CHAPTER 13

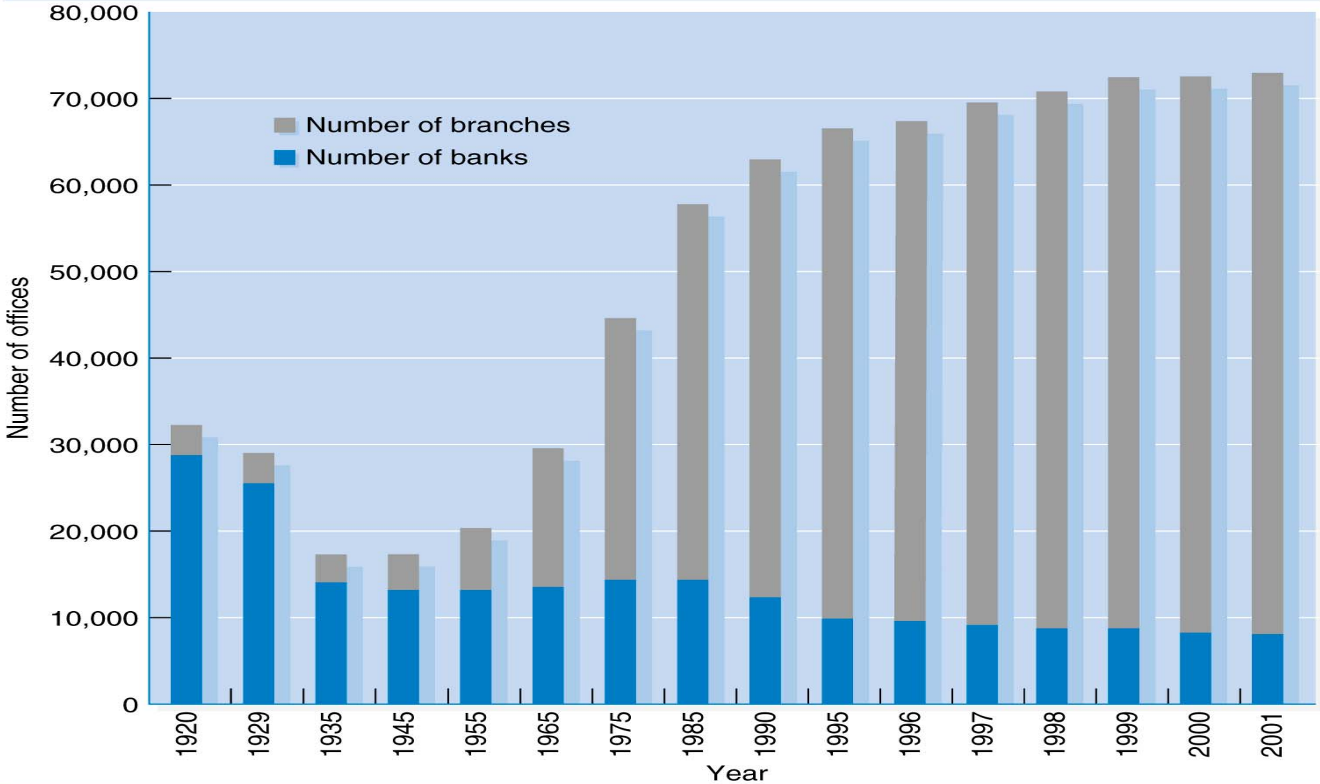
COMMERCIAL BANK OPERATIONS

An Overview of the Banking Industry Today

- The commercial banking industry is comprised of less than 9,000 banks. The number of banks has declined from a peak of 15,000 in 1980.
- Commercial banks' geographic expansion has been constrained by state and federal banking legislation, but these constraints have been almost eliminated.
- Consequently, while the number of banks has declined, the total number of bank offices has grown to over 70,000.

Number of Banks and Branches, 1920-2001

EXHIBIT 13.1
Number of Banks and Branches of Commercial Banks (1920–2001)



After the 1950s the number of banks and branches increased until the late 1980s. With the beginning of interstate banking and the emergence of electronic banking, the number of banks began declining. The number of branches per bank, however, continues to increase.

