

## ***International Financial Management: Review***

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## ***International Financial Management***

1. Management, Markets and Linkages
2. Exchange Rate Determination and Forecasting
3. Hedging Tools: Forwards vs Futures vs Options
4. Measuring and Managing Risk
5. Managing Corporate Financial Structure
6. Swap-Linked Financing
7. Bank and Money Market Financing
8. Long Term Financing in Intl Capital Markets
9. Hybrids and Structured Finance
10. Integrated Multimarket Financing



## ***What Is So Special about Corporate Finance in the Int'l Environment?***

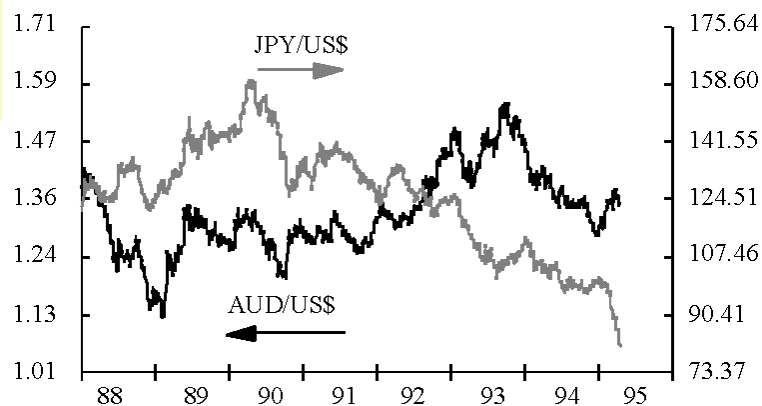
- λ Financial Markets Are Partially Linked / Partially Separated
- λ Exchange Rates Fluctuate
  - ◆ Risks - Eg currency exposure measurement and management
  - ◆ Opportunities - such as deviations from purchasing power parity
  - ◆ Analytical Tools - like exchange rate determination and hedge pricing

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## ***Currency Fluctuations***

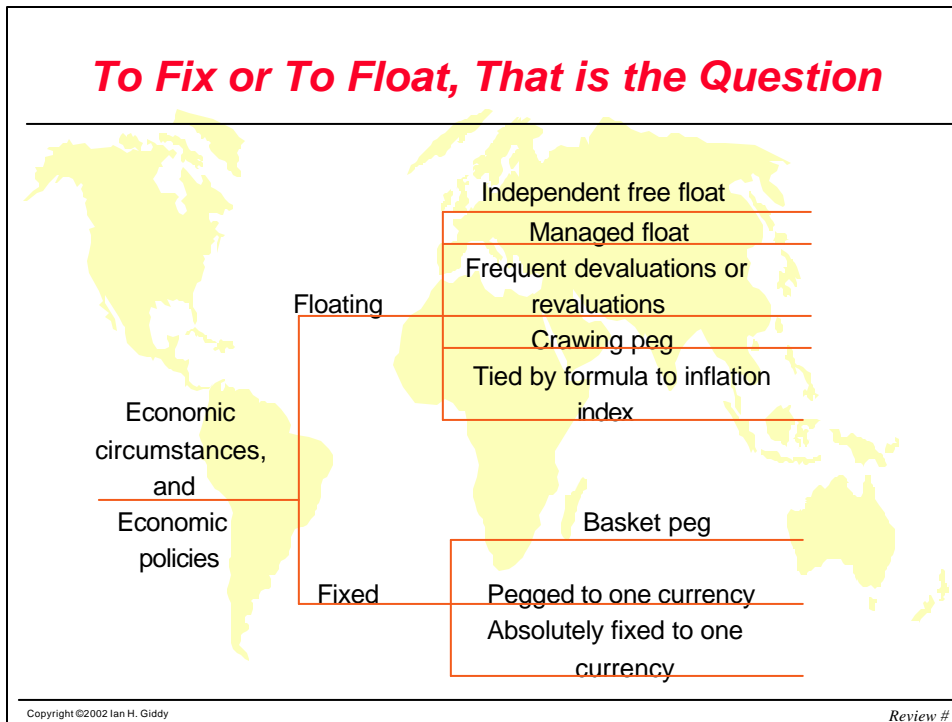
JPY/USD and AUD/USD exchange rate history



