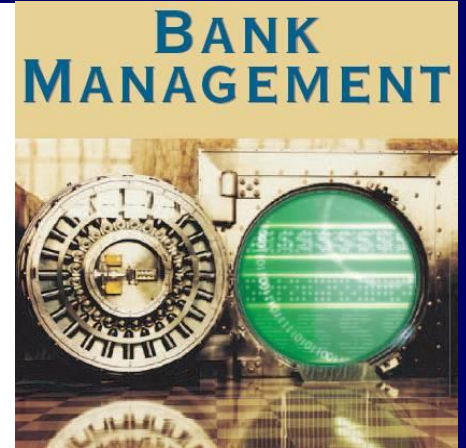


Global Banking Activities

Lecture 14



Global banking business

- **One clear trend in the evolution of financial institutions and markets is the expansion of activities across national boundaries.**
- **Technology has made it possible to conduct business around the world with relative ease and minimal cost.**
- **Producers recognize that foreign markets are as important as domestic markets, and that competitors includes both domestic and foreign operations.**

Global banking activities

...involve both traditional commercial banking and investment banking operations.

- **U.S. commercial banks now accept deposits, make loans, provide letters of credit, trade bonds and foreign exchange, and underwrite debt and equity securities in dollars and other currencies.**
- **With the globalization of financial markets, all firms compete directly with other major commercial and investment banks throughout the world.**
- **Foreign banks offer the same products and services denominated in their domestic currencies and in U.S. dollars.**
- **It was not always this way.**

U.S. banks, although a dominant player in some world markets, have not been considered “large” by international standards

- **Restrictive branching laws,**
- **Restrictions on the types of activities U.S. banks could engage in, and**
- **Other regulatory factors generally meant that**

***U.S. banks were greater in number,
but smaller in size.***

Ranking of World Banking Companies Prior to Full Enactment of Riegle-Neal Interstate Banking and Branching Efficiency Act, 1996

Rank	Company Name	12/31/1996
1	Bank of Tokyo-Mitsubishi Ltd., Tokyo, Japan	\$648,161.00
2	Deutsche Bank AG, Frankfurt, Germany	575,072.00
3	Credit Agricole Mutual, Paris, France (2)	479,963.00
4	Credit Suisse Group, Zurich, Switzerland (1)	463,751.40
5	Dai-Ichi Kangyo Bank Ltd., Tokyo, Japan	434,115.00
6	Fuji Bank Ltd., Tokyo, Japan	432,992.00
7	Sanwa Bank Ltd., Osaka, Japan	427,689.00
8	Sumitomo Bank Ltd., Osaka, Japan	426,103.00
9	Sakura Bank Ltd., Tokyo, Japan	423,017.00
10	HSBC Holdings, Plc., London, United Kingdom	404,979.00
17	Chase Manhattan Corp., New York, United States	333,777.00
26	Citicorp, New York, United States (b)	278,941.00

Billions of dollars

Source: The AmericanBanker: <http://www.americanbanker.com>.

By the end of the 20th century, many factors had changed in the U.S. banking system.

- **The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 effectively eliminated interstate branching restrictions in the U.S. such that:**
 - **by early 1994, there were 10 U.S. banks with 30 interstate branches.**
 - **by June 2001, there were 288 U.S. banks with 19,298 interstate branches.**
- **U.S. banks were also hampered in their ability to compete internationally by the Glass-Steagall Act, which effectively separated commercial banking from investment banking.**
 - **As such, U.S. commercial banks essentially provided two products: loans and FDIC-insured deposits.**
- **In November 1999, the U.S. Congress passed the Gramm-Leach-Bliley Act, which allowed U.S. banks to fully compete with the largest global diversified financial companies by offering the same broad range of products.**
 - **The Gramm-Leach-Bliley Act of 1999 repealed restrictions on banks affiliating with securities firms and modified portions of the Bank Holding Company Act to allow affiliations between banks and insurance underwriters.**

