The International Financial System

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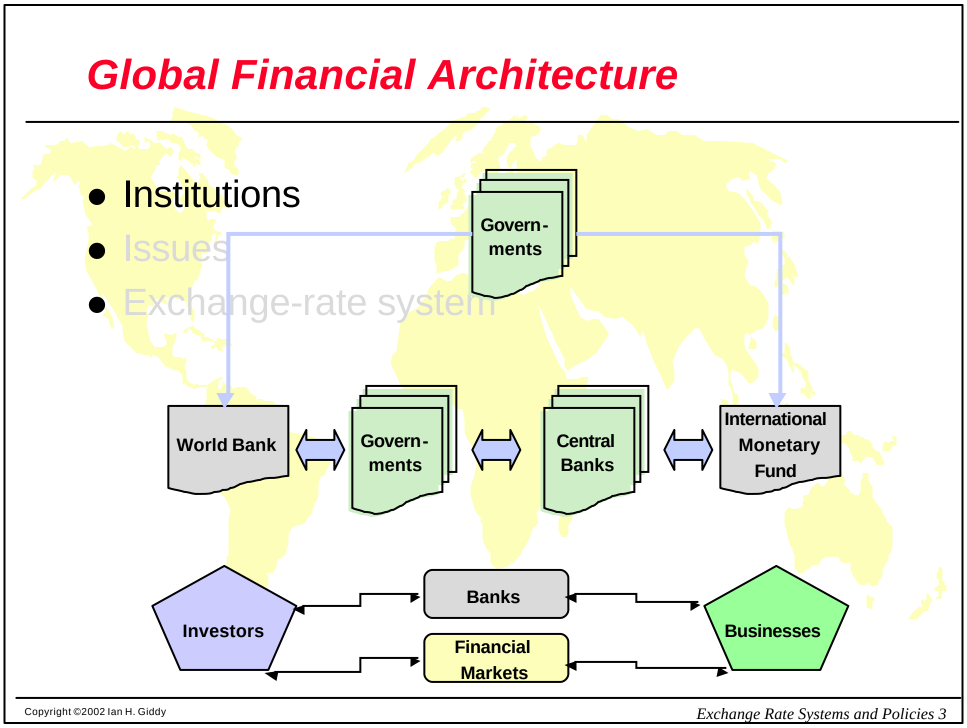
Global Financial Architecture

- Institutions
- Issues
- Exchange-rate system


Global Financial Architecture
Institutions
Issues
Exchange-rate system
Govern-ments
World Bank
Govern-ments
Central Banks
International Monetary Fund
Investors
Banks
Financial Markets
Businesses
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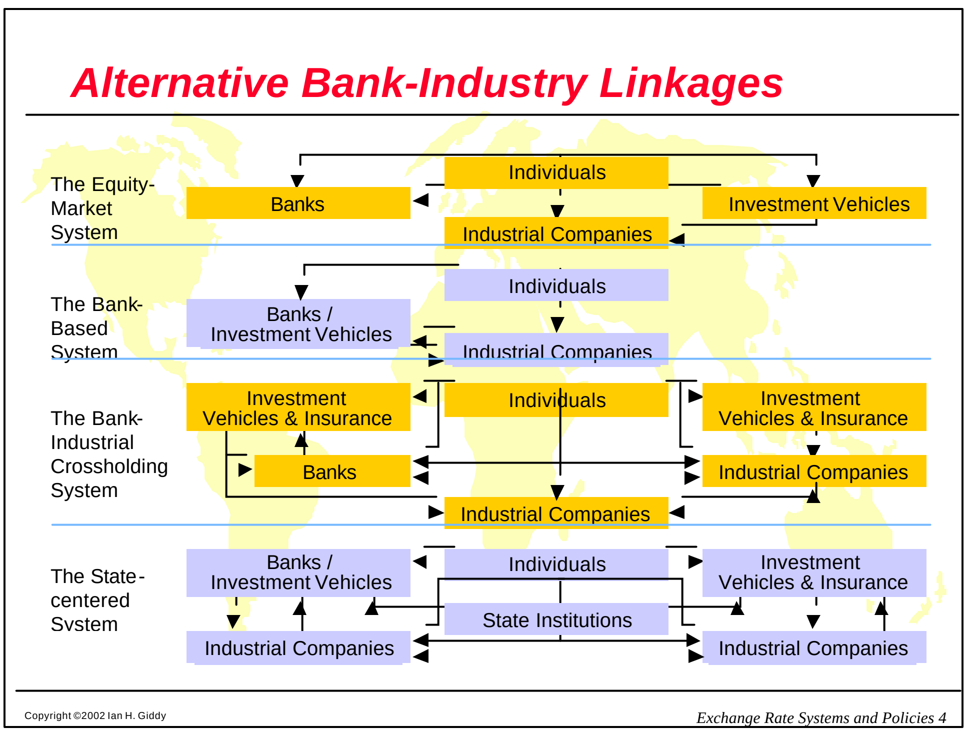
Exchange Rate Systems and Policies 3


