

**Hedging  
and Risk Management**

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### Outline of the Seminar

- ❑ Objectives of Hedging
- ❑ Types of Exposure and Hedging
- ❑ Hedging Techniques
- ❑ Risk Control



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## Objectives of Hedging

- ❑ What risks are hedgable? Business risk versus market price risk
- ❑ Hedging in the current market crisis
- ❑ Should companies and banks hedge?
- ❑ Hedging based on the theory that market movements are unpredictable
- ❑ Advantages and disadvantages of "selective hedging"
- ❑ How much to hedge? 0%-50%-100%
- ❑ Value creation through risk reduction

## Business Risk versus Market Risk

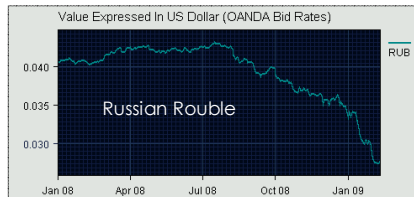
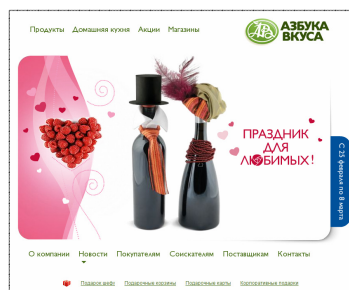
- ❑ Types of business risk:
  - ❑ Demand for product
  - ❑ Cost of production
  - ❑ Others, such as earthquake – insurable
- ❑ Types of market price risk:
  - ❑ Currencies
  - ❑ Interest rates
  - ❑ Commodity prices
- ❑ Companies and banks should *manage* their business risks, and *hedge* their market risks (if possible).

## Business Risk Should be *Managed*

- ❑ 2006, February: Linens 'n Things bought by Apollo for \$1.6 billion, with \$1 billion of debt
- ❑ 2008, May: Linens files for bankruptcy.
- ❑ What went wrong?



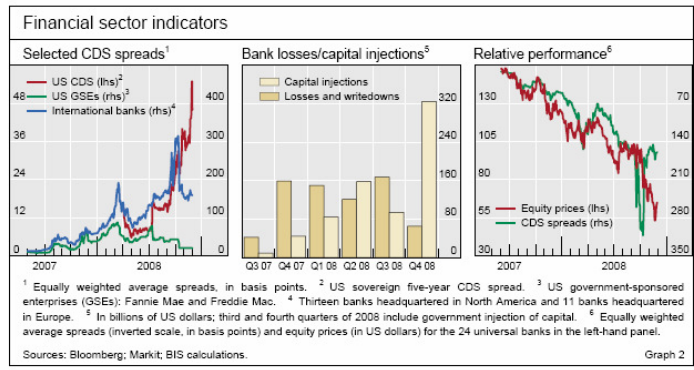
## Market Risk Should be *Hedged*



Source: oanda.com

- ❑ 2008, January: A Russian upscale supermarket chain, AV, borrows USD 50 million from the EBRD
- ❑ 2009, February: Russian rouble falls, AV unable to service its debt
- ❑ What went wrong?

## Hedging in the Current Market Crisis



## Effect on Indonesian Banks?

### □ Positive:

“...our delay in integrating our financial sector with the global financial network is really a blessing in disguise, as it has saved us from more serious crisis fallout.”

### □ Negative:

“A current issue we face today is the waning access of corporations and banks to sources of foreign financing.”

Source: The Governor of Bank Indonesia  
Bankers' Dinner, 30th January 2009

## Why Hedge?

- ❑ Prevent market fluctuations from interfering with the business
- ❑ Secure cash for investments
- ❑ Reduce potential costs of financial distress
- ❑ Increase debt capacity



*Since currency matching reduces the probability of financial distress, it allows the firm to have more earnings stability and more optimal leverage.*

## INDOSAT Hedges to Reduce Currency Risk

- ❑ INDOSAT issued USD denominated bonds amounting to USD 550 Million and also had exposure to Export Credit Facility in the amount of USD 34 Million.
- ❑ To hedge the position, INDOSAT opened an **interest rate swap** (pay float/receive fix) and **cross currency swap** (first leg: sell USD/IDR; second leg: buy USD/IDR).
- ❑ The total contract amount on December 2004 was USD400 Million or 68.5% of its total exposure.




## Hedging: Measurement and Management of Exposure

- ❑ Goal is to **prevent market fluctuations** from interfering with the business.
- ❑ Hedging is only possible if you know your exposure – so the first step is to **define and measure exposure**.
- ❑ Hedging is also only possible if the institution understands how effective are the **instruments of hedging** – forwards, futures, swaps and options
- ❑ Hedging effectiveness can be measured – but **we must look at both sides**, the exposed asset/liability and the hedge.

## A Hedging Policy?


- ❑ INDOSAT was hedging part of its debt by matching swap to debt.
- ❑ But independent auditor Ernst & Young had reminded the management of INDOSAT to improve its derivative transaction-related risk management formal policy.