Source: FDIC, *Statistics on Banking.*

An Overview of the Banking Industry Today (concluded)

- The decline in the number of banks can be attributed to the rapid pace of consolidation in the industry.
- Large banks dominate asset and deposit holdings in the industry.

Liabilities and Capital Accounts of Commercial Banks

Liabilities and Capital Accounts	All Insured Commercial Banks[a] Billions	All Insured Commercial Banks[a] Percent[e]	Small Banks[b] Percent[e]	Medium-Sized Banks[c] Percent[e]	Large Banks[d] Percent[e]
Liabilities					
Deposits, total	$4,295	66	84	82	62
Noninterest-bearing	777	12	12	12	12
Interest-bearing	3,517	54	72	69	51
Borrowed funds, total	1,310	20	4	7	23
Federal Funds purchased and securities sold under repurchase agreements	548	8	1	3	10
Trading liabilities	211	3	0	0	4
Other borrowed money	551	8	3	5	9
Subordinated notes and debentures	92	1	0	0	2
All other liabilities	273	4	1	1	5
Total liabilities	$5,970	91	89	90	91
Capital Accounts					
Common and preferred stock	322	5	6	5	5
Undivided profits	264	4	5	5	4
Total equity capital	586	9	11	10	9
Total liabilities and equity capital	$6,556	100	100	100	100

Deposits are the largest source of funds for most banks, but they are a much more important source for small and medium-sized banks. Borrowed funds are a more important source of funds for large banks. Banks in general are thinly capitalized, but small banks tend to be better capitalized than large ones.

Bank Sources of Funds -- Liabilities and Capital

- Transaction accounts -- commonly called checking accounts, they serve as basic medium of exchange in the economy.
  - Demand deposits accounts (DDA) represent funds transferable on the presentation of a check written by a customer.
  - NOW accounts: DDA that pay intrest.
- Savings Accounts -- Traditional nontransaction bank deposits and form of savings held by individuals
  - Money Market Deposit Account: MMDA pay an intrest rate and allow bank to be more competitive with MMMF

