

Shearman & Sterling

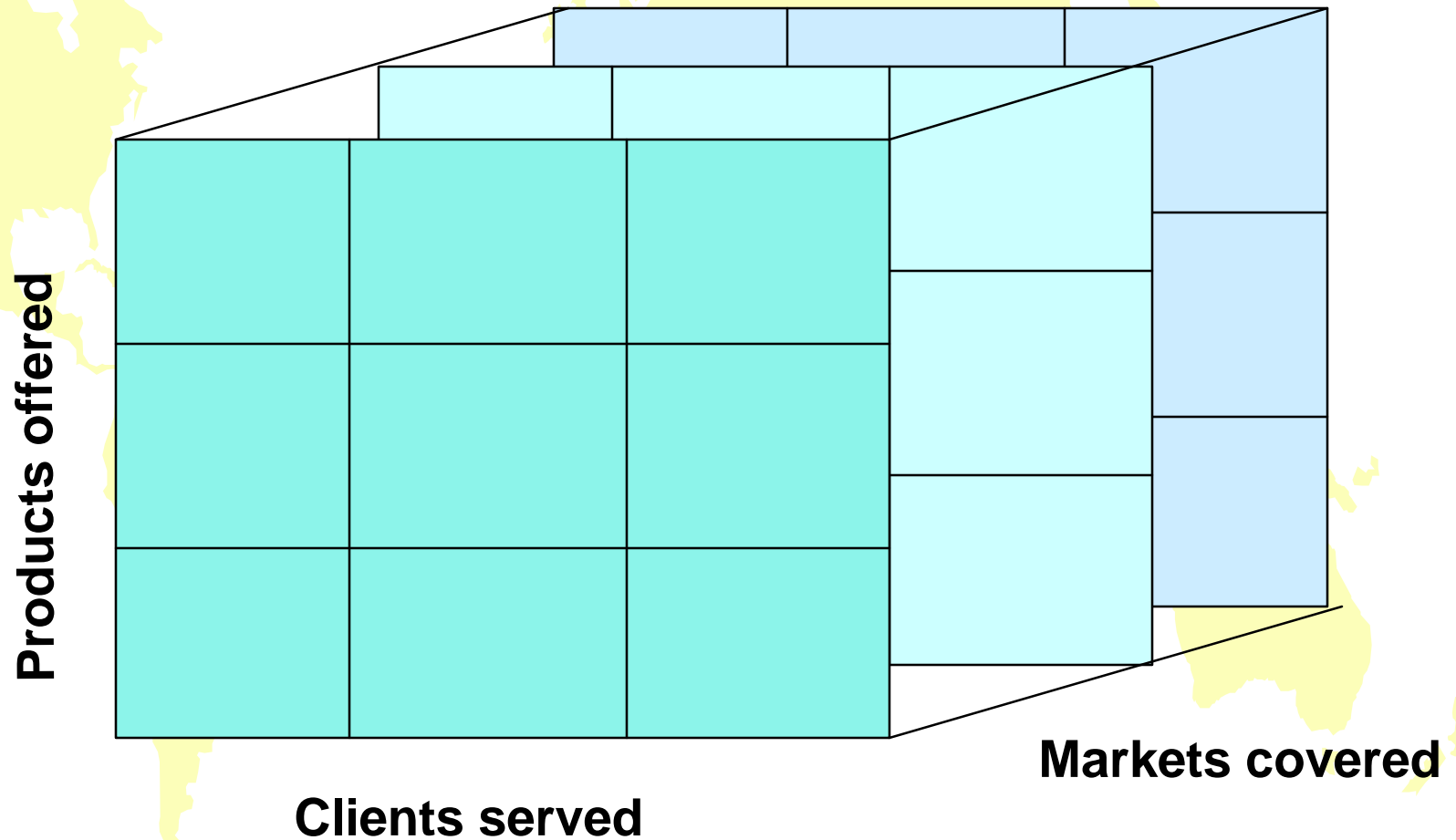
***Inside Commercial Banking
Part I: Banking and Credit***

Prof Ian Giddy
New York University

Banking and the Money Markets

- 
- ✍ Banks vs. Markets
 - ✍ Deposits, Reserves and the Fed
 - ✍ Moving Money
 - ✍ The Eurocurrency Market
 - ✍ Bank Risk, Bank Capital
 - ✍ “Value at Risk”
 - ✍ Bank or Non Bank?

Client-Arena-Product Matrix



The US Financial Services Sector, 1950

Function Institution	Payment Services	Savings Prod.	Fiduc. Services	Lending		Underwriting Issuance of		Insurance and Risk Mgt. Products
				Business	Retail	Equity	Debt	
Insured Depository Institutions	✓	✓	✓	✓	✓			
Insurance Companies		✓		✓				✓
Finance Companies				✓	✓			
Securities Firms		✓	✓			✓	✓	
Pension Funds		✓						
Mutual Funds		✓						



Minor involvement

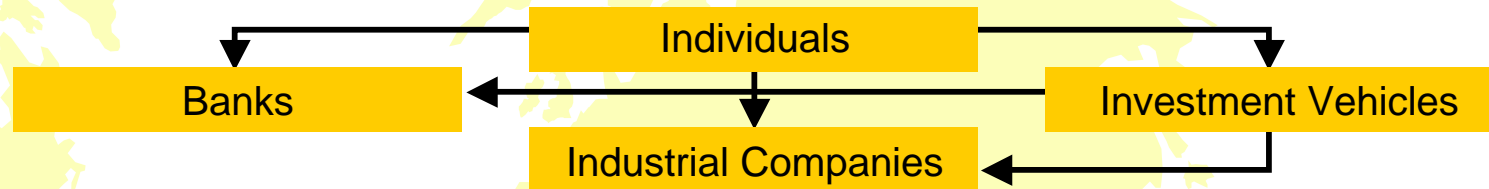
The US Financial Services Sector, 2003

Function Institution	Payment Services	Savings Prod.	Fiduc. Services	Lending		Underwriting Issuance of		Insurance and Risk Mgt. Products
				Business	Retail	Equity	Debt	
Insured Depository Institutions	✓	✓	✓	✓	✓	✓	✓	✓
Insurance Companies	✓	✓	✓	✓	✓	✓	✓	✓
Finance Companies	✓	✓	✓	✓	✓	✓	✓	✓
Securities Firms	✓	✓	✓	✓	✓	✓	✓	✓
Pension Funds		✓	✓	✓	✓			
Mutual Funds	✓	✓	✓		✓	✓		✓
Diversified Financial Firms	✓	✓	✓	✓	✓	✓	✓	✓
Specialist Firms	✓	✓	✓	✓	✓	✓	✓	✓

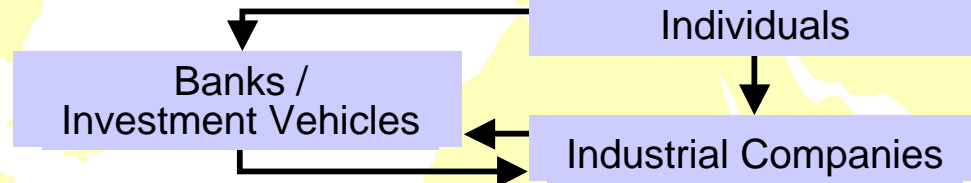
✓ Selective involvement of large firms via affiliates

Banks vs Markets

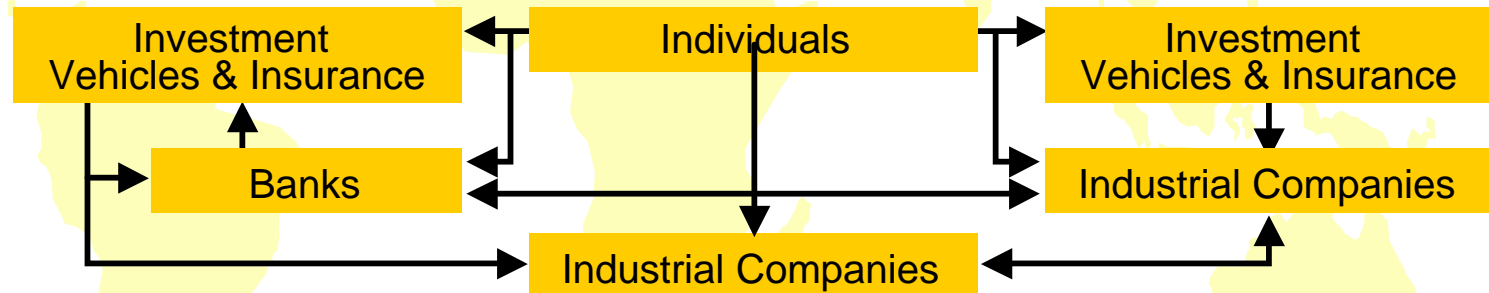
The Equity-Market System



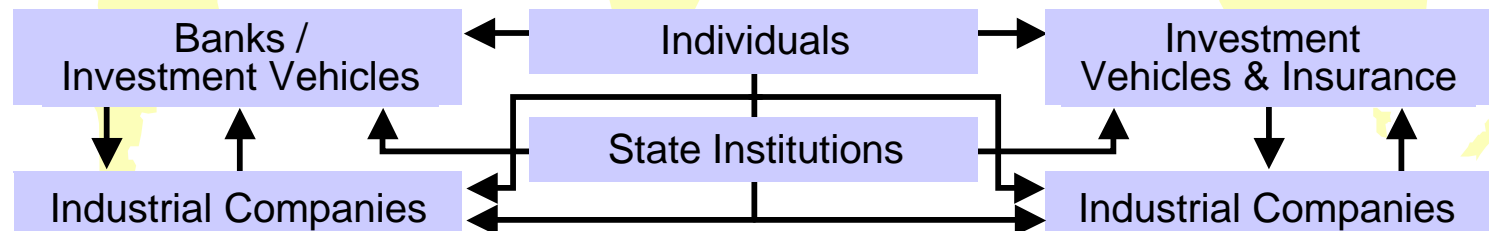
The Bank-Based System



The Bank-Industrial Crossholding System



The State-centered System



STRUCTURE OF FINANCIAL INSTITUTIONS ¹

United States

Commercial banks

Savings institutions

Credit Unions

Finance companies

Securities brokerage

On-line brokerage

Investment banks

Mutual fund companies

Mortgage companies

Insurance companies

Europe*

Banks

Banks

Banks

Banks

Banks

Banks

Banks

Mainly affiliates of banks


Affiliates of banks and mortgage banks

Insurance companies & bancassurance
affiliates of banks

* Significant inter-country differences exist among European markets.

