Ministry of education and science of ukraine

Ternopil Ivan Puluj National Technical University

Department of management and business in production

**TUTORIAL**

**on “Management of market infrastructure”**

for full-time study bachelors majoring in specialism 6.030601 “Management”

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**Topic 1. The essence, structure and the mechanism of market and its infrastructure functioning**

**Plan**

1. The economic essence of the market.

2. The main functions of the market.

3. Classification of markets.

4. Concept and components of market infrastructure.

5. Preconditions for the successful functioning of the market infrastructures.

**1. The economic essence of the market**

The market is a form of commodity production operation . People need to enter into the relations of sharing the results of their work to meet their needs. The main issues of social production: what to produce (what kinds of goods and services, and how much), how to produce (in which means of production) and for whom to produce (who will consume them) in each economic system are solved in different ways. International experience distinguishes two main forms of economy: team and market.

The market is a clash of demand and supply and price formation . According to Adam Smith’s phrase " invisible hand " of the market unites producers and consumers into a single economic system, subordinates the production to the needs of society. The development of the social labour division, economic isolation of economic entities, the need for exchange of products of labour led to(caused) the market outbrake.

The concept of " market" was formed and has been changing with the development of social production. First it was the bazaar (fair) area, where an exchange took place. So, the simplest market was the place of trading. It existed in ancient Greece, Rome, Egypt. And still the term " market " is used in its narrow sense it too.

The outbrake of markets ishistorically connected with urban development. The appearance of lending and trade activity of merchants contributed to the development of market relations. New market elements: chambers of commerce , stock exchanges , banks were formed. Foreign trade played an important role in the market.

A large number of producers ( sellers) and consumers (purchasers) appear . A new type of management finally brakes down with subsistence farming. Commodity production and circulation acquire regular disposition, and market prices are determined by fluctuations of demand and supply. All kinds of industrial and commercial activities are more and more specialized, the production is focused on the final customer.

Market – is a set of economic relations between the different types of companies and individuals because of the buying and selling goods and services, thereby the competition between producers by reducing the cost of production, sales and increasing of social utility products is enchanced.

The material basis of the market relations is the movement of goods and money, which is based on free mutual agreements in terms of free competition. Satisfaction in effective consumer demand (buyers), cost recovery and profit by the sellers (producers and intermediaries) are the result of market relations.

Demand , supply, price conjuncture, the balance are the main indicators of the market state. Conjuncture - is the economic market situation, which is characterized by the correlation between the supply and demand , that stipulate price changes and inventory at any given time. Necessary attribute of the market is the free competition, which involves competition between producers for more favorable production conditions and distribution of goods. This is the force that makes the production and the market move towards equilibrium or balance.

Thus, the market is a system that is selfregulated and all parts of which are under the constant influence of supply and demand.

The market includes media available in market relations, that is entities. Manufacturers, sellers, merchants and consumers (individuals and legal entities) belong to market entities .

Market objects are all market goods and services due to which market relations appear. Subjects of consumption , services, means of production, financial resources, labour fource belong to them.

**2. The main functions of the market**

The main functions of the market are:

- The price formation function – final determination of the value of the goods and services, converting the product of labour into a commodity;

- Appreciating function provides a comparison of costs and results, shows the economic impact of production pocess and goods distribution;

- Regulatory function – the coordination of production output and consumption, and hence supply and effective demand;

- Stimulating function - prompting producers of goods and services to increase efficiency, goods production at the lowest costs, profit, implementation of scientific and technological achievements. This feature also predicts stimulating of free competition between producers of goods and services;

- Integrating function - providing the unity of all spheres of social reproduction (in particular , the relationship between production and consumption) as the basis of the integrity of the national economic system, and its relationship with other national economies;

- The control function - promoting consumers control over production, increased consumption efficiency by matching the cash income with prices;

- The function of reorganization - cleaning the economic system out of inefficient and non-viable enterprises through the mechanism of free competition;

- Information function - the constant presence of such market signals as prices, interest rates on loans and so on. With their help, you can quickly change the plans of business activity.

Some market functions have bad influence on the change of certain aspects of the economic system:

- Function of provocation and the realization of bankruptcy – differentiation of producers, inevitable bankruptcy of some of them;

- The function of the producing of monopolistic tendencies in the economy - the concentration of production and property that at certain stage leads to monopolies;

- The function of disproportionality - the unevenness in the development of certain branches and regions , including the world economy.

- Uneven development of various elements of the productive forces. The market is not able to develop basic research (as a result the progress of experimental –constructive development at the enterprise level is being slowed down) , the general level of the workforce across the country is being increased (and therefore the development of the main productive force is being stimulated);

- Antisocial function - the unequal distribution of economic property in the society ,social defencelessness of certain social strata and groups;

- The market enhances the growth of inflation in the economy, deepening economic crisis, assists the increasing of unemployment;

- Antienvironmental function – the absence of internal market incentives to preserve nature (as a result - at a certain stage of social development there is an environmental crisis);

- Paying-constracting function - reducing the effective demand of consumers by artificially raising of prices by monopolistic enterprises , hypertrophic advertising and so on.

The state should carry out such economic policy that will enhance the positive market functions and weaken or neutralize the negative ones.

In order to perform its constructive role, the market should meet the basic criteria that have to be:

1) the market of civilized customers ("Customer is always right(correct)"). Then supply is something more than the demand , due to this sellers , by trying to sell a product (service) , improve its quality and service, improving production;

2) closely researched through sophisticated marketing activity of trading companies operating in the sphere of circulation, enterprises - producers, with the state and prognosis of current and future plans;

3) non monopolized market;

4) efficiently and optimally regulated.

**3. Classification of markets**

The modern market is a complex system. Because of this various classification criteria and the criteria for its analysis and specification are used. Classification of markets is also needed for a deeper understanding of the principles and specifics of market processes, functions of market infrastructure.

Therefore, based on the objectives of the study certain classification criteria are chosen. The basic classification features are: economic assignment of market object, geographical location, market entities , the nature of proportion between supply and demand, level of free competition, and others.

Table 1.1. Classification of markets

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| --- | --- | --- |
| № | Сlassification feature | Тypes of markets |
| 1. | The economic assignment of the market objects | Мarket of goods and services (сommodity market)  The land market  Financial мarket  Labour market  Innovative market  Information market |
| 2. | Functional assignment of market objects | Мarket of products for industrial purposes  Market of consumer goods  Real estate |
| 3. | Industry belonging of market objects | Motor market  The market for confectionery products  The Computer Market( IT market)  Agricultural market and others. |
| 4. | Volume of sales of market objects | Wholesale market  The retail market |
| 5. | Methods of sale of market objects | Stock Market  Auction, etc. |
| 6. | Subjects of market | Government structure market  Industry market  Intermediaries market  Final consumers market |
| 7. | The geographical extent of the market | Local (local ) market  Regional market  National market  World Market |
| 8. | The level of state influence | Free market  Regulated market |
| 9. | Correspondenceto the legislation | Legal market  Grey market |
| 10. | The nature of correlation between the supply and demand | Seller's market  Buyer's market |
| 11. | The level of free competition | Perfect (pure) free competition market  Monopoly free competition market  Оligopoly market  Мonopolized market |

For example, due to the feature of economic assignment of market objects commodity market, land market, financial market, labour market, innovation market, information market are distinguished.