Bank Sources of Funds -- Liabilities and Capital

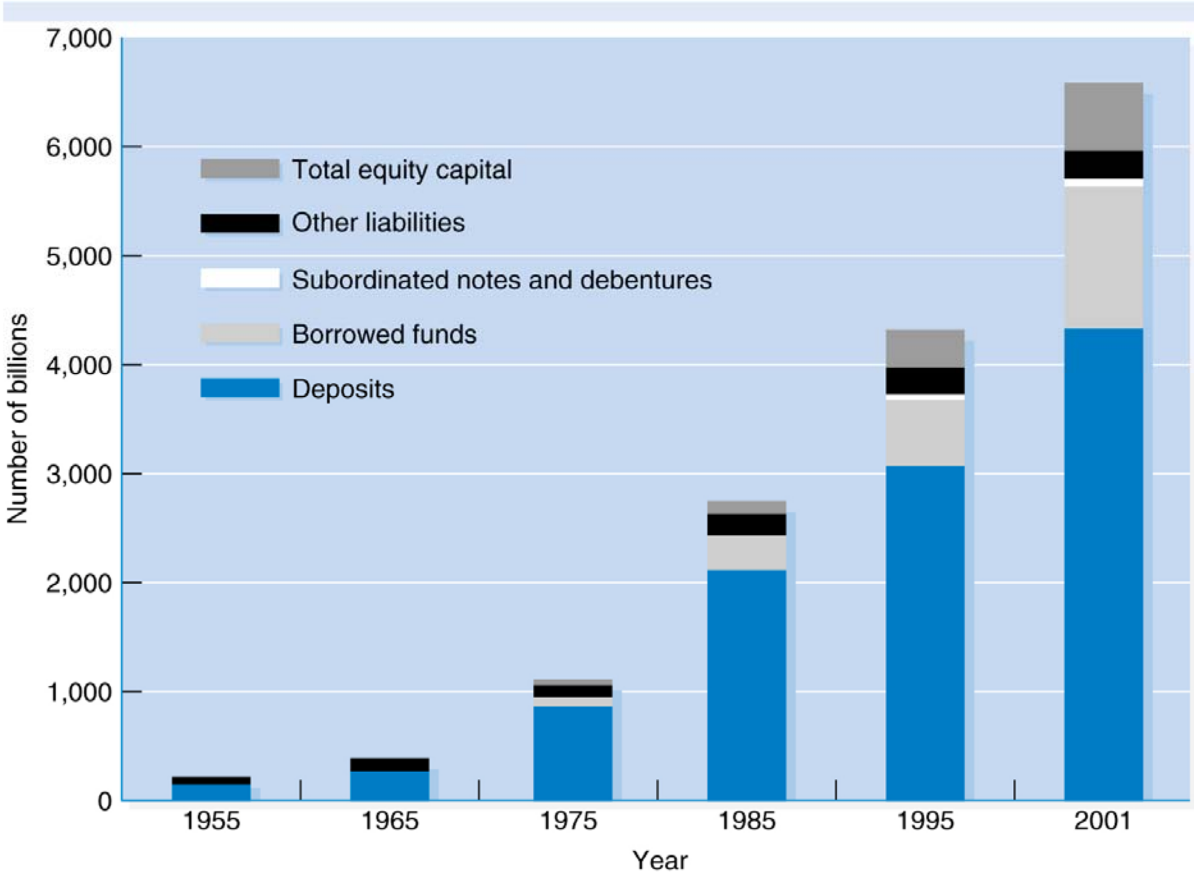
- Time deposits -- are the largest source of funds for commercial banks and their characteristics vary widely with respect to maturity, minimum amuont, early withdrawal penalties and negotiability
  - Certificates of Deposit: Deposit contracts issued with varied names for a specific period of time. The largest category of bank deposits.
  - Negotiable CDs: called jumbo CDs, are issued by large well known commercial banks and are traded in a well organized secondary market
- Borrowed Funds -- short-term borrowings by commercial banks from the wholesale money markets

Bank Sources of Funds -- Liabilities and Capital

- Capital Notes and Bonds -- Nondeposit and subordinated short-term capital notes or longer-term bonds.

- Bank Capital Accounts -- represent the equity or owner funds of a bank and is the account against which bank loan and security losses are charged.
  - The greater the proportion of capital to total funds, the greater the protecyion to depositors

Liabilities and Capital Accounts, Exhibit 13.6



Increased demand for loans at banks has outpaced the growth in deposits at banks in recent years. As a result, banks have had to rely more heavily on borrowed funds to finance their operations. Banks made little use of money market sources of funds until the mid-1980s. In recent years, however, banks have made greater use of borrowed funds. They currently account for about 20 percent of all funds raised by banks.

Assets of Commercial Banks, 30 sept. 2001

Asset Accounts	All Insured Commercial Banks[a] Billions	All Insured Commercial Banks[a] Percent[e]	Small Banks[b] Percent[e]	Medium-Sized Banks[c] Percent[e]	Large Banks[d] Percent[e]
Cash and due from depository Institutions	394	6	5	4	6
Securities, total	1,107	17	23	22	16
U.S. Treasury	48	1	1	1	1
U.S. government agency	680	10	16	15	10
State and local government	96	1	4	4	1
Other	283	4	1	2	5
Federal Funds sold and securities Purchased under repurchase agreements	346	5	6	4	5
Loans and lease financing, total	3,861	59	62	65	58
Commercial and industrial	1,010	15	11	12	16
Depository institutions	118	2	0	0	2
Real estate	1,749	27	36	43	24
Residential	1,141	17	19	21	17
Commercial	494	8	10	16	6
Other real estate	115	2	7	5	1
Agriculture	48	1	7	2	0
Consumer	608	9	8	7	10
Credit cards	244	4	0	1	4
Other consumer	363	6	8	6	5
Lease financing receivables	165	3	0	0	3
Other	162	2	1	1	3
Trading account assets	352	5	0	0	6
Bank premises and fixed assets	81	1	2	2	1
Intangible assets	112	2	0	1	2
Other assets	304	5	1	2	5
Total Assets	6,556	100	100	100	100

Loans are the most important earning assets held by banks. They have high yields, but they are typically not very liquid. Securities are much more important for small and medium-sized banks than for large ones. Large banks concentrate in commercial and industrial loans while small and medium-sized banks focus on real estate loans.