¹ Adapted from Gunter Dufey “The Blurring Borders of Banking”.

The Business of Banking: Products

- 
- ✍ “Money” services
 - ✍ Credit products
 - ✍ Trading and positioning
 - ✍ Risk management products
 - ✍ Financial engineering and structured finance
 - ✍ Underwriting and distribution
 - ✍ Asset management
 - ✍ Retail and private client services

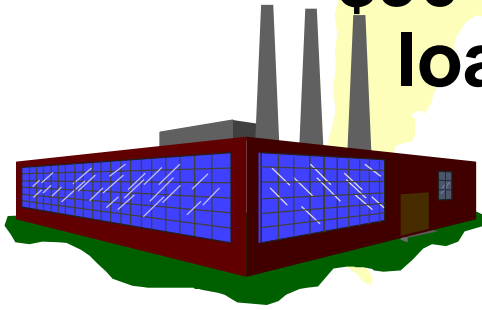
Deposits, Reserves and the Fed

✍ Banks get money. They keep some, and lend the rest.

**\$10 million
cash**



**\$90 million
loan, 7%**



**\$100 million
deposits, 5%**



Deposits, Reserves and the Fed

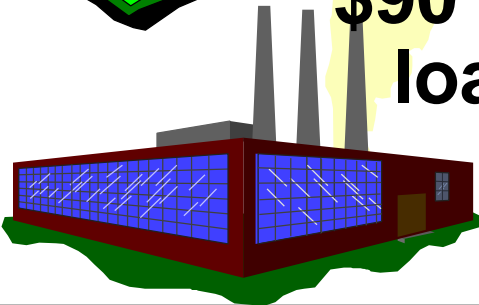
✍ The Fed says, “Keep 3% or so with us,
at no interest.”



**\$3 million
reserves**

**\$7 million
cash**

**\$90 million
loan**



**\$100 million
deposits**

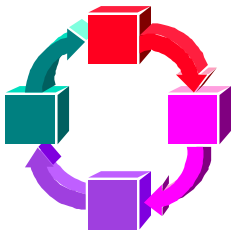


Deposits, Reserves and the Fed

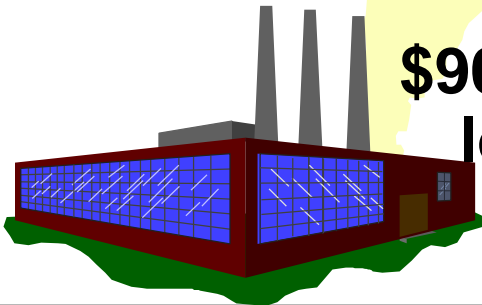
✍ Why retain idle cash? Banks prefer to lend it to a friend.



**\$3 million
reserves**



**\$7 million
interbank
loans, called
“Fed funds”**

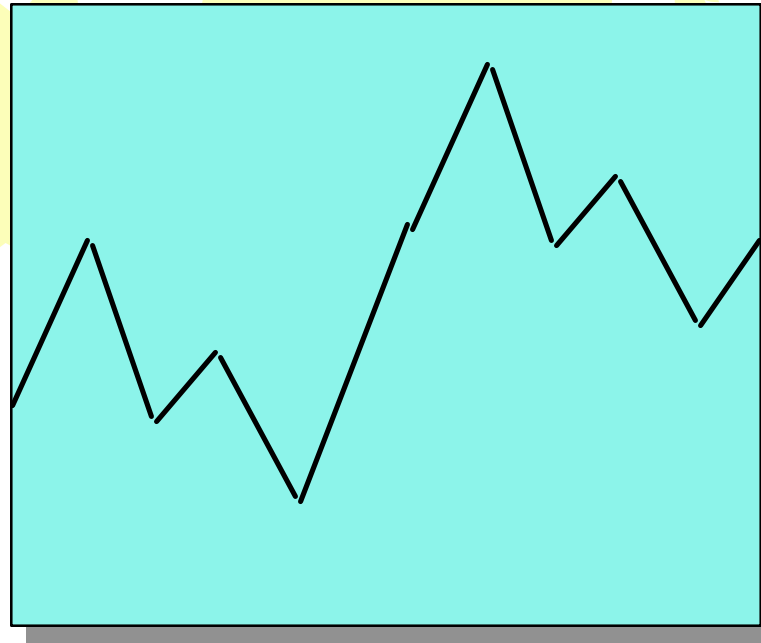
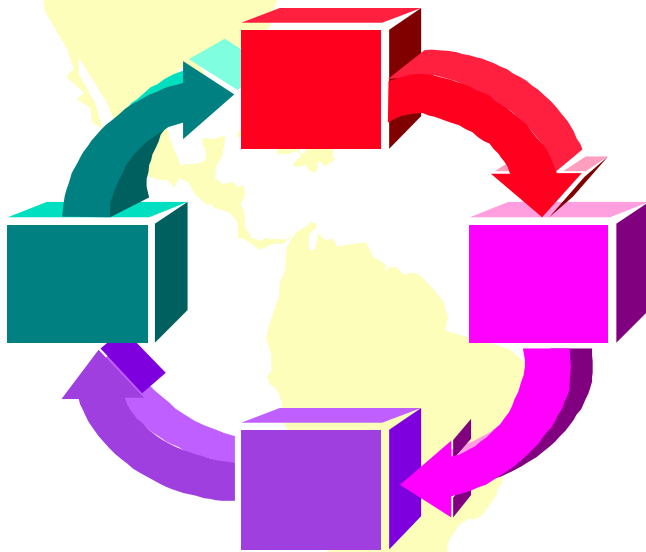


**\$90 million
loan**

**\$100 million
deposits**



The Fed Funds Market



Investors Compare Money Market Rates



Source: Bloomberg.com

KEY RATES

	CURRENT	1 MONTH PRIOR	3 MONTH PRIOR	6 MONTH PRIOR	1 YEAR PRIOR
Fed Funds Effective Rate	1.06	1	0.94	1.25	1.12
3-Month Libor	1.18	1.17	1.14	1.28	1.42
Prime Rate	4	4	4	4.25	4.25
5-Year AAA Banking & Finance	3.97	3.83	4.18	3.15	4.45
10-Year AAA Banking & Finance	5.13	5.13	5.35	4.3	5.43

MORTGAGE RATES provided by Bankrate.com

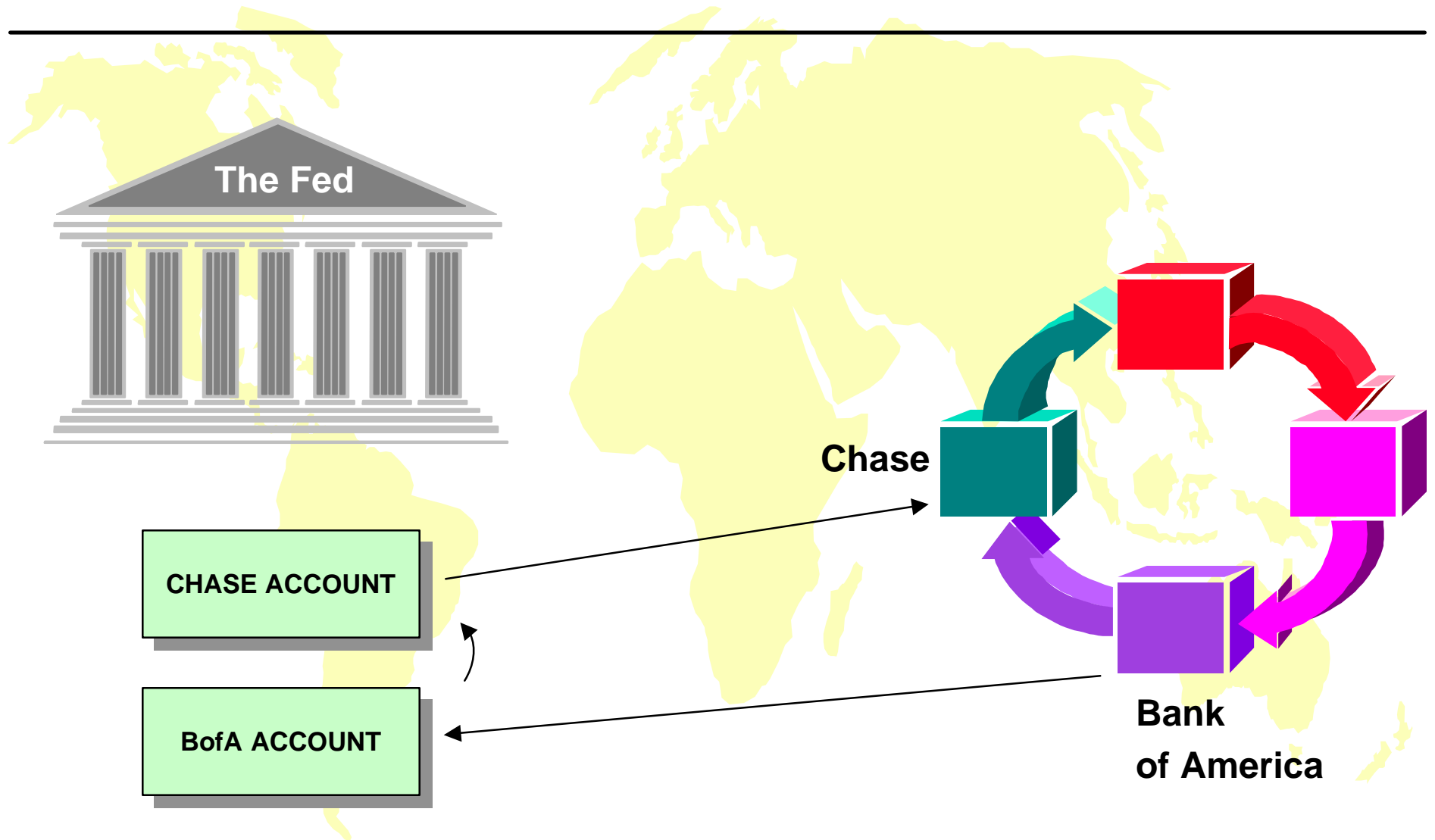
	CURRENT	1 MONTH PRIOR	3 MONTH PRIOR	6 MONTH PRIOR	1 YEAR PRIOR
15-Year Mortgage	4.84	4.89	5.31	4.49	5.24
30-Year Mortgage	5.49	5.57	5.96	5.05	5.8
1-Year ARM	3.24	3.52	3.77	3.58	3.98