Alternative Bank-Industry Linkages
The Equity-Market System
Individuals
Banks
Investment Vehicles
Industrial Companies
The Bank-Based System
Individuals
Banks / Investment Vehicles
Industrial Companies
The Bank-Industrial Crossholding System
Investment Vehicles & Insurance
Individuals
Investment Vehicles & Insurance
Banks
Industrial Companies
Industrial Companies
The State-centered System
Banks / Investment Vehicles
Individuals
Investment Vehicles & Insurance
State Institutions
Industrial Companies
Industrial Companies
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Global Financial Architecture

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  - Reasons for the boom-bust character of capital flows to emerging market economies?
  - What measures should be taken to deal with the instability of capital flows?
  - Role of IMF? Conditionality?
  - Role of World Bank? Conditionality?
  - Role of private sector institutions?
  - Exchange rate regime?

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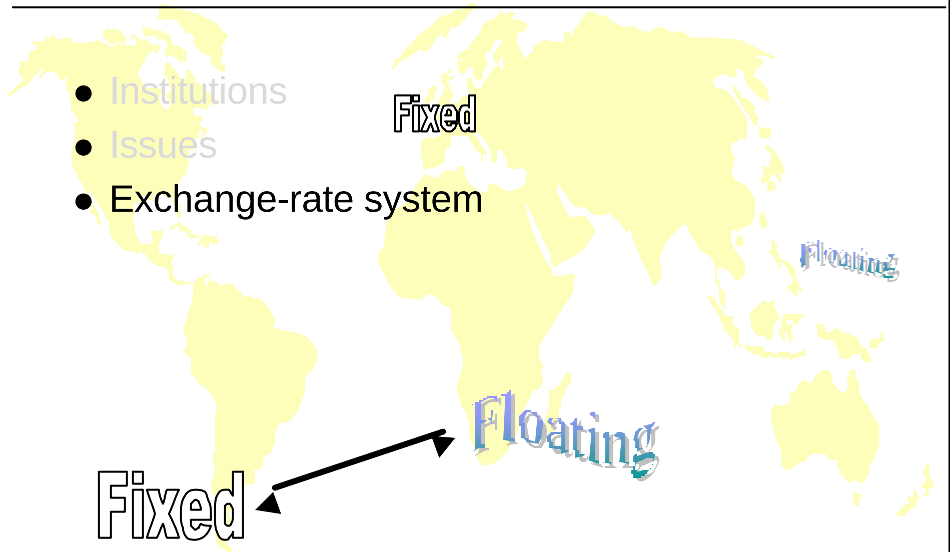

