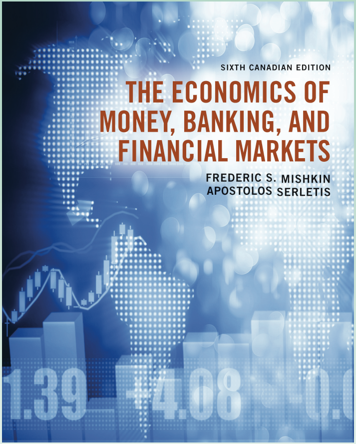
Mishkin/Serletis

The Economics of Money, Banking, and Financial Markets

Sixth Canadian Edition



Chapter 11

Banking Industry: Structure and Competition

Learning Objectives

1. Recognize the key features of the Canadian banking system and the historical context
2. Explain how financial innovation led to the growth of the shadow banking system
3. Identify the key structural changes in the chartered banking industry
4. Summarize the factors that led to consolidation in the chartered banking industry

Learning Objectives (continued)

1. Assess the reasons for separating banking from other financial services through legislation
2. Summarize the distinctions between chartered banks and near banks (trust and load companies and credit unions and caisses populaires)
3. Identify the reasons for Canadian banks to operate in foreign countries and for foreign banks to operate in Canada

Timeline of the Early History of Commercial Banking in Canada

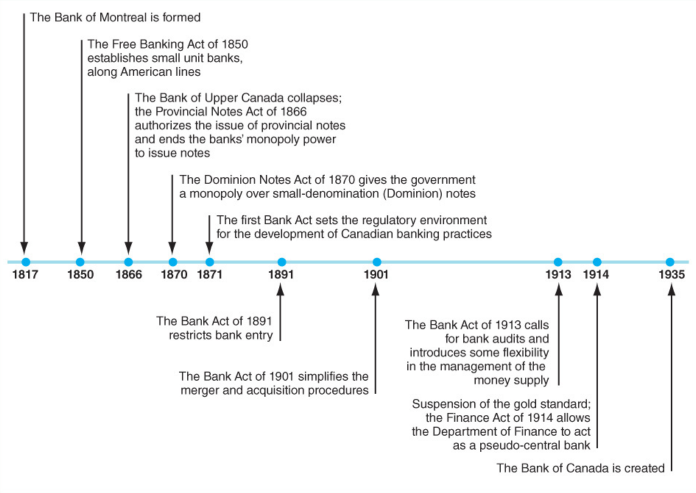


FIGURE 11-1 **Timeline of the Early History of Commercial Banking in Canada**

1817: creatlion of BMO and other banks followed.

* These banks were authorized to
  - issue notes.
  - Receive deposits.
  - Lend for commercial purposes only.

* Differences.
  - Different charters following different tradition:
    - English
    - US
  - Different requirements regarding reporting, branching

Historical Development of the Canadian Banking System

- The Free Banking Experiment
- The Provincial Notes Act, 1866
- The Dominion Notes Act, 1870
  - *Seignorage*
  - *Gold standard*
- The First Bank Act, 1871
- The Bank Act, 1881-1913
- The Finance Act, 1914
  - *Lender of last resort*

1. The Free Banking Experiment.
   - The Free Banking Act was passed in Canada in 1850
   - A system of banking practiced in New York State. which allowed small banks to be established without a charter.
   - Only basic criteria had to be met regarding equity capital and reserves.
   - Free Banking was a failure in Canada.

2. The Provincial Notes Act, 1866.
   - Authorized the issue of provincial notes replacing bank notes.
   - Banks gave up their power to issue notes.

3. The Domination Notes Act, 1870.
   - When Canada became a nation 1867, the new federal. government was given monopoly power in all matters. pertaining to currency and banking
   - Banks had to hold at least half of their reserves in Domination Notes.

Seignorage - the revenue a government receives by issuing money.

- Domination Note were backed by and convertible to. gold - called the gold standard.
- Canada was on the gold standard until 1914, the start of World War I

4. The First Bank Act, 1871
   - Decennial revision plan (every 10 years)
   - Continuation of chartering
   - New minimum capital requirements
   - No reserve requirements but 1/3 of reserves must be hed in Domination Notes.
   - Commercial lending only
   - Required reporting to government.

5. The Bank Act 1881-1913.
   - This period of time covered the effects of a resession (1873-1879) to a period of strong economic growth. (mid-1890s - 1914) prior to 1914.

   - Capital requirements were raised from $100,000 to $250,000 which had the effect of restricting entry into the banking industry.

- Not many substantial changes to the Bank Act.
   * Increased capital requirements
   - Simplify merger and acquisition procedures (among banks)
   - annual bank audit.
   - Issuance of bank notes to help increase circulation and money supply (in expansion years)

6. The Financial Act 1914.

- The government suspended the convertibility of Dominion Notes and bank notes into gold, officially ending the gold standard.