U.S. TREASURIES

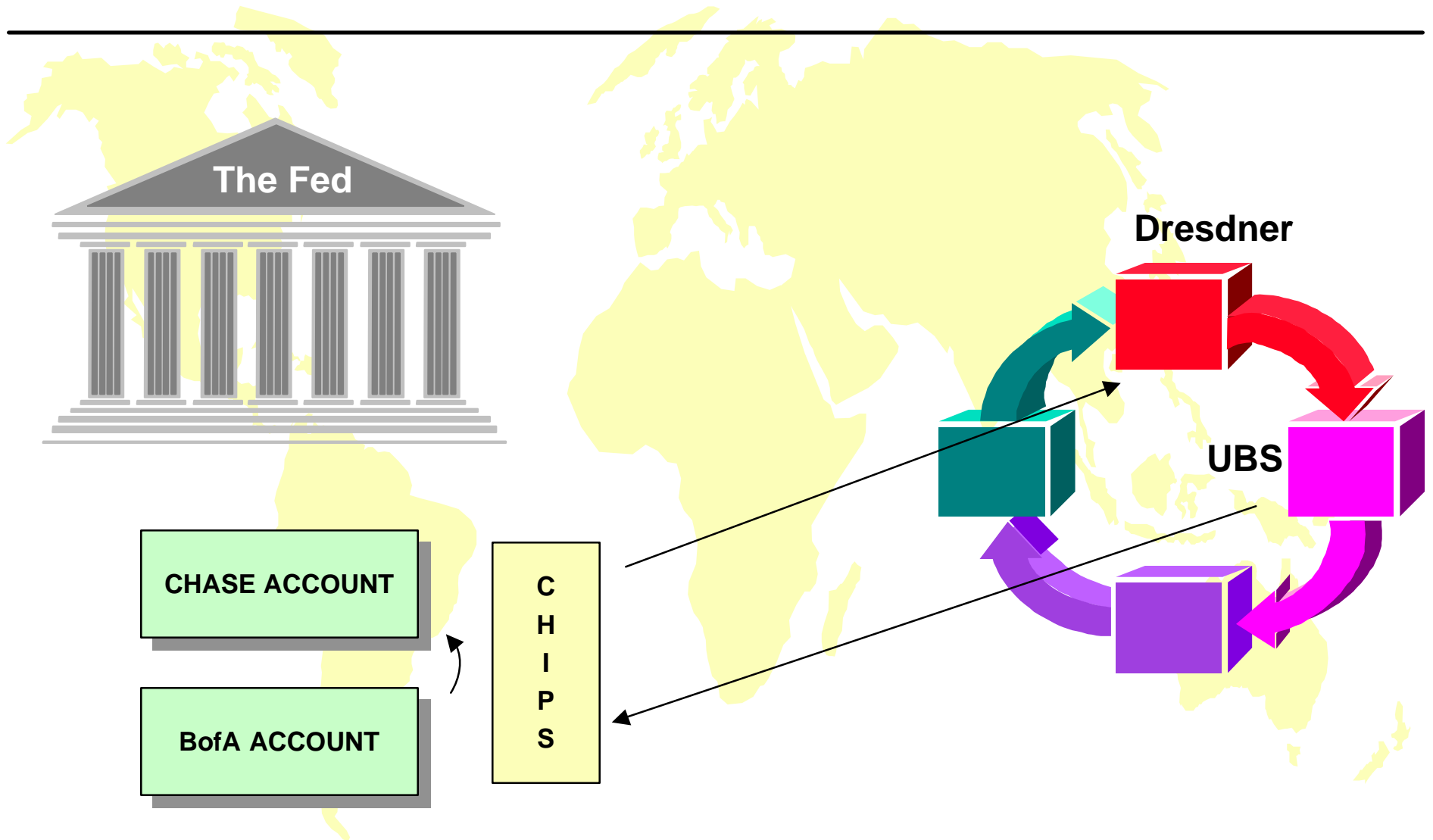
Bills

	COUPON	MATURITY DATE	CURRENT PRICE/YIELD	PRICE/YIELD CHANGE	TIME
3-Month	N.A.	02/26/2004	0.89/0.91	-0.02/-0.02	16:00
6-Month	N.A.	05/27/2004	1.01/1.03	0.00/-0	16:00

Moving Money



Moving Dollars Internationally

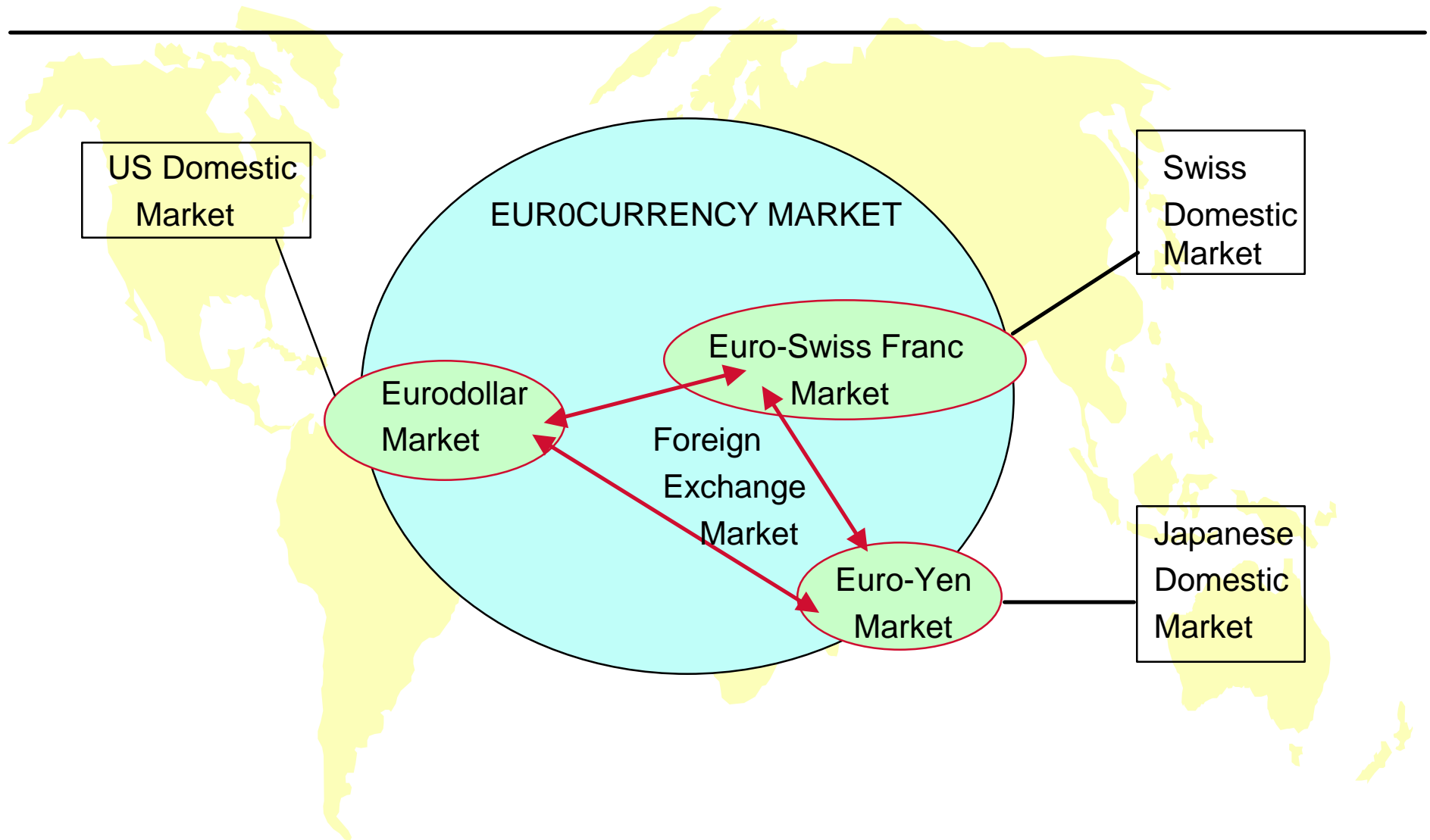


The Eurocurrency Market

“A Eurodollar is a dollar deposited in a bank within a jurisdiction outside the United States”

- ✍ Separation of currency, institution and jurisdiction
- ✍ Why do people want Eurocurrency deposits and loans?
- ✍ Why is LIBOR the world's key benchmark rate?

