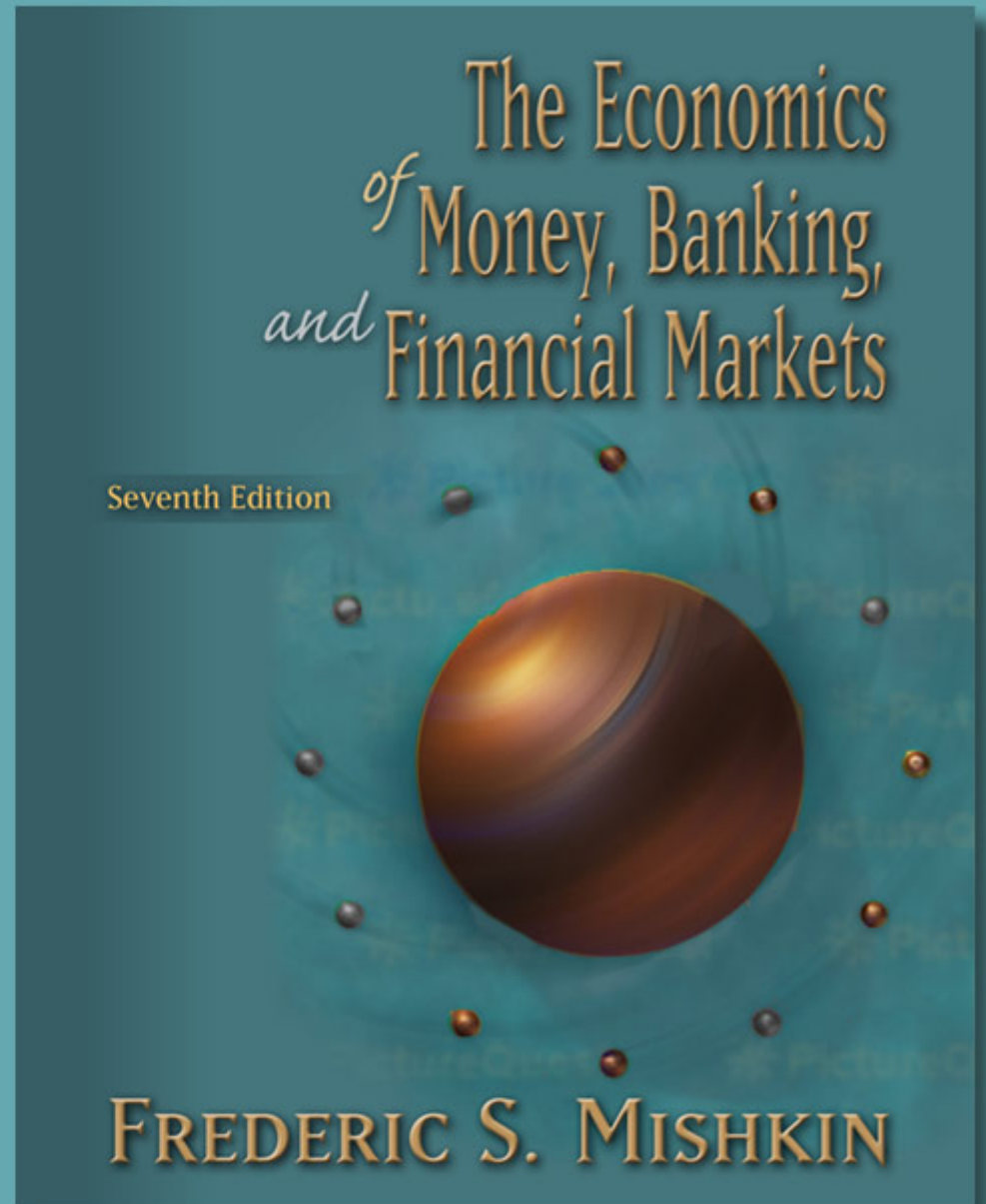


# Chapter 10

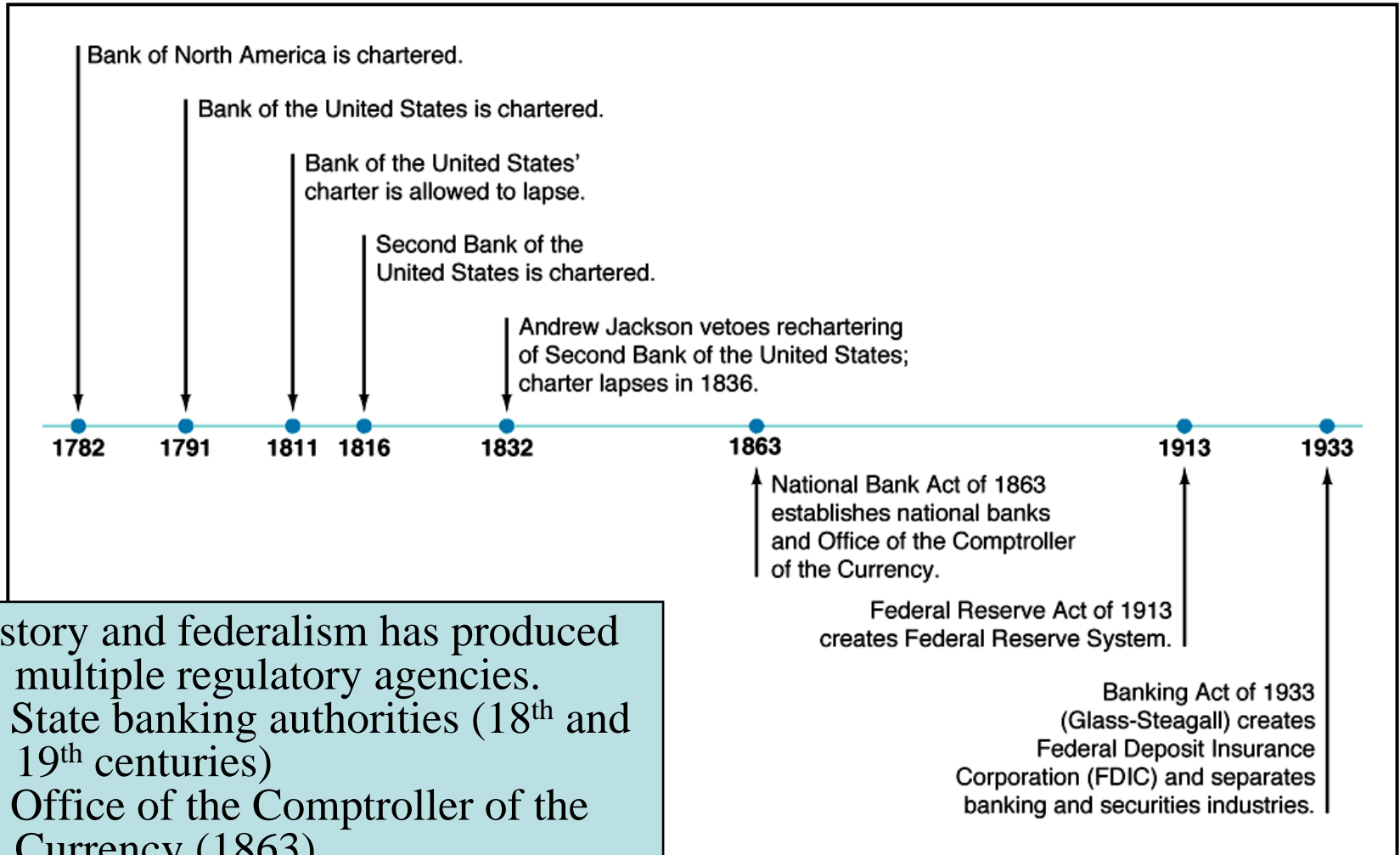
## Banking Industry: Structure and Competition



# Preview

1. Historical context of regulations and regulatory agencies
2. Innovation in financial markets
3. Regulatory changes of financial markets
4. Innovation and regulatory changes lead to
  - a decline in “traditional” banking
  - new types of banking services
5. Consolidation is an effect of innovation and regulatory changes.
6. Types of depository institutions

# Historical development of the banking industry



History and federalism has produced multiple regulatory agencies.