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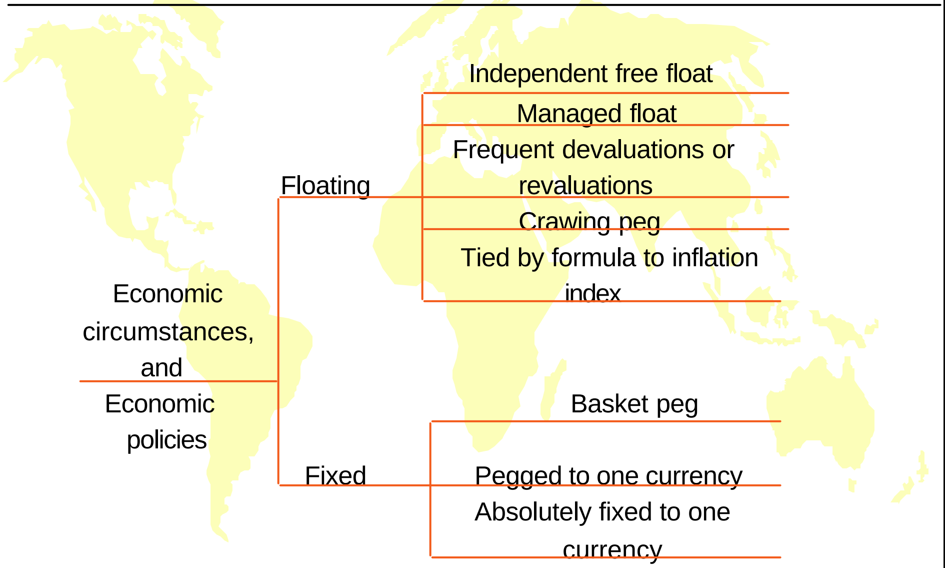
Exchange-Rate Systems

- Some history
- What is "the international monetary system" today?
- Fixed versus floating exchange rates
- The balance of payments and the adjustment process
- The European Monetary System

History of the World

- Gold, inflation and exchange rates: the first 100 years
- War, depression and competitive devaluation
- Bretton Woods
- 1971 and floating rates
- Currency blocs?

To Fix or To Float, That is the Question



The Balance of Payments

Transylvania's Balance of Payments

	Debits	**Credits**	
Exports (goods sold to foreigners)		11	**Trade**
Imports (goods bought from foreigners)	-16		**Balance -5**
Services, like tourism (and interest paid/received	-2	3	**Current**
Aid (a "plug")	1		**Account Balance -3**
Financial and real assets sold to foreigners ("capital inflows")		3	**Overall**
Financial and real assets bought from foreigners ("capital outflows")	-2		**Balance -2**
Government's financial assets sold (Foreign exchange reserves reduced)	3		
Government's financial assets bought (Foreign exchange reserves increased)			
Errors and Omissions	-1		
Total	-21.00	21.00	

Trade

- Absolute advantage
- Relative prices and comparative advantage
- “Too poor to trade” fallacy
- Infant industry argument?

Capital Flows

- As automatic, voluntary compensation for trade imbalances
- As autonomous, with trade compensating -- “tails wags dog”
- Round trip capital flows -- trade in intermediation and securities trading services

Reserves

- Intervention--how reserves accumulate
- Borrowed reserves--swap lines, SDRs, etc.

Intervention

When, why and how successful?

- The “Balance of Payments deficit”
  1. Trade deficit
  2. Current account deficit
  3. “Overall” deficit
- Deficit as the change in Office Reserves

  Question: can there be a balance of payments deficit when a country’s exchange rate is floating?

  Without government intervention, credit transactions must equal debit transactions so there cannot be a balance of payments deficit or surplus

The External Deficit and The Internal Deficit

NATIONAL PRODUCTION = NATIONAL DEMAND

Y = C+I+G +[X-M] — *HOW THE NATION SPENDS ITS PRODUCTION*

Also...

Y = C+S+T — *HOW INDIVIDUALS ALLOCATE THEIR INCOMES*

From these...

C+S+T = C+I+G +[X-T]

put the current account surplus on the left:

X-M = [S-I]-[G-T]

In other words...