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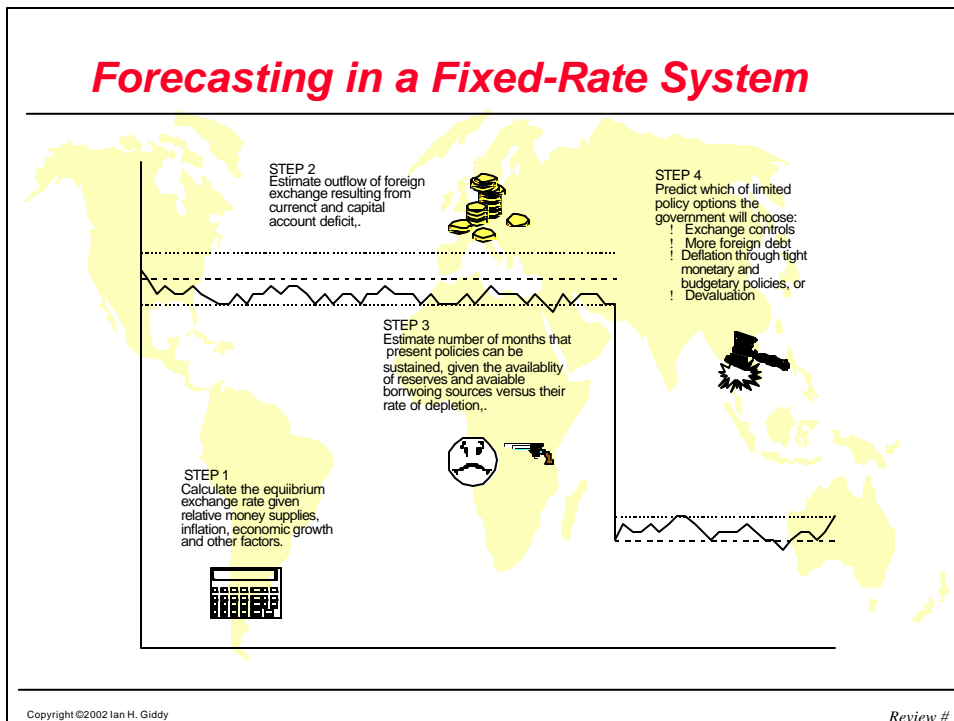
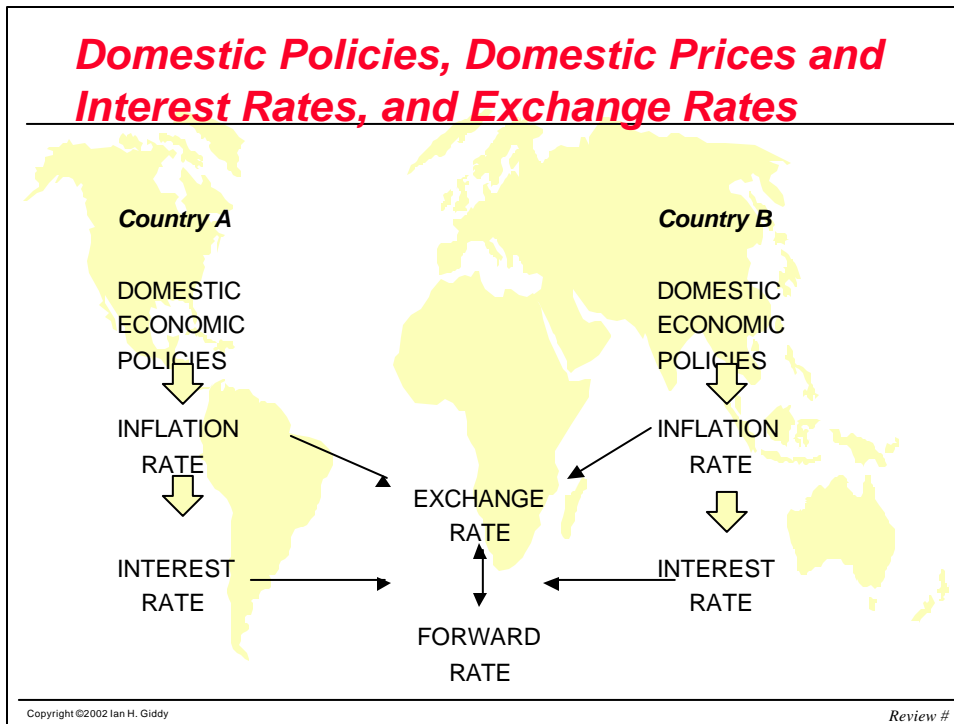
## To Fix or To Float, That is the Question



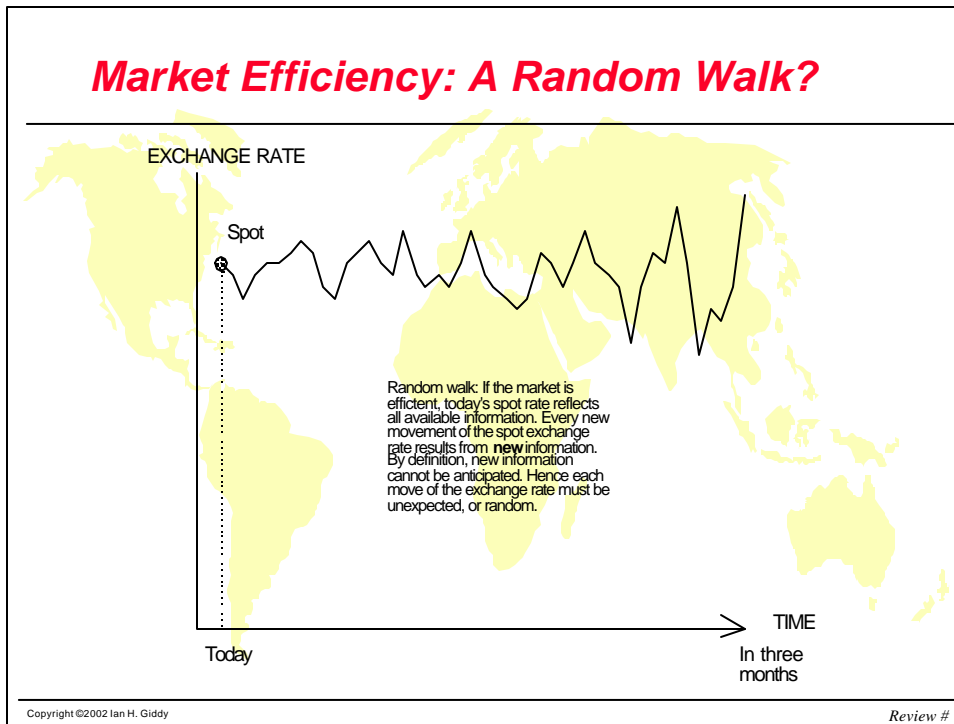
## Implication of EMU

- λ Only Eurofed creates money
- λ Central banks can no longer print money to finance public deficits
- λ Only a nation's creditworthiness determines ability to run a fiscal deficit

