Overview of the Financial System

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Function of the Financial System

- Function
  - Channeling funds from households, firms and government that have saved surplus funds
    - by spending less than their income
  - To those that have a shortage of funds
    - because they wish to spend more than their income.

Function of the Financial System

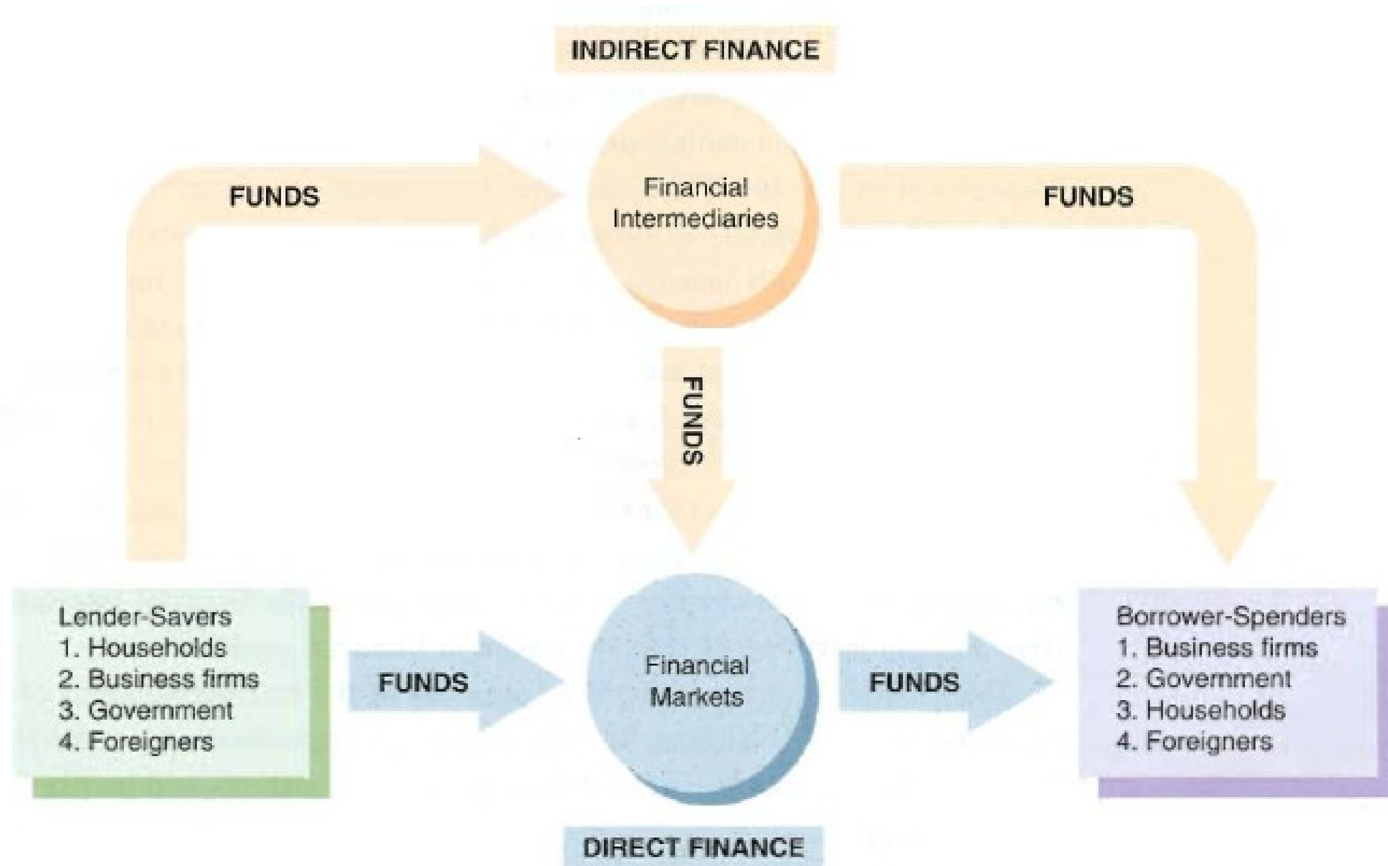

FIGURE 1 *Flows of Funds Through the Financial System*

Function of the Financial System

- Financial markets have an important function in the economy.
  - They allow funds to move from people who lack productive investment opportunities to people who have such opportunities.
  - Financial markets are critical for producing an effective allocation of capital
    - Wealth, either financial or physical that is employed to produce more wealth
- Which contributes to higher production and efficiency for the overall economy as well as political stability.