CURRENT ACCOUNT SURPLUS = NET PRIVATE SECTOR SAVINGS | NET GOV'T DEFICIT

Tools and Targets

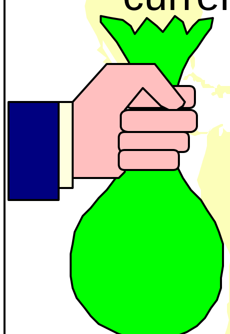
- Foreign-exchange intervention
- Money-market intervention (and interaction with monetary policy)
- Fiscal policy--the demand side
- Exchange controls and capital controls
- Tariffs and subsidies

Disequilibrium and Adjustment

- The adjustment process when the exchange rate is fixed
- The adjustment process when the exchange rate is floating

The European Monetary System and the Euro

The Euro has replaced national currencies:



The Exchange Rate Mechanism Of the European Monetary System

Two rules:

- **Parity grid rule:** 2.25% (officially 15%) limit on exchange rate of each country against each other country

  Remedy if the limit is approached: intervention in the foreign exchange market
- **Divergence indicator rule:** formula for limit on exchange rate of each country against ECU

  Remedy: economic policy changes to bring inflation and monetary conditions back into line with those of the other members

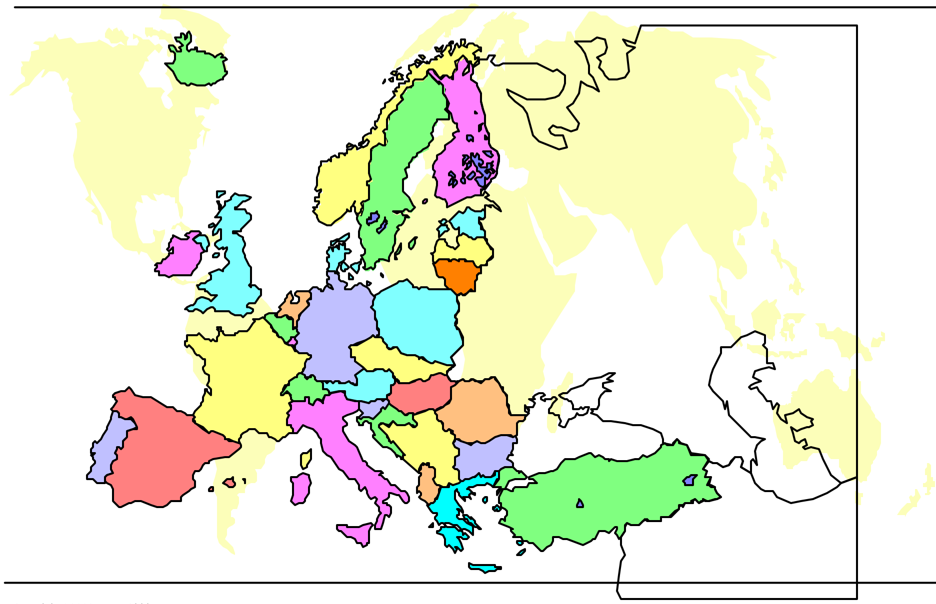
European Monetary Union

- *Stage 1:* Financial integration
- *Stage 2:* Transition to Eurofed
- *Stage 3:* European currency (the "Euro") issued by Eurofed

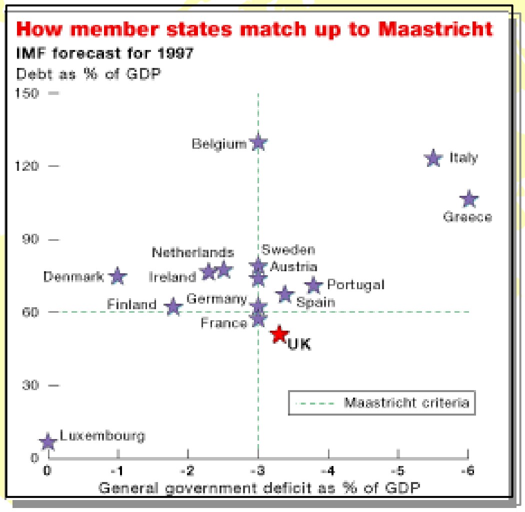
1999: Six Convergence Criteria (“Maastricht Criteria”)

- Price stability
  - No more than 1.5% over best 3’s average
- Government deficit
  - Public deficit < 3% of GDP
  - Public debt , 60% of GDP
- Exchange rate stability
  - 2 years within EMS bands (+/-15%)
- Long-term interest rates
  - No more than 2% over best 3’s average
- Central bank independence

European Monetary Union: Who’s In?