**4. Concept and components of market infrastructure**

Market forms its infrastructure. Market infrastructure is a set of market subjects (enterprises , organizations , enterprisers) that provide and serve the movement of goods, services , financial resources , labour fource and so on. It includes wholesale and retail trade, commodity, stock and currency exchanges, brokerage firms, exhibitions, fairs, auctions , banks , leasing companies, employment centers, centers for training and retraining of the staff and others.

Market subjects who act in the market as a seller or buyer only (eg , manufacturers and final consumers of products , owners of financial resources and those who need them , able-bodied citizens and employers) do not belong to a market infrastructure. All other entities that are intermediaries in the market, we call market infrastructure entities.

The market infrastructure has several characteristics:

- It is a product of society's productive forces and the result of the process of production of material goods;

- Its meaning is determined by internal economic unity of the industries that shape it , and activities;

- It is a reflection of the economic relations that are inherented to certain society;

- Activities of industries that form the infrastructure that are caused by the functional assignment or priorities that are developed in society.

Improved infrastructure contributes to the development of economic processes, and vice versa.

The market infrastructure is divided into the following types : industrial, social, institutional and environmental.

Industrial infrastructure - a combination of sectors and sub-sectors whose primary function is providing production services and economic relations in the economy. They create the general conditions for successful placement and operation of social production. This type of infrastructure includes: transportation, warehousing , communications service for the production, the system of promotion of products, facilities energy sector.

The transport system is an important link in the developing process of commercial and economic relations in the commodity market and the organization of goods movement. Transport specificity is that it does not produce commodity production, but takes part in its creation, providing raw materials, equipment and delivering goods to consumers.

Communication system promotes the rationalization of commercial and economic relations between market players . The market presents different types of communication - mail, mobile, radio - and television, the Internet.

Storage and packaged facilities provide movement of goods, their distribution , sorting and storage. Storage fscilities includes warehouses, equipment for distribution of materials and products, lifting and transporting machinery, packaging.

Fuel and Power Complex provides the work of all the infrastructure market elements, and secondly , its components are goods for both internal and external market. The structure of the energy sector includes the following subcomplexes: oil, gas, coal, electric power engineering.

Social condition infrastructure - a combination of sectors and sub-sectors that provides financial, cultural and living conditions for the location and the normal life of people. Social infrastructure provided education, health care, physical education and sports, arts and culture, retail and catering , housing and utilities, public services and so on.

Institutional infrastructure includes organizations that directly control the reproductive process or serve certain areas , such as monetary ( financial institutions, credit and banking systems, computer centres, etc.).

Environmental infrastructure includes building and sites designed for the protection, restoration and improvement of the environment. Its actuality is explained by the growth rate of production and the use of various natural resources and the environmental pollution.

**Check Questions:**

1. What is the economic essence of the market?
2. What is the main functions of the market?
3. How does the market classify?
4. What is concept and components of market infrastructure?
5. What is preconditions for the successful functioning of the market infrastructures?

**Theme 2. Management of goods market infrastructure.**

**Plan**

1. The economic peculiarities of the goods market.

2. The nature, functions and elements of the goods market infrastructure.

3. Description of intermediary structures servicing the goods market activity.

4. Facilitators of goods movement on the goods market.

1. **The economic peculiarities of the goods market.**

Let us analyze the economic peculiarities of the goods market. The participants of economic relations interact with each other through some of the markets. The goods market is very important between them. Goods, works and services are the subject of the goods market.

Depending on the final use of goods, they distinguish between the market of production means and the market of consumer goods.

The market of production means are closely connected with the peculiarities of production processes. It includes the markets of means of labor and objects of labor. The market means of labor consists of equipment, special equipment , manufactured according to individual orders and more. The development of this market is related with the value of the interest rate on the investment of money in the financial market. Thus, the demand for market of production means and the value of investments in the expansion of production decreases with the increase of interest rates, and conversely.

The market of consumer goods includs consumer durable goods (TV set, refrigerators, cars, video, washing machine, etc.) and current consumption goods (food , clothing , etc. ), the market of food and manufactured goods, some industry markets. Depending on social value they distinguish between the market of essential goods and luxury. The market of consumer goods depends on the tastes, requests, preferences and consumer behavior very much.

Market services ensures the creation of special use value that satisfies certain needs of people. Peculiarity services as a goods is that they are not as useful things as well as a certain type of activity. The process of service consumption coincides with the process of their creation. You can not accumulate, transport them. Services in material production include transportation, warehousing, communications and so on. Retail prices of goods, movement efficiency, speed of trade turnover significantly depend significantly on the cost and quality of services received.

1. **The nature, functions and elements of the goods market infrastructure.**

One of the important market components is the goods market infrastructure providing the introduction of the goods and services to the consumer.

**The goods market infrastructure** is the total of all the entities (enterprises and organizations) of the goods market providing different types of economic activity pertaining to goods circulation. These types of activity include the following ones: trade activity whose purpose is to gain profit from goods buying-selling operations; providing the goods market entities with various services (e.g. transport, forwarding, storage, intermediary, customs etc.) facilitating the goods movement from the manufacturer to the consumer.

The main functions of the goods market infrastructure are: promotion of the goods market entities and their economic interests; organization issues of commercial and economic relations between business partners; analysis of the market environment, goods, competitors, intermediaries and consumers; the trade or other commercial and economic activity itself; sales mediation and establishing commercial and economic relations; providing entities of the goods market with various services; using transport and warehousing capabilities etc. The goods market infrastructure facilitates the interaction between the manufacturers of goods and their consumers as well as between the supply and demand. This mechanism determines considerably whether the economics functions effectively. The trading process is the final stage of the cycle of money invested into the goods produced, when the commodity form of value changes into the money form of value, and the economic basis for renewal of goods manufacture is created.

The goods market infrastructure consists of different entities. **Entities of the goods market infrastructure** are enterprises and organizations dealing with goods buying-selling or specializing in providing the owners of goods with services of the same kind on their way from the manufacturer to the consumer. Furthermore, they can be directly (actively) or indirectly related to the goods. *Active* entities of the goods market infrastructure are: wholesalers with either full or limited service cycles; retailers. These enterprises buy and sell goods at their sole cost and expense. *Indirect* entities of the infrastructure include enterprises and organizations providing the manufacturer and active entities with the services of goods promotion. They include intermediary structures having no right to the product; wholesale turnover facilitators (goods exchanges, exhibitions and wholesale fairs, auctions, wholesale commodity exchanges); chambers of commerce and industry; customs and regional customs; customs brokers; warehouses; transport organizations; forwarders, security providers and enterprises; other entities of the goods market infrastructure.