Structure of Financial Markets

- Debt and Equity Markets
  - Two ways how firms and individuals can obtain funds in a financial market
    - 1.Issue a debt instruments
      - Bonds, mortgages
        - Contractual agreement by the borrowers to pay the holder of the instrument fixed amounts at regular intervals until a specific date (maturity day), when a final payment is made.
      - The maturity of a debt instrument is the number of years until that instrument's expiration date.
      - Debt instrument is
        - Short – terms or
        - Long - term

Structure of Financial Markets

- 2. Equities
  - Common stocks
    - Which are claims to share in the net income (income after expenses and taxes) and the assets of a business.
    - If you own one share of common stock in a company that has issued one million shares, you are entitled to 1 one-millionth of the firm's net income and 1 one-millionth of the firm's assets.
  - Equities often make periodic payments to their holders
    - Dividends
  - They are considered long-term securities because they have no maturity day.
  - Owning stocks means that you own a portion of the firm and thus have the right to vote on issues important to the firm and elect its directors.

Structure of Financial Markets

- Advantages and disadvantages
  - Debt vs. equities
  - Disadvantages of equities
    - Equity holder is residual claimant
  - Advantages of equities
    - Holders benefit directly from any increases in the corporation’s profitability or asset value

Structure of Financial Markets

- Primary and Secondary Markets
  - A primary market is a market which new issues of a security, such as a bond or a stock, are sold to initial buyers by the corporation or government agency borrowing the fund.
  - Secondary market is a financial market in which securities that have been previously issued can be resold.
  - The primary markets for securities are not well known to the public because the selling of securities to initial buyers often takes place behind closed doors.
    - Investment bank

Structure of Financial Markets

- The New York Stock Exchange
- NASDAQ (National Association of Securities Dealers Automated Quotation System)
  - Best known examples of secondary markets
- Other examples of secondary markets
  - Foreign Exchange markets
  - Futures markets
  - Options markets

Structure of Financial Markets

- Securities brokers and dealers are crucial to a well-functioning secondary market
  - Brokers
  - Dealers

Structure of Financial Markets

- When an individual buys a security in the secondary market, the person who has sold the security receives money in exchange for the security, but the corporation that issued the security acquires no new funds.
- A corporation acquires new funds only when its security is first sold in the primary market.

Structure of Financial Markets

- Two important functions of secondary markets
  - They make it easier and quicker to sell these financial instruments to raise cash
    - They make the financial instruments more liquid
    - The increased liquidity of these instruments then makes them more desirable and thus easier for the issuing firm to sell in the primary market.
  - They determine the price of the securities that the issuing firm sells in the primary market.

Structure of Financial Markets

- Exchange and Over-the-Counter Markets
  - Secondary markets can be organized in two ways
    - Exchanges
      - Where buyers and sellers of securities meet in one central location to trade
        - NYSE – stocks
        - Chicago Board of Trade – commodities
    - Over-the-Counter Markets
      - In which dealers at different locations who have an inventory of securities stand ready to buy and sell securities "over the counter" to anyone who comes to them and is willing to accept their prices.
      - Because over-the-counter dealers are in computer contact and know the prices set by one another, the OTC market is very competitive and not very different from a market with an organized exchange.

