Finance (Basics)

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Structure of lectures

- 1.Introduction to finance;
- 2.Financial markets;
- 3.Banks and bank systems;
- 4.Other financial institutions;
- 5.Current value of money;
- 6.Private finance;
- 7.Investments;
- 8.Corporate finance;
- 9.International finance;
- 10.International financial system;
- 11.Macroekonomic and financial indicators and informations;
- 12.History of financial science;
- 13.Latest trends on financial markets.

Lecture

Introduction to finance, Financial markets

- Households, firms, financial intermediaries, and government all play a role in the financial system of every developed economy.

- **Financial intermediaries** are institutions – banks, that collect money - the savings of individuals and corporations and funnel them to firms that use the money to finance their investments.

1 Introduction to finance

- Finance ≠ money ?
  - The management of large amounts of money by governments or large companies
  - Funds to support an enterprise
  - The money available to a state, organisation or person
- The financial system is complex, comprising many different types of private sector financial institutions , including banks, insurance companies, mutual funds, finance companies, and investment banks, all of which are heavily regulated by the government.

Money – history and function

- Money (cash and credit)
  - ..is defined as anything that is generally accepted in payment for goods, services or in the repayment of debts
  - Through financial intermediaries
- Functions
  - Exchange
  - Accounting
  - Value

Why to study financial markets

- Financial markets – in which funds are transferred from people who have an excess of available funds to people who have a shortage
- Financial markets such as bond and stock markets are crucial to promoting greater economic efficiency by channeling funds from people who do not have a productive use for them to those who do

Financial markets - terms

- Security (also called a financial instrument) – claim on the issuer‘s future income
- Assets – any financial claim or piece of property that is subject to ownership
- Bond – debt security that promises to make payments periodically for a specified period of time

Financial markets – terms II.

- Interest rate – cost of borrowing or the price paid for the rental of funds (usually expressed as a percentage of the rental, per year)

- Inflation – a continual increase in the price level, affects individuals, businesses, and the government
  - Inflation is generally ragarded as an important problem to be solved and has often been a primary concern of politicians

The stock market, the foreign exchange market

- A common stock (typically just called a stock) represents a share of ownership in a corporation.
  - It is security that is a claim on the earnings and assets of the corporation

- The Foreign Exchange market (FOREX) is where this conversion takes place, and so it is instrumental in moving funds between countries
  - It is also important, bcse it is where the foreign exchange rate is determined

Structure of financial system

- The financial system is complex, comprising many different types of private sector financial institutions, including banks, insurance companies, mutual funds, finance companies and investment banks
- Financial intermediaries – institutions that borrow funds from people who have saved and in turn make loans to others
  - For example Banks are financial institutions that accept deposits and make loans

Summary

- Activities in financial markets have direct effects on individual‘s weralth, the behaviour of businesses, and the efficiency of our economy
  - Three financial markets deserve particular attention:
    - The bond market
    - The stock market
    - The foreign exchange market
- Banks and other financial institutions channel funds from people who might not put them to productive use to people who can do so and thus play a crucial role in improving the efficiency of the economy

Questins

- Has the inflation in the Czech Republic increased or decreased in the past two years? What about your country?

- Why are financial markets important to the health of economy?

Function of financial markets

- Financial markets (bond and stock markets) perform the essential economic function of channeling funds from households, firms, and governments 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.

Figure I – Financial System

- Households --- companies
- Goods and services
- Labour, field and capital
- Wages, rents, interests
- Payment for good and services

- Financial markets

Figure II – Direct vs Indirect Finance

- Note
  - The most important borrower- spenders are businesses and the government
  - Funds flow from lender-savers to borrower-spenders via two routes:
- In Direct Finance – borrowers borrow funds directly from lenders in financial markets by selling them securities (=financial instruments)
  - Securities are assets for the person who buys them but liabilities for the individual or firm that sells (issues) them
- Indirect finance

Financial markets

- The existence of financial markets is also beneficial even if someone borrows for a purpose other than increasing production in a business
- Why is financial market so important?
  - 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 efficient allocation of capital, which contributes to higher production and efficiency for the overall economy
  - Well-functioning financial markets also directly improve the well-being of consumers by allowing them to time their purchases better
  - Financial markets that are operating efficiently improve the economic welfare of everyone in the society

Structure of financial markets I

- A firm or an individual can obtain funds in a financial markets in two ways:
  - The most common method is to issue a debt instrument, such as bond or a mortgage, which is a contractual agreement by the borrower to pay the holder of the instrument fixed amounts at regular intervals until a specified date when a final payment is made
  - The second method of raising funds is by issuing equities, which are claims to share in the net income and the assets of a business

Structure of financial markets II.