The main difference between indirect entities of the goods market infrastructure and active entities lies in the fact that the indirect ones have no right to the goods they provide service for. The indirect entities receive benefit from the goods manufacturer as certain interest from the goods price or a reward for the work done on the basis of the fee that was either set or agreed upon by terms of a contract.

*Wholesalers with either full or limited service cycles* buy goods from suppliers at their own account, store the goods at their warehouses, pack and sort them out and deliver the goods to a retail network or other wholesalers. Such enterprises have their own material and technical facilities (warehouses, transport vehicles, handling machinery etc.). *Retailers* sell their goods to people via supermarkets, shops, pavilions, mobile store etc. Retailers also include public eating places and enterprises. In practice, *wholesale-retail enterprises* are wide-spread.

*Intermediary structures* are various. They include commercial intermediaries having no right to the goods, namely: agents, wholesale consignees, commission merchants, commercial brokers. *Wholesale turnover facilitators* are commercial intermediaries providing conditions for goods buying-selling between sellers and buyers (wholesale fairs, commodity exchanges, auctions etc.). *Customs brokers and owners of customs license warehouses* provide enterprises with the services pertaining to declaring goods, issuing customs papers, customs clearance of cargo and transport vehicles. Except for the services mentioned, the owners of customs license warehouses store export, import and transit goods at their storage areas charging the enterprises according to the contract. Security organizations and enterprises provide goods market entities with the services of protecting collective and private property as well as cargo and citizens. They guard warehouses, shops and commercial enterprises’ territories, office premises etc. The storage of materials and the security of staff rely on their performance. *Transport organizations and forwarders* provide market entities with the services of cargo processing, transportation and escorting, transport vehicles unloading in the destination point as well as cargo reception and delivery. Transportation can be provided by railroad, airways, sea, river or motor vehicle transport organizations.

**3. Description of intermediary structures servicing the goods market activity**.

If the manufacturer does not want or cannot spend time on delivering his goods to the final consumer, he makes use of commercial intermediaries’ assistance. **Intermediary structures, having no right to the goods** and only working for benefit of the sales interest or being paid according to other schemes, include the following ones:

**The agent**. It is a person acting on behalf of and for the benefit of either the manufacture or the buyer (consumer). The agent does not have the right of title to the goods. His main function is facilitating the buying-selling process.

There are the following agent types: manufacturers’ agents – they represent the affairs of either two or several manufacturers of goods; sales agents – they have the right to deal with sales and are accountable for marketing the manufacturers’ goods; they have the same functions as sales department does, but they are not part of the manufacturing enterprise structure; their cooperation with the manufacturer is determined by terms of their contract; purchasing agents are most often engaged in selecting the required production range (e.g. for small retail merchandisers).

The person on whose behalf and for whose benefit the agent acts is called principal. It can be either the goods owner entrusting the agent with the task of selling his goods, or the goods buyer (consumer) entrusting the agent with the task of purchasing required products.

The legal basis for the agent’s functions is the agency contract (agreement) drawn between the principal and the agent. The agents shall sell or purchase certain goods on behalf of the principal. Hereat, the agent’s remuneration and other conditions are determined by the contract. One of the advantages of using an agent is that it enables the enterprise to increase the product sales, assists in introducing new goods onto the already existing and new geographical markets, helps to establish extensive contacts with buyers.

**The wholesale consignee** is a type of an agent. It sells goods, whose owner is the consignor, from its own or leased warehouse in its own name, but at the consignor’s account. The consignee’s functions are the following ones: preparing premises for the settlement of trade; hiring staff; advertising goods; goods wholesaling. The wholesale consignee is responsible for storing goods at its warehouse and their insurance. It is not the goods’ proprietor and acts on behalf of the wholesale consignor. The expenses related to warehouse maintenance, advertisement, goods transportation and other are to be covered by the consignor. The consignee is remunerated with a fee from the consignor after the goods have been sold to the third parties that are, as a rule, wholesalers situated in other regions of the country and retailers in its own activity field. The wholesale consignee often has its own shops to sell some consignor’s goods.

**The commission merchant** is an intermediary drawing (for a certain commission) agreements by proxy and at the expense of the committent but in its own name. The legal basis to regulate the relationship between the commission merchant and the committent is the commission agreement. The committent is a party of the commission agreement issuing a commission to the commission merchant to fulfil (for a certain payment) one or several agreements on behalf of the commission merchant but at its own expense. The commission merchant receives goods for a temporary physical possession from the committent (individual or legal entity). A sell price is set by agreement and the committent’s consent. The goods having been sold, commission charges and expenses related to sales are deducted; the rest of the sum shall be given to the committent. In terms of organization, the commission merchants can be consignment stores, departments (sections) of commission trade within department stores, specialized shops etc. The committent shall pay the commission merchant a fee for the commission operation conducted. The commission shall be set as a certain interest of the agreement sum.

**The broker** is an intermediary for drawing agreements specializing in certain groups of goods and acting on behalf and at the expense of the clients receiving fee from them. Brokers’ business activity is connected with organization of broker’s offices and stock exchanges. A broker’s office is a legal entity acting as an intermediary. Due to its organization and legal status, a broker’s office can be created as either private or collective enterprise, an organization unit of the enterprise.

**Check Questions:**

1. What is the economic peculiarities of the goods market?

2. What is the nature, functions and elements of the goods market infrastructure?

3. What is the nature and elements of the goods market infrastructure?

4. What is the and elements of the goods market infrastructure?

5. Give the description of intermediary structures servicing the goods market activity.

**Topic 3: Management of Auctions**

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1. The essence and peculiarities of auction.

2. The organization of auction.

3. Classification of auctions.

4. Тhe stages of auction.

**1.The Essence and features of Auctions.**

The auction is a public sale according to which goods or property are sold for the highest price. Auction trade is used for salling relatively limited list of products that have individual characteristics: fur, antiques , works of art , horses, goods made ​​of precious metals, wool, tea, tobacco, fruit, vegetables, flowers, fish, rainforests wood species, etc. This makes impossible the replacement of different batches the same due to the name of the goods, as they may have different properties (appearance, taste, consumer quality , etc.).

The auction sale is the most important form of the international market for commodities such as fur, wool, tea and tobacco. Thus, through the international auctions in the U.S.A and Canada more than 70% of the fur is sold; in Denmark - about 90 %; in Sweden and Norway - nearly 95%. Nearly 70% of tea is sold through the international tenders , about 90 - 95 % of wool which is exported by Australia and New Zealand.