- Briefly reinstated 1926-29.

- Government (Dept of Finance) could act as a lender of last resort - supply Dominion Notes to banks to help prevent panic and bank runs.

Financial Innovation and the Growth of the Shadow Banking System

- **Shadow banking system** – bank lending replaced by lending via securities markets
- A change in the financial environment will stimulate a search by financial institutions for innovations that are likely to be profitable
  - *Responses to change in demand conditions*
  - *Responses to changes in supply conditions*
  - *Avoidance of regulations*

What is being replaced? Traditional loan-making that is financed by deposits.

Why did this occur? The desire to maximize profits drives innovation.

3 basic types of innovation.

1. Demand-side Conditions
   - Volatility of interest rates – volatility leads to uncertainty about return on investments, also known as interest rate risk

Example:
- Adjustable-rate mortgages.
- Financial derivatives – future contracts in financial instruments.

II Supply-side Conditions.
Spurred by improvement in and lower price of information technology i.e computers.
- Lower transaction cost
- easier, cheaper to obtain information.

Examples
- credit cards . debit cards.
- e-banking
- virtual banks
- securitization – the use of securities eg

mortgages, car loans, credit card debt, to enable investors to lend directly to borrowers with a min risk and without using banks as intermediaries.

Subprime mortgage market - mortgages offered to borrowers with poor credit ratings.

- Based on information about borrowers, these mortgages could also be bundled into a mortgage-backed security.

III Avoidance of Existing Regulations.

Two sources of regulations that limit bank's ability to make profits:

* Reserve requirements - phased-out in Canada in 1992.
* Deposit-rate ceilings - do not exist in Canada.

Money Market Mutual Funds (MMMFs) - fund that issue shares to holders backed by high-quality short-term assets; used by financial institutions as an alternative to ordinary bank accounts.

Responses to Changes in Demand Conditions: Interest Rate Volatility

- **Adjustable-rate mortgages**
  – *Flexible interest rates keep profits high when rates rise*
  – *Lower initial interest rates make them attractive to home buyers*

- **Financial Derivatives**
  – *Ability to* ***hedge*** *interest rate risk*
  – *Payoffs are linked to previously issued (i.e. derived from) securities*

Responses to Changes in Supply Conditions: Information Technology

- **Bank credit and debit cards**
  - *Improved computer technology lowers transaction costs*
- **Electronic banking**
  - *ATM, home banking, ABM and virtual banking*
- **Junk bonds**
  - *With easier screening, investors were more willing to buy long-term debt from corporations with lower credit ratings*
- **Commercial paper market**
  - *Short-term debt security issued by large bank or corporation*

Responses to Changes in Supply Conditions: Information Technology (cont'd)

- **Securitization**
  - *To transform otherwise illiquid financial assets into marketable capital market securities.*
  - *Securitization played prominent role in the development of the* ***subprime mortgage market*** *in the mid 2000s*

- Steps in securitization process
  - *Loan origination servicing bundling distribution*
  - *Characterized as* ***originate-to-distribute*** *business model*

Avoidance of Existing Regulations

- Reserve requirements
  - *Act as a tax on deposits*
- Restrictions on interest paid on deposits
  - *Regulation Q*
  - *Led to **disintermediation***
- Money market mutual funds
- Sweep accounts
  - *Excess balances invested in the overnight market*

Financial Innovation and the Decline of Traditional Banking

- Decline in Cost Advantages in Acquiring Funds
  - *Rising inflation led to rise in interest rates and disintermediation*
  - *Low-cost source of funds, checkable deposits, declined in importance*
- Decline in Income Advantages on Uses of Funds
  - *Information technology has decreased need for banks to finance short-term credit needs or to issue loans*
  - *Information technology has lowered transaction costs for other financial institutions, increasing competition*

Decline in Traditional Banking

Disintermediation - loss of deposits from the banking system in turn limits the amount of new loans. banks can make

- Looking for higher return.

Banks' Responses

- Expand into new and riskier areas of lending
  - *Commercial real estate loans*
  - *Corporate takeovers and leveraged buyouts*

- Pursue off-balance-sheet activities
  - *Non-interest income*
  - *Concerns about risk*

Banks' Response

Off-balance-sheet activities: those that involve trading financial instruments and generating income from fees and loan sales which will affect profits but are not visible on banks' balance sheets.

* concern about risk- regulation.