1. State banking authorities (18<sup>th</sup> and 19<sup>th</sup> centuries)
2. Office of the Comptroller of the Currency (1863)
3. Federal Reserve (1913)
4. FDIC (1933)

# Financial innovation

The search for profits under changing conditions has lead to innovation:

1. Changes in demand conditions
2. Changes in supply conditions
3. Adaptations to regulations

# Financial innovation: demand conditions

1. Banks demanded new financial products and services due to changes in **interest rate risk**

A. Lenders created **adjustable rate loans** to protect themselves against the risk of volatile interest rates.

B. Financial institutions created **derivatives**, assets whose value is derived from other assets.

- The value of derivatives changes in the opposite direction of the value of interest sensitive assets and liabilities.
- This allows financial institutions to insure or **hedge** against interest rate risk.

# Financial innovation: supply conditions

## 2. New **computer and telecommunications technology** allowed financial institutions to supply new financial products and services

A. *Technology increased ability to collect information, which avoided asymmetric information problems in buying new types of debt, allowing funds to be raised more easily.*

- **Junk bonds:** bonds issued by firms which are not established, and therefore are risky without good information.
- **Commercial paper market:** short term debt issued by banks, finance companies, MMMF and corporations.

# Financial innovation: supply conditions

*B. Technology lowered costs of processing financial transactions*

- Allowed **bank credit cards and debit cards**: computer and telecommunications make transactions must faster and easier
- Allowed **ATMs and computer banking**: faster and easier banking

# Financial innovation: supply conditions

A&B. Better information and lower transaction costs

– **Securitization:** transforming illiquid assets like loans into a security (similar to a bond) that can be bought and sold in markets.

- Easier to collect information about these assets.
- Financial institutions can cheaply “bundle” a group of loans, which are expected to be repaid.
- Part of the value of a bundle of loans may be bought and sold, just like a bond or other security.
- Because a securitized asset is made up of many individual loans or other assets, investors can diversify risk.

# Financial innovation: adapting to regulation

3. Financial innovation has been caused by institutions adapting to regulations on **traditional deposits**.

A. **Reserve requirements** act as an implicit tax on deposits =  $i \times$  quantity of reserves

B. **Interest rate ceilings** on deposits (Regulation Q)

- As interest rates rise, the implicit tax on reserves becomes more costly.
- As interest rate rise, depositors seek out better returns on their funds, reducing funds for banks.

# Financial innovation: adapting to regulation

- New products and services were created to avoid regulations on traditional deposits:

A. **Money market mutual funds:** act as checking accounts whose funds are invested in securities.

B. **Sweep accounts:** balances in a deposit account are “swept” out of the account and invested in short term securities (e.g., repurchase agreements) that pay interest.

C. **Bank commercial paper:** banks can use commercial paper as a source of funds, rather than deposits.

# The decline in traditional banking

- Traditionally banks have made a profit by accepting slowly changing deposits and making long term loans.
  - loans are generally long term (e.g., more than 1 year).
  - the value of deposits generally change slowly, as more customers arrive.
- While these activities are still important, other activities have grown over time due to financial innovations, adaptations to existing regulations and regulatory changes.

# The decline in traditional banking

Reasons for the changes in traditional banking sector

1. acquiring funds (liabilities) was hindered due to **regulations**
  - without high interest payments investors were less willing to deposit their funds in banks
2. **new financial products** and services (junk bonds, commercial paper) competed with traditional bank services (traditional loans)
  - institutions could raise funds directly with junk bonds and commercial paper
  - other institutions (e.g., finance companies, MMMF) began competing with banks, using new services and new technology

# Response of banks, 1980-present

1. Expand lending into new and riskier lending markets (example: real estate, credit cards)
2. Expand into off-balance sheet activities and non-interest income activities (derivative assets, charging fees for services)
3. Consolidate to take advantages of
  - economies of scale (bigger is more efficient)
  - economies of scope (more variety is more efficient)
4. Lobby for regulatory change

# Branching regulations

Response to McFadden Act (1927) and Douglas Amendment (1956), both of which hindered consolidation and inter-state banking:

- 1. Bank holding companies:** allows for benefits of consolidation.
  - A. allows a single corporation to own banks in many states
  - B. allows a single corporation to engage in investment advice, data processing, and other services that are restricted by banks.
- 2. Automated teller machines**

Permit some bank services, without a physical branch office.