The international auction trade centers were formed for each auction article.So, more than 150 of international fur and fur raw materials auctions are held in the whole world. New York, London, Copenhagen, Oslo, Stockholm, St. Petersburg are the major trade centers of the mink auction. London and St. Petersburg are the main centers of the astrakhanfur (Karakul) auction. The fells of offoxes, sables, squirrels, muskrats, marmot, ermine and others are implemented in St. Petersburg auction in high quantities. Every year it is attended by more than 700 customers from 25-30 countries of the world. Fur auctions are also organized in Germany, Italy, France, Hong Kong, South Korea and Japan.

The main auction centre of carpet wool is Liverpool. Indian and Pakistani carpet wool is sold here mostly. Auction sale of tea is concentrated in the production areas of the product. India has about 70% of tea exports by salling goods through auctions in Calcutta and 30 % - auctions in London. About 70% of tea which is exported Sri Lanka sells through auctions in Colombo and 30% - in London auction. Indonesia sells its tea on auctions in London , Hamburg and Antwerp. African countries implement the main part of exported tea through auctions in Nairobi ( Kenya). On these auctions tea from Tanzania , Uganda, Mozambique, Rhodesia is sold. Tea auction in Singapore gained global popularity, firms from the U.S., Japan, Australia and China are involved in it.

New York and Amsterdam are the most important centers of the auction trade in tobacco, Amsterdam - in flowers, Amsterdam and Antwerp – in fruit and vegetables, the U.S. and Western European countries ports – in fish, France , London, Moscow, Rostov-on-Don – in horses. In general, in the Netherlands on 12 specialized auction more than 6 billion flowers are implemented, about 80 % of them are exported.

The products with unique properties: works of art, historical rare objects, collection items, antiques, and in some cases even the land are sold on auction. Specialized auctions of shares enterprise selling are in the privatization process , and the sale of the property business - bankrupt for making payments to creditors have proliferated in transition.

Auction benefits for the seller are:

1) the concentration of demand for goods:

2) the possibility to sell products of the highest bids;

3) no need to locate a buyer;

4) using the auctioneers experience and expertise.

Auction benefits for buyers are:

1) the possibility of selecting the desired range of products;

2) facilitation of orientation in conjucture.

**2. The organization of auction.**

The auctions are organized by enterprises (companies) that specialize in such procedures. Auctions also be carried out by enterprises for which bids are not the main activity , but the statute provides the right to their conducting. This organizational form include auctions held by artists salons, museums, permanent exhibitions, trade organizations , businesses and others.

Specialized firms organize auctions and selling of the auction catalog on them using their own account and on commission basis and assume all functions in preparation and holding the auctions. Organization and conducting of the auctions can be done by the brokerage and commission firms, which sell goods at auction on a commission basis on behalf of its clients. Brokerage firm conducting the auction, can act as the representative of both, the seller and the buyer.

The auctions are commercial organizations. Auction management is carried by auction committee, comprising the auction director, local municipal authorities representatives. Executive Service (financial, legal, expert, commercial, transport, general management, etc.) may be subordinated to the Director of the auction. Rules of auction bidding together with their leading schedule and the appointment of the trade leader are developed and approved by auction committee.

Special terms are used in the organization and conduction of the auction activity. Auction organizer is called an auctioneer. Auktsionator is a person who passes the goods to the contract auctioneer for its further implementation on the auction.

Lot is a unit of bidding at the auction, which consists of one or more homogeneous in quality objects, things, sets.

Auction step is the amount by which the increase the start and each subsequent prices is made. Its size is set by the organizer of the auction on each lot.

**3. Classification of auctions.**

1. Depending on the initiator of the auction compulsory and voluntary auctions distinguished. Compulsory auctions are conducted by judicial authorities or government authorities to pull off the debts; and also by rhe customs , railways, banks and pawn shops during the sale of confiscated not paid for goods and not redeemed the mortgaged property.

Voluntary auctions are held for the most advantageous sale of goods (antiques, expensive jewelry, items made ​​of precious varieties of fur , paintings by famous artists, highly artistic original works of national and folk art and house fashions).

2. According to the ability to take part in the auction it is distinguished the open auctions ( open to everyone ) and closed auctions ( involves only people specially invited by the organizers of the auction).

3. According to the frequency of auctions there are regular and irregular. Regular auctions are held by the special auction firms on a specific type of product in the same place several times a year , mostly in traditional for each auction time. Irregular auctions are held when there is a need for one-time sale of a particular product.

4. According to the way of pricing there are auctions to raise or lower the price in the public or secret forms.

The so-called English auctions (Buoyantauction) are held the following way. The auction begins with the auctioneer announcements of the names, the basic characteristics and the initial price of the auction object and also the auction step. Auction step is set by the organizer (usually at least 5 % of the starting price) and is stable during the bidding. Bidders are given numbered tickets which they raise after the announcement of regular price in case to be ready to buy the object of trading for that price.

Each subsequent price is appointed by increasing the current price on the auction step. After the announcement of the price the auctioneer calls bidder’s ticket number who first raised the ticket. Then the auctioneer announces the price according to the following steps of auction.The winner of the auction is considered the participant whose ticket number was called by the auctioneer the last.

Auctions can be also conducted to the price reduction, the so-called Dutch auction (Downward auction, Auction of minimum price). The technology of their conduction is similar to conduction of English auctions. However, they begin with the announcement initially inflated starting prices which is gradually reduced to that one for which one of the bidders express consent to purchase the product. An example of "Dutch auction" may be the auction of flowers in Amsterdam.

In the so -called American auction winner is the person who offered the highest price for the tender subject, which is stated in sealed envelopes. Determination of the winners will be at a public meeting of the auction committee.

All three types of auctions can be conducted in both,overt and covert ways. According to covert auction the agreement to raise prices for a fixed amount of allowances previously is given by the customers to the auctioneer in certain signs. It means that the auctioneer by announcing the new price,doesn’t call the buyer’s name , keeping it in secret

**4. Тhe stages of auction**

Auction technology includes 4 stages:

1) the auction preparation;

2) the goods inspectation;

3) auction trade;

4) payment for purchased goods and transfer of goods to the buyer.

1) The auction preparation begins 2-3 months before the future auction. In this auction committee is created. It includes a head ( director) of the auction, auctioneer , the working group (consisting of a merchant , bookkeeper, cashier and a lawyer), the technical secretary , assistant . The composition of the committee includes highly qualified experts – art critics in the sale of goods of arts and crafts, antiques. The committee includes representatives of local administrations and financial authorities during the compulsory auction.

Auction Committee in agreement with the seller sets the auction start price of goods and auction step and creates the protocol of accepting of goods for auction. Each product that is admitted to the auction,is accompanied by information factsheet which contains a detailed description of the goods.