Schedule I, II and III Banks

- The Big Six, together with the Laurentian Bank of Canada, the Canadian Western Bank, and another 28 domestic banks are Canada's Schedule I banks
- Until 1981, foreign banks were not allowed to operate in Canada
- Schedule II banks are some domestic banks controlled by eligible foreign institutions
- A Schedule III bank is a foreign bank branches of foreign institutions

Canadian Banks

TABLE 11-1 Canadian Banks (as of August 31, 2014)

Bank	Date of establishment	Assets ($ millions)	Percent (%) of bank assets
The Big Six			
Royal Bank of Canada	1869	941 325	22.44
Canadian Imperial Bank of Commerce	1961	417 482	9.95
Bank of Montreal	1822	590 897	14.09
The Bank of Nova Scotia	1832	793 327	18.91
The Toronto-Dominion Bank	1955	931 613	22.21
National Bank of Canada	1980	214 862	5.12
Big Six Subtotal		**3 889 506**	**92.73**
Laurentian Bank of Canada	1987	34 725	0.83
Canadian Western Bank	1988	20 480	0.49
8 Domestic Banks Subtotal		**3 944 711**	**94.05**
Other Banks			
Domestic Banks		50 428	1.20
Foreign Banks		199 152	4.75
Total All Banks		**4 194 291**	**100.00**

Source: OSFI web site at **www.osfi-bsif.gc.ca**. Reprinted with permission.

After 1981,
Domestic Canadian banks became Schedule I

Banks:
- banks that are permitted to take deposits and are not subsidiaries of a foreign bank.

Subsidiaries of foreign banks become Schedule II Banks:

- Banks which are subsidiaries of foreign banks and are permitted to take deposits in Canada.

- These banks are regulated by the Bank Act. and may be owned domestically or foreign-owned

Note: Schedule I, II banks have the same powers.
Difference is ownership.

Subsidiary Bank:

Competition and Technology

- Besides chartered banks, there are over 4000 financial institutions providing services
- These include trust, mortgage loan companies, credit unions, caisses populaires, government saving institutions, insurance companies, pension funds, mutual funds and investment dealers
- New technology and the internet have led to more competition and innovative banking in Canada
- 2001 changes in bank ownership laws have encouraged the establishment of new banks

After 2001.

Foreign banks are now permitted in Canada.

* They may be Schedule II or III banks.
- A Schedule III bank is a foreign bank allowed to branch directly into Canada.

* These banks are not regulated under the Bank Act, but are regulated under different restrictions.

Note:
The distinction are more complicated than this. These are rules about ownership, who can own share, how many, and other regulations.

Economic of scope - it is cheaper to offer a range of related services.

Comparison with the United States

- 6500 commercial banks in the United States
  - *Canada has 81*

- Many banks in the U.S. reflects past regulations that restricted the ability of these financial institutions to open branches
- Many small U.S. banks stayed in existence because a large bank capable of driving them out of business was often restricted from opening a branch nearby
- It was easier for a bank to open a branch in a foreign country than in another state in the U.S.

Size Distribution of Insured Commercial Banks

TABLE 11-2 Size Distribution of Insured Commercial Banks, June 30, 2014

Assets	Number of Banks	Share of Banks (%)	Share of Assets Held (%)
Less than $100 million	1744	30.3	0.7
$100 million–$1 billion	3469	60.3	7.4
$1 billion–$10 billion	451	7.8	8.5
More than $10 billion	93	1.6	83.4
Total	**5757**	**100.00**	**100.00**

Source: www2.fdic.gov/qbp/2014jun/cb4.html.

Ten Largest U.S. Banks

TABLE 11-3 Ten Largest U.S. Banks, June 30, 2014

Bank	Assets ($ millions)	Share of All Commercial Bank Assets (%)
1. J.P. Morgan Chase	1 945 467	14.23
2. Bank of America Corp.	1 433 716	10.49
3. Wells Fargo	1 373 600	10.05
4. Citibank	1 346 747	9.85
5. U.S. Bank	360 478	2.64
6. PNC	310 000	2.27
7. Bank of NY Mellon	296 626	2.17
8. State Street	239 051	1.75
9. Capital One	238 483	1.74
10. TD Bank	217 626	1.59
Total	**7 761 794**	**56.78**

Source: www.federalreserve.gov/Releases/Lbr/.

Response to Branching Restrictions in the U.S.

- Response to Branching Restrictions:
  - *Bank Holding Companies: a corporation that owns several different companies*
  - *Automated Teller Machines: if owned by someone else, ATM not considered a branch and not subject to branching regulations*

Competition Across All Four Pillars

- Four-Pillar Approach: regulation by institution
  - *Banking, brokerage, trusts, and insurance*
    (investments) .
- Recent legislative changes allowed cross-ownership via subsidiaries between financial institutions
- As a result, Canada's traditional four pillars have now converged into a single financial services marketplace
  - *Take advantage of* ***economies of scope***
  - *Increased size of financial institutions, but also increased combination of product and services they provide*

Separation of Banking and Other Financial Services Industries Throughout the World