EMU: Who's In?



Probabilities: JP Morgan calculator, based on swap rates, FT, Jan 27, 1997

Implication of EMU

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

Credit Ratings of EC Member States

	Moody's	S&P	Cost (bp)
Austria	Aaa	AAA	0
France	Aaa	AAA	0
Germany	Aaa	AAA	0
Netherlands	Aaa	AAA	0
Britain	Aaa	AAA	0
Luxembourg	Aaa	AAA	0
Belgium	Aa1	AA+	50
Denmark	Aa1	AA+	50
Italy	Aa3	AA	75
Spain	Aa2	AA	75
Ireland	Aa1	AA	75
Portugal	Aa3	AA-	95
Greece	Baa1	BBB-	260

Data: 1997

Conclusion: Fixed Vs Floating Exchange Rates

- The central issue in the choice between fixed and floating exchange rates is one of monetary and economic policy independence
- Factor include:
  - Openess
  - Size
  - Commodity concentration
  - Capital market integration
  - Relative inflation
- When monetary policies are similar and inflation rates converge, a fixed exchange-rate system is possible; otherwise not.

Waiting for Godot: Choices for the Irish Government

- Foreign-exchange intervention
- Money-market intervention (consider interaction with monetary policy)
- Fiscal policy--the demand side
- Tariffs and subsidies
- Exchange controls and capital controls (and jawboning)

Waiting for Godot: Choices for Waterford Foods

"We must decide whether it's worth covering our DM exposure, given the forward premium and relative interest rates."

Waiting for Godot: Choices for Waterford Foods

"We must decide whether it's worth covering our DM exposure, given the forward premium and relative interest rates."

- What is the probability of a devaluation?
- How much?
- What should Waterford do?

Waiting for Godot: Choices for Waterford Foods

"We must decide whether it's worth covering our DM exposure, given the forward premium and relative interest rates."

- What is the probability of a devaluation?
  - Estimate 75% within 3 months
- How much?
  - Estimate 8%
- What should Waterford do?
  - Prob * Amt = 6%
  - 3-mo forward discount = 2%
  - Interest diff = (20%-8.5%)/4=2.875%

Exchange Rate Forecasting

- Analyze

  1. The economic pressures that can provoke a parity change, and

  2. The response of governments to them.

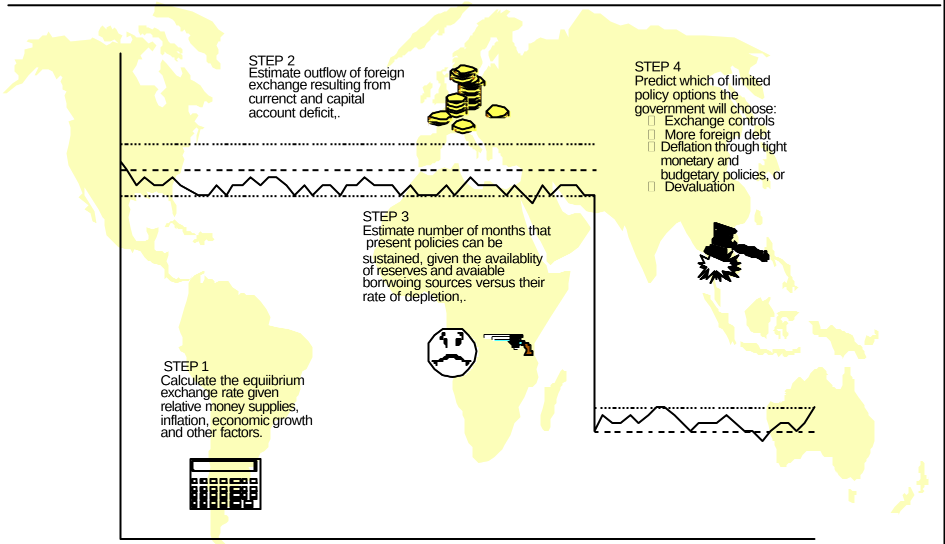
- Three issues:

  1. *How much* adjustment is necessary to eliminate underlying pressures.