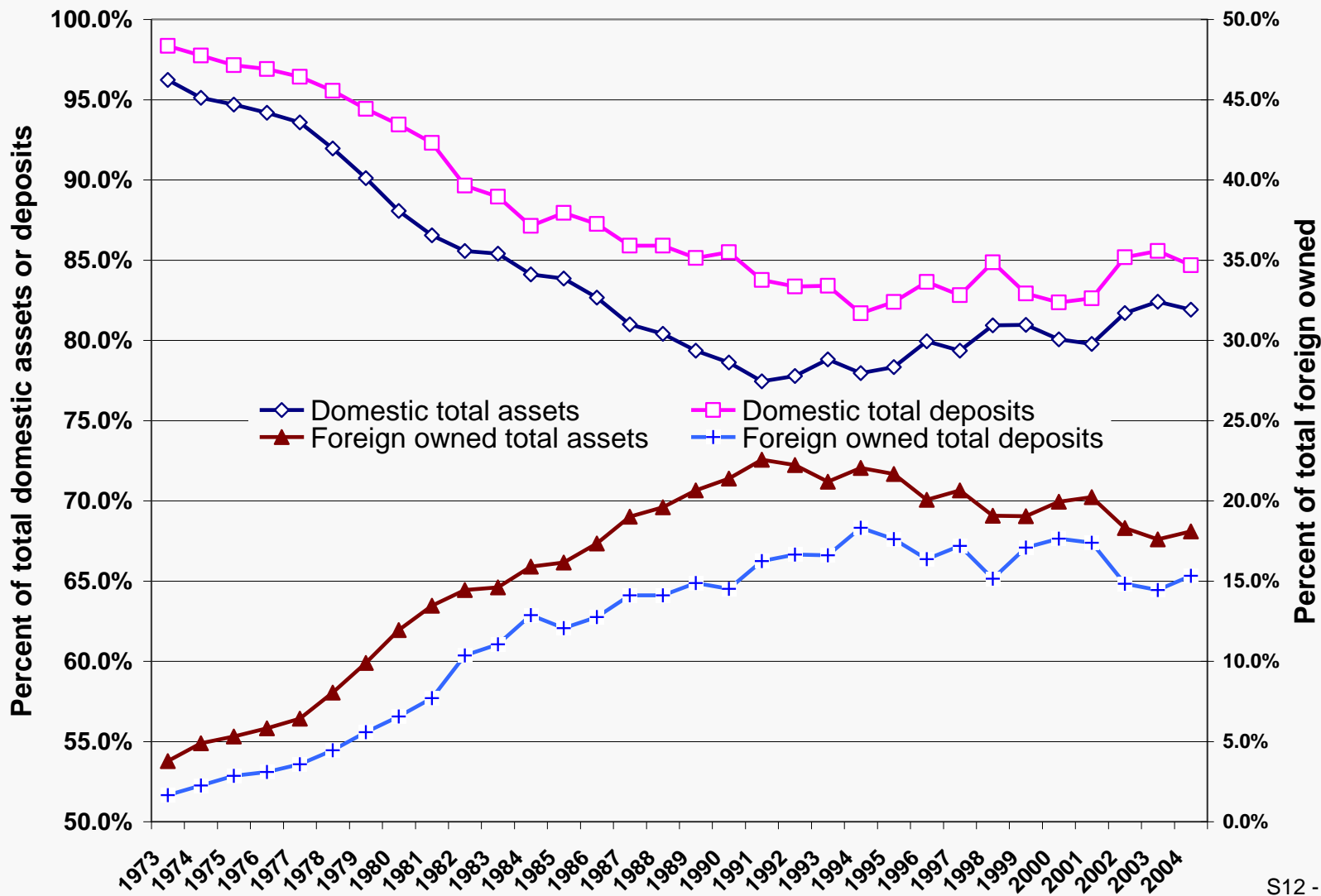
World Rankings of Financial Companies (by Assets), 2003 and 2004

2003 Rank		2003	2004
1	Mizuho Financial Group, Tokyo	\$1,286,782	#N/A
2	Citigroup Inc., New York	1,264,032	1,484,101
3	Allianz AG, Munich	1,127,655	#N/A
4	UBS AG, Zurich	1,115,904	#N/A
5	HSBC Holdings PLC, London	1,031,287	#N/A
6	Deutsche Bank AG, Frankfurt	1,006,306	#N/A
7	Credit Agricole, Paris	988,659	#N/A
8	BNP Paribas, Paris	983,826	#N/A
9	ING Group NV, Amsterdam	979,585	#N/A
10	Sumitomo Mitsui Financial Group, Tokyo	868,430	#N/A
...			
14	JPMorgan Chase & Co., New York*	770,912	1,157,248
16	Bank of America Corp., Charlotte, N.C.*	736,445	1,112,035

