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Chapter 2: Overview of the Financial System

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Function of Financial Markets

- Channels funds from person or business without investment opportunities (i.e., "Lender-Savers") to one who needs funds to finance their spending (i.e., "Borrower-Spenders")

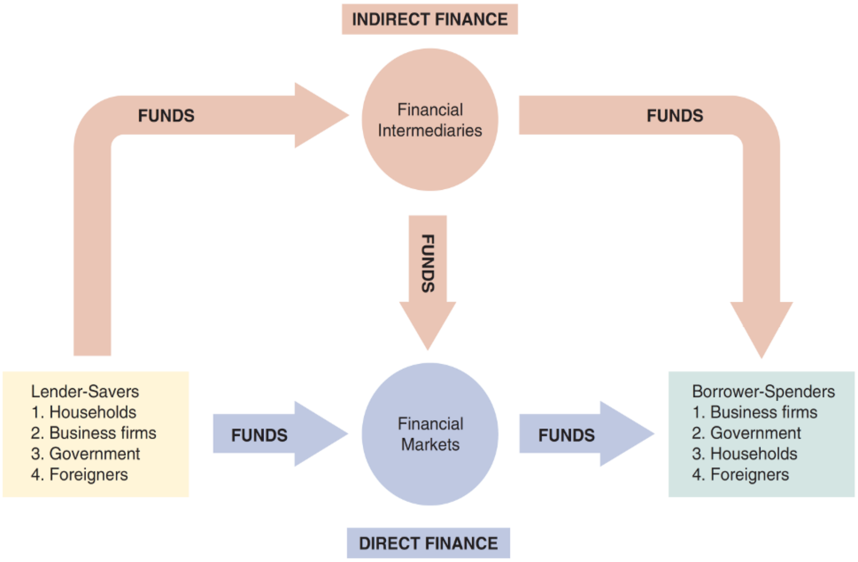
- Improves economic efficiency

Financial Markets Funds Transferees

- Lender-Savers
  1. Households
  2. Business firms
  3. Government
  4. Foreigners

- Borrower-Spenders
  1. Business firms
  2. Government
  3. Households
  4. Foreigners

Flows of Funds Through the Financial System



Function of Financial Markets

- Direct Finance

  Borrowers borrow directly from lenders in financial markets by selling securities (financial instruments) which are claims on the borrower's future income or assets.
  Securities are **assets** for the person who buys them, but they are **liabilities** (IOUs or debts) for the person who sells (issues) them.

- bond: a debt security that promises to make payments periodically for a specified period of time
- stock: a security that entitles the owner to a share of the company's profits and assets

Function of Financial Markets

- Indirect Finance

  Borrowers borrow indirectly from lenders via financial intermediaries (established to source both loanable funds and loan opportunities) by issuing financial instruments which are claims on the borrower's future income or assets

Importance of Financial Markets

- For example, if you save \$1,000, but there are no financial markets, then you can earn no return on this - might as well put the money under your mattress.
- However, if a carpenter could use that money to buy a new saw (increasing her productivity), then she is willing to pay you some interest for the use of the funds.
- Financial markets are critical for producing an efficient allocation of capital, allowing funds to move from people who lack productive investment opportunities to people who have them.
- Financial markets also improve the well-being of consumers, allowing them to time their purchases better (e.g. buy a house when young, pay back over time).

Structure of Financial Markets

1. Debt Markets
   - Debt instrument (e.g. bond, mortgage): is a contractual agreement by the borrower to pay the holder of the instrument fixed amounts at regular intervals (interest and principle payments) until a specified date (the maturity date) when a final payment is made.
   - Short-Term (maturity < 1 year)
   - Long-Term (maturity > 10 year)
   - Intermediate term (maturity in-between)

2. Equity Markets
   - Equities (e.g. common stocks): claims to share in the net income and the assets of a business.
   - Pay dividends (periodic payments), in theory forever, long term securities
   - Represents an ownership claim in the firm
   - An equity holder is a *residual claimant*, corporations must pay debt holders before equity holders

Structure of Financial Markets

1. Primary Market
    - New security issues sold to initial buyers
    - Typically involves an investment bank who underwrites the offering (guarantees a price for a corporation's securities and then sells them to the public)

