

Guaranteed notes: ... at what cost?

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# Guaranteed vs. non-guarantees

- There are two main reasons for a guarantee:
  - ❖ Regulatory environments
  - ❖ Risk perceptions (not to confuse with risk appetite)
- Guarantees are obtainable by setting aside an interest-earning portion of the assets, and investing the remainder at higher levels of leverage, through a variety of different instruments.

# Guarantees, ... and guarantees

- Some guarantees are provided by well-rated banks.
- Others are not

We will be assuming a AAA-rated guarantee.

# Anatomy of a guarantee

- A maturity date.
- A portion of the investor's assets are used to purchase a zero coupon bond, maturing at the note expiration.
- The remaining assets are invested, with leverage, to obtain full exposure to a hedge fund portfolio. This can be achieved through
  - ❖ A fully hedged call option
  - ❖ A partially hedged option
  - ❖ a CPPI option

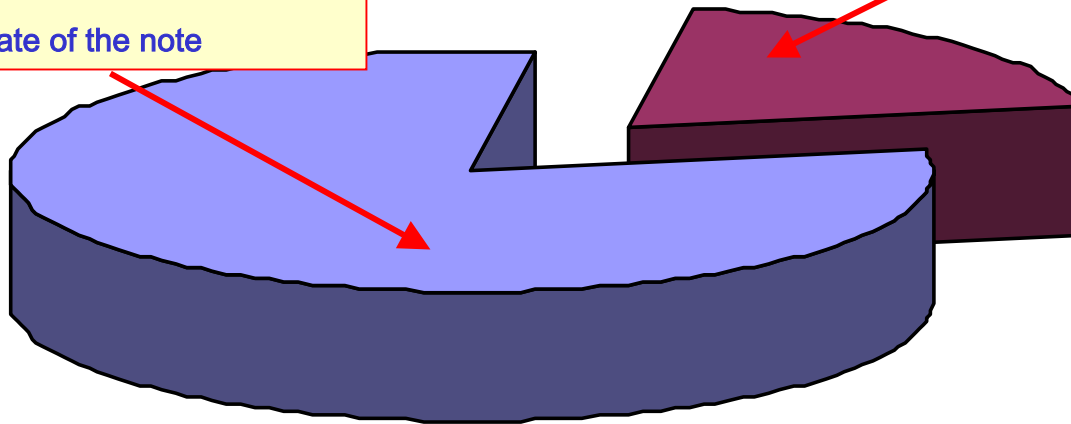
# Anatomy of a guarantee

## Guarantees principal in the future:

How much is needed is determined by

- Interest rates
- Maturity date of the note

Obtains exposure to the Hedge Funds



■ Secure debt  
■ Investment

# Assumptions

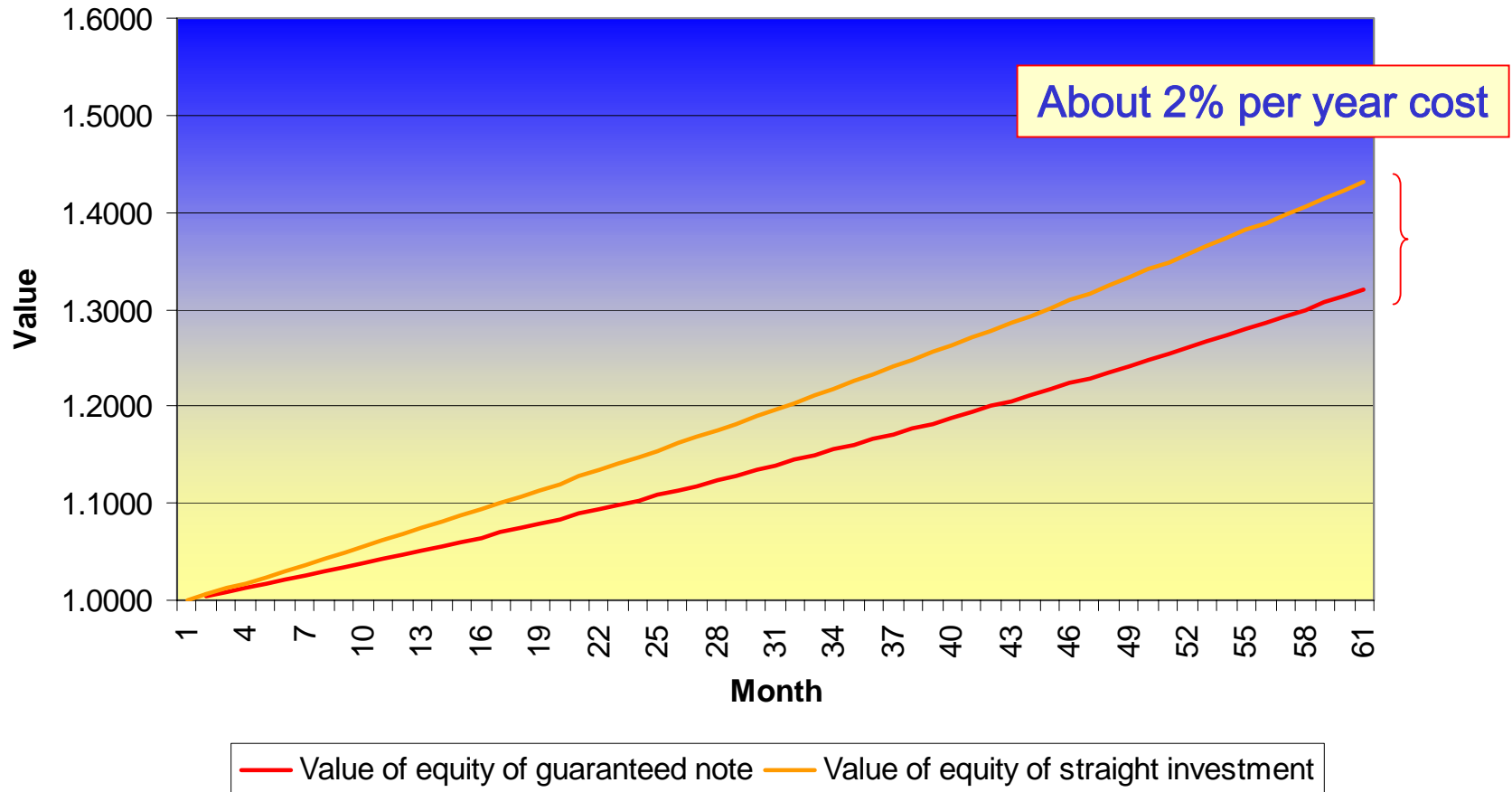
- An underlying hedge fund portfolio that produces 6bps/month
- Interest rates at 25bps per month
- A 5 year note that guarantees principal
- No management or performance fees

# Fully hedged call option

- The hedge affects the price, and the associated strategy of the underwriter.
- Typically, the issuer hedges the option by borrowing and investing the entire notional on the underlying hedge fund portfolio
- Fees hover around the 1% spread mark
- For a 5-year note, the associated cost is about 2% per annum, equivalent to a BB-rated bond.