Where the Eurocurrency Market Fits In



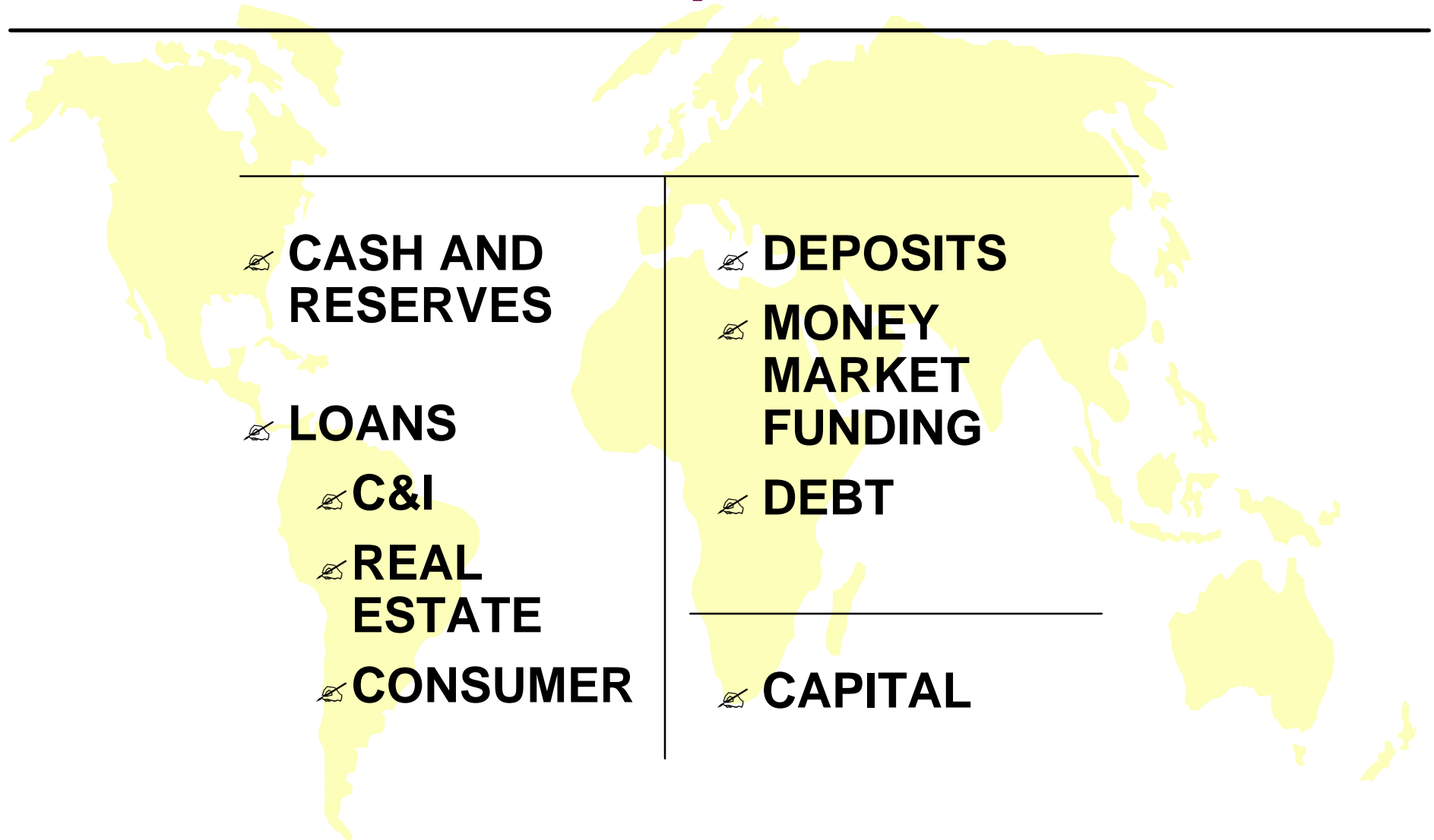
The International Money Markets

International currency rates, Dec 1 2003

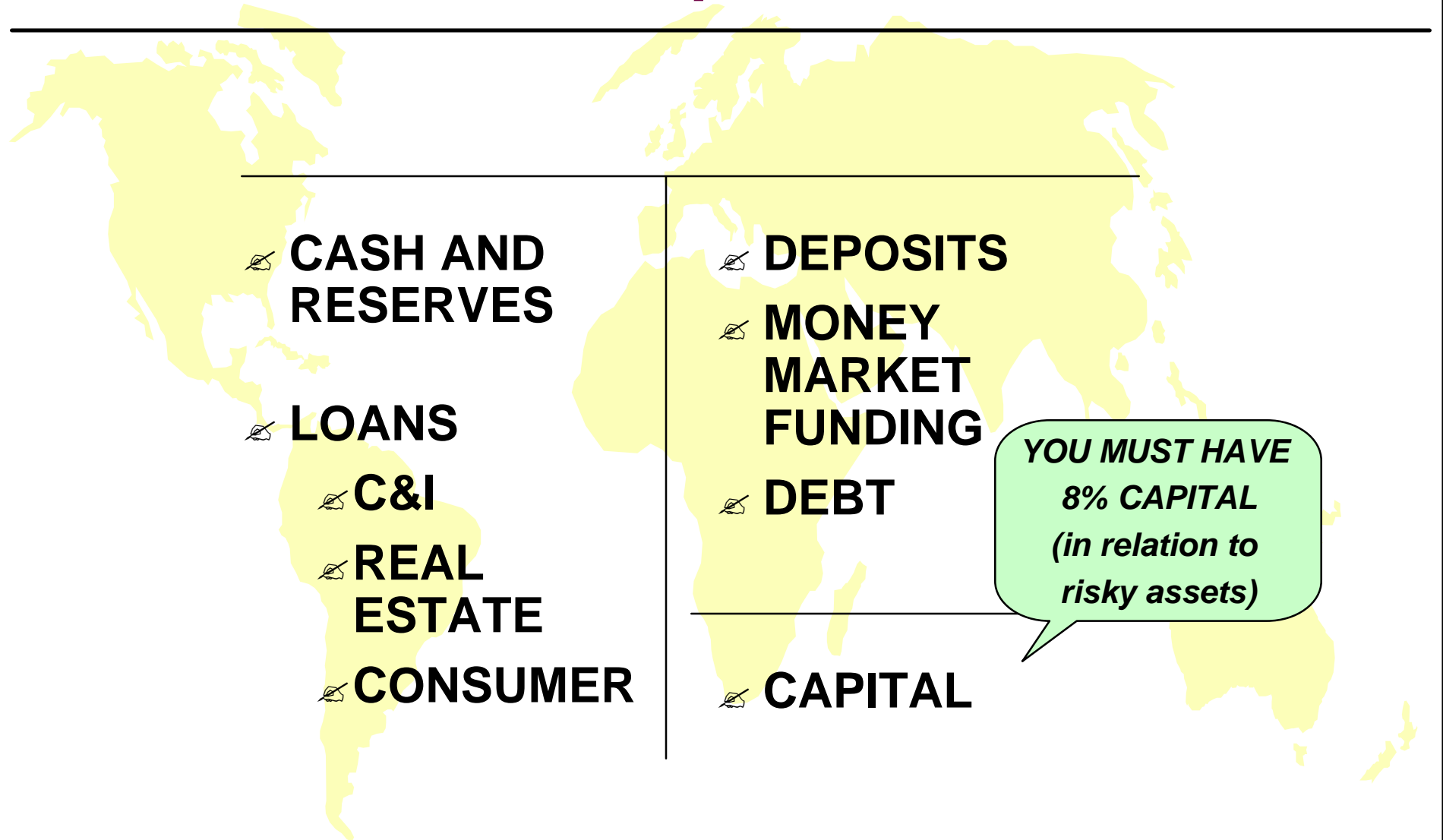
Nov 28	Short term	7 days notice	One month	Three months	Six months	One year
Euro	2 3/32 to 2 1/32	2 3/32 to 2 1/32	2 5/32 to 2 3/32	2 5/32 to 2 1/16	2 1/4 to 2 5/32	2 17/32 to 2 7/16
Sterling	4 1/8 to 4 1/32	3 25/32 to 3 17/32	3 13/16 to 3 17/32	3 31/32 to 3 29/32	4 3/16 to 4 3/32	4 9/16 to 4 15/32
Swiss Franc	1/4 to 1/8	7/32 to 1/8	1/4 to 5/32	9/32 to 3/16	3/8 to 9/32	21/32 to 19/32
Canadian Dollar	2 27/32 to 2 3/4	2 13/16 to 2 11/16	2 13/16 to 2 23/32	2 25/32 to 2 11/16	2 25/32 to 2 11/16	2 7/8 to 2 25/32
US Dollar	1 1/8 to 1	1 3/32 to 1	1 5/32 to 1 3/32	1 5/32 to 1 1/16	1 9/32 to 1 5/32	1 19/32 to 1 15/32
Japanese Yen	1/32 to - 1/16	1/16 to - 1/16	1/16 to 1/32	1/32 to - 3/32	1/32 to - 1/16	3/32 to - 1/32
Singapore \$	7/16 to 7/16	11/16 to 7/16	3/4 to 1/2	13/16 to 9/16	1 to 3/4	1 1/4 to 1

Source: ft.com

Bank Risk, Bank Capital



Bank Risk, Bank Capital



Bank Regulation of Risk and Capital

- ✍ Deposit insurance, explicit or implicit, requires prudential regulation
- ✍ *Asset-side prudential regulation*: goal is to ensure that the bank's funds are prudently invested and that these investments are properly diversified.
- ✍ Asset-side prudential regulation is easily transmuted into indirect credit allocation.
- ✍ *Liability-side prudential regulation* seeks to get the supervisor out of the business of second-guessing bank asset decisions. Instead, it says, in effect, "buy whatever assets you choose, but maintain an adequate capital position."

Risk Regulation: Value at Risk

INSTRUMENT	SANTOSBANK POSITIONS
30 day	(\$1,250,000)
90 day	(\$100,000)
180 day	\$450,000
1 yr	\$120,000
2 yr	\$120,000
3 yr	\$120,000
4 yr	\$1,120,000
5 yr	\$0
7 yr	\$0
9 yr	\$0
10 yr	(\$420,000)
15 yr	\$0
NET	\$160,000
TOTAL	\$3,700,000

Asset and liability positions for a Brazilian bank's New York branch.
What risk does it face?