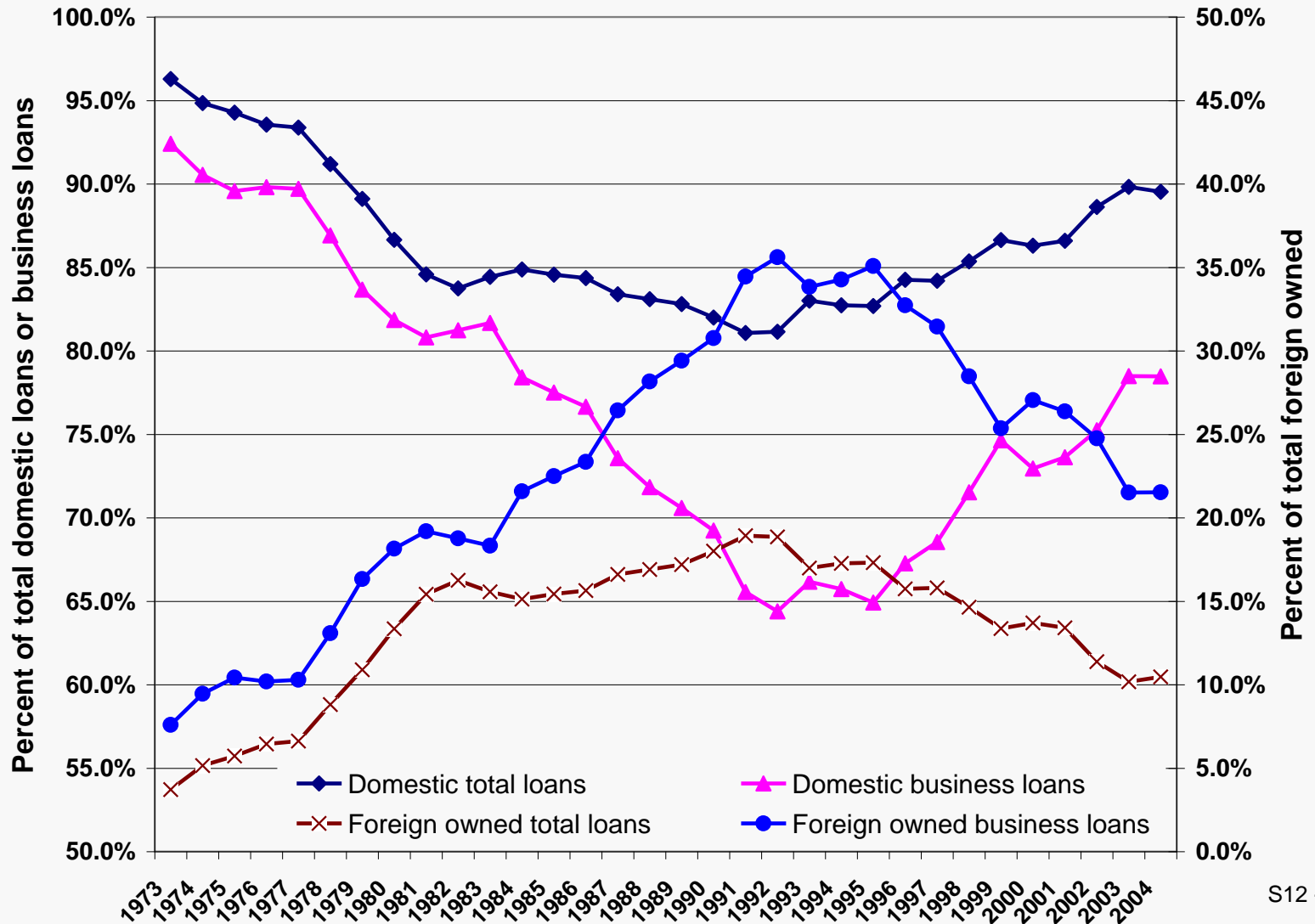
Today, the product offerings of large US banks are similar to those of other international banks

- Prior to the merger between Citibank and Travelers, Citibank's product line was more limited.
- Outside the U.S., Citibank was able to offer a diversified set of products using an Edge Act corporation.
 - Edge Act corporations are domestic subsidiaries of banking organizations chartered by the Federal Reserve.
 - All “Edges” are located in the United States and may be established by U.S. or foreign banks and bank holding companies, but are limited to activities involving foreign customers.
 - They can establish overseas branches and international banking facilities (IBFs) and own foreign subsidiaries.