# Fully hedged call option

## Note vs. FoF



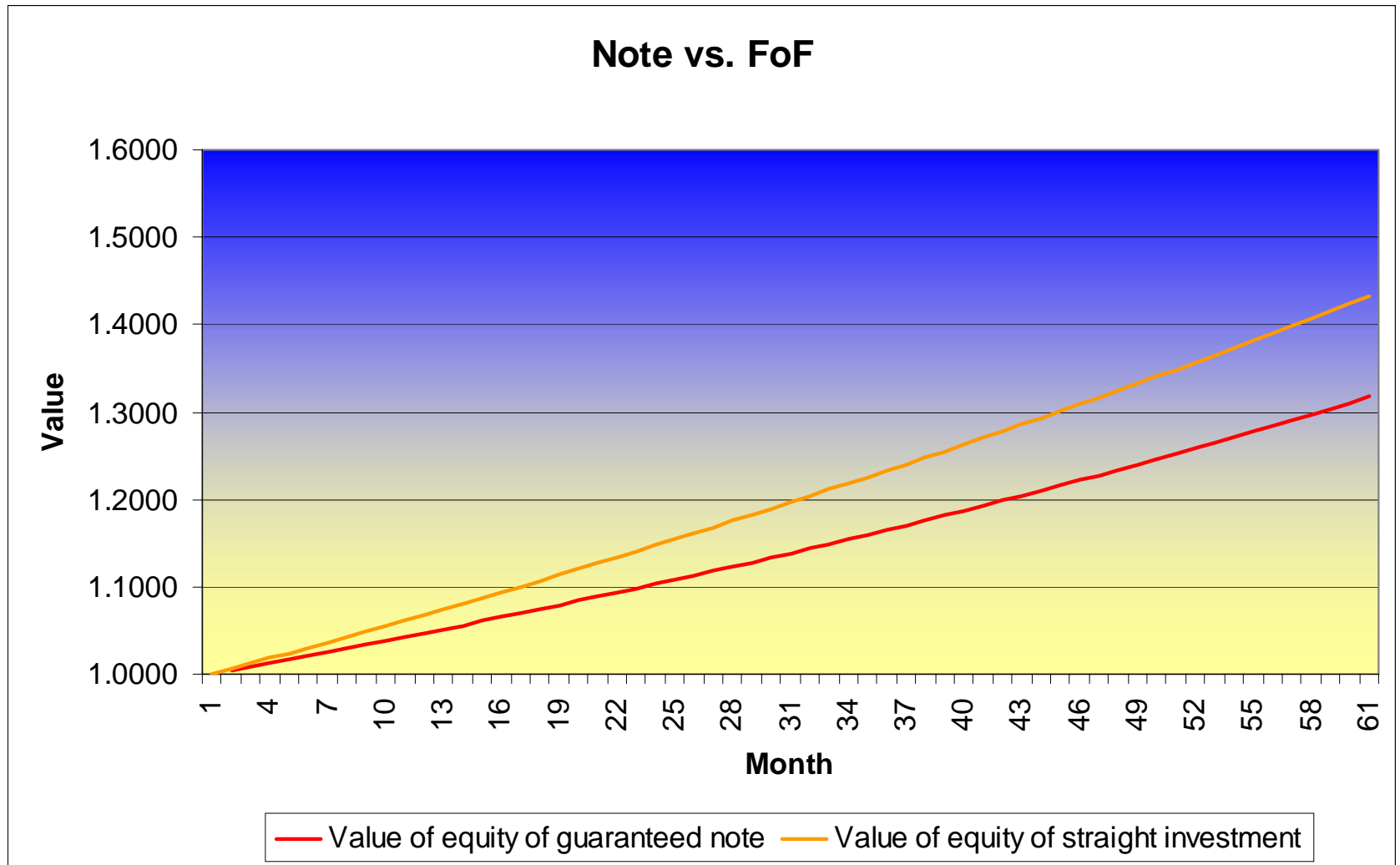
# Call Option

- The payoff is not path dependent, or dependent on interest rate evolution.
- They provide a better alternative to the investor, but can be hard to structure for the underwriter: liquidity or a hefty liquidity spread is a must.
- Price is driven by volatility: observed or assumed.

# CPPI structures

- An easier alternative to the underwriter, who does not need to worry about interest rate evolution, liquidity or fund volatility.
- The alternative of choice, it does not seem to show clear benefits to investors for the additional cost they pose: a 1% spread, which translates to about a 2% per annum charge for a 5-year note.