# Structure of the commercial bank industry

**Table 1 Size Distribution of Insured Commercial Banks, September 30, 2002**

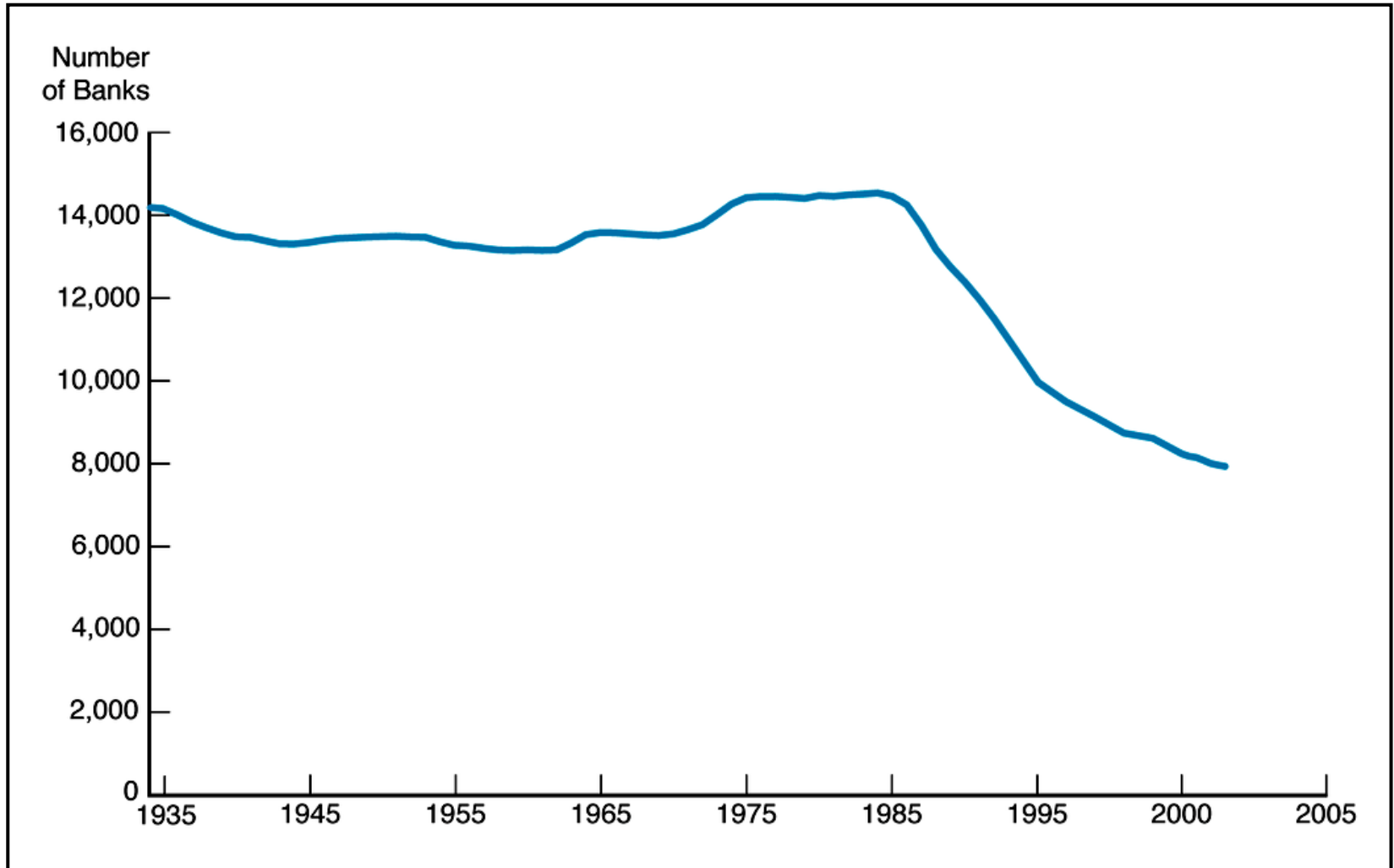
Assets	Number of Banks	Share of Banks (%)	Share of Assets Held (%)
Less than \$25 million	796	10.0	0.2
\$25–\$50 million	1,421	17.9	0.8
\$50–\$100 million	2,068	26.1	2.2
\$100–\$500 million	2,868	36.2	8.6
\$500 million–\$1 billion	381	4.8	3.7
\$1–\$10 billion	319	4.0	13.2
More than \$10 billion	80	1.0	71.3
Total	7,933	100.0	100.0

Source: [www.fdic.gov/bank/statistical/statistics/0209/allstru.html](http://www.fdic.gov/bank/statistical/statistics/0209/allstru.html).

