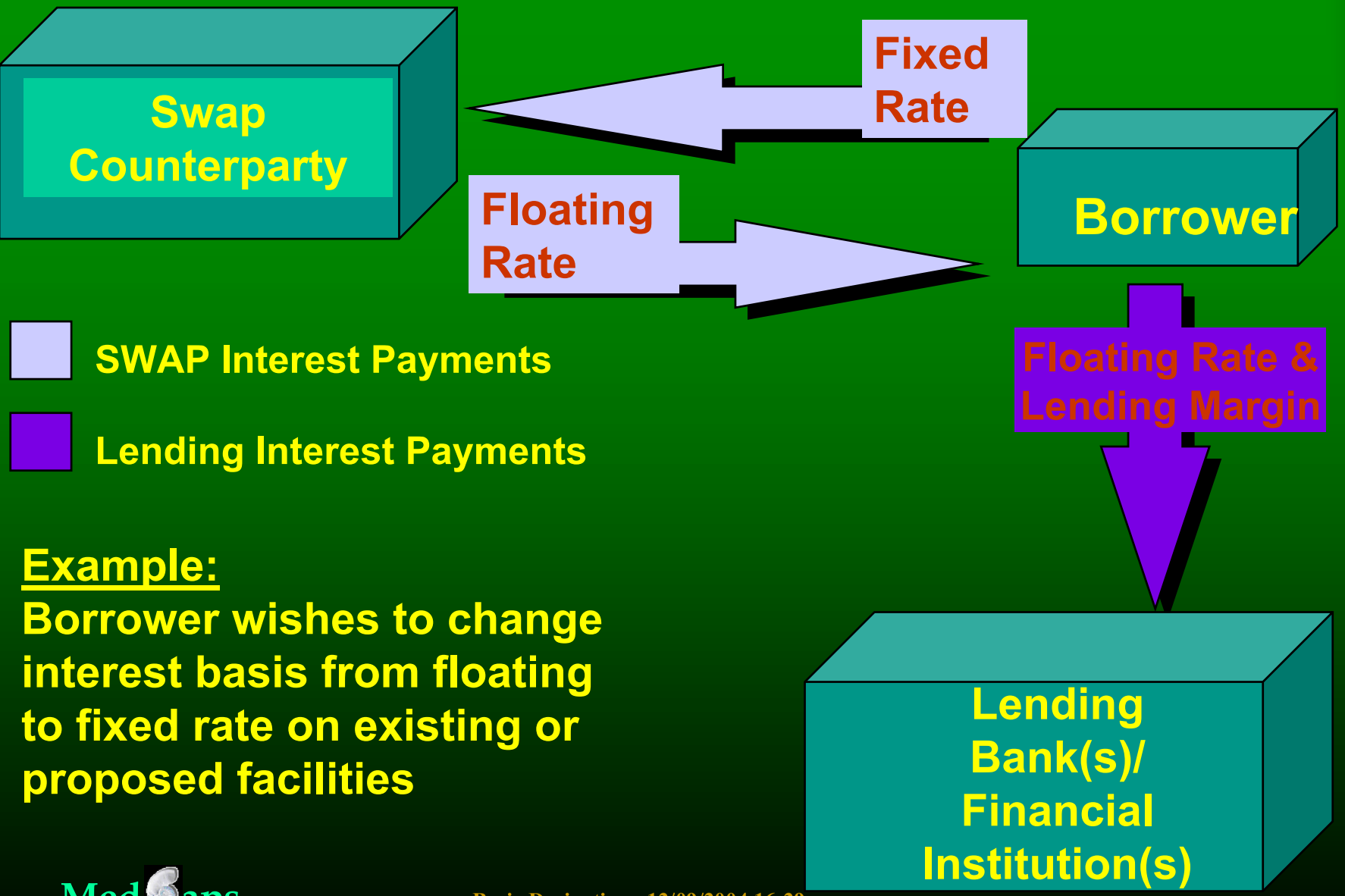
The Alternatives

Interest Rate Swaps

Interest Rate Swap

Enables a borrower or investor to change an exposure from Floating Interest Rates into a Fixed Interest Rate cost or income … or vice-versa