Structure of Financial Markets

1. Secondary Market
   - Securities previously issued are bought and resold
   - stock markets such as the NYSE and NASDAQ, bond markets, foreign exchange markets, future markets, options markets
   - Involves both brokers and dealers
   - Brokers are agents of investors who match buyers with sellers of securities
   - Dealers link buyers and sellers by buying and selling securities at stated prices
   - Corporation that issued the security acquires no new funds

Structure of Financial Markets

Even though firms don't get any money, per se, from the secondary market, it serves two important functions:

- Provides liquidity, making it easy to buy and sell the securities of the companies
- Establishes a price for the securities (useful for company valuation)

Structure of Financial Markets

We can further classify secondary markets as follows:

1. Exchanges
   - Trades conducted in central locations (e.g., New York Stock Exchange, Chicago Board of Trade)
   - the examples for Turkey? (homework! not to be collected but may come up in quizzes and exams)

2. Over-the-Counter Markets
   - Dealers at different locations buy and sell
   - Best example is the market for Treasury Securities

Classifications of Financial Markets

1. Money Market: Short-Term (maturity < 1 year) debt instruments, more liquid, safer (smaller fluctuations in prices)
2. Capital Market: Long-Term (maturity > 1 year) debt plus equities (no maturity)

Internationalization of Financial Markets

The internationalization of markets is an important trend. The U.S. no longer dominates the world stage.

- International Bond Market & Eurobonds
  - Foreign bonds: Denominated in a foreign currency, targeted at a foreign market
  - Eurobonds: Denominated in one currency, but sold in a different market, over 80 % of new bonds are Eurobonds
- Eurocurrency Market
  - Foreign currency deposited outside of home country
  - Eurodollars are U.S. dollars deposited, say, London.
  - short term deposits earn interest, gives US an alternative source for dollars.
- World Stock Markets
  - U.S. stock markets are no longer always the largest - at one point, Japan's was larger

Foreign Stock Market Indexes	Blank
Foreign stock market indexes are published daily in newspapers and Internet sites such as www.finance.yahoo.com. The most important of these stock market indices are: ***Dow Jones Industrial Average (DJIA)*** An index of the 30 largest publicly traded corporations in the United States maintained by the Dow Jones Corporation. ***S&P 500*** An index of 500 of the largest companies traded in the United States maintained by Standard & Poor's. ***Nasdaq Composite*** An index for all the stocks that trade on the Nasdaq stock market, where most of the technology stocks in the United States are traded.	***FTSE 100*** An index of the 100 most highly capitalized UK companies listed on the London Stock Exchange. ***DAX*** An index of the 30 largest German companies trading on the Frankfurt Stock Exchange. ***CAC 40*** An index of the largest 40 French companies traded on Euronext Paris. ***Hang Seng*** An index of the largest companies traded on the Hong Kong stock markets. ***Strait Times*** An index of the largest 30 companies traded on the Singapore Exchange.

Function of Financial Intermediaries: Indirect Finance

Instead of savers lending/investing directly with borrowers, a financial intermediary (such as a bank) plays as the middleman:

- the intermediary obtains funds from savers
- the intermediary then makes loans/investments with borrowers
- This process, called financial intermediation, is actually the primary means of moving funds from lenders to borrowers.
- More important source of finance than securities markets (such as stocks)
- Needed because of transactions costs, risk sharing, and asymmetric information

Function of Financial Intermediaries: Indirect Finance

- Transactions Costs
    1. Financial intermediaries make profits by reducing transactions costs
    2. Reduce transactions costs by developing expertise and taking advantage of economies of scale

- A financial intermediary's low transaction costs mean that it can provide its customers with liquidity services, services that make it easier for customers to conduct transactions
    1. Banks provide depositors with checking accounts that enable them to pay their bills easily
    2. Depositors can earn interest on checking and savings accounts and yet still convert them into goods and services whenever necessary

Function of Financial Intermediaries: Indirect Finance

- Risk Sharing
  - Another benefit made possible by the FI's low transaction costs is that they can help reduce the exposure of investors to risk
  - FIs create and sell assets with lesser risk to one party in order to buy assets with greater risk from another party
  - This process is referred to as asset transformation, because in a sense risky assets are turned into safer assets for investors
  - FIs also promote risk sharing by diversification, which entails portfolio of assets whose returns do not always move together, hence overall risk is lower than for individual assets.