Structure of Financial Markets

- Money and Capital Market
  - Another way of distinguishing between markets is on the basis of the maturity of the security traded in each market.
- Money market
  - Financial market in which only short term debt instruments (generally with maturity of less than one year) are traded.
- Capital market
  - It is the market in which longer-term debt and equity instruments are traded.
- Money market securities are usually more widely traded than longer-term securities and do tend to be more liquid.

Internationalization of Financial Markets

- International Bond Market, Eurobonds Eurocurrencies
  - The traditional instruments in the international bond market are known as foreign bonds.
    - These bonds are sold in foreign country and are denominated in that country's currency.
      - German automaker Porsche sells a bond in the U.S. denominated in U.S. dollars
    - Foreign bonds have been an important instrument in the international capital market for centuries. In fact a large percentages of U.S. railroads built in the 19th century were financed by sales of foreign bonds in Britain.

Internationalization of Financial Markets

- A more recent innovation in the international bond market is the Eurobond
  - Bond denominated in a currency other than that of the country in which it is sold
    - Bond denominated in U.S. dollars sold in London
  - Currently, over 80 % of the new issues in the international bond market are Eurobonds, and the market for these securities has growth very rapidly.
- A variant of the Eurobond is Eurocurrencies
  - Foreign currencies deposited in banks outside the home country
    - The most important Eurocurrencies are Eurodollars
      - US dollars deposited in foreign bank outside the U.S.

Internationalization of Financial Markets

- Note
  - The euro, the currency used by countries in the European Monetary System, can create some confusion about the terms Eurobonds, Eurocurrencies and Eurodollars.
  - A bond denominated in euro is called a Eurobond only if it is sold outside the countries that have adopted euro.
    - Most Eurobonds are not denominated in euro but are instead denominated in U.S. dollars.

Function of Financial Intermediaries: Indirect Finance

- Funds also can be move from lenders to borrowers by a second route called indirect finance.
- This system involves financial intermediary that stand between lender-saver and the borrower-spender and helps transfer funds from one to the other.
  - For example: A bank might acquire funds by issuing a liability to the public in the form of saving deposits. The fund might then use for making a loan or buying a Treasury bond.

Internationalization of Financial Markets

- The process of indirect finance using financial intermediaries, called financial intermediation, is the primary route for moving funds frm lenders to borrowers.

Why are financial intermediaries and indirect finance so important?

- Transaction Costs
  - Transaction costs, the time and money spent in carrying out financial transactions, are a major problem for people who have excess funds to lend.
  - Financial intermediaries can substantially reduce transaction costs because they have developed expertise in lowering them, and because their large size allow them to take advantage of economies of scale.
  - For example
    - A bank knows how to find a good lawyer to produce loan contract, and this contract can be used over and over again in this loan transactions, thus lowering the legal cost per transaction.

Why are financial intermediaries and indirect finance so important?

- Risk Sharing
  - Another benefit made possible by the low transaction costs of financial institutions is that they can help reduce the exposure of investors risk.
  - Financial intermediaries do this through the process known as risk sharing.
  - They create and sell assets with risk characteristics that people are comfortable with. The intermediaries then use the funds they acquire by selling these assets to purchase other assets that may have far more risk.
  - Asset transformation

Why are financial intermediaries and indirect finance so important?

- Asymmetric Information: Adverse Selection and Morale Hazard
  - Additional reason of financial intermediaries importance is a fact that
    - In financial markets, one party often does not know enough about the other party to make accurate decision.
    - E.g. A borrowers who takes out a loan usually has better information about potential returns and risks associated with the investment projects then the lender does.
    - Lack of information creates problems in the financial system on two fronts:
      - Before the transaction is entered and after

Why are financial intermediaries and indirect finance so important?

- Adverse selection
  - The problem created by asymmetric information before the transaction occurred.
  - This occurs when the potential borrowers who are the most likely to produce undesirable (adverse) outcome – the bad credit risk – are the ones who most actively seek out a loan and are thus more likely to be selected.
  - Because adverse selection makes it more likely that loans might be made to bad credit risks, lenders may decide not to make any loans even though there are good credit risks in the market place.