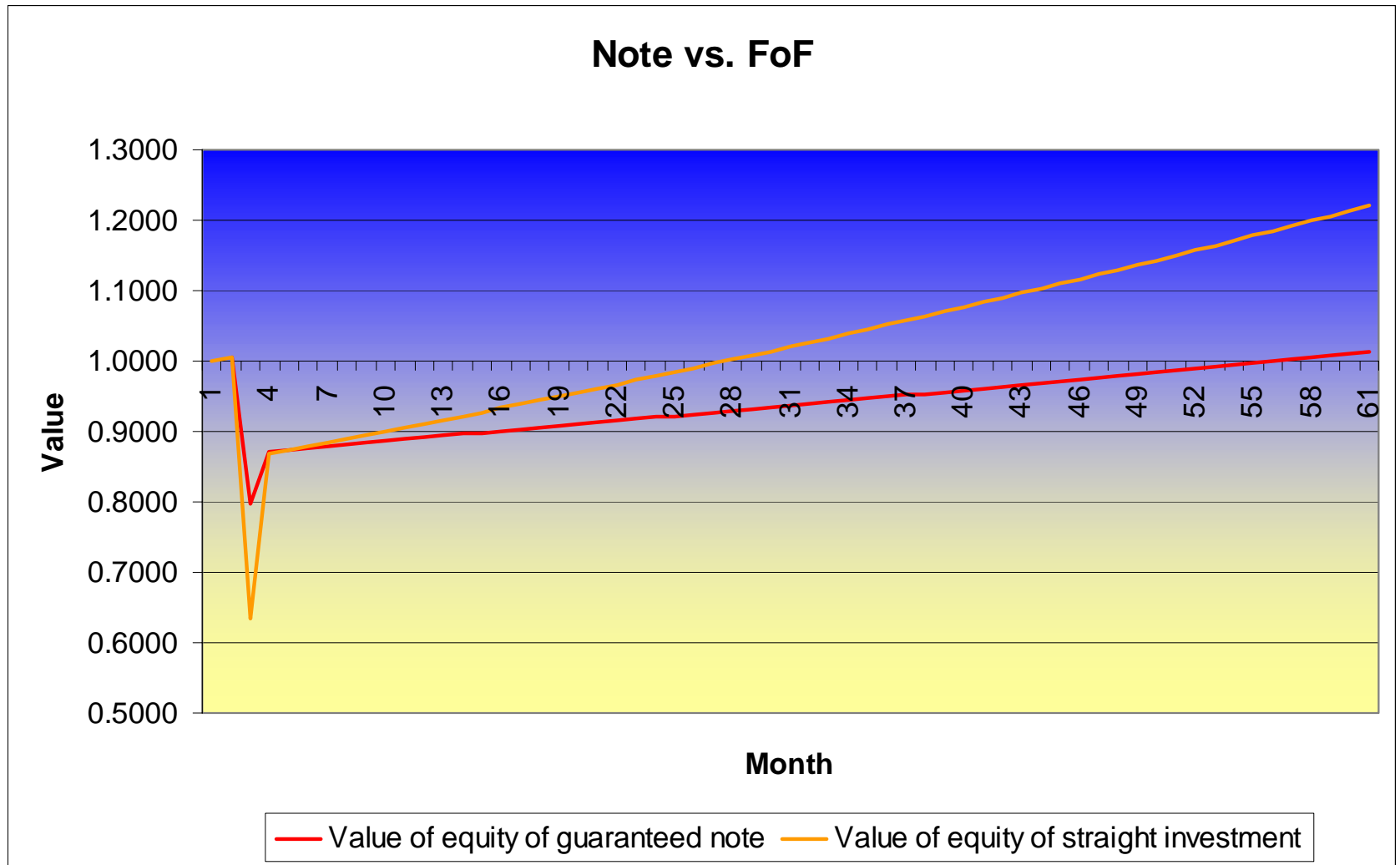
# CPPI: low volatility underlying



# CPPI: sensitivities

- CPPI improve long terms sustained performance
- CPPI offers very adverse effects when the underlying portfolio exhibits large sudden losses.
- CPPI are designed to sell off assets when losses exceed a certain level (about 5%) making recovery from favorable performance more difficult.