  2. *When* the pressures will reach the critical point where an exchange rate change or some other drastic measure has to be taken.

  3. *Whether* the exchange rate will be changed, or whether some other policy measure will be eonomically and politically feasible.

Forecasting in a Fixed-Rate System



Market Efficiency

- Exchange rates exhibit behavior that is characteristic of other speculative asset markets
- Exchange rates react quickly to news.

  1. Rates are far more volatile than changes in underlying economic variables.

  2. They are moved by changing expectations, and hence are difficult to forecast.

  3. They change only in response to unanticipated information. In this broad sense they are efficient.
- Testing Efficiency: Since one cannot observe expectations directly, tests of efficiency are joint tests of the model and of market efficiency.

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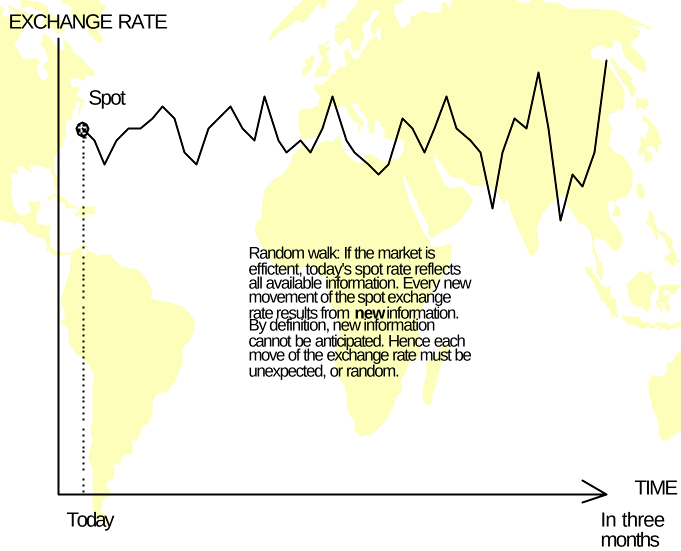
A Random Walk?



