

***Economics of Money Banking and Financial Markets  
(Canadian) 6th edition Mishkin Solutions Manual***

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## **Chapter 2**

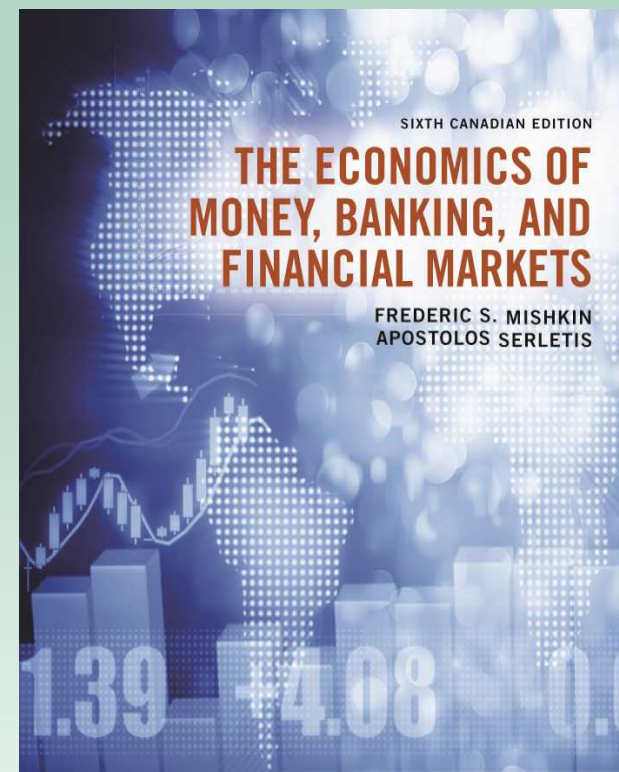
### **An Overview of the Financial System**

Chapter 2 is an introductory chapter that contains the background information on the structure and operation of financial markets that is needed in later chapters of the book. This chapter allows the instructor to branch out to various choices of later chapters, thus allowing different degrees of coverage of financial markets and institutions.

The most important point to transmit to the student is that financial markets and financial intermediaries are crucial to a well-functioning economy because they channel funds from those who do not have a productive use for them to those who do. Professors who emphasize financial markets and institutions in their course will want to teach this chapter in detail, and those who focus on international issues will want to spend some time on the section “Internationalization of Financial Markets.” However, those who slant their course to monetary theory and policy may want to give this chapter a more cursory treatment. No matter how much class time is devoted to this chapter, we have found that it is a good reference chapter for students. You might want to tell them that if in later chapters they do not recall what some financial instrument is or who regulates whom, they can refer back to this chapter, especially to the summary tables.

The chapter introduces Global boxes, which are sprinkled throughout the text, to get students to recognize the growing importance of the global economy. The Global box in this chapter gets students to think about how the financial system is different across countries.

Mishkin/Serletis  
**The Economics  
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and Financial Markets**  
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## Chapter 2

# AN OVERVIEW OF THE FINANCIAL SYSTEM

# Learning Objectives

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By the end of this chapter, you will understand