Uses of Funds -- Bank Assets

- Cash assets
  - Vault cash: coin and currency held in the bank's own vault
  - Reserves at Federal Reserve Banks
  - Balances at Other Banks: banks hold demand deposit balances at other banks
  - Cash Items in the Process of Collection: is the value of checks drawn on other banks but not yet collected.
- Federal Funds sold represent excess reserves sold to other banks for a short period of time.

Uses of Funds -- Bank Assets

- Bank investments provide income and liquidity.
  - Treasury securities offer safety, liquidity, collateral, and income.
  - Government securities provide safety and income.
  - Municipal securities provide income, but exept those of short term, are not considered liquid investments.

Uses of Funds -- Bank loans

Loans are the primary business activity of a commercial bank and are generally more risky than the investment portfolio.

- Bank loans consist of promissory notes -- an unconditional promise made in writing by the borrower to pay the lender a specific amount of money at some specified future date.
- Many loans are secured by collateral; others are unsecured.
- Banks make:
  - fixed rate loans: the intrest rate does not change over the loan's term, or
  - floating rate loans: the intrest rate is periodically adjusted to changes in a designated short-term intrest rate

Commercial and Industrial Loans

Represent the major loan category of banks.

- Bridge loans -- supplies cash for a specific transaction with repayment coming from an identifiable cash flow; the purpose of the loan and the source of repayment are related.
- Seasonal loans -- financing of varying working capital needs over a year with repayment coming from the reduction in working capital (sasonal activity)
- Long-term asset loans -- financing the acquisition of assets over several years with repayment coming from future profits and cash flows of the borrower.

Other Loans

- Loans to depository institutions -- loans to respondent banks and foreign banks.
- Real estate loans -- fixed or variable rate long-term loans (avarege maturity 25 years)
  - residential mortgage loans
  - commercial and industrial real estate loans

Other Loans (concluded)

- Consumer loans to individuals
  - most are paid back in installments
  - includes credit card and purchase credit
- Lease financing -- leasing an asset is an alternative to borrowing and purchasing an asset
- Bank Credit Cards -- credit extended to consumer at the time of purchase and/or cash advance:
  - once local, credit card networks are now worldwide
  - bank earns fees from annual fee, merchant discount and interest on revolving credit balances

The Prime Rate

The commercial loan index rate posted by banks.

- Traditionally, most loans were tied to the prime rate, but today other market rates such as LIBOR, Treasury Bond or CD rates are used as loan pricing reference rates.
- The prime rate remains a popular media indicator of changing credit conditions.
- The prime rate lags or follows market rates.