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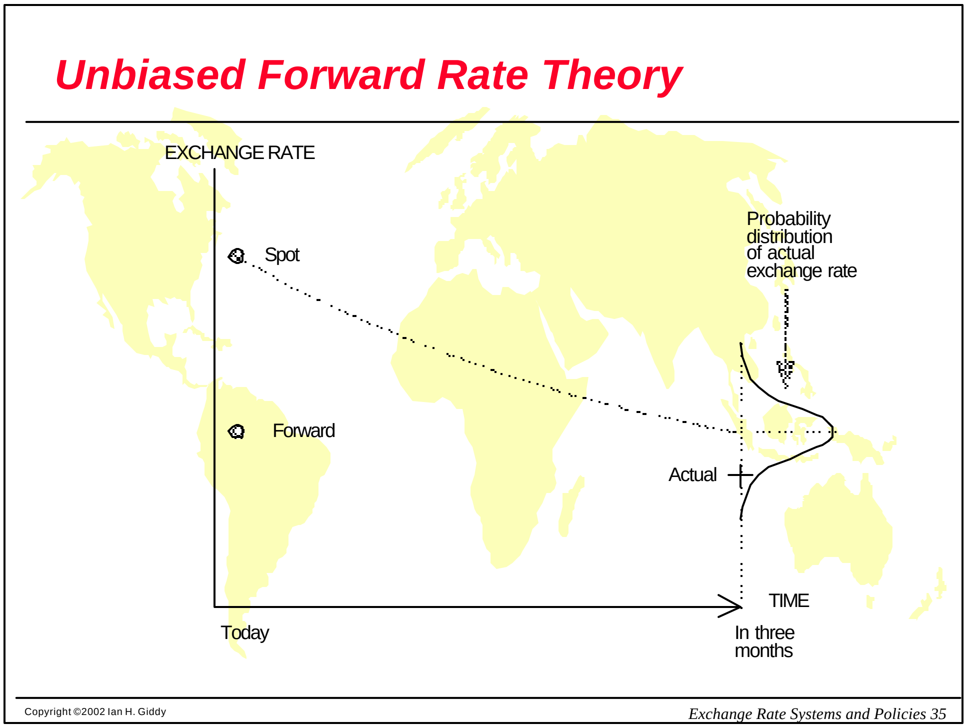
Unbiased Forward Rate Theory
EXCHANGE RATE
Spot
Forward
Probability distribution of actual exchange rate
Actual
TIME
Today
In three months
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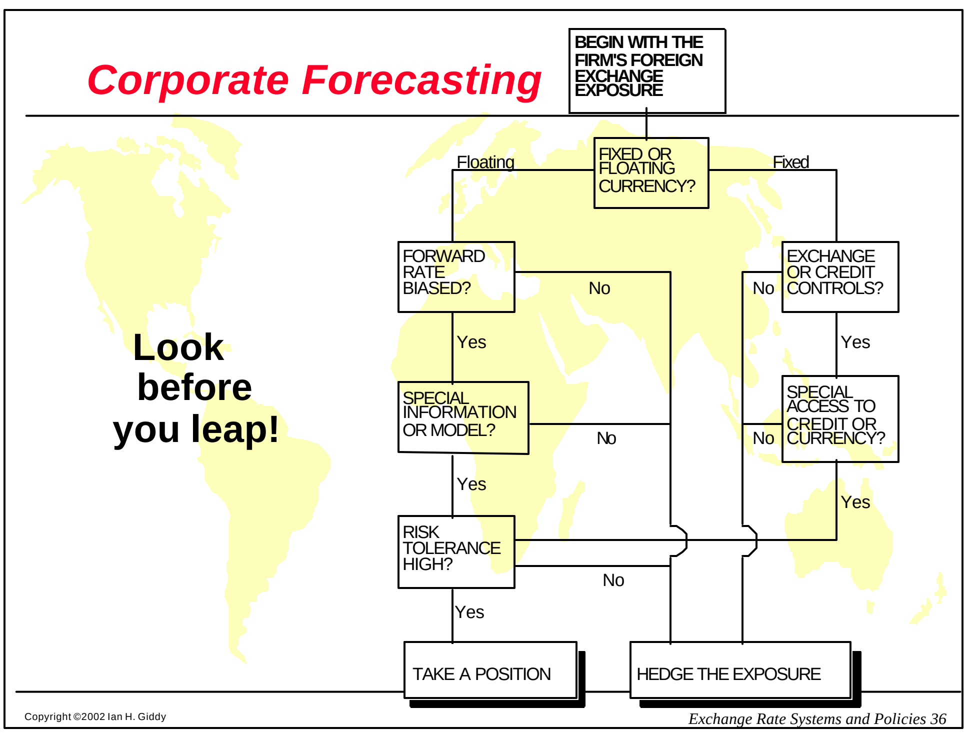
Corporate Forecasting
BEGIN WITH THE FIRM'S FOREIGN EXCHANGE EXPOSURE
FIXED OR FLOATING CURRENCY?
Floating
Fixed
FORWARD RATE BIASED?
No
EXCHANGE OR CREDIT CONTROLS?
No
Yes
Yes
SPECIAL INFORMATION OR MODEL?
No
SPECIAL ACCESS TO CREDIT OR CURRENCY?
No
Yes
Yes
RISK TOLERANCE HIGH?
No
Yes
TAKE A POSITION
HEDGE THE EXPOSURE
Look before you leap!
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