BIS: Minimize Value at Risk

INSTRUMENT	SANTOSBANK POSITIONS
30 day	(\$1,250,000)
90 day	(\$100,000)
180 day	\$450,000
1 yr	\$120,000
2 yr	\$120,000
3 yr	\$120,000
4 yr	\$1,120,000
5 yr	\$0
7 yr	\$0
9 yr	\$0
10 yr	(\$420,000)
15 yr	\$0
NET	\$160,000
TOTAL	\$3,700,000



RISKMETRICS GROUP
Building Financial Confidence

ABOUT RISKMETRICS GROUP
Empowering clients to make better investment decisions

PRESS
Time Magazine
November 24, 2003

EVENTS
Hedge Funds World
Hong Kong

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Wealth Management
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Data Solutions
Clean, Accurate, Timely, Risk Management Data

DataMetrics® is a data service focusing on a risk manager's data requirements. DataMetrics provides error-free daily data on the widest possible range of risk exposures. It is designed primarily for risk managers, but is also of great use to traders, investors, and central banks.

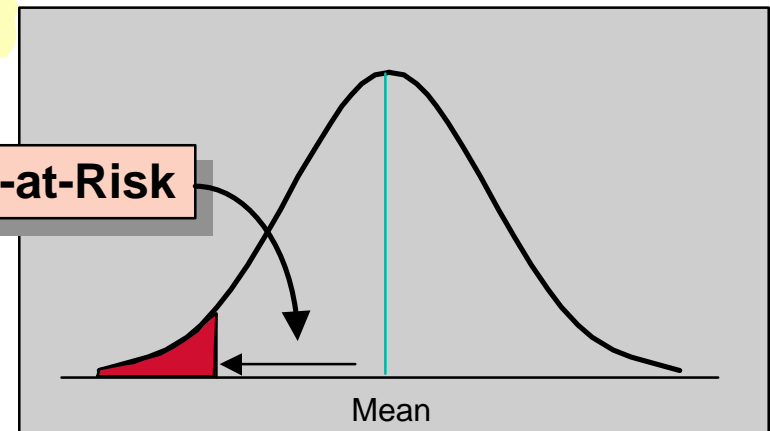
As risk management systems become more widespread and complex in financial and non-financial enterprises, historical data is increasingly the focus for scenario generation and simulation. DataMetrics fills the need for a benchmark approach to the collection and maintenance of historical databases.

The DataMetrics® Value Proposition

Historical and on-going data validation for risk management has become more complex as the typical range of market exposures has grown. Across the financial universe, a large number of financial enterprises are performing essentially the same set of tasks: gathering raw data from a variety of disparate sources, checking the accuracy of the data and correcting errors and performing analysis such as zero coupon curve calculation and computation of volatilities and



Value-at-Risk



Bank Regulation and Basel II

Three elements:

- ✍ an updated capital adequacy framework which seeks to relate minimum capital requirements more accurately to the risks which banks face**
- ✍ an enhanced process for supervisory review of banks; and**
- ✍ improved market discipline through better public disclosure**



Can Banks Fail?

The New York Times
nytimes.com

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IN
AMERICA
NOW PLAYING IN
SELECT THEATRES

November 30, 2003

Japan Takes Control of Big Regional Bank

By THE NEW YORK TIMES

TOKYO, Nov. 29 — Financial regulators took control on Saturday of one of the nation's largest regional lenders, Ashikaga Bank, after tighter inspections showed that the bank was insolvent.

The first nationalization here of a regional lender is part of the government's broadening efforts to clean up Japan's troubled financial industry. To date, regulators have focused most of their energy on the country's teetering so-called city banks, which operate nationwide networks and overseas outlets.

With most of those big banks now reporting profits, the government has turned its attention to the dozens of smaller lenders that play important roles in their local districts.

Ashikaga, which controls about half of the lending in Tochigi Prefecture north of Tokyo, was particularly weak because it made loans to many hotels, golf courses and other companies hurt by the collapse of Japan's asset-inflated bubble of the 1980's.

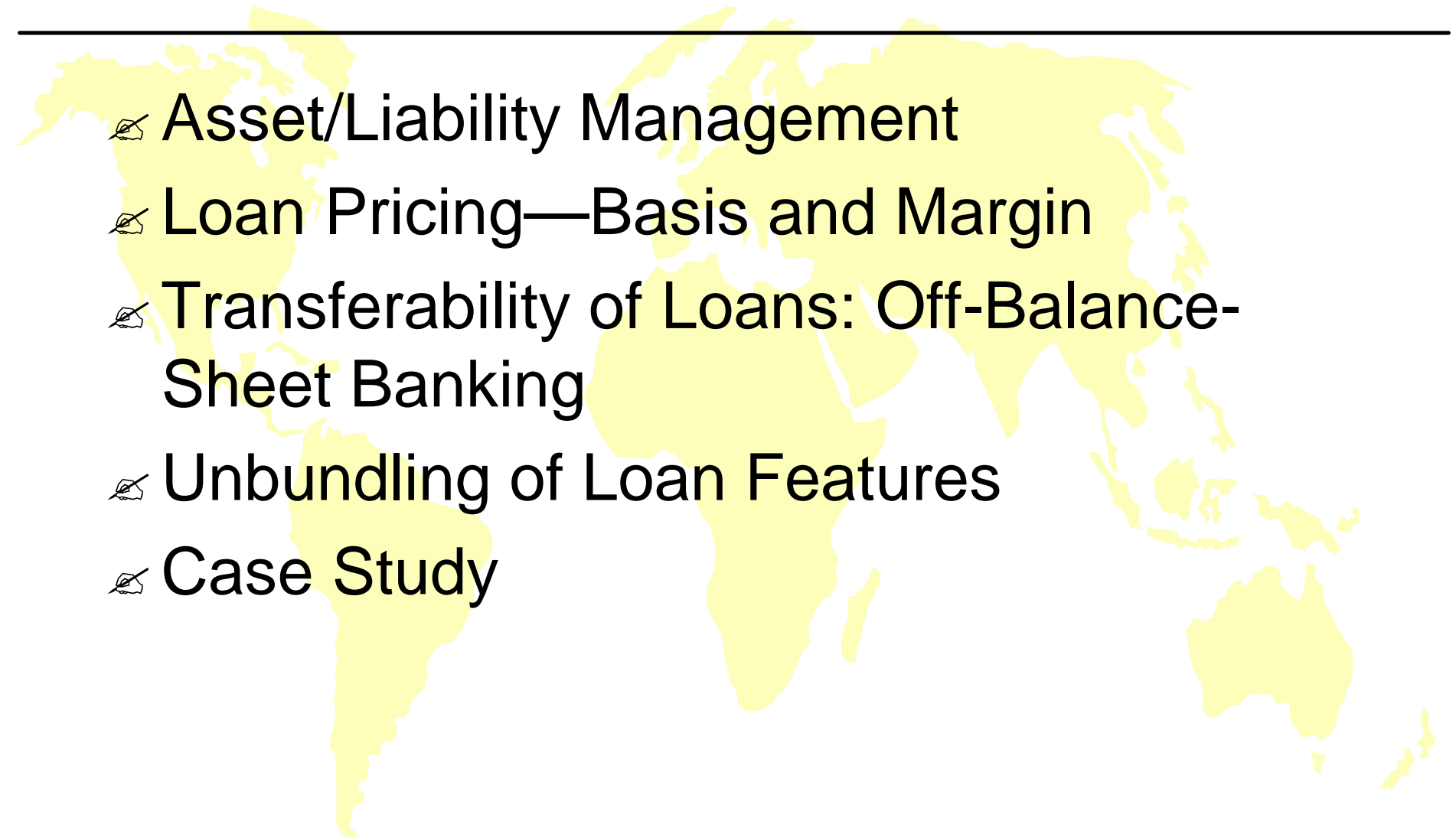
Ashikaga will operate as usual until new management is installed and a buyer for the bank is found.

Shearman & Sterling

***Inside Commercial Banking
The Business of Credit***

Prof Ian Giddy
New York University

Banking and the Securities Markets

- 
- ✍ Asset/Liability Management
 - ✍ Loan Pricing—Basis and Margin
 - ✍ Transferability of Loans: Off-Balance-Sheet Banking
 - ✍ Unbundling of Loan Features
 - ✍ Case Study

Asset-Liability Management



Assets

Loans

- ✍ **Floating rate**
- ✍ **Fixed rate**

Liabilities

Deposits

- ✍ **Short term**
- ✍ **Long term**

Loan Pricing: Basis and Margin



Assets

Liabilities

Loans
 **Prime rate**

***Domestic
deposits***

Loan Pricing: Basis and Margin

Assets

Loans
✍ **Prime rate**

Loans
✍ **Libor-based**

Liabilities

***Domestic
deposits***

***Wholesale
deposits***

Transferability of Loans and Off-Balance Sheet Banking

This announcement appears as a matter of example only

August 2002

DANSKE DESIGN

Furniture Group

EUR95,000,000
Multicurrency Term Loan

Arranged by

Northern Bank Group

Lead Manager

Bank of Copenhagen The Industrial Bank of Japan, Ltd
Kansallis-Osake-Pankki Scandinavian Bank Group Swiss Bank Corporation