Comparison of Market Share Data for U.S. Offices of Domestically and Foreign-Owned Commercial Banks in the United States: Total Assets and Deposits, 1973–2004



Comparison of Market Share Data for U.S. Offices of Domestically and Foreign-Owned Commercial Banks in the United States: Total Loans and Total Business Loans, 1973–2004



Three events changed the historical development of banking in the united states.

1. The first was the stock market crash of 1929 and the following Great Depression.
 - Many people blamed banks and the universal banking activities for the problems although there is no strong evidence to link the speculative activities of banks with the crash.
2. The second was the enactment of the Banking Act of 1933 and the Glass-Steagall provision, which separated commercial banking from investment banking activities.
3. The third was the rising importance of the federal government in financial markets.

Prior to these events, the U.S. banking system operated more or less under a universal banking system.

Formation and development of the European Community (EC) will provide new opportunities for U.S. Banks.

- **By abolishing trade restrictions, the EC exposes European banks to outside competition.**
- **EC country members have generally agreed on rules that allow the following:**
 - **Free flow of capital across borders**
 - **Elimination of customs formalities**
 - **Establishment of a common central bank, which creates the potential for a single currency**

Universal banking model

- **Universal banking is the conduct of a variety of financial services such as:**
 - **trading of financial instruments; foreign exchange activities; underwriting new debt and equity issues; investment management, insurance; as well as extension of credit and deposit gathering**
- **Universal banks have long dominated banking in most of continental Europe. Universal banks engage in everything from insurance to investment banking and retail banking.**

The United States moved away from a universal banking system in the 1930s because of problems in separating commerce from finance

- **An inherent conflict of interest**
 - **A universal bank might use pressure tactics to coerce a corporation into using its underwriting services or buy insurance from its subsidiary by threatening to cut off credit facilities.**
- **Gramm-Leach-Bliley returned the US banking system to more of a Universal banking system**
 - **Some of the most complicated aspects of GLB are functional regulation, privacy provisions, and what banks are allowed to do versus what the bank's "financial holding company" is allowed to do.**

Gramm-Leach-Bliley permitted US Bank's to Engage in New Lines of Business

- Under the U.S. system, financial holding companies (FHCs) are distinct entities from bank holding companies (BHCs).
- A company can form a BHC, an FHC, or both.
 - The primary advantage to forming an FHC is that the organizer can engage in a wide range of financial activities not permitted in the bank or within a BHC.
 - Some of these activities include insurance and securities underwriting and agency activities, merchant banking, and insurance company portfolio investment activities.
 - Activities that are “complementary” to financial activities also are authorized.

Organizational structures in international markets

■ Head office

- International divisions or departments are operated as a part of the head office's organizational structure, with the division managers reporting to senior management (supervisory function).

■ Representative office

- International office which does not conduct normal banking business but simply represents the corporation, with the purpose of promoting the corporation's name and developing business to be funneled to the home office (exploratory function).

Foreign offices

■ Foreign branch

- A legal part of the home bank which is subject to the laws and regulations of the host nation
- Shell office
 - Does not conduct business with local individuals; serves as a conduit for Eurodollar activities that originate in the head office
- Full-service branch
 - Performs all the activities of domestic banks

■ Foreign Subsidiary

- Foreign banks or non-bank corporations acquired by domestic commercial banks or bank holding companies; distinct from the parent bank and performs the same functions as the domestic banks

Edge act and agreement corporations

- **Edge Act corporations:**
 - **Domestic subsidiaries of banks chartered by the Federal Reserve which may be established by U.S. or foreign banks and are limited to activities involving foreign customers.**
- **Agreement corporations:**
 - **State-chartered equivalents of Edge Act Corporations.**

International banking facilities

- **Subparts of banks that are created to conduct international business without the cost and effort of avoiding regulatory requirements through shell units.**
- **Exist as a set of accounting entries on the books of the parent company.**