- 1. The maturity of a debt instrument is the number of years until that instrument's expiration date.
  - A debt instrument is short-term if its maturity is less than a year
  - A debt instrument is long-term if its maturity is more than 10 years
  - Otherwise it is intermediate-term
- 2. Equities often make a periodic payments (dividends) to their holders and are considered long-term securities
  - Disadvantage of owning a corporation's equities rather than its debt is that an a equity holder is a residual claimant; that is, the corporation must pay all its debt holders before it pays its equity holders

Primary and secondary markets

- A primary market is a financial market in 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 funds
- A secondary market is a financial market in which securities that have been previously issued (secondhand) can be resold

Primary market

- The Primary market for securities are not well known to the public bcse the selling of securities to initial buyers often takes place behind close doors
  - It does this by underwriting securities
- 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

Secondary market

- Secondary market can be organized in two ways
  - One is to organize exchanges, where buyers and sellers of securities meet in one central location to conduct trades (NYSE,…)
  - Other method of organising a secondary market is to have an over-the-counter market (OTC), in which dealers at different locations who have an inventory of securities stand ready to buy and sell securities OTC to anyone who comes to them and is willing to accept their prices

Money and capital markets

- The money market is a financial market in which only short- term debt instruments are traded (maturity less than one year)
- The capital market is a financial market in which longer-term debt and equity instruments are traded (maturity of one year or longer)

Financial intermediaries

- The process of indirect finance using financial intermediaries, *called financial intermediation*, is the primary route for moving funds from lenders to borrowers
- Financial intermediaries are a far more important source of financing for corporations than securities markets are

Financial intermediaries

- Why are financial intermediaries and indirect finance so important in financial markets?
  - To answer we need to understand the role of transaction costs, risk sharing and information costs in financial markets
- 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 bcse they have developed expertise in lowering them, bcse their large size allows them to take advantage of *economic of scale*

Transaction costs, risk sharing

- Financial intermediaries are able to reduce transaction costs substantially, they make it possible for you to provide funds indirectly to people with productive investment opportunities

- Another benefit made possible by the low transaction costs of financial institutions is that they can help reduce the exposure of investors to <u>risk</u>; that is, uncertainty about the returns investors will earn on assets

Risk sharing

- Financial intermediaries do this through the process known as risk sharing
  - They create and sell assets with risk characteristics that people are comfortable with, and the intermediaries then use the funds they acquire by selling these assets to purchase other assets that may have far more risk
- Low transaction costs allow financial intermediaries to do risk sharing at low cost, enabling them to earn a profit on the spread between the returns they earn on risky assets and the payments they make on the assets they have sold
  - This process of risk sharing is also sometimes referred to as *asset transformation*, bcse in a sense, risky assets are turned into safer assets for investors

Assymetric information: Adverse selection and moral hazard

- The presence of transaction costs in financial markets explains, in part, why financial intermediaries and indirect finance play such an important role in financial markets, one party often does not know enough about the other party to make accurate decisions.
  - This inequality is called *asymmetric information.*
- *Adverse selection* is the problem created by asymmetric information before the transaction occurs.
  - Adverse selection in financial markets occurs when the potential borrowers who are the most likely to produce an undesirable outcome- the bad credit risks-are the ones who most actively seek out a loan and are thus most likely to be selected

Moral hazard

- Moral hazard is the problem created by asymmetric information after the transaction occurs
- 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, bcse they make it less likely that the loan will be paid back