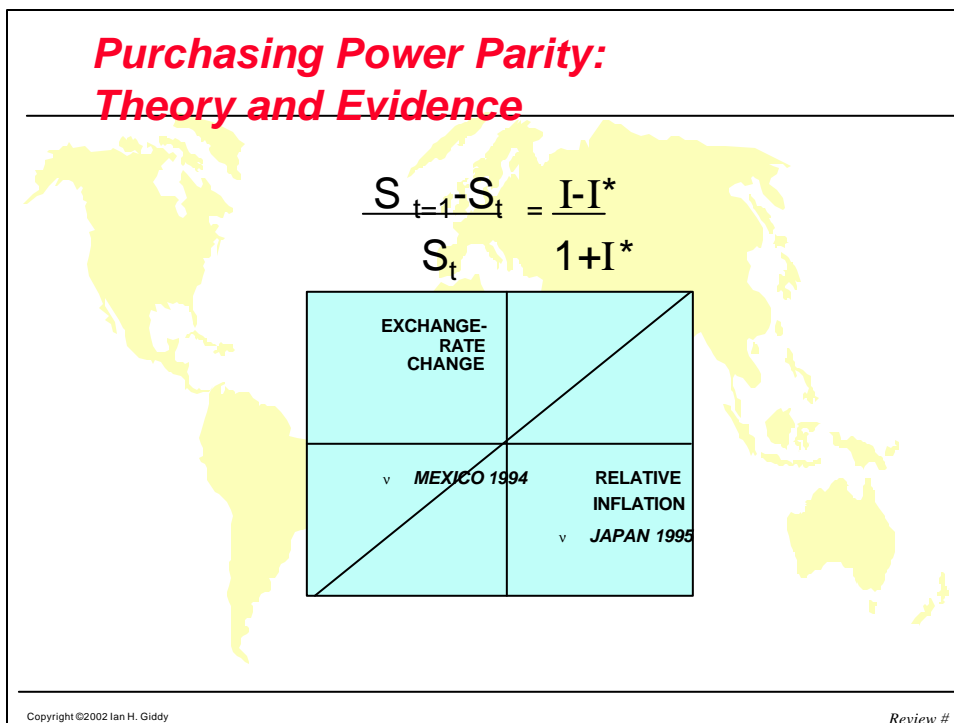


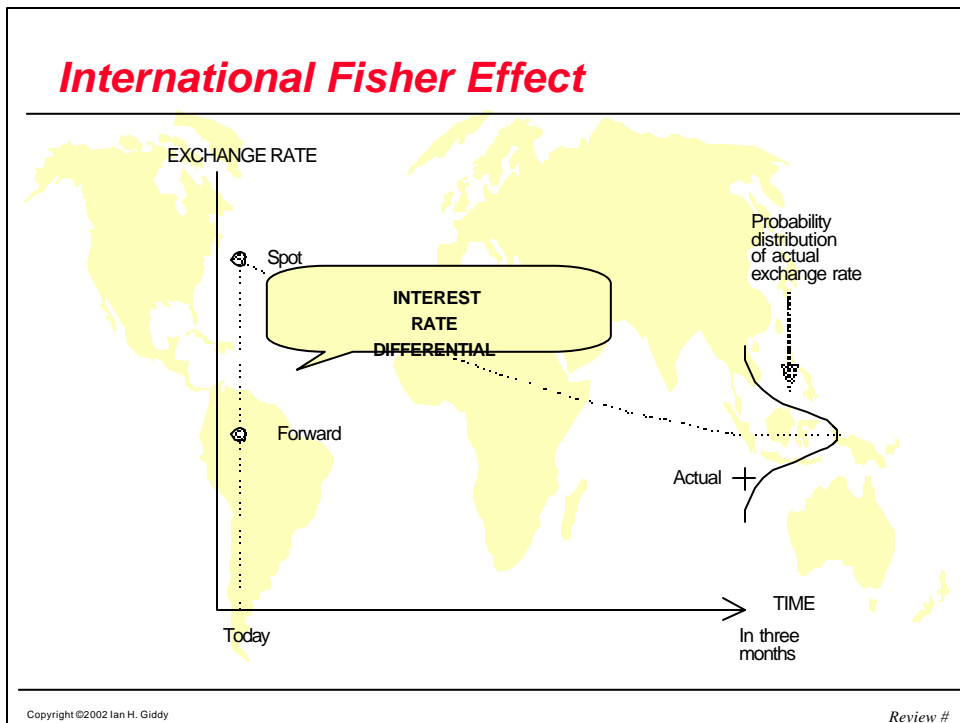
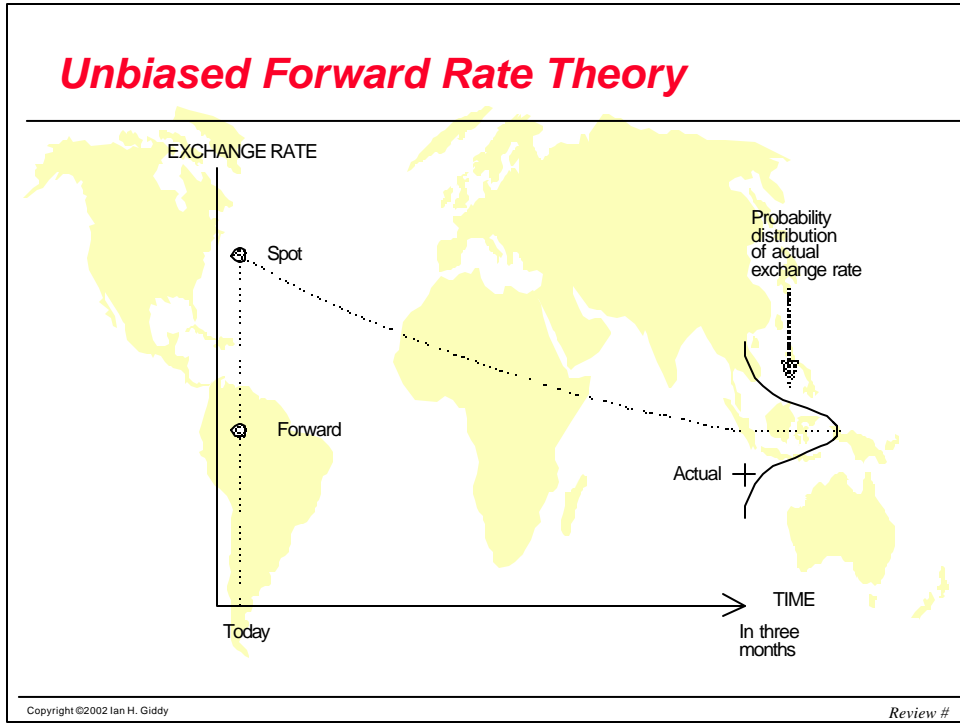