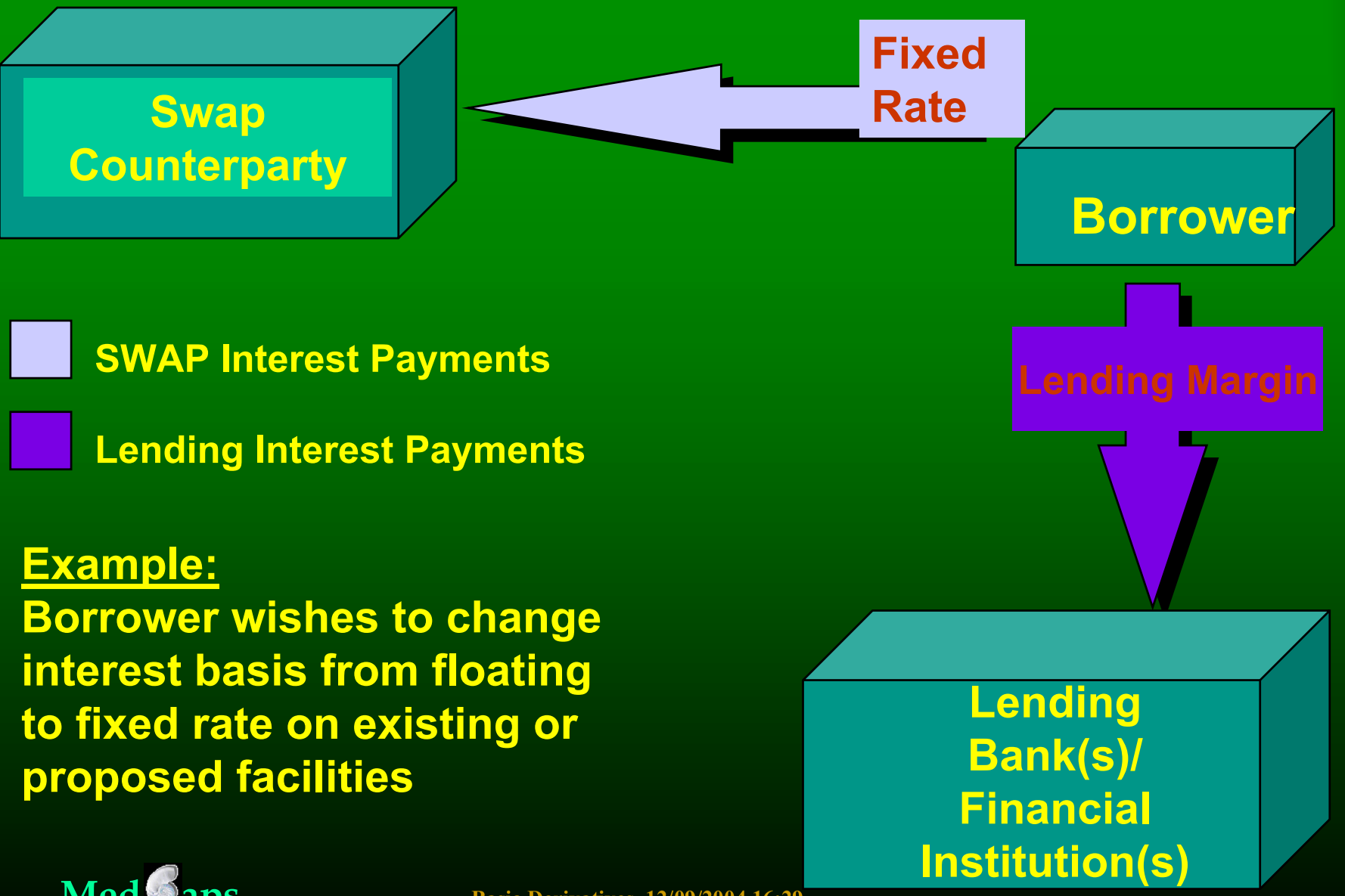
Interest Rate Swap



Example:

Borrower wishes to change interest basis from floating to fixed rate on existing or proposed facilities

Interest Rate Swap



Example:

Borrower wishes to change interest basis from floating to fixed rate on existing or proposed facilities

Interest Rate Swap

Summary:-

- Stand-alone agreement
- Known cost / income
- Available for periods from 18m upto 30 years
- Minimum transaction size E 2,000,000
- Cheaper than equivalent fixed rate loan
- Can be tailored to match exposure
- No fee
- Bank Credit Line required