The organizer of the auction ( auctioneer ) selects the location, sets the correct time of the future trades and stipulates the mechanism of trade conducting. Auction organizers made ​​tickets with indicating the sequence number under which the product serves a specific buyer. Information about the auction organization has to be published at least 30 days before the auction. Participants should submit a written application to participate in the auction, make a deposit of 10% of the starting price of the goods and get the appropriate document while the compulsory auction is held.

Products,taken from the sellers are sorted according to the quality of lots (standard batch or unit of goods). Each lot is assigned a number under which it is sold at auction. The rules of the auction include:

1) The inspection of goods;

2) the sale and price fixing;

3 ) the procedure for making contracts;

4) the right to sell the goods to the third parties;

5 ) the procedure for removing the goods from the auction;

6 ) the amount of interest(percent) that is charged on the cost of purchased goods for the administration of the auction;

7) the procedure of resolving disputes between the parties.

The expert assessment of products is completed by installation of the starting price. In some cases, the seller and the auction committee staff can negotiate the price and the goods can not be sold for the lower price. All terms and conditions of the auction sale of goods are recorded in the auction agreement that is signed by the parties concerned.

Anyone willing to participate in the auction must apply for goods exhibition. It contains the full name of the product, a short description, properties and characteristics of consumer quality , data on the number of copies of the product and its owner.

2) Examination of the goods. The number of days set aside for inspection of goods , depend on the size of the auction exposure. Preview catalog is obligatory as no claims about the quality of products to vendors and organizers of the auction after the sale will be accepted (except for latent defects ) in accordance with the terms of the auction bidding . Therefore, buyers should carefully examine the exposed samples. Tasting samples selected by the buyer are held at tea and tobacco auction. In addition , buyers during the examination can purchase samples of their chosen job lots for further verification of their quality.

3) Auction Bidding starts at the certain date and time and are held in a special auction hall in the shape of an amphitheater.

Each lot is announced by:

- the Number listed in the information card;

- Name;

- Brief description of the goods ( property);

- The starting price;

- Auction step.

Lot is put up for auction in the presence of at least 2 buyers. In public way auctioneer announces the number of the next lot , calls the initial (starting) price and asks: " Who is better ?"( Who can more?) If the next price increase is not offered , the auctioneer After three questions: "Who is better ?" he hits the hammer. Thus he confirms that this lot is sold to the participant, who had named the highest bidder.

If it is impossible to achieve the intended level of the selling price , the auctioneer has the right to withdraw the lot from the market and put it up again later. Before the auctioneer hits the hammer buyer has the right to withdraw the price proposal .

As staff of the presidium of the auction, besides the auctioneer ,there are his assistants who observe the behavior of buyers. The buyer who bought the first lot and wants to buy for the same price other lots of consignment is given the preference over other buyers.

4) Payment for the purchased goods and the transference of goods to the buyer.

The auction results are registered after itscompletion in the form of the transaction(contract). The buyer receives the sales receipt from the accountant, pays it and becomes the owner of the goods. The auction management presents the buyer a contract for the goods purchased. The contract has a typical form. Buyer signs the contract and returns it to the auction office, taking a copy for himself. On the grounds of the contract an accountant makes out a receipt in duplicate.The receipt includes:

• name of the product;

• Number of the information card;

• Lot number;

• the final auction price;

• information about the customer;

• the date of sale.

On the grounds of paid sales receipt an accountant records the goods sale in the auction register for the next redistribution of received receipts , it means the difference between the starting and the selling price. The order of distribution of receipts between the organizer of the auction and the owner of the goods is forseen in the agreement signed by them .

The terms of taking goods out of the auction storehouse depends on the type of the product (fo rprolonged products, usually not more than 2-3 weeks).

**Check Questions:**

1. What is the essence and peculiarities of auction?

2. What is the organization of auction?

3. What is сlassification of auctions?

4. What is the stages of auction?

**Topic 4. Financial market infrastructure**

**Plan**

1. Financial market types.
2. Financial Institutions.
3. Financial instruments.

4. Types of Financial Intermediaries.

**1. Financial market types**

For normal development of the economy requires the mobilization of temporarily free of physical and legal persons, their distribution and redistribution on a commercial basis between the various sectors of the economy. These shall be the financial markets.

Financial market - a market inwhich supply and demand are determined by a variety of financial instruments.

The financial market can be divided into different subtypes:

1. *Capital market* is a market for securities (debt or equity), where business enterprises, companies and governments can raise long-term funds. It is defined as a market in which money is provided for periods longer than a year, as the raising of short-term funds takes place on other markets (e.g., the money market).

2. *Exchange market* (or *currency market*) is a component of the financial market for the trading of currencies. The foreign exchange market determines the relative values of different currencies. The foreign exchange market can assist trade and investment, by allowing businesses to convert one currency to another currency. The foreign exchange market is the largest and most liquid financial market in the world. Infrastructure of currency market includes large banks, central banks, institutional investors and retail investors, corporations, governments, and other financial institutions.

3. *Insurance market* is a financial market that facilitates the redistribution of various risks. Insurance is a form of risk management primarily used to hedge against the risks, uncertain losses. Insurance is defined as the equitable transfer of the risk of a loss, from one entity to another, in exchange for payment. An insurer is a company selling the insurance.

4. *Credit market* (or money market) is a component of the financial market for assets involved in long-term and short-term borrowing and lending. Credits are the funds provided to economic entities by banks and other financial institutions in the form of investment, trade credits and loans in order to obtain the percent.

*The capital market* consists of primary market and secondary market.

*1) The primary market* is the part of the capital market that deals with the issuance of new securities. Companies, governments or public sector institutions can obtain funding through the sale of a new stock or bond issue.

*2) The secondary market*, also called aftermarket, is the financial market where previously issued securities and financial instruments such as stock, bonds are bought and sold. Secondary market allows investors to sell securities that they hold or buy existing securities.

The transaction in primary market exists between investors and public while secondary market it’s between investors.

Without financial markets, borrowers would have difficulty finding lenders themselves. Intermediaries such as banks help in this process. Banks take deposits from those who have money to save. Then they can lend the money from this pool of deposited money to those who seek to borrow. Banks popularly lend money in the form of loans.

More complex transactions than a simple bank deposit require markets where lenders and their agents can meet borrowers and their agents, and where existing borrowing or lending commitments can be sold on to other parties. A good *example* of a financial market is a stock exchange. A company can raise money by selling shares to investors and its existing shares can be bought or sold.

**2. Financial Institutions**

Financial intermediaries and other financial institutions are part of a vast financial system that serves the public. The financial system is composed of a network of financial markets, institutions, businesses, households, and governments that participate in that system and regu¬late its operation.

*Functions of the Financial System*

The financial system is one of the most important components of any nation's economy. It provides essential services without which a modern economy could not function.