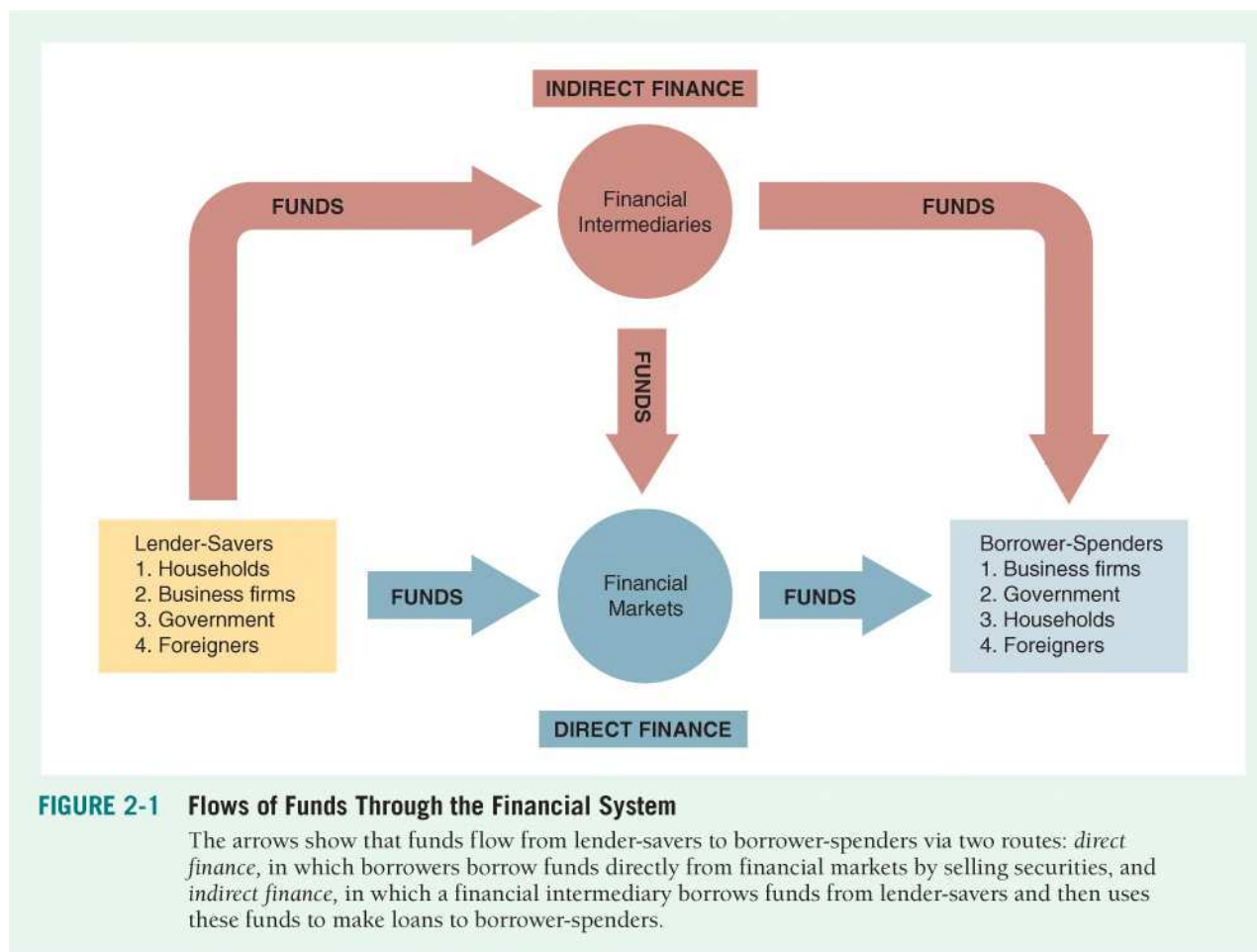
1. The **structure of financial markets**
  - *Direct and indirect finance*
  - *International dimensions of financial markets*
2. Various types of **financial market instruments**
3. Various types of **financial intermediaries**
  - *How transaction costs, risk sharing, information matter*
4. Reasons for and types of **financial market regulations**

# Function of Financial Markets

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- Channel funds from economic players that have surplus funds to those that have a shortage of funds
- Plays important role in the economy
  - *Efficient allocation of **capital***
  - *Allows consumers to time their purchases*
- **Direct finance**
  - *Borrow funds directly from lenders*
  - *Involves selling a **liability** (IOU or debt)*

# Flows of Funds Through the Financial System



# Debt and Equity Markets

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- **Bonds** - Debt instruments
  - *A contract between a borrower (who issues the bond) and lender (who owns it)*
  - Regularly payments until **Maturity** (*short-term, < 1 year, intermediate-term, 1-10 years, and long-term, >10 years*)
- **Equity** – Shares in a corporation
  - *Don't have maturity dates*
  - *Some make dividend payments*
  - *Equity holders are residual claimants*

# Primary and Secondary Financial Markets

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- **Primary Market**

- *New security issues sold to initial buyers*
- *Not well known to public; typically private*
- ***Investment banks** guarantee prices (called **underwriting**)*

- **Secondary Market**

- *Previously issued securities can be bought and sold*
- ***Brokers** match buyers and sellers with each other*
- ***Dealers** offer to buy and sell securities at stated prices*

# Exchanges and Over-the-Counter Markets

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- Two main ways to organize a secondary market:
- **Exchanges**
  - *Buyers and sellers meet in one central location*
  - *Toronto Stock Exchange for stocks*
  - *ICE Futures Canada for commodities (wheat, oats)*
- **Over-the-Counter Markets (OTC)**
  - *Dealers have inventory, ready to buy/sell at stated prices*
  - *Many stocks are traded OTC, but most are on exchanges*
  - *Canadian government bond market is an OTC market*

# Money and Capital Markets

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- Distinguish markets by maturity of the securities
- **Money Markets**
  - *Only short-term debt instruments are traded (<1 year)*
  - *Corporations and banks actively use money markets to earn interest on temporary surplus funds*
- **Capital Markets**
  - *Market for longer-term debt (>1 year)*
- Money markets are more **liquid** than capital markets

# Money Market Instruments

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- Government of Canada Treasury Bills
- Certificates of Deposit
- Commercial Paper
- Repurchase Agreements
- Overnight Funds