Interest Rate Cap

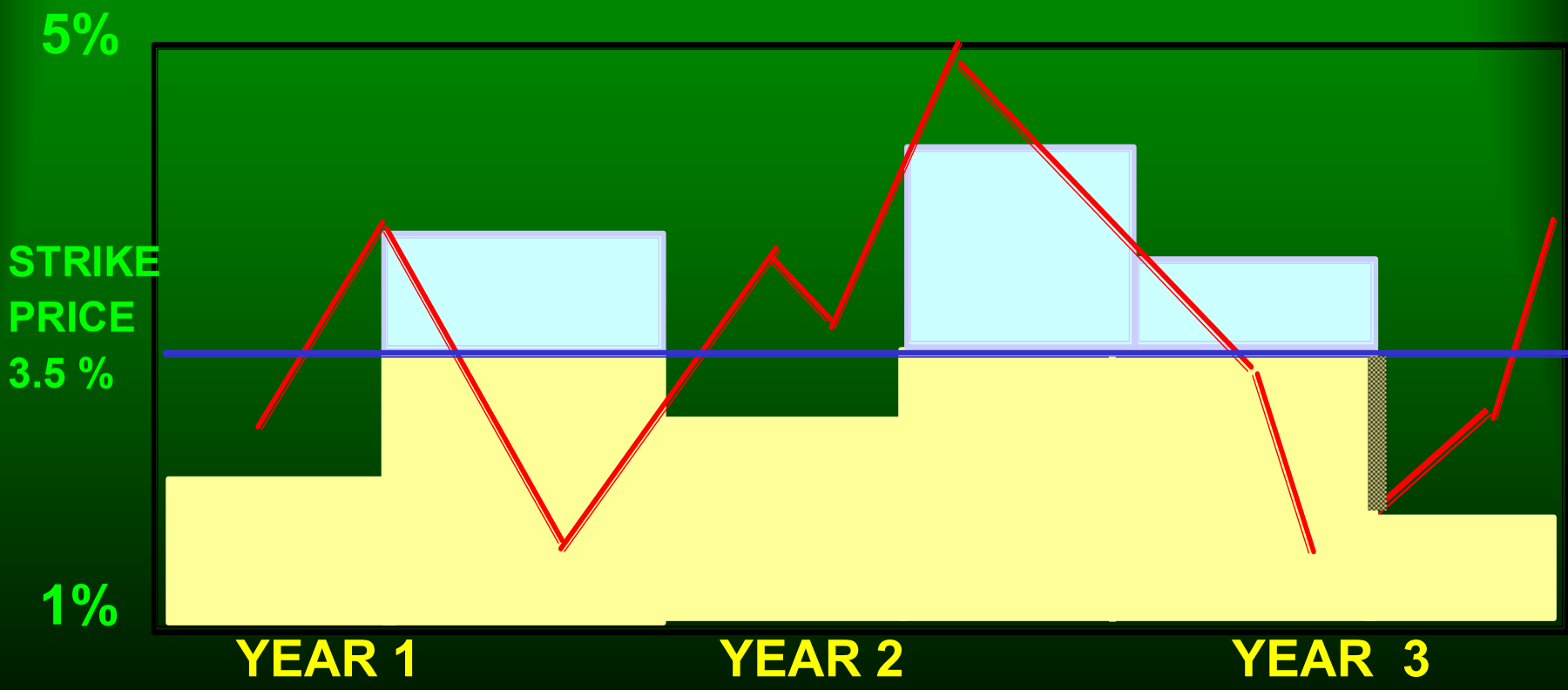
Interest Rate Cap

Fixes a maximum interest rate payable on a nominal sum of borrowings whilst allowing advantage to be taken of favourable interest rate movements

Libor Cap

Company is paid the difference between Libor and the strike price

Company's net borrowing costs (excluding lenders margin and cap premium)



Interest Rate Cap

Summary:-

- Stand alone agreement
- Fixes maximum interest rate payable whilst allowing advantage to be taken of favourable interest rates
- Can be tailored to match exposure
- Available for periods up to 30 years
- Can be sold back to bank
- Fee payable (premium)

