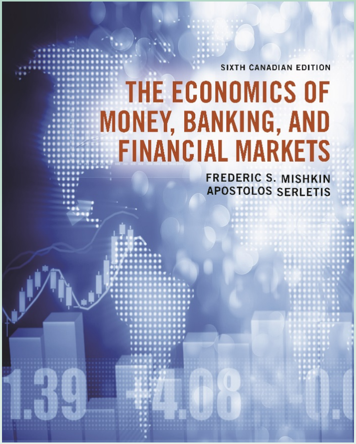
Mishkin/Serletis

The Economics of Money, Banking, and Financial Markets

Sixth Canadian Edition



Chapter 2

AN OVERVIEW OF THE FINANCIAL SYSTEM

Learning Objectives

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

- 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)*

* Not just a shortaage. of funds but who has. a productive investment opportunity.

Flows of Funds Through the Financial System

Borrowers: borrow directly from lenders in financial market by selling lenders securities – claims on the borrowers future income or assets.

financial instruments.

Securities are an asset to people who buy them but a liability to seller.

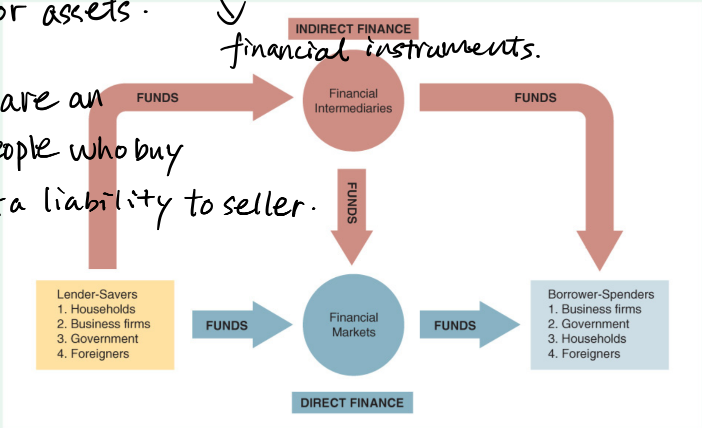


FIGURE 2-1 Flows of Funds Through the Financial System

The arrows show that funds flow from lender-savers to borrower-spenders via two routes: *direct finance*, in which borrowers borrow funds directly from financial markets by selling securities, and *indirect finance*, in which a financial intermediary borrows funds from lender-savers and then uses these funds to make loans to borrower-spenders.

Debt and Equity Markets

- **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

An underwriter is a company or other entity that administers the public issuance and distribution of securities from a corporation or other issuing body.

- **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*

Secondary Market.

* The issuer gets no money from resale of the securities, the seller gets it

* is considered more important than primary market.

Two functions of secondary market.

* Facilitate selling of financial instruments making them more liquid

* The secondary market determines the price of security affecting the price in the primary market.

Money Market securities.

* More widely traded
* More liquid
* Smaller fluctuations in prices
* safer instruments

Exchanges and Over-the-Counter Markets

- 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

- 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

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

Treasury Bills - most liquid of all money money instruments.
→ Canada has no difficulty paying its debt due to it taxing and borrowing power.

Overnight loan → overnight loans between banks made typically for settlement balances certificates of deposit → . a debt instrument that usually promises a fixed return. on a large sum of money for a specified maturity.

Commercial pager : a short-term debt instrument issued by corporation

Repurchase agreements : short term loan using T-bills. as collateral. which the lender would receive if the loan is not paid.

Principal Money Market Instruments

TABLE 2-1 Principal Money Market Instruments

	Amount Outstanding ($ millions)			
Type of Instrument	**1980**	**1990**	**2000**	**2013**
Treasury bills				
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
Short-term paper				
Commercial paper	2555	12 971	24 330	11 510

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

Capital Market Instruments

* Debt and equity instruments with maturities greater than one year.
* wider price fluctuations.
* Relatively more risky.