Function of Financial Intermediaries: Indirect Finance

- **Asymmetric Information:** one party often does not know enough about the other party to make accurate decisions
  1. Adverse Selection
     - Before transaction occurs
     - Potential borrowers most likely to produce adverse outcome are ones most likely to seek a loan
     - Similar problems occur with insurance where unhealthy people want their known medical problems covered
  2. Moral Hazard
     - After transaction occurs
     - Hazard that borrower has incentives to engage in undesirable (immoral) activities making it more likely that won't pay loan back
     - Again, with insurance, people may engage in risky activities only after being insured
     - Another view is a conflict of interest

Function of Financial Intermediaries: Indirect Finance

- Economies of Scope and Conflicts of Interest
  1. **economies of scope:** FIs are able to lower the production cost of information by using the information for multiple services: bank accounts, loans, auto insurance, retirement savings, etc.
  2. **conflicts of interest:** Conflicts of interest are a type of moral hazard problem that arises when a person or institution has multiple objectives (interests) and, as a result, has conflicts between those objectives.

     Providing multiple services may lead to conflicts of interest, perhaps causing one area of the FI to hide or conceal information from another area (or the economy as a whole). This may actually make financial markets less efficient!

Types of Financial Intermediaries

Depository Institutions: accept deposits and make loans.

1. Commercial banks
2. Thrifts: Savings and Loan Associations (S&Ls) and Mutual Savings Banks
3. Credit Unions

Types of Financial Intermediaries

Contractual Savings Institutions (CSIs): acquire funds at periodic intervals on a contractual basis, invest their funds in long-term securities (corporate bonds, stocks and mortgages).

1. Life Insurance Companies
2. Fire and Casualty Insurance Companies
3. Pension and Government Retirement Funds

Types of Financial Intermediaries

Investment Intermediaries

1. Finance Companies
2. Mutual Funds
3. Money Market Mutual Funds
4. Hedge Funds
5. Investment Banks

Primary Assets and Liabilities of Financial Intermediaries

Type of Intermediary	Primary Liabilities (Sources of Funds)	Primary Assets (Uses of Funds)
Depository Institutions (banks)		
Commercial banks	Deposits	Business and consumer loans, mortgages, U.S. government securities, and municipal bonds
S&L associations	Deposits	Mortgages
Mutual savings banks	Deposits	Mortgages
Credit unions	Deposits	Consumer loans

Primary Assets and Liabilities of Financial Intermediaries

Type of Intermediary	Primary Liabilities (Sources of Funds)	Primary Assets (Uses of Funds)
Contractual savings institutions	Blank	Blank
Life insurance companies	Premiums from policies	Corporate bonds and mortgages
Fire and casualty insurance companies	Premiums from policies	Municipal bonds, corporate bonds and stock, and U.S. government securities
Pension funds, government retirement funds	Employer and employee contributions	Corporate bonds and stock

Primary Assets and Liabilities of Financial Intermediaries

Type of Intermediary	Primary Liabilities (Sources of Funds)	Primary Assets (Uses of Funds)
Investment intermediaries	Blank	Blank
Finance companies	Commercial paper, stocks, bonds	Consumer and business loans
Mutual funds	Shares	Stocks, bonds
Money market mutual funds	Shares	Money market instruments
Hedge funds	Partnership participation	Stocks, bonds, loans, foreign currencies, and many other assets

Regulation of Financial Markets

Main Reasons for Regulation

1. Increase Information to Investors
2. Ensure the Soundness of Financial Intermediaries

Regulation Reason: Increase Investor Information

- Asymmetric information in financial markets means that investors may be subject to adverse selection and moral hazard problems that may hinder the efficient operation of financial markets and may also keep investors away from financial markets.
- The Securities and Exchange Commission (SEC) requires corporations issuing securities to disclose certain information about their sales, assets, and earnings to the public and restricts trading by the largest stockholders (known as insiders) in the corporation.
- Such government regulation can reduce adverse selection and moral hazard problems in financial markets and increase their efficiency by increasing the amount of information available to investors. Indeed, the SEC has been particularly active recently in pursuing illegal insider trading.

Regulation Reason: Ensure Soundness of Financial Intermediaries

- To protect the public and the economy from financial panics, the government has implemented six types of regulations:
  - Restrictions on Entry
  - Disclosure
  - Restrictions on Assets and Activities
  - Deposit Insurance
  - Limits on Competition
  - Restrictions on Interest Rates