Managers

Amsterdam-Rotterdam Bank N.V. BHF Bank Crédit Lyonnais

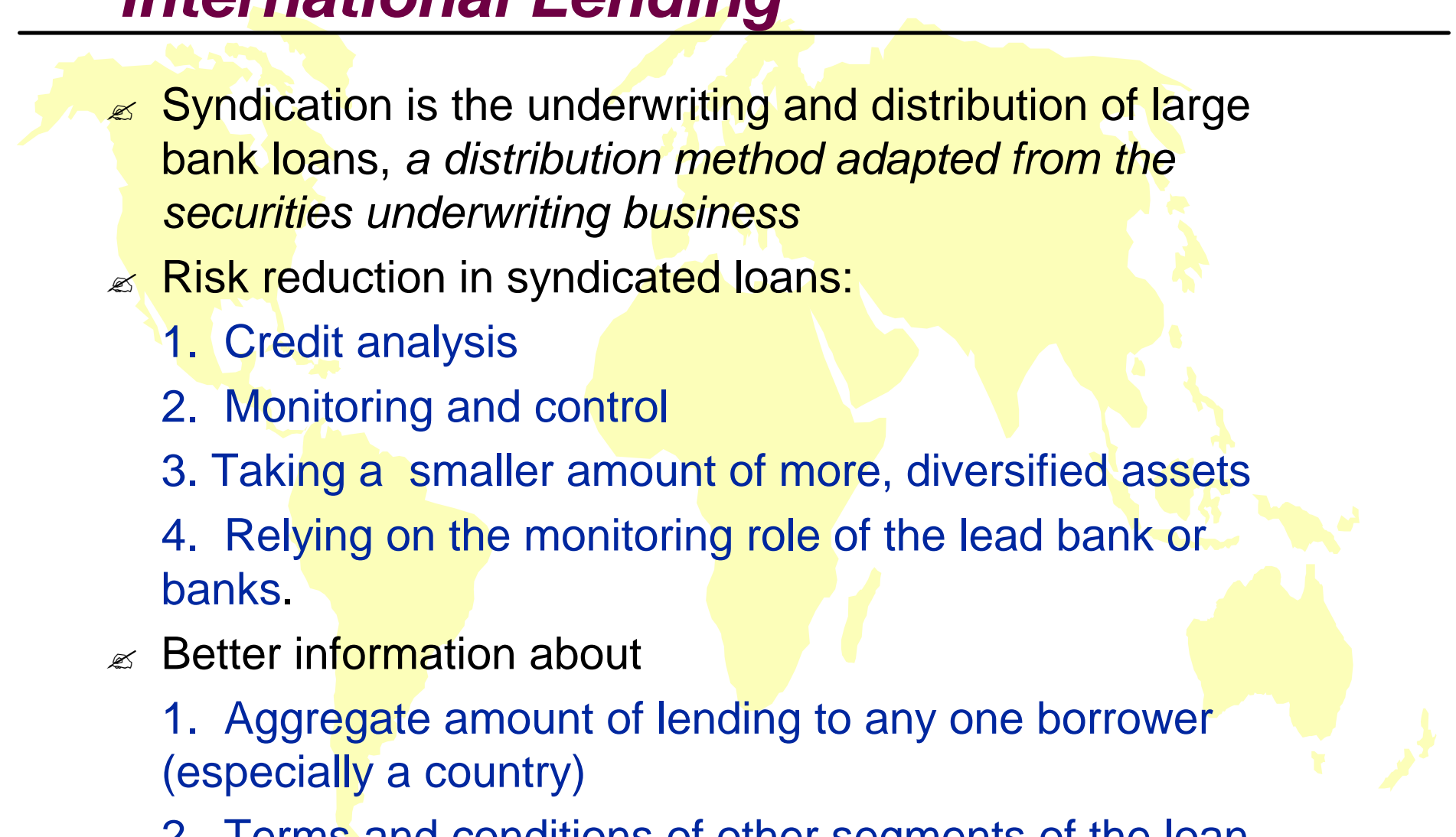
Funds provided by

Amsterdam-Rotterdam Bank N.V. Banco Central S.A. Banco Herrero Banque du Midi
BHF Bank Crédit Lyonnais The Industrial Bank of Japan, Ltd The Irish Poets' Bank
Kansallis-Osake-Pankki Scandinavian Bank Group Swiss Bank Corporation

Agent Bank

Northern Bank Group

The Syndication Technique in International Lending

- 
- ✍ Syndication is the underwriting and distribution of large bank loans, *a distribution method adapted from the securities underwriting business*
 - ✍ Risk reduction in syndicated loans:
 1. Credit analysis
 2. Monitoring and control
 3. Taking a smaller amount of more, diversified assets
 4. Relying on the monitoring role of the lead bank or banks.
 - ✍ Better information about
 1. Aggregate amount of lending to any one borrower (especially a country)
 2. Terms and conditions of other segments of the loan and of other lending to the same borrower.

Trading and Transferring Loans

ASSIGNMENT



FULL ASSIGNMENT

The sale of *all* of the originating lender's or *assignor's* rights and interest in a credit facility to a purchaser or *assignee*.



ASSIGNMENT WITH NOVATION

PARTICIPATION



PARTICIPATION

Participants have derivative rights, not direct rights against (or obligations to) the borrower.



- ✍ LIMITED VOTING PARTICIPATION
- ✍ FULL VOTING PARTICIPATION
- ✍ FULL PASS-THROUGH PARTICIPATION

Trading and Transferring Loans

ASSIGNMENT



FULL ASSIGNMENT

The sale of *all* of the originating

In a full assignment:

- ✍ The borrower usually acknowledges the assignment
- ✍ The borrower must consent to release of obligation by the assignor
- ✍ The assignee has direct access and enforcement of rights against the borrower
- ✍ The loan agreement and note is transferred to assignee at closing

WITH NOVATION

PARTICIPATION



PARTICIPATION

Participants have derivative rights,

✍ FULL PASS-THROUGH PARTICIPATION

Trading and Transferring Loans

ASSIGNMENT



FULL ASSIGNMENT

The sale of *all* of the originating lender's or assignor's rights and interest in a loan to a purchaser or assignee



ASSIGNMENT WITH NOVATION

PARTICIPATION



PARTICIPATION

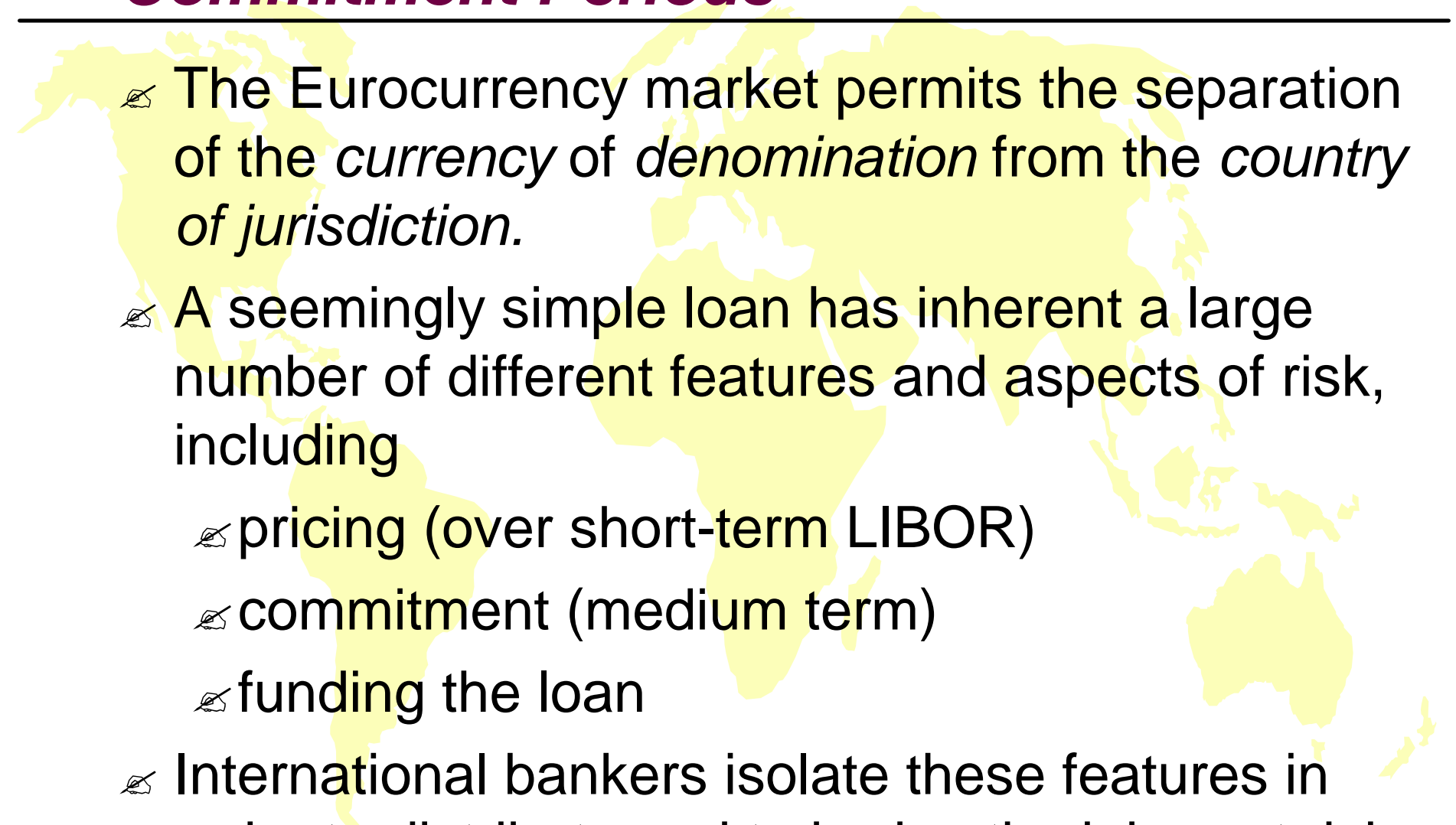
Participants have derivative rights,

In a participation:

- ✗ The lead bank sells the right to participate in a credit facility or loan
- ✗ Participants have derivative rights, not direct rights against (or obligations to) the borrower
- ✗ Counterparty risk exists for lead bank (eg lead bank responsible for funding participants' shares)
- ✗ Capital rules may affect lead bank