### Market Efficiency: A Random Walk?



### Purchasing Power Parity: Theory and Evidence





### Interest-Rate Parity

$$\$1 (1 + i_{\$/\text{£}}) = (\$1 / S_t) (1 + i_{\text{£BP}}) F_t^n$$

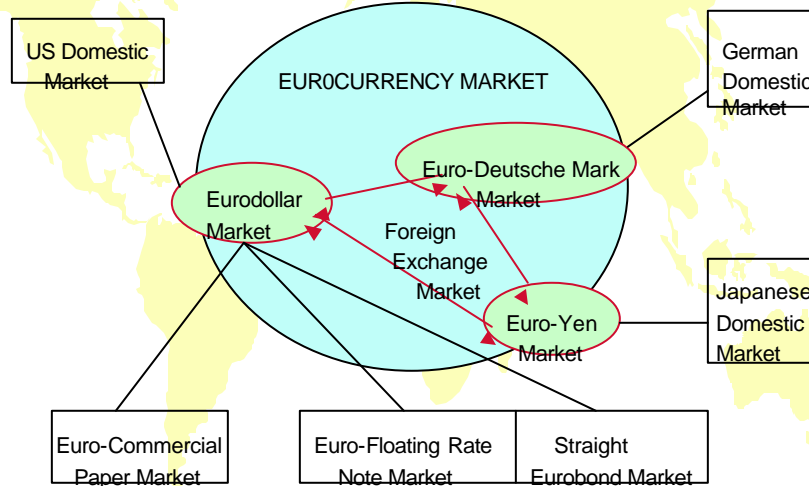
where  $S_t$  is the spot exchange rate (dollars per British Pound) and  $F_t^n$  is the forward rate.

to a close approximation,

$$(i_{\$/\text{£}} - i_{\text{£BP}}) = [(F_t^n - S_t) / S_t] (365/n) 100$$

**Interest-rate differential = forward premium or discount**

### Where the Eurocurrency Market Fits In



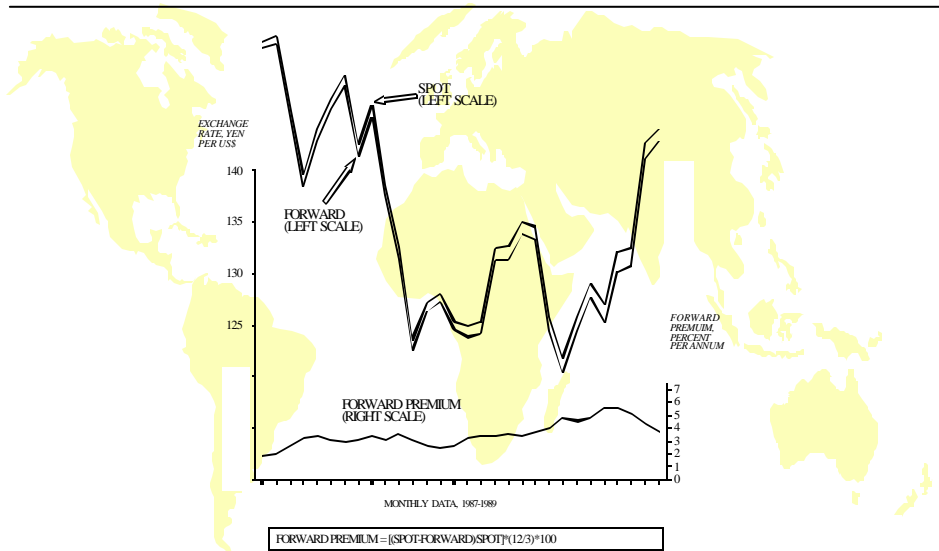
## Hedging Transactions Exposure

- λ Types of exposure
- λ One-shot exposure
- λ Hedging approaches:
  - ◆ Open
  - ◆ Forward
  - ◆ Money market
  - ◆ Futures
  - ◆ Options
- λ Ongoing transactions exposure