Base Rate Loan Pricing

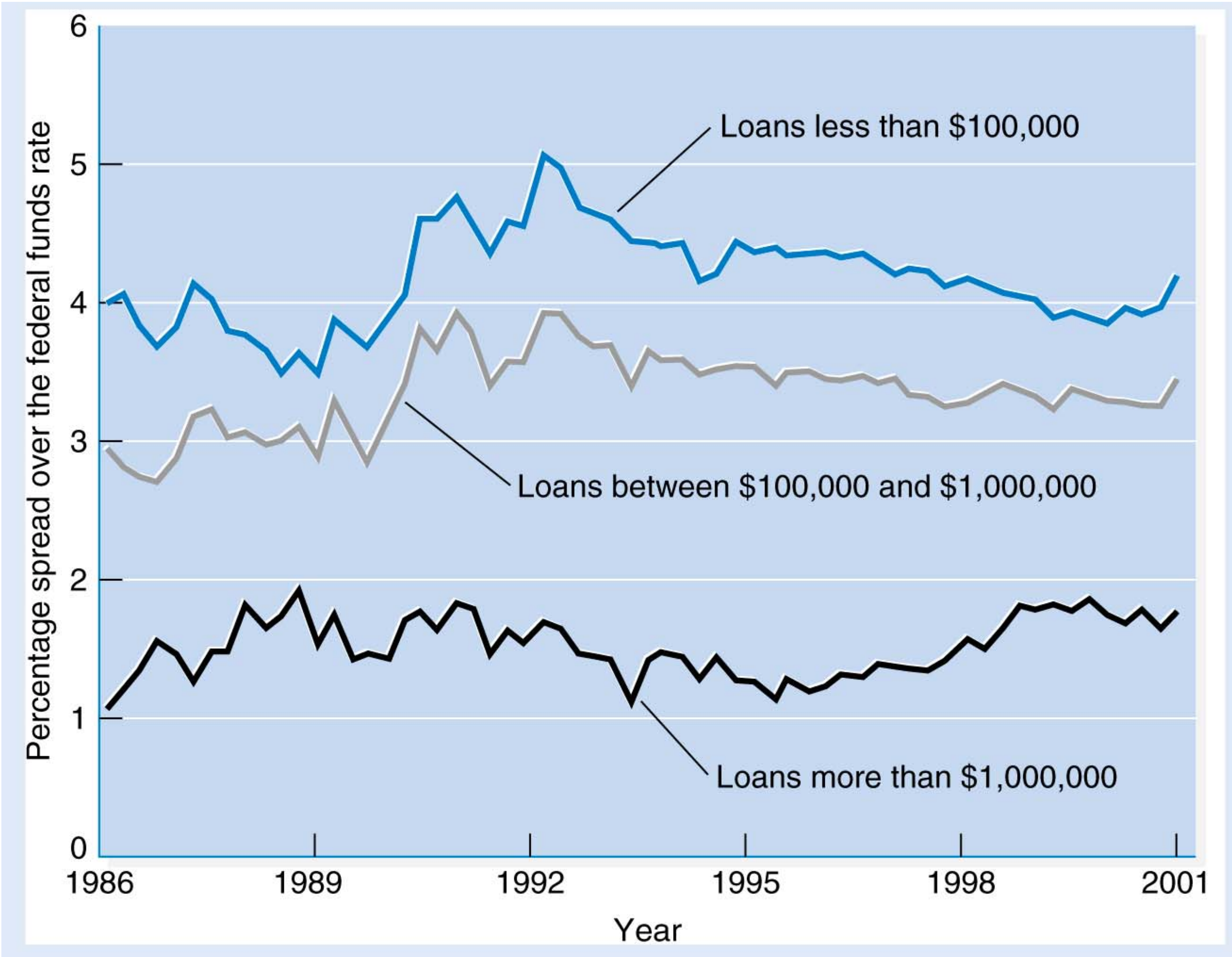
- Most banks use a base rate of interest as a markup base for loan rates.
- The base rate may be the prime rate, the Federal Funds rate (or BCE rate in Europe), LIBOR, or the Treasury rate and is expected to cover the following:
  - the cost of funds of the bank.
  - the bank's administrative costs
  - a fair return to the bank shareholders

Base Rate Loan Pricing Factors

- An upward adjustment from prime for default risk.
- An adjustment for term to maturity.
- An adjustment for competitive factors.

Small firms have a less favorable rate due to greater defoult risk

Intrest Rate Spread of Business Loans Over the Federal Funds Rate



Match-funding Loan Pricing

- The loan rate is determined by adding a spread to the deposit cost to cover 1) administrative costs, 2) default risk, and 3) a competitive return to bank shareholders.
- By matching the maturities of sources and uses, changing market interest rates are less likely to affect bank earnings.

Analysis of Loan Credit Risk: The 5 C's of Credit

- character -- willingness to pay.
- capacity -- cash flow.
- capital -- wealth.
- collateral -- pledged assets.
- conditions -- current economic conditions.

Fee-Based Services

Fee-based services have become important sources of bank revenue.

- Correspondent banking involves the sale of bank services to other banks and financial institutions.
- Trust operations involve the bank acting in a fiduciary capacity for customers, also called wealth management and/or advisory services (private banking).