Most banks in the US are small and medium sized, and there are many banks relative to those in other countries.

However, large banks own most of the assets.

# Number of commercial banks in the US



Number of insured commercial banks in the US, 1934-2002

Source: Federal Deposit Insurance Corporation

# Reduction in number of commercial banks

1. Relatively few commercial bank failures, although failures of other depository institutions increased during the 1980s.
2. State regulatory changes allow for consolidation during the late 1970s, 1980s and early 1990s.
3. Technological advances and competition increased the incentive to consolidate.
4. US Riegle-Neal Act of 1994 allows for consolidation
  - Allows interstate branching, overturning previous branching regulations.

# Glass-Steagall regulation

## Glass-Steagall Act (1933)

- separated banking from other financial services
- prohibited banks from
  - underwriting (insuring) corporate securities in the primary market,
  - engaging in brokering activities,
  - engaging in insurance activities,
  - engaging in certain real estate investments.

# Pressure to repeal Glass-Steagall

Federal Reserve allowed bank holding companies to underwrite some securities in 1987.

Gramm-Leach-Bliley Act (1999): repeal of Glass-Steagall

- Allows securities firms and insurance companies to purchase banks.
- Allows banks to underwrite insurance and securities.
- Allows banks to engage in real estate investments.
- Allows further consolidation: between banks and other financial service institutions.

# Review

## Response to changing financial services industry

- Expand into new financial activities (credit cards, real estate, derivatives, non-traditional fee income)
- Consolidate (limited by regulation)
  - avoid regulations by forming bank holding companies to take advantage of the benefits of consolidation
- Lobby to change regulations against consolidation
  - 1994 Riegle-Neal Act (repeal of restrictions on branching)
  - 1999 Gramm-Leach-Bliley Act (repeal of separation of banking activities from other financial activities)

# Consolidation

Because of

- 1994 Riegle-Neal Act
- 1999 Gramm-Leach-Bliley Act

banking institutions will become larger and more complex, taking advantage of economies of scale and economies of scope.

# Consolidation

- Pros:
  - more efficient banks (taking advantage of economies of scale, economies of scope)
  - banks in different markets are better able to diversify risk: healthier banks and fewer failures
- Cons:
  - small, community banks may be eliminated, possibly causing less lending to local customers ?
  - fewer institutions in local markets may make the financial service industry less competitive ?
  - increased competition leads to increased risk taking ?

# Thrift institutions

Thrift institutions are depository institutions that are regulated differently than commercial banks

**1. Savings & loan associations:** traditionally created for mortgages

- mortgage loans traditionally dominated the asset side of the balance sheet, but like commercial banks have expanded to other activities.
- branching regulations less restrictive than for banks
- regulated by the Federal Home Loan Bank System (FHLBS) and the Office of Thrift Supervision

# Thrift institutions

2. **Savings banks:** ownership depends on the amount of deposits or equity, traditionally created for non-commercial deposits and loans.
  - regulated by the Federal Deposit Insurance Corporation (state) or the Office of Thrift Supervision (federal).
  
3. **Credit unions:** each person in a credit union has equal voting power, traditionally created for non-mortgage consumer loans.
  - may only serve customers who share a “common bond”
  - regulated by the National Credit Union Administration and/or state regulatory agencies.

# Number of US depository institutions, 2003

		Regulatory agency				
Depository Institution	Charter	OCC	FRB	FDIC	OTS	NCUA
Commercial bank, Fed member	national	1908				
Commercial bank, Fed member	state		913			
Commercial bank, Fed non-member	state			4626		
Savings bank (stock and mutual)	national				512	
Savings bank (stock and mutual)	state			433		
Savings & loan association	national				216	
Savings & loan association	state				104	
Credit union	national					5776
Credit union	state					3593

OCC = Office of the Comptroller of the Currency, US Treasury

FRB = Federal Reserve Board

FDIC = Federal Deposit Insurance Corporation

OTS = Office of Thrift Supervision, US Treasury

NCUA = National Credit Union Association

Source: Federal Deposit Insurance Corporation, National Credit Union Administration