Export trading companies

- **Companies that are acquired by banks and are organized and operated principally for purposes of exporting goods and services produced in the U.S. by unaffiliated persons.**

Agencies of foreign banks

- **Parts of foreign banks that can offer only a limited range of banking services (cannot accept transactions deposits from U.S. residents or issue CDs) with the primary purpose of financing trade originating from firms in their own country.**

International financial markets

- **International markets have evolved to facilitate funds flows in international exchange of goods and services and to reduce the risk of doing business outside the home country.**

The Eurocurrency market

- **Eurocurrency:**
 - **A deposit liability in any currency except that of the country in which the bank is located.**
- **Eurobank:**
 - **Bank that issues Eurocurrency claims.**

Eurodollars

- Arise when a bank located outside the U.S. accepts a deposit denominated in U.S. dollars. As such, the bank receives a dollar claim on the U.S. bank from which the funds were transferred.
- Such banks typically redeposit the Eurodollar proceeds in another bank until the funds are given out as a loan by one of the banks.
- The initial Eurodollar deposit is accepted at the base rate called LIBOR (London Interbank Offer Rate).
- Each redeposit and the final loan will then be priced at a markup over LIBOR.

The Eurobond market

- Eurobonds are bonds issued in the international Euromarket, underwritten by an international banking syndicate, not subject to any one country's securities laws, and denominated in any major national currency.
- Floating-rate Note:
 - Issued in denominations as low as \$5,000 with maturities ranging from two to five years, carrying interest rates that vary with LIBOR.

Eurocredits

...term loans priced at a premium over LIBOR, with the rate floating every three or six months in most cases, thereby reducing the mismatch between asset and liability maturities

- Eurocredits are created to overcome interest rate risk.