Fee-Based Services (continued)

- Investment products such as brokerage services and mutual funds are relatively new, but increasingly important sources of fee income, offered through the non bank affiliates of their bank holding company
- Financial Holding Companies—May own insurance underwriting and investment banking companies and offer a “one-stop shopping” for financial services

Off-balance Sheet Banking

Off-balance-sheet activities are fee-based activities that give rise to contingent assets and liabilities.

- Contingent asset are those off-balance-sheet activities that may become on-balance-sheet assets (ex. are loan commitments and unrealized gains on derivative securities contracts)
- Contingent liabilities are those off-balance-sheet activities that may become obligations of the bank (ex. are letters of credit and unrealized loss on derivative securities contracts)

Off-balance Sheet Banking (continued)

- Loan commitments enable lender and borrower to plan future cash flows.
  - A line of credit is an informal agreement between the bank and customer to lend up to a maximum amount.
  - A term loan is an amortized payment loan agreement for a period usually exceeding a year.
  - A revolving credit is a formal agreement to lend a maximum amount for a period of time, usually greater than one year.

Off-balance Sheet Banking (continued)

- Letters of credit
  - A commercial letter of credit involves a bank guaranteeing payment for goods in a commercial transaction.
  - A standby letter of credit (SLC) is a contingent liability whereby the bank guarantees the terms and contract of a customer and no funds are involved unless the contract is breached by the bank’s customer

Off-balance Sheet Banking (continued)

- Loan brokerage involves the origination and sale of loans. The bank earns a fee for origination and servicing. The lending is provided by other direct or indirect investors.
- Derivative securities such as interest rate and currency forwards, futures, options, and swaps are an increasingly important part of bank’s off-balance-sheet commitments.

Off-balance Sheet Activities, Exhibit 13.9

Off-Balance-Sheet Items	All Insured Commercial Banks[a] Billions	All Insured Commercial Banks[a] Percent[e]	Small Banks[b] Percent[e]	Medium-Sized Banks[c] Percent[e]	Large Banks[d] Percent[e]
Unused commitments, total	4,767	73	43	63	75
Credit card lines	2,809	43	35	51	42
Other unused commitments	1,958	30	8	12	33
Letters of credit, total	316	5	0	1	6
Commercial	29	0	0	0	0
Financial standby	238	4	0	0	4
Performance standby	50	1	0	0	1
Assets transferred with recourse	1	0	0	0	0
Derivative contracts	51,671	788	0	1	935
Credit derivatives	360	5	0	0	7
Bank is the guarantor	195	3	0	0	4
Bank is the beneficiary	164	3	0	0	3
Interest rate contracts	43,145	658	0	1	781
Notional value of swaps	27,273	416	0	0	493
Futures and forward contracts	5,908	90	0	0	107
Written option contracts	4,970	76	0	0	90
Purchased option contracts	4,994	76	0	0	90
Foreign exchange contracts	7,031	107	0	0	127
Notional value of swaps	1,187	18	0	0	21
Futures and forward contracts	4,711	72	0	0	85
Written option contracts	584	9	0	0	11
Purchased option contracts	548	8	0	0	10
Other commodity contracts	1,136	17	0	0	21

Off-balance-sheet banking has become an important part of many bank's activities. Many large banks act as dealers in the markets for derivative securities. It is not surprising, therefore, that the derivative holdings of these banks dwarf their on-balance-sheet assets.