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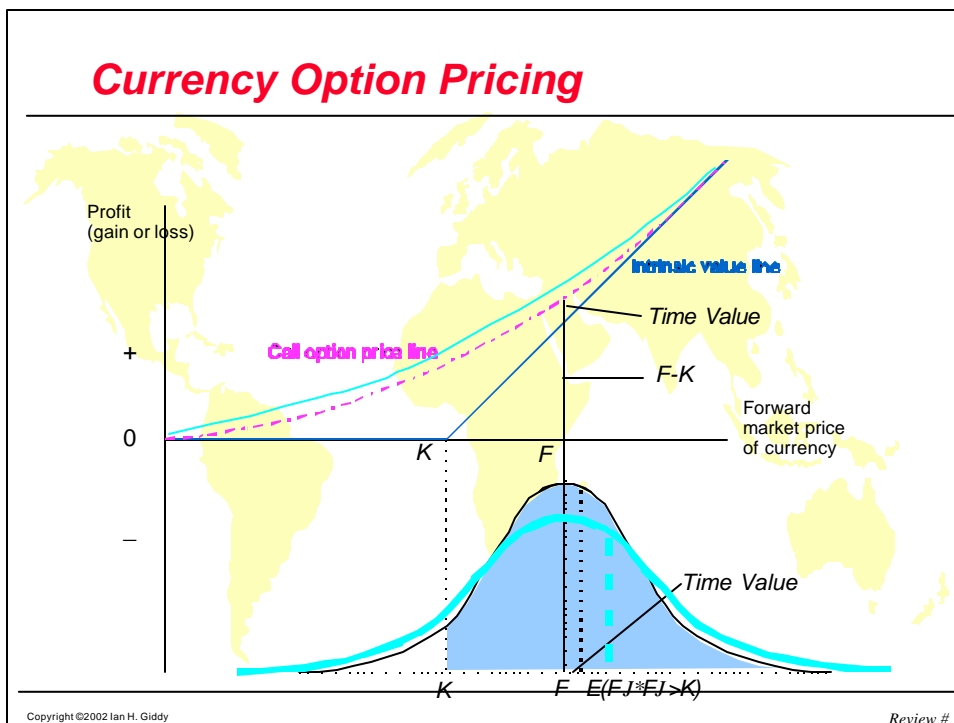
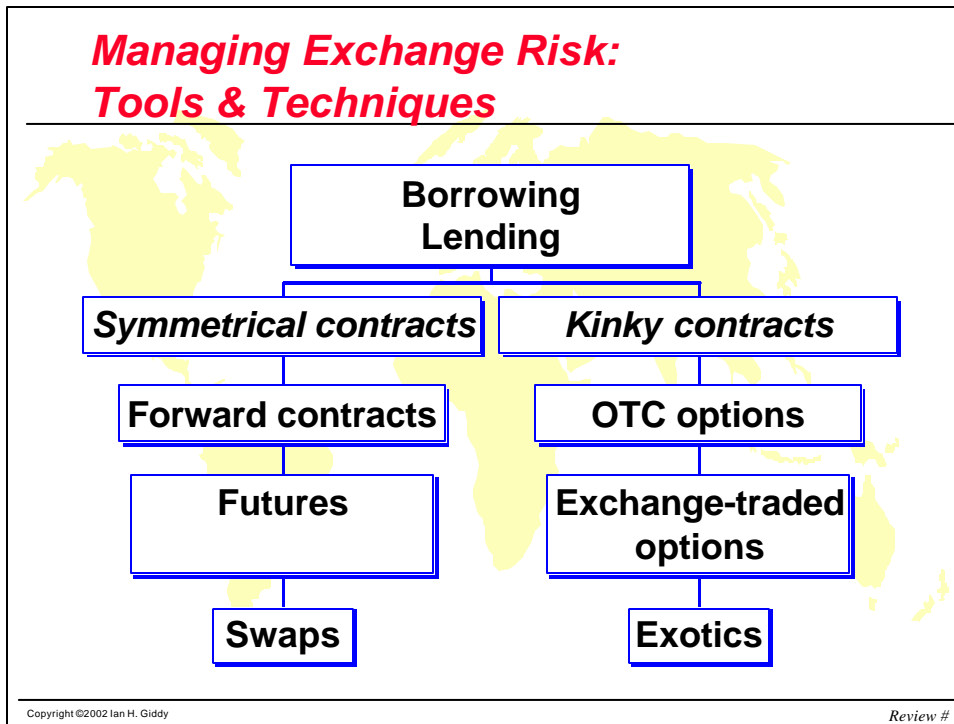
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## The Forward Rate Tracks the Spot Rate



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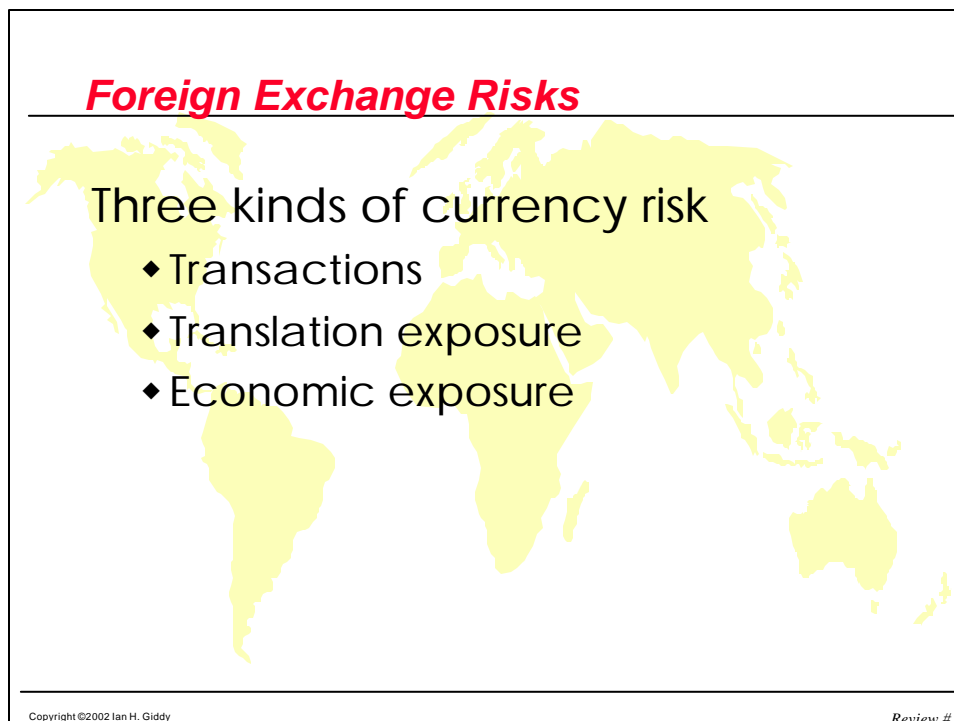
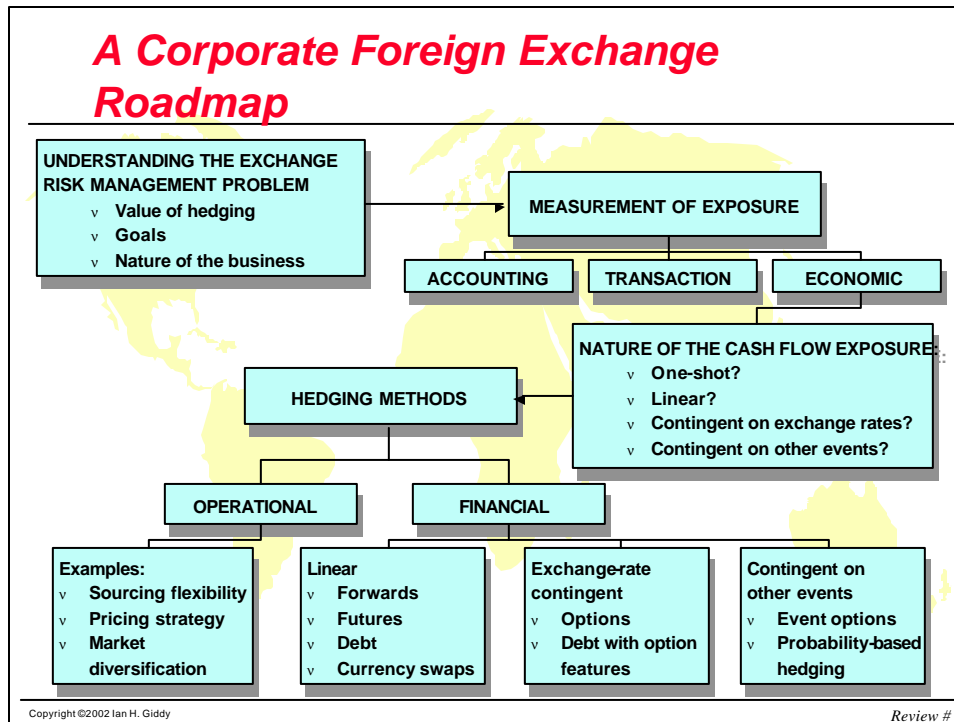
**View on Direction, Volatility or Both?**