- **Universal Banking**
  - *No separation between banking and securities industries*
  - *Germany, the Netherlands, and Switzerland*
- **British-Style Universal Banking**
  - *Can engage in securities underwriting*
  - *Separate legal subsidiaries are more common, bank equity holdings less common, combining banks and insurance less common*
  - *The UK, Canada, Australia, and (now) the US*
- **Japanese Banking System**
  - *Allowed to hold substantial equity stakes in commercial firms*

The Near Banks: Regulation and Structure

- Trust and Loan Companies
  - *Operate under a charter issued by either the federal government or one of the provinces*
  - *Federally incorporated trust and loan companies are regulated and supervised by the OSFI and must also register in all provinces in which they operate and conform to their regulations*
  - *The fiduciary component of trust companies is only subject to provincial legislation, even if the company is federally incorporated*
  - *CDIC and QDIB (for Québec trust and loan companies)*

The Near Banks: Regulation and Structure (cont'd)

- Cooperatives: Credit Unions and *Caisses Populaires*
  - *Established under provincial legislation*
  - *Are non-profit seeking institutions*
  - *Accept deposits and make loans only to members*
  - *Members have voting rights, elect board of directors, which determine lending and investment policies*
  - *Have their own set of institutions, including central banking and deposit insurance*
  - *Main source of funds is deposits followed by members equity*
  - *Asset portfolio made up largely of mortgages*

The Near Banks: Regulation and Structure (cont'd)

- Government Savings Institutions
  - *Alberta Treasury Branches*
  - *Established in 1938*
  - *There are 165 branches and 225 ATMs in 242 communities across Alberta*
  - *Operate in three target markets: individual financial services, agricultural operations, and independent business*

International Banking

- Rapid growth
  - *Growth in international trade and multinational corporations*
  - *Global investment banking is very profitable*
  - *Ability to tap into the Eurodollar market*

- Eurocurrencies Market
  - *Dollar-denominated deposits held in banks outside of the U.S.*
  - *Most widely used currency in international trade*
  - *Offshore deposits not subject to regulations*

Euro Bonds - Bonds dominated in a currency other than that of the country in which they are sold.

Canadian Banking Overseas

- Provide services to Canadians and multinational businesses
- United States:
  - *Bank of Montreal, the Canadian Imperial Bank of Commerce, and TD Canada Trust*
- South America:
  - *Scotiabank*
- Europe and Asia:
  - *RBC*

Foreign Banks in Canada

- Revision to the Bank Act in 1981 allowed foreign banks to operate in Canada
- Currently hold about 7% of total Canadian bank assets
  - *HSBC Bank Canada (national market share of over 2%)*
- Foreign banks enter financial services industry as Schedule II or Schedule III banks

Ten Largest Banks in the World

TABLE 11-4 Ten Largest Banks in the World, 2014

Bank	Assets (U.S. $ millions)
1. Industrial and Commercial Bank of China, China	3 181 884
2. HSBC Holdings, UK	2 758 447
3. China Construction Bank Corp, China	2 602 536
4. BNP Paribas SA, France	2 589 191
5. The Bank of Tokyo-Mitsubishi UFJ Ltd, Japan	2 508 839
6. JP Morgan-Chase NA, US	2 476 986
7. Agricultural Bank of China, China	2 470 432
8. Bank of China, China	2 435 485
9. Credit Agricole SA, France	2 346 562
10. Barclays PLC, UK	2 266 815

Source: www.relbanks.com/worlds-top-banks/market-cap.

The 2001 Bank Act Reform

- Bank Holding Companies
- Permitted Investment
- Ownership Rules
- Canadian Payments Act and Access to the Payments and Clearance System
- Merger Review Policy
- The National Financial Services Ombud Service
- Implications for the Canadian Banking Industry

1. Bank Holding Companies
   - Bank now permitted to organize themselves under a holding company

Advantages.
   - Allowed to expand into other areas of business related to banking.
   - Lighter regulatory burden.
   - Greater flexibility to achieve economies of scale and scope.

A holding company is a company that owns other company's outstanding stock. The term usually refers to a company that does not produce goods or service itself. rather, its purpose is to own shares of other companies to form a corporate group.

2. Permitted Investment.
   - prior to 2001, the type of investments permitted was very restricted.
   - New regulations have been relaxed.
   - Banks now permitted to be involved in the information tech area. eg. wireless and internet banking

3. Ownership Rules.

- Expanded the definition of "widely held"
- Increased the limit of how many shares a single shareholder can own of any class of voting shares.

4. Payment systems. eg: insurance companies, mmmfs.

- Provides direct competition with banks.

6. The National Financial Services OmbudService.

- Provides a dispute-resolution service for customers and small businesses in their dealing with FIs

7. Implications for the Canadian Banking Industry

- Items 1-6 can potentially change the financial service industry.
- New regulations make new products and services possible

- financial services group may be. much bigger and more complex .