# Principal Money Market Instruments

**TABLE 2-1**

Principal Money Market Instruments

| Type of Instrument      | Amount Outstanding (\$ millions) |         |        |         |
|-------------------------|----------------------------------|---------|--------|---------|
|                         | 1980                             | 1990    | 2000   | 2013    |
| <b>Treasury bills</b>   |                                  |         |        |         |
| Government of Canada    | 13 709                           | 113 654 | 76 634 | 162 184 |
| Provincial governments  | 905                              | 12 602  | 17 523 | 45 782  |
| Municipal governments   | 113                              | 514     | 188    | 455     |
| <b>Short-term paper</b> |                                  |         |        |         |
| Commercial paper        | 2555                             | 12 971  | 24 330 | 11 510  |

Source: Statistics Canada Cansim series V37377, V122256, V122257, and V122652.

# Capital Market Instruments

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- Stocks
- Mortgages and mortgage-backed securities
- Corporate bonds
- Government of Canada bonds
- Canada Savings bonds
- Provincial and municipal government bonds
- Government agency securities
- Consumer and bank commercial loans

# Principal Capital Market Instruments

**TABLE 2-2**

Principal Capital Market Instruments

| Type of Instrument                              | Amount Outstanding (\$ billions) |       |       |        |
|-------------------------------------------------|----------------------------------|-------|-------|--------|
|                                                 | 1980                             | 1990  | 2000  | 2013   |
| Corporate stocks (market value)                 | 42.9                             | 110.7 | 242.6 | 466.2  |
| Residential mortgages                           | 91.9                             | 245.3 | 431.2 | 1187.9 |
| Corporate bonds                                 | 29.8                             | 72.3  | 185.1 | 404.7  |
| Government of Canada securities<br>(marketable) | 27.9                             | 124.6 | 301.9 | 413.4  |
| Bank commercial loans                           | 58.8                             | 102.6 | 132.2 | 212.9  |
| Consumer loans                                  | 48.4                             | 101.6 | 203.1 | 522.7  |
| Nonresidential and farm<br>mortgages            | 15.1                             | 56.1  | 50.2  | 107.7  |

Source: Statistics Canada Cansim series V122642, V122746, V122640, V37378

# Internationalization of Financial Markets

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- **Foreign Bonds**

- *Sold in foreign country, denominated in that country's currency*
- *For example, Canadian company selling bond in the United Kingdom denominated in British Pounds*

- **Eurobond**

- *Sold in foreign country, denominated in another currency*
- *For example, Canadian company selling bond in the United Kingdom denominated in British Pounds*
- *Recent development*
- *Widely used: over 80% of new issues are Eurobonds*

# Internationalization of Financial Markets (cont'd)

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- **Eurocurrencies**

- *Variant of Eurobond*
- *Foreign currencies deposited in banks outside home country*
- **Eurodollars**: *U.S. dollars deposited in foreign banks outside the U.S. or in foreign branches of U.S. banks*

- **World Stock Markets**

- *NYSE, Nikkei, FTSE, 100-Share Index, and many more*

# Financial Intermediaries: Indirect Finance

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- **Financial Intermediation**

- *Indirect financing using financial intermediates (banks)*
- *Primary route to move funds from lenders to borrowers*
- *Four main roles of financial intermediates*

1. **Lowers Transaction Costs**

- *Economies of scale*
- *Economies of scope*
- *Liquidity services*

# Financial Intermediaries: Indirect Finance (cont'd)

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## 2. Improves **Risk Sharing**

- *Asset transformation*
- *Diversification*

## 3. Help solve **Asymmetric Information** problems

- ***Adverse Selection:*** *Potential borrowers who are more likely to default are the ones who most actively seek out loans*
- ***Moral Hazard:*** *Borrowers might engage in activities that are undesirable from a lender's point of view*
- *Financial intermediaries can screen and monitor borrowers*

# Types of Financial Intermediaries

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- **Depository Institutions**

- *Chartered Banks, Trusts and Mortgage Loan Companies, Credit Unions and Caisses Populaires*

- **Contractual Savings Institutions**

- *Life Insurance Companies, Property and Casual Insurance Companies, Pension Funds and Retirement Funds*

- **Investment Intermediaries**

- *Finance Companies, Mutual Funds, Money Market Mutual Funds, Hedge Funds, Investment Banks*