Interest Rate Floor

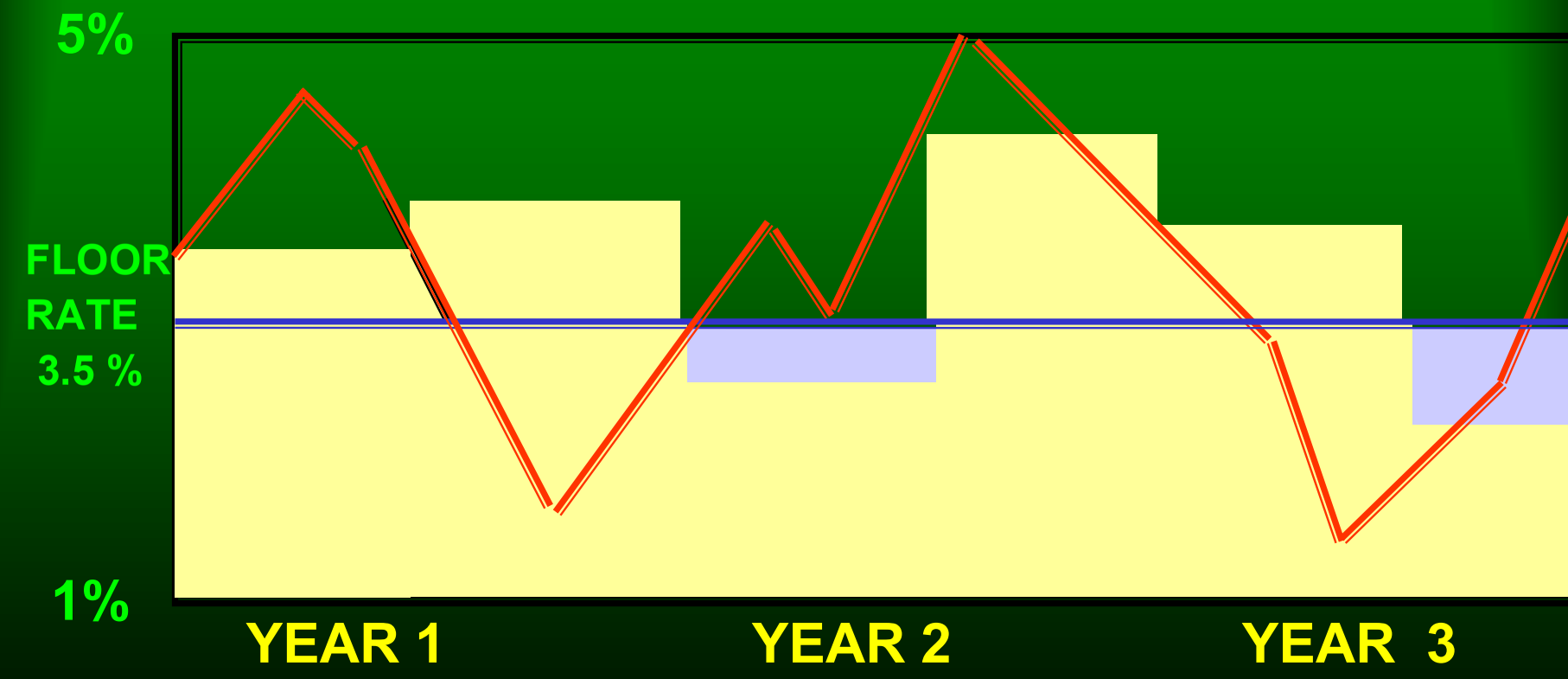
Interest Rate Floor

Fixes a minimum interest rate receivable on a nominal sum of floating rate investments whilst allowing advantage to be taken of favourable rate movements

Interest Rate Floor

Company is paid the difference between Libor and the floor rate

Company's net investment income (excluding floor premium)



Interest Rate Floor

Summary:-

- Stand-alone agreement
- Fixes minimum interest rate receivable whilst allowing advantage to be taken of favourable rate movement
- Can be tailored to match exposure
- Can be sold back to the Bank
- Available for periods upto 30 years