Why are financial intermediaries and indirect finance so important?

- Moral hazard
  - It is the problem created by asymmetric information after the transaction occurred.
  - Moral hazard in financial markets is the risk (hazard) that the borrower might engage in activities that are undesirable (immoral) from the lender's point of view, because they make it less likely that the loan will be paid back.
  - Because moral hazard lowers the probability that the loan will be repaid, lenders may decide that they would rather not make a loan.
- Moral hazard leads to conflicts of interest.

Types of Financial Intermediaries

- Depositary institutions – banks
  - Are financial intermediaries that accept deposits from individuals and institutions and make loans.
  - This institutions include commercial banks and the so-called thrift institutions:
    - Savings and loan associations, mutual savings banks and credit unions.
  - Commercial banks
  - Saving and Loan Associations and Mutual Savings Banks
  - Credit Unions

Primary assets and liabilities of Financial Intermediaries

TABLE 1 *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
Savings and loan associations	Deposits	Mortgages
Mutual savings banks	Deposits	Mortgages
Credit unions	Deposits	Consumer loans
Contractual Savings Institutions		
Life insurance companies	Premiums from policies	Corporate bonds and mortgages
Fire and casualty insurance companies	Premiums from policies	Municipal bonds, corporate bonds and stock, U.S. government securities
Pension funds, government retirement funds	Employer and employee contributions	Corporate bonds and stock
Investment Intermediaries		
Finance companies	Commercial paper, stocks, bonds	Consumer and business loans
Mutual funds	Shares	Stocks, bonds
Money market mutual funds	Shares	Money market instruments

Source: Federal Reserve Flow of Funds Accounts.

Types of Financial Intermediaries

- Contractual Saving Institutions
  - Financial intermediaries that acquired funds at periodical intervals on a contractual basis.
  - Because they can predict with reasonable accuracy how much they will have to pay out in benefits in the coming years, they do not worry as much as depository institutions about losing funds quickly.
  - As a result the liquidity of assets is not as important and they tend to invest their funds primarily in long-term securities such a corporate bonds, stocks and mortgages.

Types of Financial Intermediaries

- Contractual Saving Institutions
  - Life Insurance Companies
  - Fire and Casualty Insurance Companies
  - Pension Funds and Government Retirement Funds

Principal Financial Intermediaries

TABLE 2 *Principal Financial Intermediaries*

	Value of Assets ($ billions, end of year)			
Type of Intermediary	1970	1980	1990	2004
Depository Institutions (Banks)				
Commercial banks	517	1481	3334	6141
Savings and loan associations and mutual savings banks	250	792	1365	1597
Credit unions	18	67	215	643
Contractual Savings Institutions				
Life insurance companies	201	464	1367	3969
Fire and casualty insurance companies	50	182	533	1116
Pension funds (private)	112	504	1629	4330
State and local government retirement funds	60	197	737	2046
Investment Intermediaries				
Finance companies	64	205	610	1385
Mutual funds	47	70	654	4969
Money market mutual funds	0	76	498	1912

Source: http://www.federalreserve.gov/releases/Z1/

Types of Financial Intermediaries

- Investment Intermediaries
  - Finance Companies
  - Mutual Funds
  - Money Market Mutual Funds
  - Investment Banks

Regulation of the Financial System

- The financial system is among the most heavily regulated sectors of an economy
- The government regulates financial system for two reasons
  - To increase the information available to investors
  - To ensure the soundness of the financial intermediaries

Regulation of the Financial System

- Increasing Information Available to Investors
  - Asymmetric information
    - Adverse selection
    - Moral hazard
  - That may hinder the efficiency operation of financial market.

Regulation of the Financial System

- Ensuring the Soundness of Financial Intermediaries
  - Financial panic
  - Six types of regulations.
    - 1. Restriction on entry
    - 2. Disclosure
    - 3. Restriction on Assets and Activities
    - 4. Deposit insurance
    - 5. Limits on Competition
    - 6. Restriction on Interest Rate

Thank you for your attention