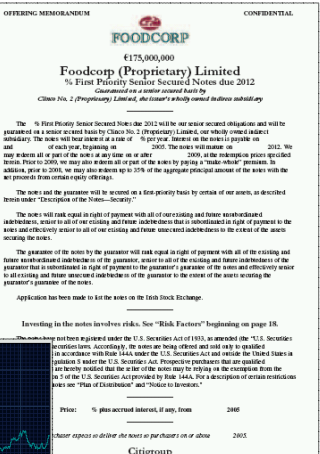





## Foodcorp's Currency Swap

- ❑ South African food products company, Foodcorp, issued a Euro 175m bond in 2005
- ❑ *All the EUR payments were hedged with a currency swap*
- ❑ When the ZAR fell, the company was protected against the cost of servicing the debt.






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## “Selective Hedging:” When to hedge and when not to hedge

Jan 19, 2009 : ■ US\$IDR=X 11.111.1113



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### “Selective Hedging”

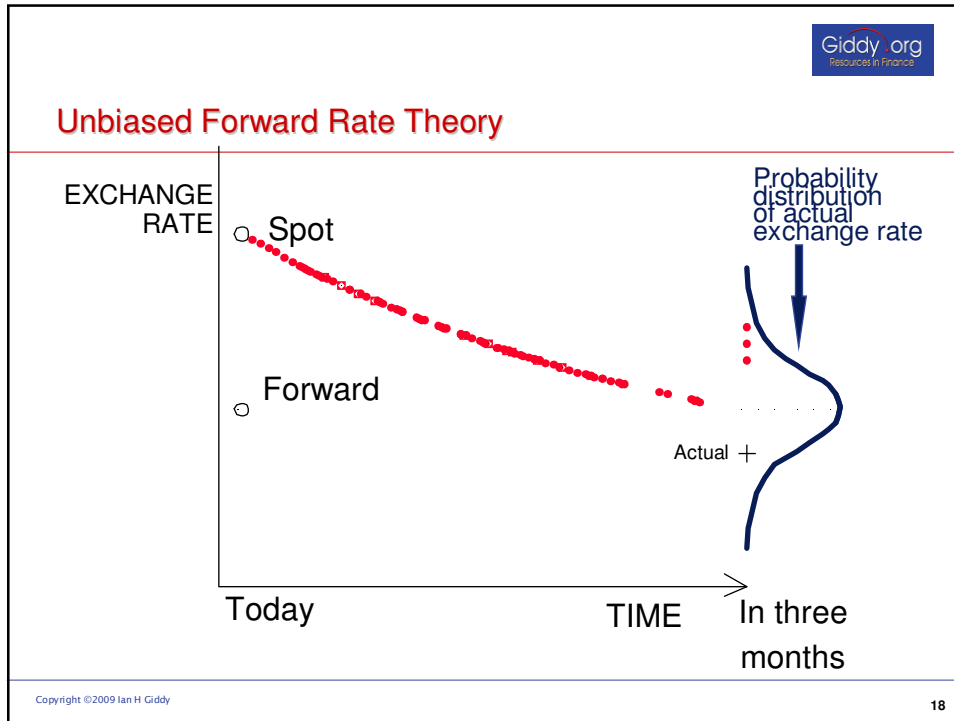
- “Selective hedging” means deciding when to hedge and when not to hedge.
- For example, for an Indonesian company with foreign currency debt, the “ideal” hedge would involve shorting the rupiah when it is weak, but not when it is rising.
- But trying to decide when to hedge means knowing when the forward rate is mispredicting the currency – and this is not the job of the risk manager!




### Are Currency Movements Predictable?



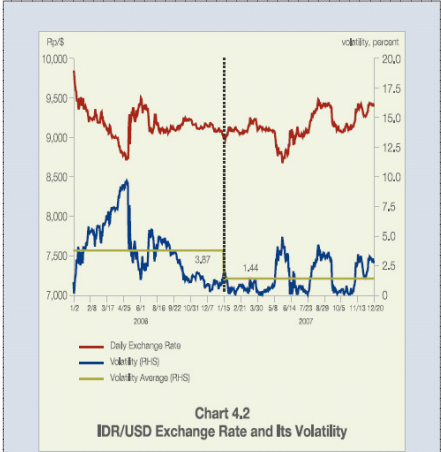
Source: finance.yahoo.com





## Volatility of the Rupiah

- Hedging is not one-way: the IDR can fall and rise, without any clear direction
- Volatility can change substantially too
- So hedging must not be based on expectation of a trend – it should protect the investor whichever way the currency moves.



**Chart 4.2**  
IDR/USD Exchange Rate and Its Volatility

Source: Bank Indonesia Annual Report 2007

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## “Partial Hedging”

- Adaro coal company has an exposure of USD 20 million from foreign currency sales to China
- How much should be hedged? 0%-50%-100%?
- Answer: If the exposure can be identified and quantified, **all** should be hedged. Any unhedged part is exposed to currency risk.



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Adaro's exposure: USD 20 million  
Adaro's hedge?

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## Objectives of Hedging: Summary

- Goal is to prevent market fluctuations from interfering with the business.
- Hedging is only possible if you know your exposure – so the first step is to define and measure exposure.
- Hedging is also only possible if the institution understands how effective are the instruments of hedging – forwards, futures, swaps and options.
- Hedging should not be based on predictions
- Selective hedging is not really hedging – since you have to decide when to hedge, you are basing your hedge on currency predictions. This is not true hedging.
- Partial hedging is also speculative, although less so. A 50% hedge means that the other 50% is exposed to market risk, so it is unhedged. So partial hedging is not true hedging either.

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