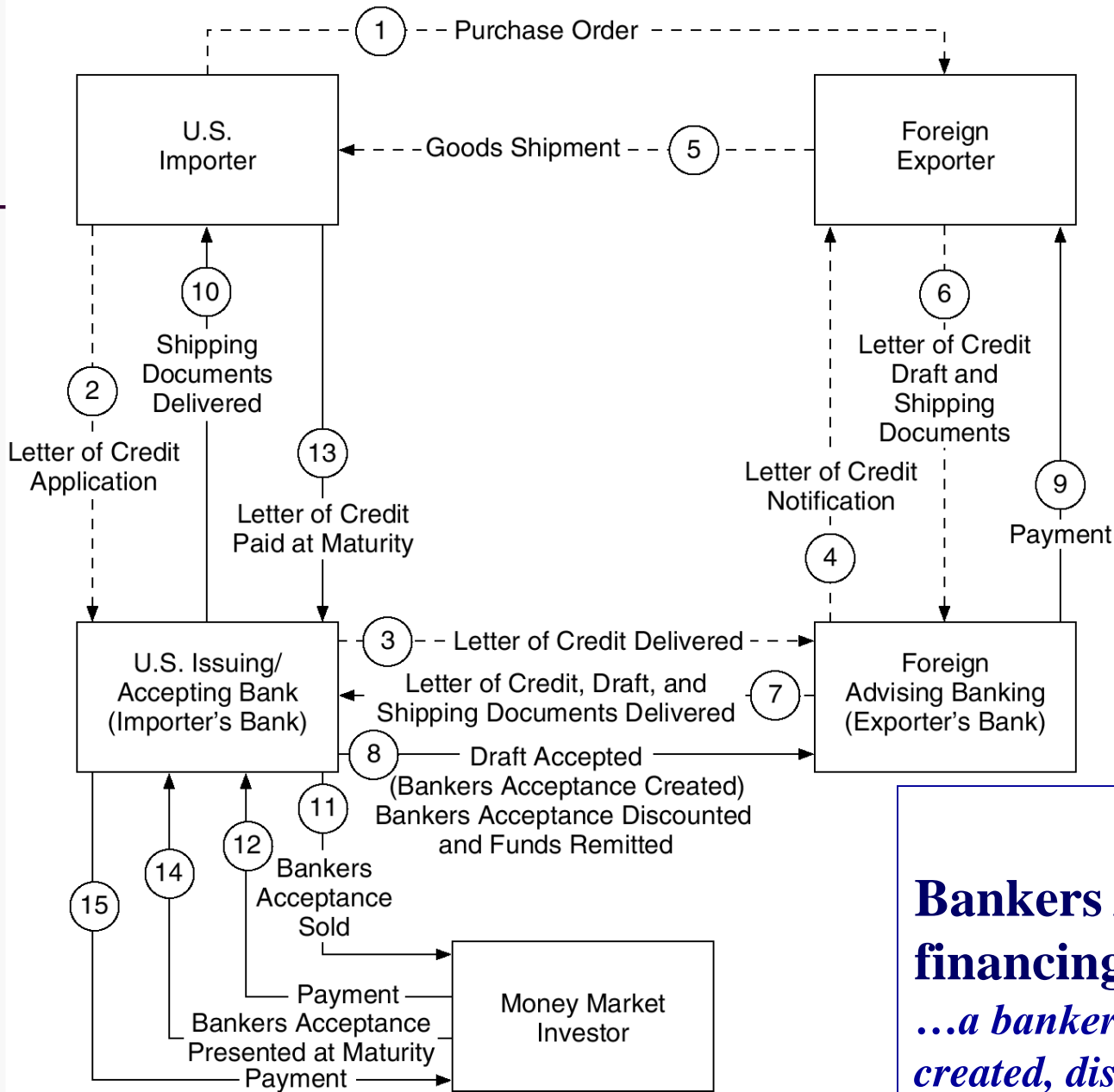
International lending

- **International operations generate a considerable portion of earnings for money center banks**
 - **Citigroup earns about two-thirds of the firm's earnings globally.**
- **International lending, however, carries risks not associated with domestic lending**
 - **Country risk**
...default risk associated with loans to borrowers outside the home country
 - **Foreign exchange risk**
...the current and potential volatility in earnings and stockholders' equity due to changes in foreign exchange rates.

Short-term foreign trade financing

...international trade and international trade financing are considerably more complex than simply dealing with trading partners within the same country

- To facilitate trade, someone must enter the transaction and assume the risk that the importer may not pay.
- Commercial banks fulfill this role through bankers acceptance financing.
- Trading partners must also have the opportunity to convert one currency into another, which creates a demand for foreign exchange services as well.
- Bankers acceptance
 - ...A time draft that represents a guarantee under which the accepting bank agrees to remit the face value of the draft at maturity.*
 - Acceptances are attractive because a bank substitutes its credit rating for that of the importer.



Bankers Acceptance financing of U.S. Imports
...a bankers acceptance is created, discounted, sold, and paid at maturity

-----> Process Preceding Creation of Bankers Acceptance
 —————> Process After Creation of Bankers Acceptance

Direct international loans

...originate from international departments of domestic banks, Edge Act corporations, credit offices of foreign branches and subsidiaries.

- **Credit extended to less-developed countries (LDCs) has exhibited a poor repayment history and many of the banks have chosen to withdraw from lending to these countries after a large number of default incidents that took place in the 1980s.**
- **Banks prefer to have foreign exposure in the form of equity investments rather than long-term, constantly renegotiated loans to foreign central banks.**

Credit analysis of foreign loans

- **Credit analysis for international loans follow the same procedures adopted for domestic loans:**
 - **evaluation of the required loan amount,**
 - **use of proceeds,**
 - **source and timing of expected payment,**
 - **availability of secondary collateral sources.**

Foreign exchange activities

- Because different countries use different monetary units, traders must be able to convert one unit into another.
- Foreign exchange markets are where these monetary units are traded.
 - Foreign exchange
...currency other than the monetary unit of the home country
 - Exchange rate
...the price of one currency in terms of another currency.

Risks unique to international lending:

- **Foreign exchange risk**

...the current and potential risk to earnings and stockholders' equity arising from changes in foreign exchange rates

- **Country risk**

...default risk associated with loans to borrowers outside the home country

- **Economic risks**

...quantifiable economic and business risks (mostly examined under regular credit analysis).

- **Political (sovereign) risks**

...the likelihood that foreign governments will unilaterally alter their debt service payments, regardless of the formal repayment schedule

Foreign Exchange:

...currency other than the monetary unit of the home country

- **Exchange Rate**

...price of one currency in terms of another currency.

- **Spot Market:**

...market for exchange of currencies for immediate delivery.

- **Forward Market**

...market for transactions that represent a commitment to exchange currencies at a specified time in the future at an exchange rate determined at the time the contract is signed.