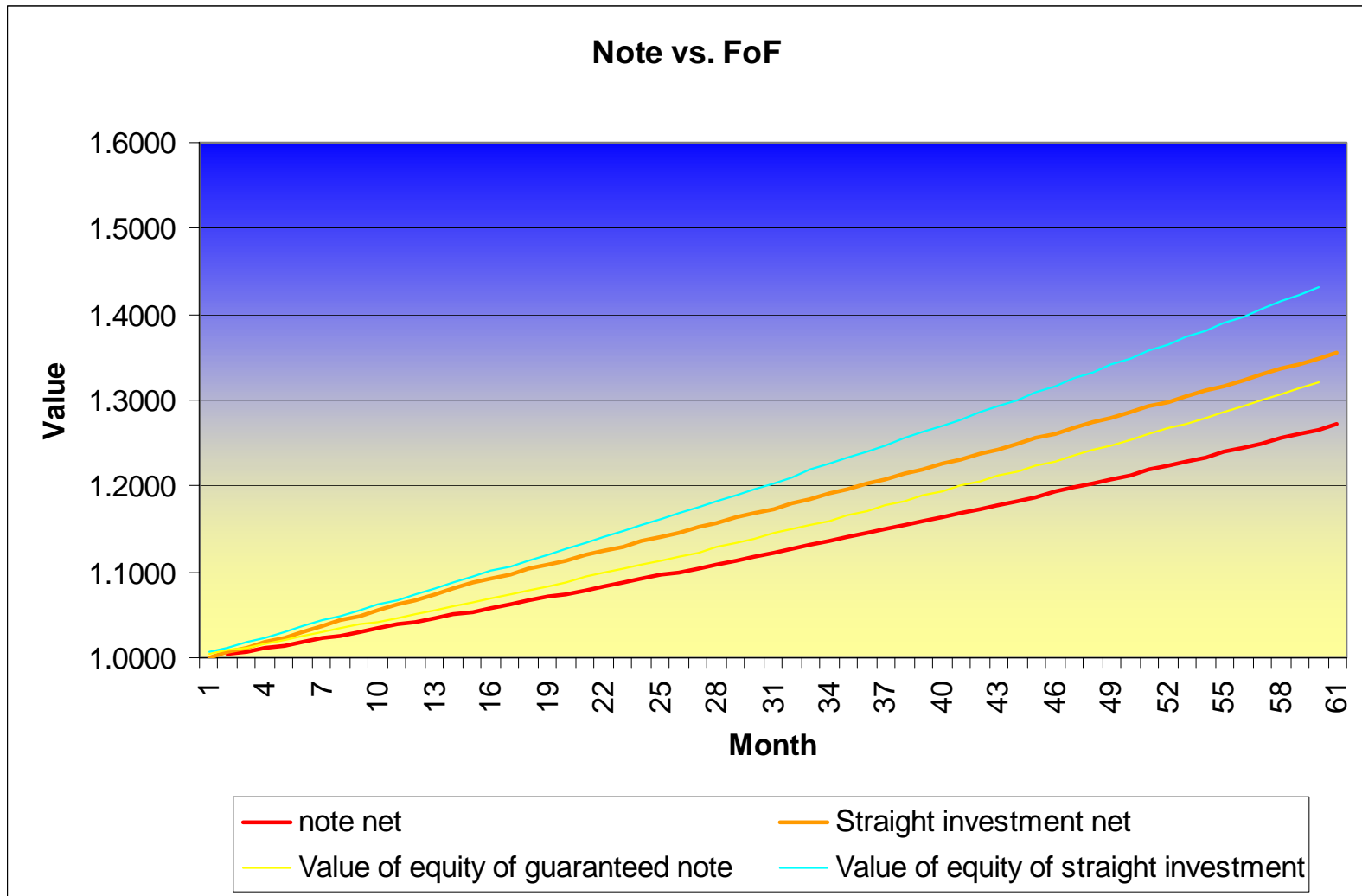
# CPPI: vega sensitivity



# Performance fee impact

- Performance fees can be established in many different ways:
  - ❖ At the note NAV level
  - ❖ At the underlying fund performance level (rare)
  - ❖ At the leveraged fund performance level
- Because most of the assets are locked in a zero coupon bond, the effect of performance fees is not very severe, but it seriously affects the ability of the note to produce performance.

# Performance fees



# Alternative funding options: CFO

- Avoid the option structure by issuing debt (defaultable bonds) side by side with secured debt (riskless bonds)
- It provides a risk transfer mechanism between counterparties with different risk views:
  - ❖ the investor, who places higher risk on the hedge fund investment
  - ❖ the bond holder, who place lower risk on the investment

# Collateralized Fund Obligation (CFO)