Credit. The financial system supplies credit to support purchases of goods and services and to finance capital investment—the construction of buildings, highways, bridges, and other stmctures, and the purchase of machinery and equipment. Investment increases the productivity of a nation's resources and makes possible a higher standard of living for its citizens.

Payments. The financial system supplies a mechanism for making payments in the forms of currency, checking accounts, and other trans¬actions media. In recent years, institutions operating in the financial system have developed many new payment services, including money market.

Money Creation. Through the services of supplying credit and providing a mechanism for making payments, the financial system makes possible the creation of money. While there are several different defini-tions and forms of money in use today, all forms of money serve as a medium of exchange for purchasing goods and services. The existence of money allows us to avoid the inconvenience of bartering for the goods and services we need.

Savings. Finally, the financial system provides a profitable outlet for savings. Both individuals and institutions save today to be able to consume more goods and services tomorrow. Saving performs an essential economic function because it releases scarce resources from producing goods and services for current consumption to produce investment goods (buildings, equipment, etc.). However, there would be little in-centive to save in the absence of a financial system. Through that sys¬tem and the financial markets that are a part of it, savers can lend their surplus funds to borrowers and earn income in the form of interest, dividends, capital gains, and so forth. When borrowers need additional funds, the financial system sends out a signal to savers in the form of higher interest rates, encouraging savings-surplus units to save more and consume less. On the other hand, when borrowers require fewer funds, interst rates tend to fall, and the flow of savings is reduced. Thus the financial system provides a mechanism for encouraging saving and for providing a flow of funds into investment.

*Factors Contributing to the Rise of Financial Institutions*

Historians and financial theorists believe that several factors have played significant roles over the years in creating a need for and stimulating the growth of financial intermediaries and other fi¬nancial institutions. These factors are discussed below.

1. Rise of a large middle class of income earners. These families and individuals have sufficient income to generate a small to moderate amount of savings each year. Financial institutions provide a profitable outlet for those savings.

2. The development of science and technology. When new businesses and new production methods have appeared, they usually have required huge amounts of financial capital. Financial institutions have been able to supply the needed financial capital by pooling the funds provided by millions of small savings aсcounts.

3. Economies of scale and scope in the production and distribution of financial services. By combining enough resources to produce a variety of financial services in large volume, cost per unit of service could be kept relatively low, giving financial insti¬tutions a competitive advantage over others supplying financial services.

4. Lack of divisibility in the denominations of many financial instruments, making them inaccessible to many savers. Some fi¬nancially attractive securities and loans (such as government bonds or commercial loans in the money market) are not accessible to savers of limited means because of their large denominations (e.g., some deposits, securities, and loans are sold in million-dollar units); nevertheless, by pooling many individual savings accounts, financial institutions can give the small saver access to these at¬tractive financial instruments.

5. Financial institutions sell unique liquidity services, reducing liquidation costs for their customers. Uncertainties sur¬rounding the cash flows of business firms and individuals create the danger of being illiquid when cash is needed, incurring a penal¬ty cost; financial institutions sell liquidity services (such as deposits having attractively low costs of liquidation) for which the public is willing to pay a liquidity premium.

6. Profitability of risky arbitrage on a large scale and over long periods of time. Because of their greater size and financial expertise, financial institutions can borrow funds at relatively low cost from savers and lend those funds at higher interest rates over longer periods to borrowers. The profit spread between financial institutions' borrowing costs and their returns on loans tends to remain positive in most periods and also tends to be relatively stable because a financial institution's borrowing rates and loan rates tend to move together, up or down, in most cases.

7. Presence of informational asymmetries that benefit some borrowers and lenders more than others. Information on the quality of loans, securities, and other potentially profitable financial investments can be costly to obtain and is not of uniform quality; financial institutions can assemble more profitable portfolios of financial instruments because of their superior ability to gather, evaluate, and sell information to less well-positioned and less well-endowed individuals and institutions. Financial institutions also are able to attract and hold customers because they can protect confidential financial information.

8. Government regulation and insurance programs have made the deposits and other liabilities (fund raising services) sold by financial institutions appear less risky than other possible investments. While government regulation tends to limit the profitability of regulated institutions, it also tends to enhance their ability to sell lOUs to savers and investors and thus has supported the growth of financial institutions. For many financial institutions, government insurance programs have tended to subsidize greater risk-taking and the pursuit of higher returns. To some extent, then, financial institutions are a product of the regulatory environment that surrounds them.

**3. Financial instruments**

*Financial instruments* are instruments whose value is determined directly by financial markets. They can be divided into investment, securities, loans and credits, where both borrower and lender have to agree on a transfer.

1. *Investment* is putting money into something with the expectation of profit. Investment is involved in many areas of the economy, such as business management and finance no matter for households, firms, or governments. Investment is the amount of money used to purchase real capital equipment for future production. Examples include railroad or factory construction, construction of a new mine, purchase of software, or purchase of machinery and equipment for a factory. Investment in human capital includes costs of additional schooling or on-the-job training.

2. *Securities* are the financial instruments representing financial values, including values of stocks and bonds. The securities are divided into:

1) *Debt securities* include the banknotes and bonds, etc. A debt is created when a creditor agrees to lend a sum of assets to a borrower. In modern society, debt is usually granted with expected repayment; in most cases, plus interest.

Banknote (often known as paper money) is a kind of negotiable instrument, made by a central bank, used as money, and in many countries is legal tender.

Bond is a debt instrument in which the issuer promises to pay to the bondholder principal and interest according to the terms and conditions of the bond. Issuer is an organization or government that sells securities to develop the financial activities. The indebted entity (issuer) issues a bond that states the interest rate (coupon) that will be paid and when the loaned funds (bond principal) are to be returned (maturity date). Therefore, a bond is like a loan: the issuer is the borrower, the holder is the lender, and the coupon is the interest.

2) *Equity securities* include the common stocks and preferred stocks.

Common stock is a form of corporate equity ownership, a type of security. Common stock is usually voting shares. Holders of common stock are able to influence the corporation through votes on establishing corporate objectives and policy, stock splits, and electing the company’s board of directors. The *common stock dividend* is the dividend paid to common stock owners from the profits of the company. The *common stock dividend* depends on company profit. If the company gets a loss, the common stock dividend will not pay.

Preferred stock is a special class of shares that usually carries no voting rights, but may carry a dividend and may have priority over common stock in the payment of dividends upon liquidation of a company. The *preferred stock dividend* is the dividend paid to preferred stock owners. The *preferred stock dividend* doesn’t depend on company profit and paid regardless of the profit or loss. If the company gets a loss, the preferred stock dividend will always pay.

3) *Loan* is a type of debt. Like all debt instruments, a loan refers to the redistribution of financial assets over long time, between the lender and the borrower. In a loan, the borrower initially receives or borrows an amount of money from the lender, and is obligated to pay back or repay an equal amount of money to the lender at a later time.