Foreign exchange risk

...current and potential risk to earnings and stockholder's equity arising from changes in foreign exchange rates

- Found when changing exchange rates affect a bank's cash inflows differently than cash outflows associated with positions denominated in different currencies
- Changes in values of foreign currency positions (buying and selling foreign currencies for their own account) due to changing foreign exchange rates indicate price risk

Example: Foreign exchange risk

- **Commerce Bank's (CB) home country is Poland and home currency is the zloty.**
 1. **current (spot) exchange rate is \$1 = 150 zlotys.**
 2. **Commerce Bank:**
 1. **\$1,000 in loans**
 2. **\$250 in liabilities denominated in U.S. dollars**
 3. **assets are worth 150,000 zlotys**
 4. **liabilities are worth 37,500 zlotys at the prevailing exchange rate.**
- **If the exchange rate moved to \$1 = 160 zlotys,**
 1. **assets increase in value by 10,000 zlotys,**
 2. **liabilities increase by 2,500 zlotys.**
 3. **the bank's equity would rise by 7,500 zlotys.**

Example (continued): Foreign exchange risk

- If the exchange rate moved to \$1 = 140 zlotys,
 1. assets decrease in value by 10,000 zlotys,
 2. liabilities decrease by 2,500 zlotys
 3. the bank would see stockholders' equity decrease by 7,500 zlotys
- These same exposures exist for off-balance sheet commitments and guarantees when counterparties effect the at risk transactions or activities.

Managing foreign exchange rate risk

- A bank's risk managers analyze aggregate foreign exchange risk by currency.
- A bank's net balance sheet exposure in currency j ($NEXP_j$) is the amount of assets minus the amount of liabilities denominated in currency j :
 - $NEXP_j = A_j - L_j$
where
 - A_j = assets denominated in currency j ,
 - L_j = liabilities denominated in currency j .
- If $NEXP_j > 0$, the bank is long on currency j and if $NEXP_j < 0$, the bank is short currency j .

Gain/Loss in a position

- The bank will lose if:
 - it is *long* a currency ($NEXP_j > 0$) and the currency *depreciates* in value (the currency buys less of another currency).
 - if it is *short* a currency ($NEXP_j < 0$) and the currency *appreciates* in value (the currency buys more of another currency).
- The gain/loss in a position with a currency is indicated by:
 - **Gain/Loss in a Position With Currency j**
$$= NEXP_j \times [\text{spot exchange rate at time } t - \text{spot exchange rate at time } t-1]$$

Example: gain/loss in a position

- Current (spot) exchange rate is \$1 = 150 zlotys.
- Commerce Bank (CB) would lose if
 - long U.S. dollars
 - the dollar depreciates as indicated by a movement in the exchange rate to \$1 = 140 zlotys.
 - Loss = $[1,000 - 250] \times [140 - 150]$
= -7,500 zlotys
- CB would gain if
 - the dollar appreciates as indicated by a exchange rate change to \$1 = 160 zlotys.

Example: forward markets

- A bank commits to buy 1 million yen, 90 days forward for \$9,804.
 - This means that after 90 days, the bank pays \$9,804 and receives 1 million yen, regardless of movements in exchange rates during the 90-day period.

Forward markets: forward premium.

- **Forward premium**

...the forward price of a currency is higher than its spot price, the foreign currency is priced at a premium.

- **Example:**

- a bank agrees to buy 1 million yen 90 days forward for 102 yen per dollar.
- If the spot rate is 105 yen per dollar, the yen is priced at a forward premium against the dollar.

Forward markets: forward discount.

- **Forward discount**

...the forward price of a currency is lower than its spot price, the foreign currency is priced at a discount.