FULL PASS-THROUGH PARTICIPATION

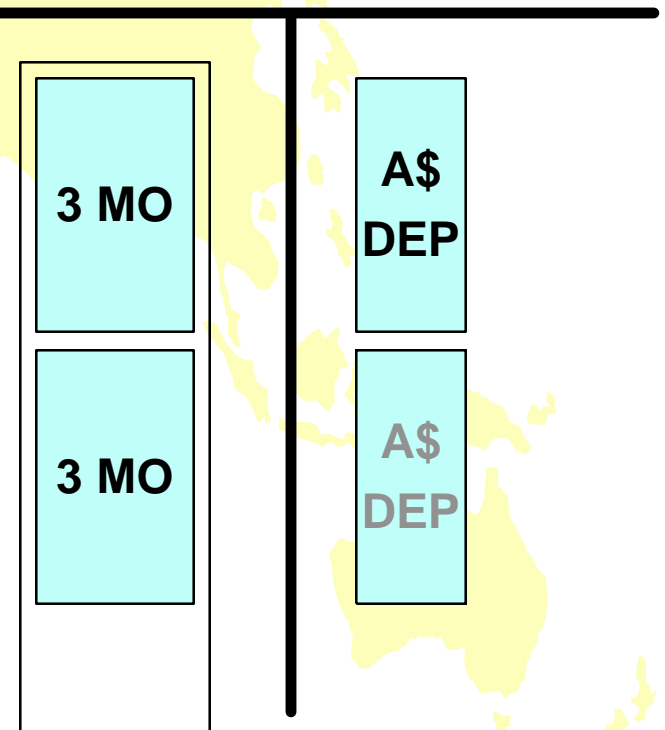
The Separability of Pricing from Commitment Periods

- 
- ✍ The Eurocurrency market permits the separation of the *currency of denomination* from the *country of jurisdiction*.
 - ✍ A seemingly simple loan has inherent a large number of different features and aspects of risk, including
 - ✍ pricing (over short-term LIBOR)
 - ✍ commitment (medium term)
 - ✍ funding the loan
 - ✍ International bankers isolate these features in order to distribute and to hedge the inherent risks

Funding an Australian Loan

Three ways to fund:

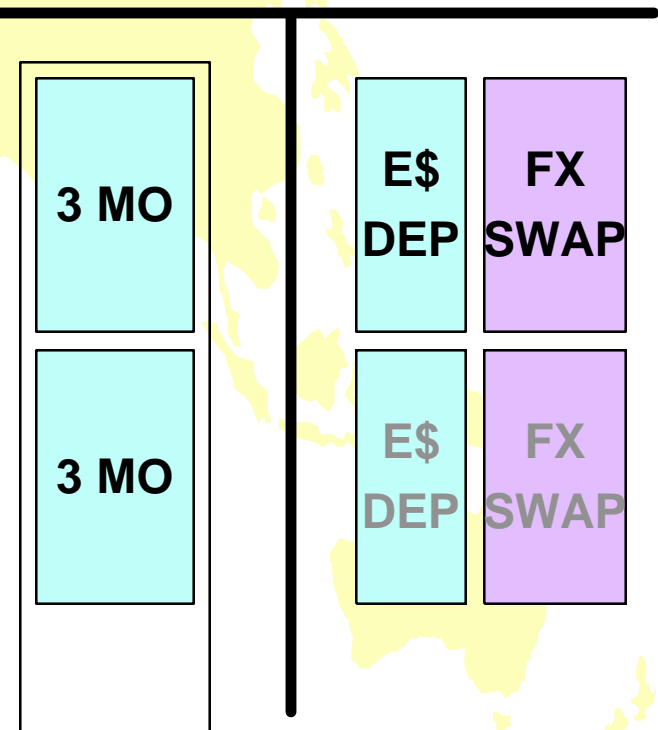
- ✍ Take domestic Aussie dollar deposit
- ✍ Take EuroA\$ deposit



Funding an Australian Loan

Three ways to fund:

- ✍ Take domestic Aussie dollar deposit
- ✍ Take EuroA\$ deposit
- ✍ Fund with dollars, hedged into Aussies
 - ✍ Take E\$ deposit
 - ✍ Do FX swap: sell USD spot, buy USD forward



Pricing a Loan to BHP

**What maturity and currency
do they want to borrow?**

USD

***Get USD Libor as
cost-of-funds proxy***

**What is the credit quality
of this borrower?**

A-

***Set an appropriate
spread over Libor***

Price the loan

Pricing a Loan to BHP

Money Rates, Jan 8 2003

Country	Over night	Day	Change Week	Month	One month	Three months	Six months	One year
US\$ Libor*	1.27500	-0.024	-0.129	-0.020	1.37875	1.38000	1.39000	1.51000
Euro Libor*	2.85875	-0.028	-0.674	-0.038	2.86563	2.84913	2.77400	2.72500
£ Libor*	3.71625	-0.790	-1.276	+0.337	3.97875	3.99750	3.99000	4.00320
Swiss Fr Libor*	0.60000	-0.020	+0.047	+0.020	0.62000	0.62667	0.63833	0.72667
Yen Libor*	0.04000	-	-0.001	-0.006	0.04688	0.06063	0.07688	0.09250
US\$ CDs	-	-	-	-	1.26	1.24	1.25	1.34
Euro CDs	2.815	-0.055	-0.620	-0.050	2.830	2.820	2.755	2.725
US o'night repo	1.19	+0.010	+0.010	-0.070				
Fed Funds actual	1.20	-0.020	-0.030	-0.020				
US 3mth bills	1.18	-	-0.010	-0.010				

www.marketprices.ft.com/markets/currencies/money

USD

Get USD Libor as cost-of-funds proxy

A-

Set an appropriate spread over Libor

Price the loan

If interest coverage ratio is		Rating is	Spread is
>	≤ to		
-100000	0.199999	D	14.00%
0.2	0.649999	C	12.70%
0.65	0.799999	CC	11.50%
0.8	1.249999	CCC	10.00%
1.25	1.499999	B-	8.00%
1.5	1.749999	B	6.50%
1.75	1.999999	B+	4.75%
2	2.499999	BB	3.50%
2.5	2.999999	BBB	2.25%
3	4.249999	A-	2.00%
4.25	5.499999	A	1.80%
5.5	6.499999	A+	1.50%
6.5	8.499999	AA	1.00%
8.50	100000	AAA	0.75%

pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ratings.htm

Raising the Money: Note Issuance Facilities

A Note Issuance Facility has two tiers

- ✍ Tender panel members (who provide funds)
- ✍ Underwriters (commit to the availability of credit)

A Revolver

RUF Structure:

- ✍ Arranger
- ✍ Underwriting banks
- ✍ Tender panel
- ✍ Agent



The Bigfoot Group

£115,000,000

equivalent

Committed Revolving Facility

Arranged by

Credit Suisse First Boston Limited

Underwriting Banks

ABN-AMRO N.V. Banque Indosuez Crédit Lyonnais
Deutsche Bank Fuji International Finance Limited Banque Paribas
Samuel Montague & Co. Limited County Bank Kredietbank
Banque Bruxelles Lambert S.A. Citibank Crédit Suisse
Sumitomo Finance International Westdeutsche Landesbank Girozentrale
Finance International Westdeutsche Landesbank

Tender Panel Members

ABN-AMRO N.V. Indosuez Crédit Lyonnais CIBC Limited
Deutsche Bank Fuji International Finance Limited Banque Paribas
LTCB International Limited J.P. Morgan County Bank Kredietbank
Banque Bruxelles Lambert S.A. Citibank Crédit Suisse Commerzbank
Merrill Lynch Capital Markets Sumitomo Finance International
Salomon Brothers International Westdeutsche Landesbank Girozentrale

Tender Panel and Facility Agent

Credit Suisse First Boston Limited

Laura Ashley

**Need lots of money fast?
Have trouble accessing CP market?**

YES

***Arrange syndicated
credit***

**Confident of always being able
to access the short-term market?**

YES

***Arrange Euronote
program***

***Arrange RUF or MOF:
Underwritten Euronote program***

Need funds?

NO

Don't issue paper

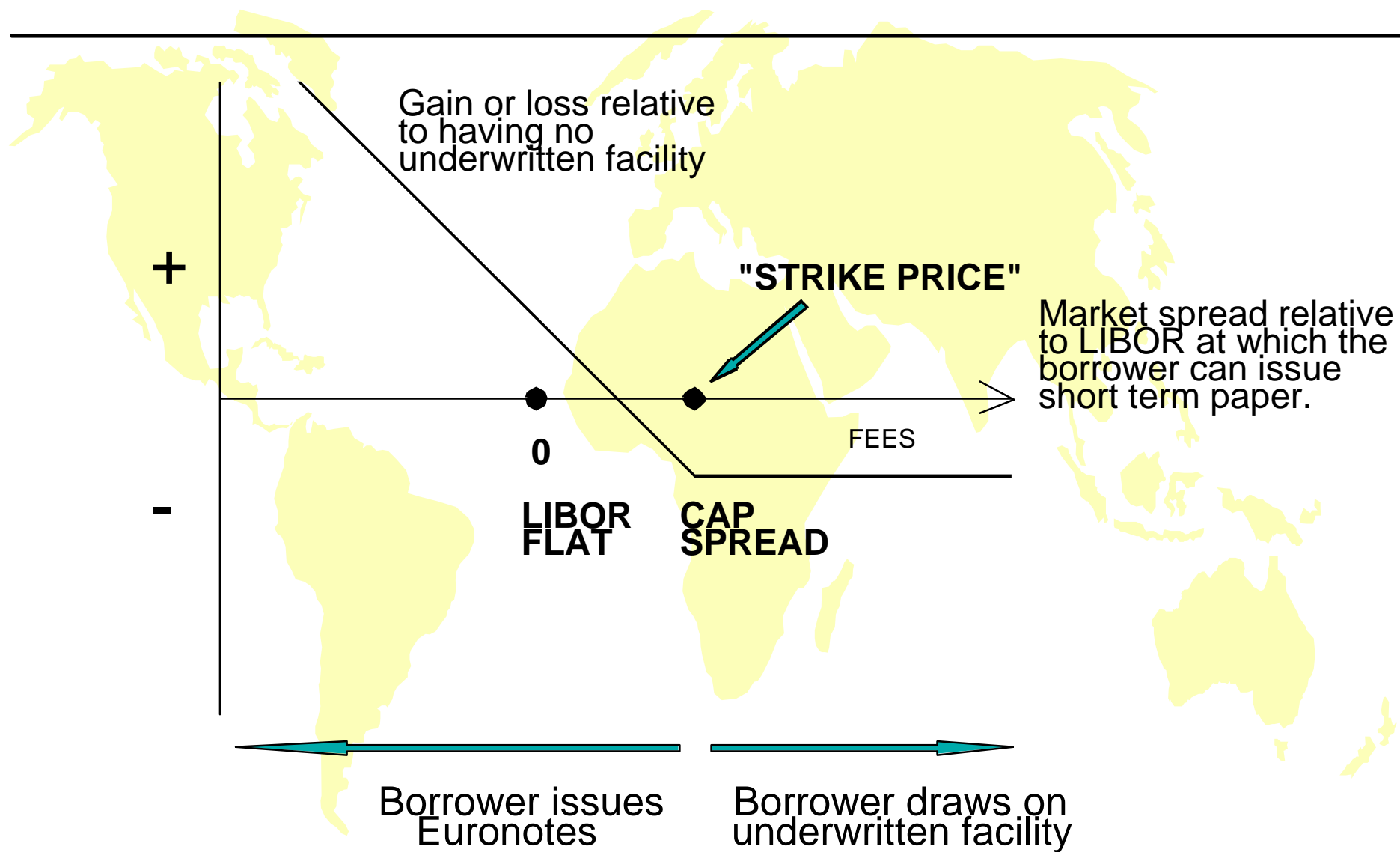
Cannot sell paper at L+10bp?