4) *Credit* is the short-term agreement in which a borrower receives money now and agrees to repay the lender at some date in the future, generally with interest.

**4. Types of Financial Intermediaries**

We may view financial intermediaries as firms that produce specialized financial commodities. Financial intermediaries produce these commodities whenever they can sell them for prices which are expected to cover all of their costs of production. In producing these financial commodities, intermediaries enjoy three sources of comparative advantage over others who may try to produce similar services. First, financial intermediaries are able to achieve economies of scale because of their specialization. Because they handle a large number of transactions they are able to spread out their fixed cost. Also, specialized equipment allows them to further lower operating costs. Second, financial intermediaries can reduce the transaction costs involved in searching for credit information. A consumer who wishes to lend directly can also search for credit information, but usually at a higher cost. Financial intermediaries are usually more familiar with credit markets and their participants than are outsiders. Finally, financial intermediaries may be able to obtain important but sensitive information about a borrower’s financial condition because they have a history of exercising discretion with this type of information.

For the above reasons, financial intermediaries are able to produce financial commodities at a lower cost than individual consumers. The underlying reason they can do this is, of course, the high transaction cost involved in producing financial commodities in small quantities. In producing financial commodities, intermediaries perform four basic services for consumers. They are as follows.

Financial intermediaries actually perform several different kinds of intermediation. These include (1) denomination intermediation, (2) defaultrisk intermediation, (3) maturity intermediation, (4) information intermediation, (5) risk pooling, and (6) economies of scale.

Denomination intermediation occurs when intermediaries accept small amounts of savings from individuals and others and pool those funds to make large loans, principally to corporations and governments.

Default-risk intermediation refers to the willingness of financial intermediaries to make loans (primary securities) to risky borrowers and, at the same time, issue relatively safe and liquid (secondary) securities in order to attract loanable funds from savers.

Maturity intermediation refers to the practice of borrowing comparatively short-term funds from savers and making long-term loans to borrowers who require a lengthy commitment of funds.

Information intermediation refers to the process by which financial intermediaries substitute their skill in the marketplace for that of the saver who frequently has neither the time to stay abreast of market de-velopments nor access to relevant information about market conditions and opportunities.

Intermediaries also engage in risk pooling and take advantage of economies of scale in their activities. By investing in assets with a wide variety of risk-return characteristics, the benefits of financial diversifi-cation—greater stability in earnings and cash flow—are achieved, enhancing the safety of funds supplied by savers. Also, as the intermediary increases in size, its operating costs per unit may decline, which can reduce the cost of many financial services supplied to the public.

Other important intermediaries, designated contractual intermediaries, enter into contracts with their customers to promote saving and/or financial protection against loss of life or property. Among the best known contractual intermediaries are life and property-casualty insurance companies and public and private pension funds.

Still another group of institutions is known as investment intermediaries because they offer the public securities that can be held indefinitely as a long-term investment or sold quickly when the customer needs his or her funds returned. Investment intermediaries include mu¬tual stock funds, bond funds, and money market funds. It is generally argued that cash inflows and outflows of contractual and investment in¬termediaries can be predicted more easily than funds flows through deposit-type intermediaries. This permits the former institutions to minimize short-term liquid investments and reach for longer-term investment assets with higher yields.

We may also distinguish between mutual and stock intermediaries. A mutual institution is owned by its customers, who receive a share of the institution's net earnings in the form of dividends. For example, most savings and loan associations today are mutuals; their depositors are really owners, receiving dividends on their deposits. Each depositor has a vote in any matter affecting the institution as a whole, such as a merger or reorganization. Mutuals are very important organizational forms in the savings and loan, savings bank, and life insurance industries.

Other intermediaries, such as commercial banks, are stockholder-owned financial institutions organized as regular business corpora¬tions. The shareholders in a stock financial institution are its owners, receiving a share of any net earnings and the power to elect the board of directors and vote on any significant issues bearing on the whole organization. For example, in a stock savings and loan association, the stock-holders are the owners, while its depositors are not owners but credi¬tors, receiving interest on their deposits and having first claim against the association's assets in the event of liquidation. Commercial banks are stockholder-owned corporations, as are most property-casualty insurance companies and finance companies.

Specific benefits of financial intermediation found in the following:

1) the possibility for each creditor promptly post surplus funds in profitable assets and the borrower - quickly mobilize additional funds needed to solve industrial or consumer problems, and just as quickly return to their upward position. To do this, the creditor enough to apply to any agent and place it in your funds, putting them into a common pot though , and the borrower is enough to turn back and get them a loan if he took them out of the boiler. Search them to each other and do not need to even know about each other is not required. We're just wide network development financial intermediaries;

2) reducing the cost base of business money market on the formation available funds , placing them into profitable assets and borrowing more funds. This is attributed to the following factors: the lender and the borrower does not a lot of time and effort spent on each other (advertising information systems , etc.) does not need to perform complex evaluative and analytical measures for the potential client to determine its reliability, solvency. This problem and expense incurs by financial intermediaries.

3) reducing the financial risk for the base business money market associated with the use of their capital as much of their shifted to intermediaries. This is possible due to the wide diversification of mediation , the creation of special security and protection against financial risks;

4) increasing the profitability of loan capital by reducing financial risk, reduce costs on financial transactions and opening access to large, high yield business. This is due to the fact that brokers are able to concentrate a large number of small savings and direct them to finance large, high-yield operations and projects;

5) the possibility to vary the relationship between lenders and borrowers provision of additional services to take on intermediaries. In particular , insurance against various risks creditor , the needs of pensions, housing, acquiring ownership and control of certain objects and so on. Financial intermediaries specialize in providing such services, and therefore formed a wide range of individual species.

Since the basic subjects of the money market are mainly the subjects of the real sector of the economy ( business enterprises and households) , it is creating for their operation conditions favorable financial intermediaries positively affect to turnover of the capital in the process of expanded reproduction, production development.

Also financial intermediaries are divided into two groups:

- Banks;

- Non-bank financial intermediaries.

The economic difference between the two is that the subjects of the second group are pure intermediaries, they can not be placed in assets more than your own accumulated . Banks also are not just ordinary intermediaries, but also the creators of the loan as performing emission feature. Because banks are rightly regarded not only as simple intermediaries, but as enterprise credit sector.

The desire to achieve financial security has led to remarkable growth in various types of retirement funds. Saving for retirement may be accomplished in two ways: through personal saving initiatives and through employer-sponsored pension plans. There are several distinct advantages of saving through employer-provided funds. First, pension funds may be able to manage a portfolio more efficiently than an individual can. They provide diversification, reduced transactions costs, and financial expertise. Second, the tax code encourages employees as well as employers to contribute to pension plans. Income contributed directly to a retirement fund is nontaxable when it is earned—that is, contributions are tax deductible. Instead, it is taxed when it is distributed at retirement.