# Primary Assets and Liabilities of Financial Intermediaries

**TABLE 2-3**

Primary Assets and Liabilities of Financial Intermediaries

| Type of Intermediary                        | Primary Liabilities<br>(Sources of Funds) | Primary Assets<br>(Uses of Funds)  |
|---------------------------------------------|-------------------------------------------|------------------------------------|
| <b>Depository institutions (banks)</b>      |                                           |                                    |
| Chartered banks                             | Deposits                                  | Loans, mortgages, government bonds |
| Trust and loan companies                    | Deposits                                  | Mortgages                          |
| Credit unions and <i>caisses populaires</i> | Deposits                                  | Mortgages                          |
| <b>Contractual savings institutions</b>     |                                           |                                    |
| Life insurance companies                    | Premiums from policies                    | Corporate bonds and mortgages      |
| Property and casualty insurance companies   | Premiums from policies                    | Corporate bonds and stocks         |
| Pension funds                               | Retirement contributions                  | Corporate bonds and stocks         |
| <b>Investment intermediaries</b>            |                                           |                                    |
| Finance companies                           | Finance paper, stocks, bonds              | Consumer and business loans        |
| Mutual funds                                | Shares                                    | Stocks and bonds                   |
| Money market mutual funds                   | Shares                                    | Money market instruments           |

# Relative Shares of Financial Institutions and Pension Plans Regulated by OSFI

**TABLE 2-4**

Relative Shares of Financial Institutions and Pension Plans Regulated by OSFI (as of October 31, 2014)

| Type of Intermediary                             | Number | Total assets<br>(in \$ millions) | Percent (%) |
|--------------------------------------------------|--------|----------------------------------|-------------|
| <b>Chartered Banks</b>                           |        |                                  |             |
| Domestic                                         | 28     | 4 005 895                        | 66.81       |
| Foreign bank subsidiaries                        | 24     | 127 207                          | 2.12        |
| Foreign bank branches                            | 29     | 2722                             | 0.05        |
| <b>Trust Companies</b>                           | 44     | 145 636                          | 2.43        |
| <b>Loan Companies</b>                            | 19     | 171 854                          | 2.87        |
| <b>Cooperative Credit Associations</b>           | 6      | 23 116                           | 0.39        |
| <b>Life Insurance Companies</b>                  |        |                                  |             |
| Canadian-incorporated                            | 41     | 1 180 494                        | 19.69       |
| Foreign branches                                 | 33     | 19 613                           | 0.33        |
| <b>Fraternal Benefit Societies</b>               |        |                                  |             |
| Canadian-incorporated                            | 8      | 6832                             | 0.11        |
| Foreign branches                                 | 5      | 2308                             | 0.04        |
| <b>Property and Casualty Insurance Companies</b> |        |                                  |             |
| Canadian-incorporated                            | 88     | 108 991                          | 1.82        |
| Foreign branches                                 | 76     | 30 185                           | 0.50        |
| <b>Pension Plans</b>                             | 1234   | 171 000                          | 2.85        |
| <b>Total</b>                                     |        | 5 995 853                        | 100.00      |

Source: OSFI web site and OSFI Annual Report 2013–2014.

# Regulation of Financial Markets

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## Primary Reasons for Regulation

1. Increase information available to investors
  - *Reduce adverse selection and moral hazard problems*
  - *Increase efficiency of financial markets*
2. Ensure soundness of financial intermediaries
  - *Restrictions on entry and competition, reporting requirements, and restrictions on assets and activities*
  - *Deposit insurance*

# Principal Regulatory Agencies of the Canadian Financial System

**TABLE 2-5**

Principal Regulatory Agencies of the Canadian Financial System

| Regulatory Agency                                                      | Subject of Regulation                                                                                                      | Nature of Regulations                                                                                                                                                    |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Provincial securities and exchange commissions                         | Organized exchanges and financial markets                                                                                  | Requires disclosure of information and restricts insider trading                                                                                                         |
| Bank of Canada                                                         | Chartered banks, TMLs, and CUCPs                                                                                           | Examines the books of the deposit-taking institutions and coordinates with the federal agencies that are responsible for financial institution regulation: OSFI and CDIC |
| Office of the Superintendent of Financial Institutions Canada (OSFI)   | All federally regulated chartered banks, TMLs, CUCPs, life insurance companies, P&C insurance companies, and pension plans | Sets capital adequacy, accounting, and board-of-directors responsibility standards; conducts bank audits and coordinates with provincial securities commissions          |
| Canada Deposit Insurance Corporation (CDIC)                            | Chartered banks, TMLs, CUCPs                                                                                               | Provides insurance of up to \$100 000 for each depositor at a bank, examines the books of insured banks, and imposes restrictions on assets they can hold                |
| Québec Deposit Insurance Board                                         | TMLs and credit cooperatives in Québec                                                                                     | Similar role to the CDIC                                                                                                                                                 |
| Canadian Life and Health Insurance Compensation Corporation (CompCorp) | Life insurance companies                                                                                                   | Compensates policyholders if the issuing life insurance company goes bankrupt                                                                                            |
| P&C Insurance Compensation Corporation (PACIC)                         | Property and casualty insurance companies                                                                                  | Compensates policyholders if the issuing P&C insurance company goes bankrupt                                                                                             |