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**Which Instrument?**

Identifiable exposure	Debt, swaps, forward contracts
Uncertain exposure	Instruments with flexibility, such as forwards and futures
Exposure that threatens financial distress	Deep-out-of-the-money options
View on direction <i>and</i> volatility	At-the-money options

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### Transactions Exposure: Hedging

- λ Reeves International (CT) has a subsidiary in Italy. It makes printing blankets for sale in Europe.
- λ Reeves Italy has to pay a dividend of approximately ITL 24 m. in December.  
How should Reeves hedge this?
  - ◆ Forwards?
  - ◆ Futures?
  - ◆ Money market hedge?
  - ◆ Do nothing?

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### Measures of Translation Exposure

	All Current	Current/ noncurrent	Monetary/ nonmonetary	Temporal (US GAAP)
<b>Assets</b>				
Cash	C	C	C	C
A/R	C	C	C	C
Inv.	C	C	H	H
Fixed	C	H	H	H
<b>Liabilities</b>				
Current	C	C	C	C
Long term	C	H	C	C
Equity	Residual	Residual	Residual	Residual

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## Economic Exposure

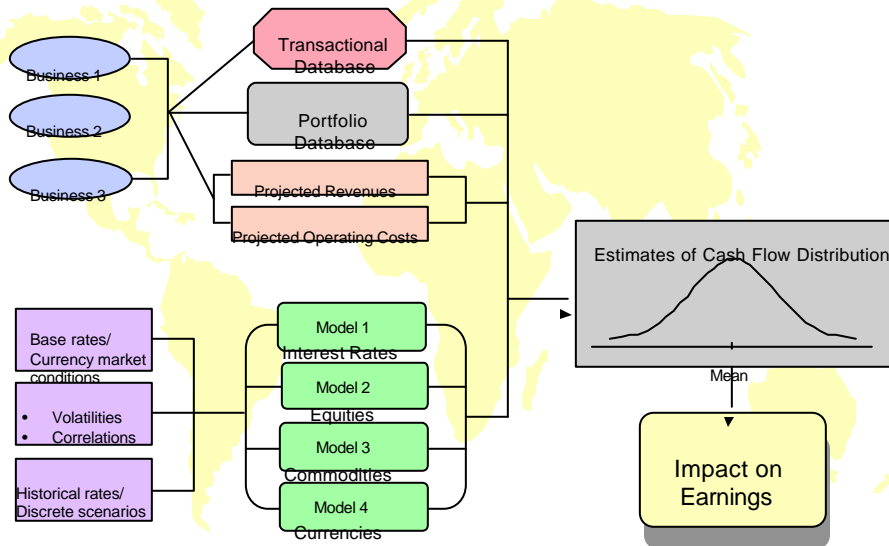
*“Change in the economic value of the firm resulting from unanticipated exchange rate changes”*

- λ Contractual vs noncontractual cash flows
- λ Cash flow projections based on elasticities, etc.
- λ Anticipated vs. unanticipated changes
- λ Exposure and the parity assumptions: “In the long run, we are not exposed”
- λ The “cost of hedging”
- λ Currency of denomination vs. currency of determination

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## Value at Risk for a Corporation



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### Corporate Value at Risk: Farmco

**FARMCO VALUE-AT-RISK COMPUTATION**  
 BASED ON CORRELATIONS BETWEEN SPOT EXCHANGE RATES, JP MORGAN DATA, Feb 1995

CURRENCY	FARMCO WORLDWIDE	WEIGHT (%)	VOLATILITY (%)	\$ AT RISK
AUD	\$0	0.00%	2.84	\$0
BEF	\$6,165	1.04%	3.69	\$376
CAD	(\$200,758)	-34.03%	1.79	\$5,939
DKK	(\$5,835)	-0.99%	3.62	\$349
FFR	(\$96,626)	-16.38%	3.75	\$5,985
DEM	\$22,365	3.79%	3.82	\$1,411
ITL	(\$69,650)	-11.81%	3.67	\$4,219
JPY	(\$15,688)	-2.66%	3.71	\$961
NLG	\$10,605	1.80%	3.79	\$662
ESB	\$47,660	8.08%	3.35	\$2,632
SEK	\$6,826	1.16%	3.97	\$447
CHF	\$6,500	1.10%	4.28	\$459
GBP	(\$101,277)	-17.17%	3.18	\$5,309
<b>TOTAL</b>	<b>\$589,954</b>	<b>100.00%</b>		<b>\$28,749</b>