- **Example:**

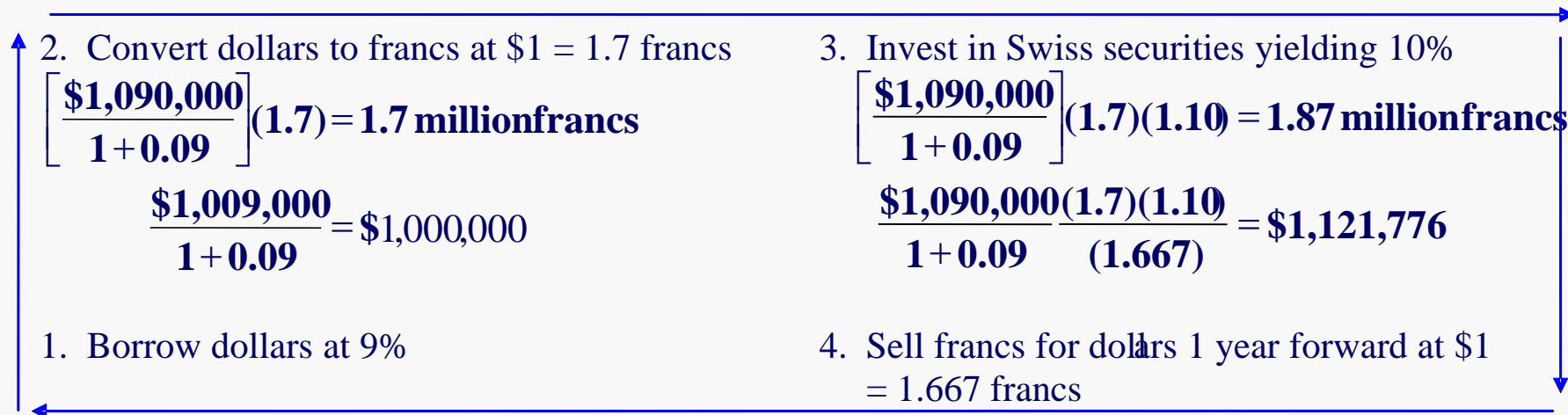
- a bank agrees to buy 1 million yen 90 days forward for 102 yen per dollar.
- if the spot rate is 100 yen per dollar, the yen is priced at a forward discount against the dollar.

Relationship between foreign exchange rates and interest rates.

- Arbitrage transactions between countries guarantee that interest rate changes produce changes in foreign exchange rates, and vice versa.
- If the interest rate differential between securities in two countries falls out of line with the spot-to-forward exchange rate differential, a *covered interest arbitrage* will take place and investors will make net profits from the series of transactions.

Continuing arbitrage will go on until prices move back into line to eliminate the riskless return from covered interest arbitrage.

Covered interest arbitrage



Sample Transaction: Borrow \$1,000,000

1. Borrow \$1,000,000 at 9%; agree to repay \$1,090,000 in one year.
 2. Convert \$1,000,000 to 1.7 million francs in spot market at \$1 = 1.7 francs.
 3. Invest 1.7 million francs in 1-year security yielding 10%; will receive 1.87 million francs after 1 year.
 4. Sell 1.87 million francs 1 year forward for \$1,121,776 at \$1 = 1.667 francs.
- Net profit = \$1,121,776 - \$1,090,000 = \$ 31,776**

Foreign exchange rates and interest rates

- **Covered interest arbitrage**

...exists when the interest rate differential between securities in two countries is out of line with the spot-to-forward exchange rate differential.

- **Interest rate parity**

...exist when covered interest arbitrage profit potential is eliminated.

Interest rate parity implies:

$$\frac{1+i_2}{1+i_1} = \left(\frac{S_{1,2}}{f_{1,2}} \right) = 1,$$

or

$$\frac{i_2 - i_1}{1+i_1} = \left(\frac{f_{1,2} - S_{1,2}}{S_{1,2}} \right)$$

■ Where

i_1 : Annual interest rate in Country 1.

i_2 : Annual interest rate in Country 2.

$S_{1,2}$: Spot exchange rate equal to the number of units of Country 2's currency for one unit of Country 1's currency.

$f_{1,2}$: One-year forward exchange rate equal to the number of units of Country 2's currency for one unit of Country 1's currency.

The interest rate parity equilibrium condition suggests that:

- The forward exchange rate differential, as a fraction of the spot rate, should equal the interest rate differential relative to 1 plus an interest factor to eliminate arbitrage profits.
- Example:
 - i_1 is 9%,
 - i_2 is 10%, and
 - $s_{1,2}$ is 1.7 as in the previous example,
 - then $f_{1,2}$ should be equal to 1.7156:

$$\frac{0.10 - 0.09}{1 + 0.09} = \left(\frac{f_{1,2} - 1.7}{1.7} \right)$$