Interest Rate Collar

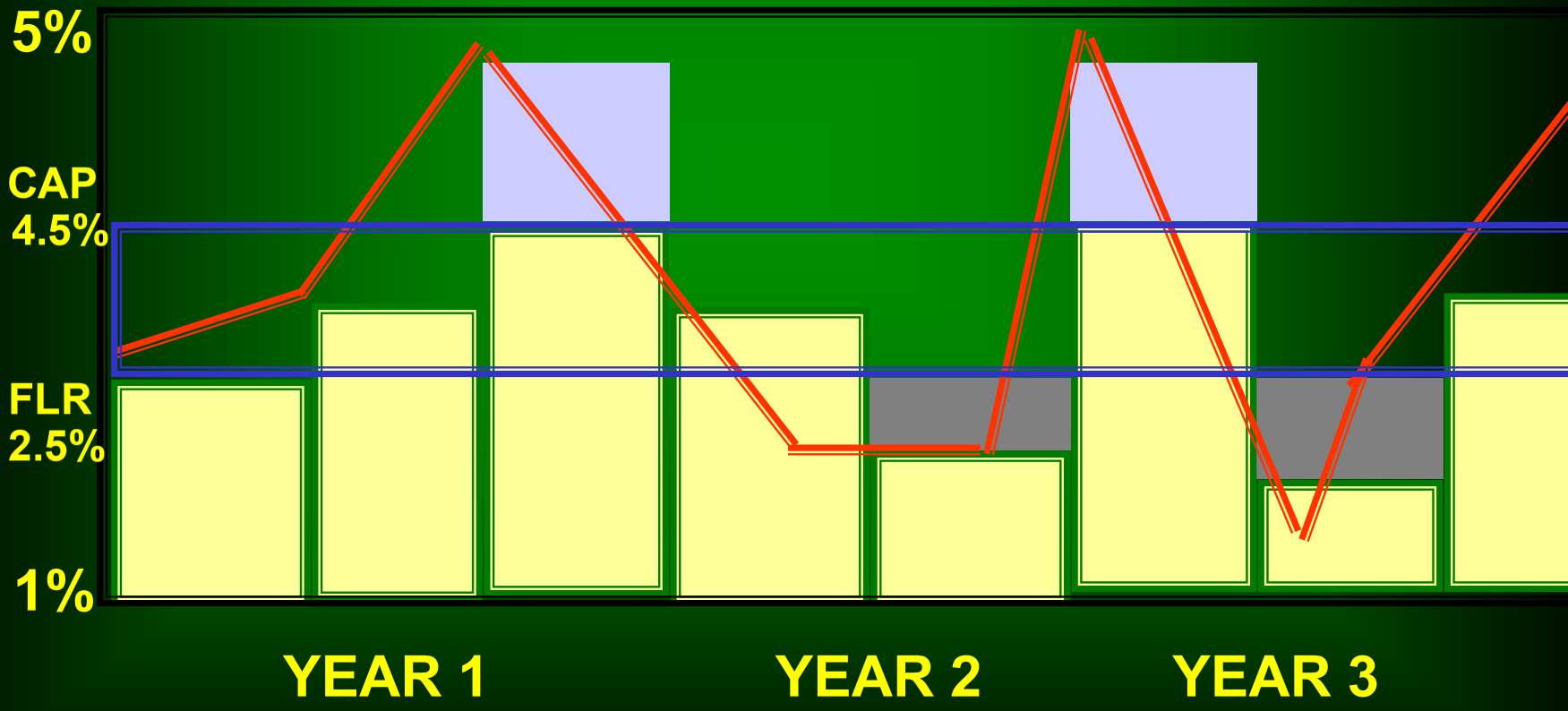
Interest Rate Collar

A combination of a Cap and a Floor, fixing both a maximum and minimum interest rate payable or receivable on a nominal sum of floating rate borrowing or investment

Interest Rate Collar

Bank pays the Company the difference between Libor and the Collar's Cap rate

Company pays the Bank the difference between Libor and the Collar's Floor rate



Interest Rate Collar

Summary:-

- Stand-alone agreement
- Fixes maximum and minimum interest rate payable or receivable
- Reduces or eliminates Cap or Floor premium
- Can be tailored to match exposure
- Credit line required

Interest Rate Hedging
Summary of benefits

- Can be used to protect exposures to ANY lender
  - no need to have a banking relationship with the swap counterparty
- Gives full flexibility of underlying borrowing / assets
- Hedge can either be closed out or "transferred" to other / new exposures
- ISDA documentation is Industry Standard

Interest Rate Hedging

Structured Solutions

Structured Solutions

- Involves taking a view on rates
- Get subsidised protection
- Give up some upside
- Extent of subsidy depends on:
  - shape of curve
  - volatility of rates

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