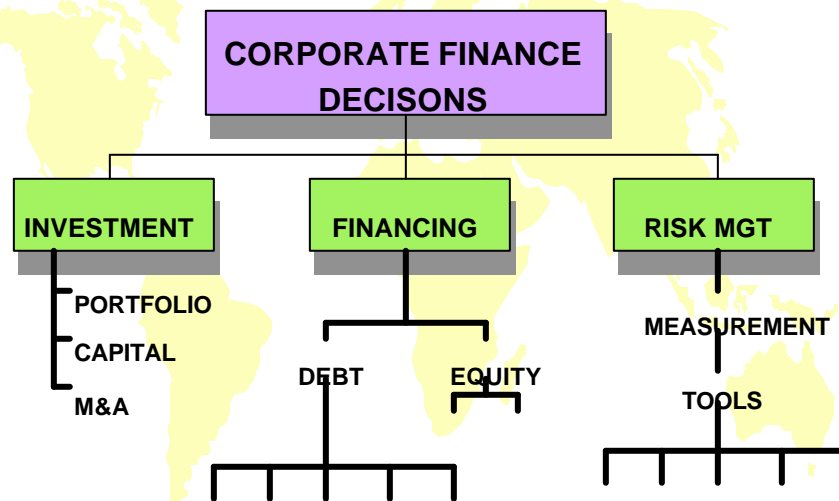
**FARMCO: DOLLARS AT RISK**  
 (95% PROBABILITY LOSS WON'T EXCEED THIS AMOUNT) In 1 month **\$ 10,709**

WITH DIVERSIFICATION

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### Corporate Finance



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### Getting the Financing Right

#### Step 1: The Proportion of Equity & Debt

The diagram features a world map in the background. On the left, a large light blue rectangle is positioned. To its right, two smaller light blue rectangles are stacked vertically, labeled 'Debt' (top) and 'Equity' (bottom). A bracket on the right side of these two boxes points to a grey callout box containing the following text:

- v Achieve lowest weighted average cost of capital
- v May also affect the business side

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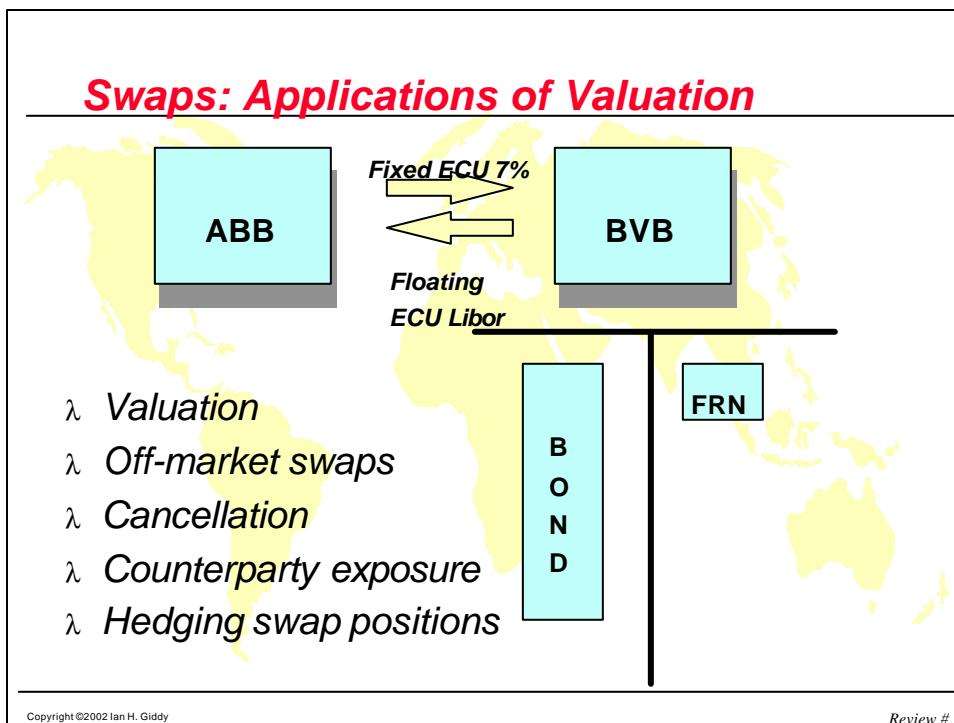
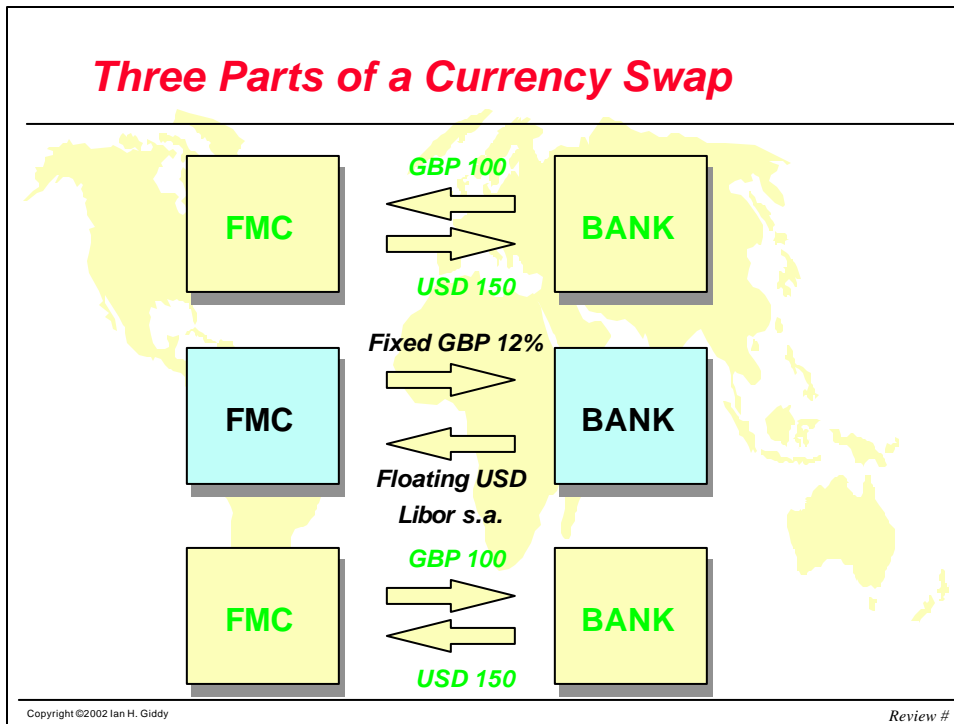
### Getting the Financing Right