Securitization

The secutitization process:

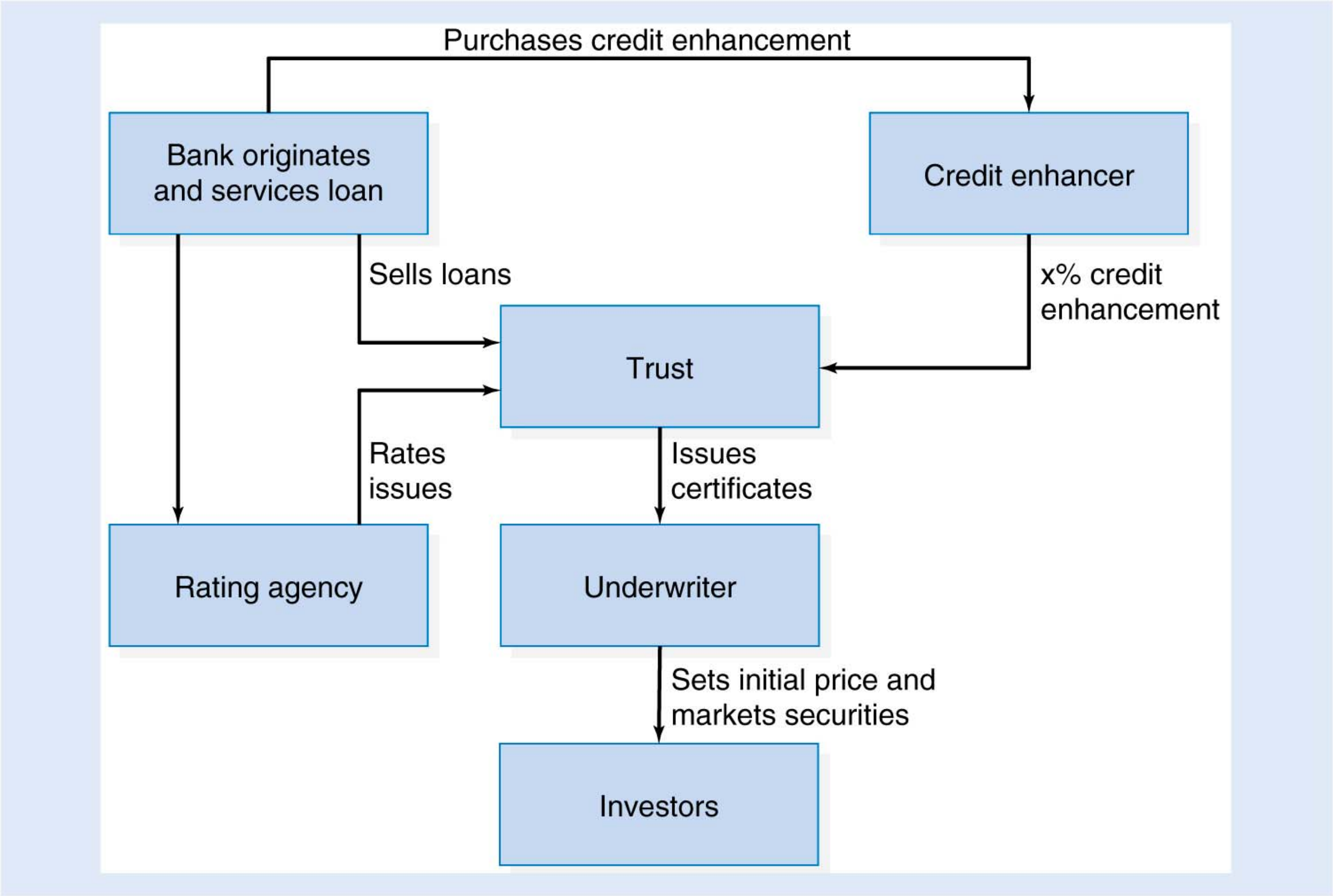
- Mortgage, auto or credit card loans are pooled together in a trust arrangement.
- Securities, called certificates, backed by the loans, are sold to individual and institutional investors.
- The cash flow collections from the loans are forwarded to the trust and investors.

Securitization (concluded)

Securitizaion offers several benefits to banks:

- The bank earns loan origination fees, perhaps underwriting fees, and loan servicing fees, and the funds raised by the securitization are used to originate more loans.
- Securitizing loans enables the bank to generate fees without added bank equity capital, required reserves (no funding needed), and deposit insurance premiums.

The Structure of a Typical Asset Securitization



In a securitization, banks sell loans to a trust that issues securities backed by the loans. Not only does securitization improve a bank's capital and liquidity positions, but it also allows banks to generate fee income.