Adverse selection and moral hazard

- One way to distinguish between AS and MH is to remember that adverse selection is a problem of asymmetric information before entering into a transaction
- Whereas moral hazard is a problem of asymmetric information after the transaction has occured

Financial intermediaries - basics

- Now you know why financial intermediaries play such an important role in the economy
  - What about principals of them
  - How they perform the intermediation function
- Depository institutions
  - These financial intermediaries raise funds primarily issuing checkable deposits, savings deposits and time deposits…

Description of financial intermediaries

Financial Intermediary	*Description*
Commercial bank	Takes deposits from individuals and corporations and lends these funds to borrowers.
Investment bank	Raises money for corporations by issuing securities.
Insurance company	Invests money set aside to pay future claims in securities, real estate, and other assets.
Pension fund	Invests money set aside to pay future pensions in securities, real estate, and other assets.
Charitable foundation	Invests the endowment of a nonprofit organization such as a university.
Mutual fund	Pools savings from individual investors to purchase securities.
Venture capital firm	Pools money from individual investors and other financial intermediaries to fund relatively small, new businesses, generally with private equity financing.

Primary assets and liabilities of FI

Type of intermediary	Primary liabilities (sources of funds)	Primary assets (uses of funds)
Depository institutions (banks)		
Commercial Banks	Deposits	Business and consumer loans, mortgages, government securities
Mutual saving banks	Deposits	Mortgages
Credit unions	Deposits	Consumer loans
Contractual saving institutions		
Life insurance companies	Premiums from policies	Corporate bonds and mortgages
	Premiums from policies	Corporate bonds and stock
Investment intermediaries		
Finance companies	Commercial paper, stocks, bonds	Consumer and businesses loans
Mutual funds	Shares	Stocks, bonds
Money market mutual funds	Shares	Money market instruments

FI

- Life insurance companies
  - LIC insure people against financial hazards following a death and sell annuities
- Pension funds (Government retirement funds)
  - Private pension funds and state retirement funds provide retirement income in the form of annuities to employees who are covered by a pension plan
- Finance companies
  - FC raise funds by selling commercial paper (a short-term debt instrument) and by issuing stock and bonds
- Mutual funds
  - These FI acquire funds by selling shares to many individuals and use the proceeds to purchase diversified portfolios of stocks and bonds

FI II

- Money market mutual funds
  - Relatively new financial institutions have the characteristics of a mutual fund but also function to someb extent as a depository institution, bcse they offer deposit-type account
- Regulation of financial systém
  - Czech Republic
  - U.S. financial system

Summary

- The basic function of financial markets is to channel funds from savers who have an excess of funds to spenders who have a shortage of funds
- Financial markets can do either through direct finance, in which borrowers borrow funds directly from lenders by selling them securities, or through indirect finance, which involves a FI that stands between the lender-savers and borrow-spenders and help transfer funds from one to the other.
- This channeling of funds improves the economic welfare of everyone in the society, bcse it allows funds to move from people who have no productive investment opportunities, thereby contributing to increased efficiency in the economy

Summary

- Financial markets can be classified as a debt and equity markets, primary and secondary markets, exchanges and over the counter markets, and money and capital markets

- Important trend in recent years is the growing internationalization of financial markets

- FIs are financial institutions that acquire funds by issuing liabilities and in turn use those funds to acquire assets by purchasing securities or making loans. FIs play an important role in the financial system , bcse they reduce transaction costs, allow risk sharing, and solve problems created by adverse selection and moral hazard

Summary

- The principal financial intermediaries fall into three categories:
  - Banks – commercial banks, savings and loans association, mutual savings banks, etc.
  - Contractual savings institutions – life insurance companies, pension funds, etc.
  - Investment intermediaries – finance companies, mutul funds, and money market mutual funds

Questions

- Some economists suspect that one of the reasons that economies in developing countries grow so slowly is that they do not have well-developed financial markets . Does this argument make sense?
- Bcse corporations do not actually raise any funds in secondary markets, they are less important to the economy than primary markets. Comment…
- If there were no asymmetry in the information that a borrower and a lender had, could there still be a moral hazard problem?

Thank you for you attention