#### Step 2: The Kind of Equity & Debt

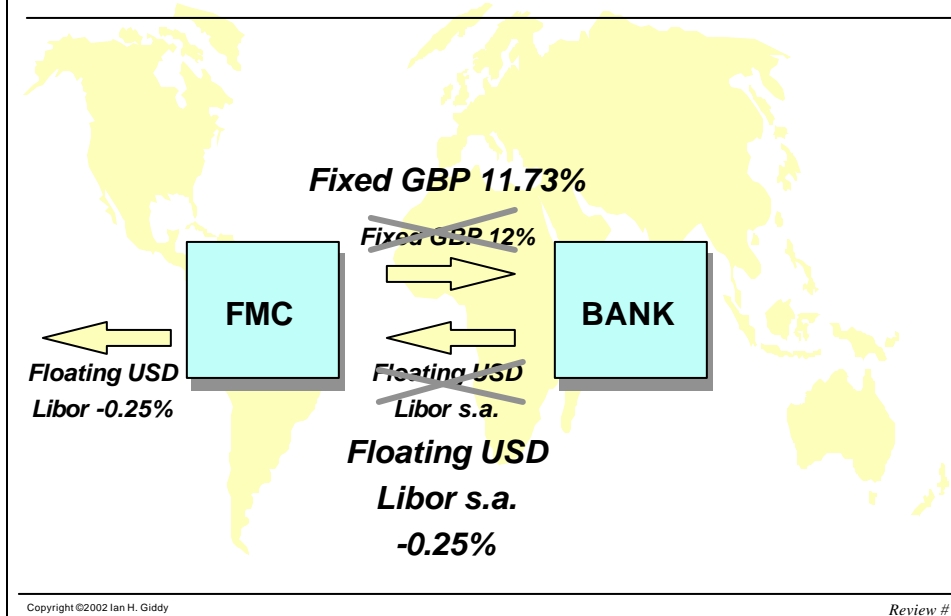
The diagram features a world map in the background. On the left, a large light blue rectangle is positioned. To its right, two smaller light blue rectangles are stacked vertically, labeled 'Debt' (top) and 'Equity' (bottom). Lines from the 'Debt' and 'Equity' boxes point to a grey callout box containing the following text:

- v Short term? Long term?
- v Baht? Dollar? Yen?
- v Bonds? Asset-backed?
- v Convertibles? Hybrids?
- v Debt/Equity Swaps?
- v Private? Public?
- v Strategic partner?
- v Domestic? ADRs?
- v Ownership & control?

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## Estimating the Cost of Funds in a Swap



## Banks and the Money Market

1. Short-term financing techniques, such as commercial paper
2. Syndicated lending

## The International Capital Market

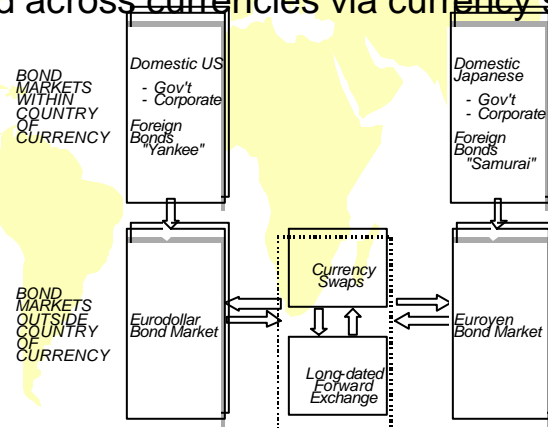
1. Eurobonds, foreign bonds and global bonds
2. The international equity market
3. Structured finance

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## International Bond Markets are Linked

- λ Issuers and investors compare terms in the domestic and Eurobond markets, which are linked across currencies via currency swaps



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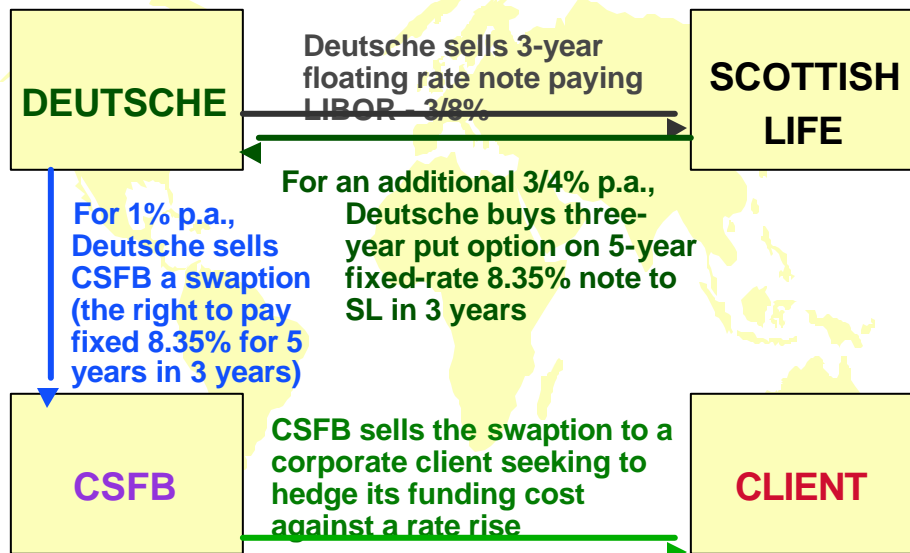
### **“Hybrid” Features of A Bond Issue**

- λ Conversion Feature - compound option
  - λ Warrants - two instruments
  - λ Index-linked bonds
  - λ Call Feature
    - ◆ Bond value = straight bond value - call value
- These are all example of hybrid bonds and should be priced by decomposition*

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### **The Deutsche Deal**



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