- 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

Governments of Canada Bonds

* intermediate-term maturities from 1-10 years.
* long-term maturites. greater than 10 years.
* issued by the federal. government to raise money to finance deficits
* considered very liquid, large secondary market.
* held. by BoC, financial institutions. households. foreigners.

Stock: equity, shares of ownership.

Mortagages: loans to households or firms to purchase houses, land, or other real structures.

* The land or structure acts as collateral for the loan.
* largest debt market in Canada.

Mortgage-backed securities - debt instrument backed by a. bundle of individual mortgages.

Corporate Bonds: long-term Bonds issued by large credit-worthy corporations

Canada saving Bonds: floating rate Bonds issued by government

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 (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 mortgages	15.1	56.1	50.2	107.7

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

Internationalization of Financial Markets

- **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*
  - X *~~For example, Canadian company selling bond in the United Kingdom denominated in British Pounds~~* (Incorrect)
  - *Recent development*
  - *Widely used: over 80% of new issues are Eurobonds*

Foreign Bonds - bonds sold in a foreign country denominated in that contry's currency

Example: Germany sells a bond in Canada, denominated in CAD

Euro Bonds - denominated in a currency other than that of the country in which it is sold / issued.

Example: Germany sells / issus a bond denominated in CAD in UK

Eurobonds have 3 elements that are generally all different:

A: issuer (company's nationality).
B: denomination (currency)
C: where it is issued (country)

Australian bank (A) issued yen-denominated bond. (B) in London (C).

Foreign bonds have 2 differences.
A. issuer and its country
B. where is it issued.

Australian company (A) issued yen-denominated bond in Tokyo (B)

Internationalization of Financial Markets (cont'd)

- **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*

Note regarding Eurobonds, Eurocurrencies, and Eurodollars.

*. These names are not related to the euro currency used in European Monetary Union, unless they fit the definition.

Financial Intermediaries: Indirect Finance

- **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*

1. Lower transaction costs.
   * . Economies of scale – transaction costs fall as the # of transactions increases

   * Liquidity services – Services that make it easier for customers to conduct transactions.

2. improve risk sharing.
   * Asset transformation – the process of creating a new asset (loan) from liabilities (deposits)

   * Diversification – investing in a portfolio of assets to spread risk.

3.
* Asymmetric information – info concerning a transaction that is unequally shared.

* Create 2 problems:
   * Adverse selection: problem before transaction occurs

   * Moral Hazard: after transaction occurs.

4. Economies of scope: it is cheaper to offer a range of related services.

Financial Intermediaries: Indirect Finance (cont'd)

1. Improves **Risk Sharing**
   - *Asset transformation*
   - *Diversification*

2. Help solve **Asymmetric Information** problems
   - ***Adverse Selection:*** *Potential borrows 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 intermediates can screen and monitor borrowers*

Types of Financial Intermediaries

- **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 (Sources of Funds)	Primary Assets (Uses of Funds)
Depository institutions (banks)		
Chartered banks	Deposits	Loans, mortgages, government bonds
Trust and loan companies	Deposits	Mortgages
Credit unions and *caisses populaires*	Deposits	Mortgages
Contractual savings institutions		
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
Investment intermediaries		
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 (in $ millions)	Percent (%)
Chartered Banks			
Domestic	28	4 005 895	66.81
Foreign bank subsidiaries	24	127 207	2.12
Foreign bank branches	29	2722	0.05
Trust Companies	44	145 636	2.43
Loan Companies	19	171 854	2.87
Cooperative Credit Associations	6	23 116	0.39
Life Insurance Companies			
Canadian-incorporated	41	1 180 494	19.69
Foreign branches	33	19 613	0.33
Fraternal Benefit Societies			
Canadian-incorporated	8	6832	0.11
Foreign branches	5	2308	0.04
Property and Casualty Insurance Companies			
Canadian-incorporated	88	108 991	1.82
Foreign branches	76	30 185	0.50
Pension Plans	1234	171 000	2.85
Total		5 995 853	100.00

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

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