YES

Borrow from banks

Issue Euronotes or other paper

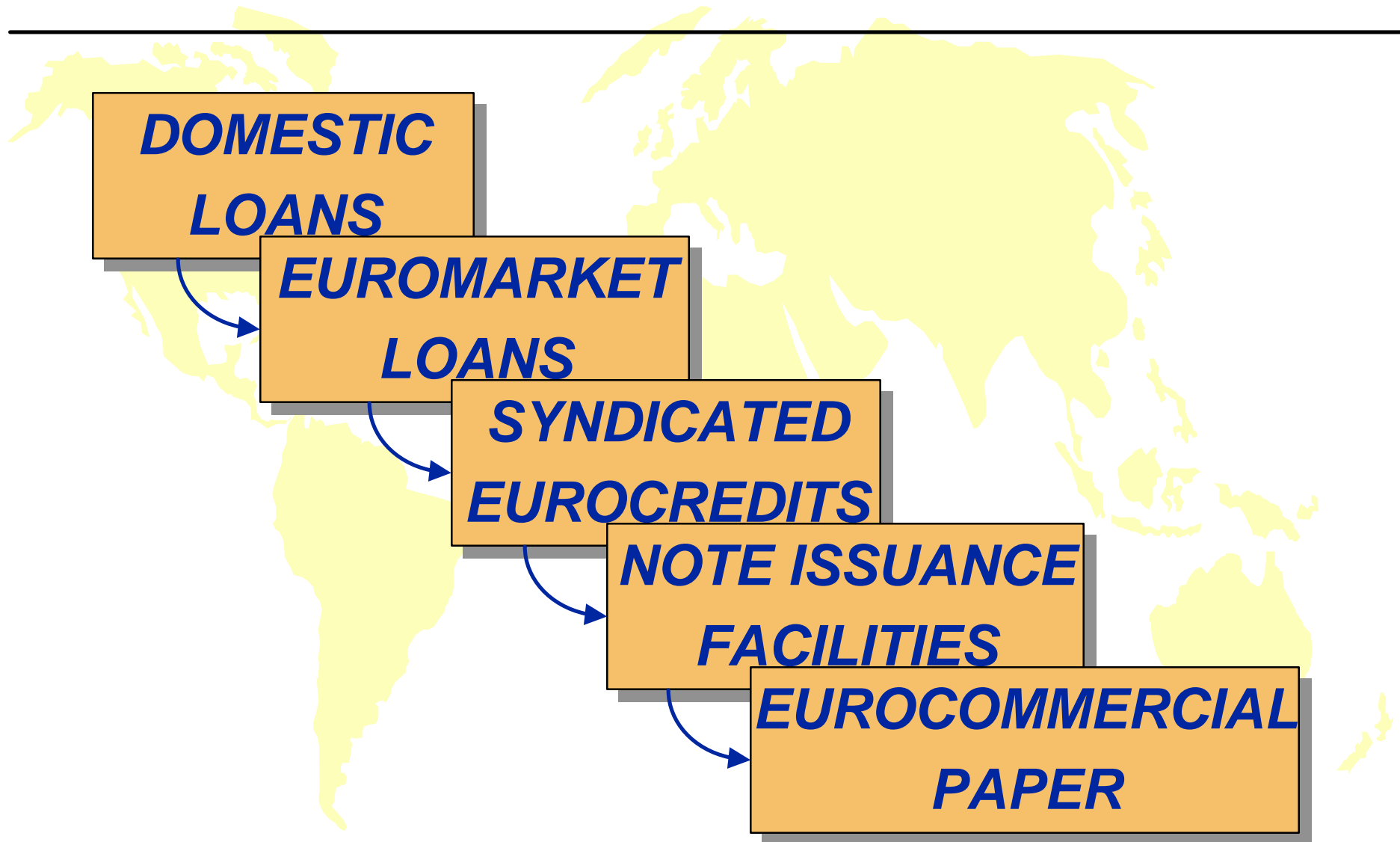
Comparison of RUF to Put Option



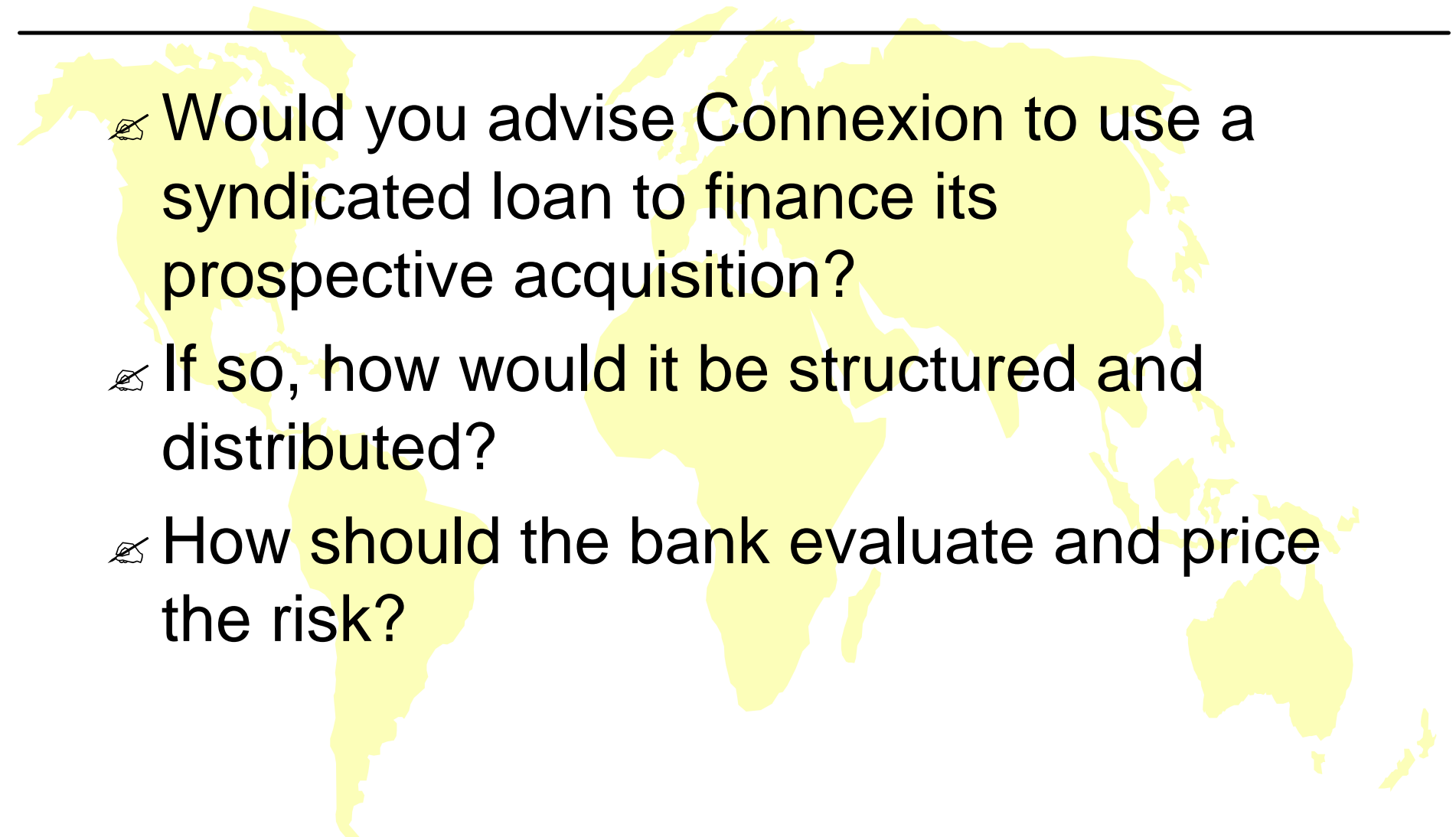
Euro-commercial Paper

- ✍ ECP is an unsecured promissory note, issued and placed outside the jurisdiction of the currency of denomination.
- ✍ A Eurocommercial paper facility
 - ✍ By definition, the facility provides only for the best-efforts auction of paper; the borrower has no underwritten assurance of availability of funds
 - ✍ Today, most committed facilities are used by those who want a medium term back-up line on which they do not intend to draw--often to back up a U.S. commercial paper facility.
 - ✍ Uncommitted Euro-commercial paper or U.S. commercial paper facilities are used for actually raising funds.

International Bank Lending



Case Study: Connexion

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- ✎ Would you advise Connexion to use a syndicated loan to finance its prospective acquisition?
 - ✎ If so, how would it be structured and distributed?
 - ✎ How should the bank evaluate and price the risk?

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