Today, the great majority of major corporations as well as state and local governments and other organizations offer retirement programs to their employees. Employers deduct the funds from workers’ paychecks and send them—sometimes with matching contributions—to a pension fund or retirement fund. The funds invest the contributions in corporate stocks and bonds and U.S. government bonds, and the employee receives a contract guaranteeing a regular monthly income at retirement.

Investment-Type Financial Intermediaries

Included among investment-type intermediaries are mutual funds, finance companies, and money market mutual funds. The benefits provided by these investment intermediaries include lower transactions costs (obtained by buying in large blocks); the financial expertise supplied by mutual fund management; and increased diversification relative to that feasible for an individual.

Finance companies obtain funds by issuing commercial paper or stocks or by borrowing from banks. They use the funds to make small loans to individuals and businesses. They also gather and monitor information that allows them to estimate potential borrowers’ default risk. Because customers of finance companies tend to have higher default risks than do borrowers from banks, finance companies typically charge higher interest rates than banks do. Unlike commercial banks, finance companies obtain funds in large blocks and lend in small amounts. The growth of the commercial paper market has given finance companies an advantage over commercial banks. As a result, finance companies have maintained their share of the intermediation market, while the commercial banks’ share has declined significantly. Because finance companies do not issue deposits, regulatory authorities have imposed few regulations on them beyond disclosure requirements and efforts to prevent fraud. The asset structure of finance companies is basically unregulated.

Finance companies may be divided into three categories. Sales finance companies, which are usually associated with a large corporation, exist to finance the sale of the corporation's products. For example, General Motors Acceptance Corporation conveniently provides auto loans for cars sold by General Motors. Consumer finance companies, such as Household Finance Corporation, make small loans to households for the purpose of financing furniture, household appliances, and home improvements. Business finance companies make loans to small businesses, often by purchasing their accounts receivable at a discount from face value. These companies are also active in purchasing expensive equipment (such as airplanes) and leasing it to businesses.

**Mutual funds** - an investment vehicle that is made up of a pool of funds collected from many investors for the purpose of investing in securities such as stocks, bonds, money market instruments and similar assets. Mutual funds are operated by money managers, who invest the fund's capital and attempt to produce capital gains and income for the fund's investors. A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

One of the main advantages of mutual funds is that they give small investors access to professionally managed, diversified portfolios of equities, bonds and other securities, which would be quite difficult (if not impossible) to create with a small amount of capital.

Mutual funds pool the funds of many individuals in order to purchase a diversified portfolio of stocks and/or bonds. One may choose from mutual funds with various objectives, such as long-term growth of capital or high current income. Particular mutual funds may emphasize technology, natural resource, utility, or emerging growth stocks. Others specialize in international stocks.

There are two broad categories of mutual funds specializing in common stocks: open-end funds and closed-end funds. An open-end fund has the right to issue additional shares at its discretion. In buying an open-end fund, one purchases a pro rata share of a portfolio. Shares can be redeemed at any time at their net asset value—the value of the shareholder’s portion of the portfolio. A closed-end fund is closed in the sense that it cannot issue additional shares and the owner cannot redeem the shares at their market value from the fund itself. Instead, the shares are traded like common stock on a secondary market (over the counter or through one of the stock exchanges).

Money market mutual funds (MMMFs) are blossomed during the period of escalating interest rates in the late 1970s. These funds issue “shares,” which are actually interest-bearing deposits. The yield payable on MMMF shares changes daily in response to market forces. A minimum deposit of anywhere from $1000 to $20,000 is usually required to open an account.

Credit unions, called by various names around the world, are **member-owned**, **not-for-profit financial cooperatives** that provide savings, credit and other financial services to their members. Credit union membership is based on a common bond, a linkage shared by savers and borrowers who belong to a specific community, organization, religion or place of employment. Credit unions pool their members' savings deposits and shares to finance their own loan portfolios rather than rely on outside capital. Members benefit from higher returns on savings, lower rates on loans and fewer fees on average.

Credit unions worldwide offer members from all walks of life much more than financial services. They provide members the chance to own their own financial institution and help them create opportunities such as starting small businesses, growing farms, building family homes and educating their children.

Regardless of account size in the credit union, each member may run for the volunteer board of directors and cast a vote in elections. In some countries, members encounter their first taste of democratic decision making through their credit unions.

*Table 4.1.*Credit Unions and other Financial Institutions

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Credit Unions** | **Commercial Banks** | **Other Microfinance Institutions (MFIs)** |
| **Structure** | Not-for-profit, member-owned financial cooperatives funded largely by voluntary member deposits | For-profit institutions owned by stockholders | Institutions typically funded by external loans, grants and/or investors |
| **Clientele** | Members share a common bond, such as where they live, work or worship. Service to the poor is blended with service to a broader spectrum of the population, which allows credit unions to offer competitive rates and fees. | Typically serve middle-to-high income clients. No restrictions on clientele. | Target low-income members/clients, mostly women, who belong to the same community. |
| **Governance** | Credit union members elect a volunteer board of directors from their membership. Members each have one vote in board elections, regardless of their amount of savings or shares in the credit union. | Stockholders vote for a paid board of directors who may not be from the community or use the bank's services. Votes are weighted based on the amount of stock owned. | Institutions are run by an appointed board of directors or salaried staff. |
| **Earnings** | Net income is applied to lower interest on loans, higher interest on savings or new product and service development. | Stockholders receive a pro-rata share of profits. | Net income builds reserves or is divided among investors. |
| **Products & Services** | Full range of financial services, primarily savings, credit, remittances and insurance. | Full range of financial services, including investment opportunities. | Focus on microcredit. Some MFIs offer savings products and remittance services. |
| **Service Delivery** | Main office, shared branching, ATMs, POS devices, cell phones, Internet | Main office, shared branching, ATMs, POS devices, cell phones, Internet | Regular visits to the community group |

**Check Questions:**

1. What are Financial market types?
2. What are Financial Institutions ?
3. What are Financial instruments?
4. What are Financial Intermediaries?
5. Give a description of Mutual funds.
6. Give a description of Credit Unions.

**Topic 5. Financial market instruments valuation**

Plan

1. The mechanic of interest rates.
2. Тhe link between present and future values.

3. Securities valuation.

**1. The mechanic of interest rates**

The most important factor in financial markets is the level and structure of interest rates. This is true because changes in relative interest rate levels cause funds to flow among market participants either more frequently or more slowly, thereby affecting the level of activity within a particular economy. For example, in a domestic economy, interest rates act as the mechanism controlling the flow of funds from savers to investors and between competing domestic market seg¬ments. In international markets, the flow of funds among different national financial markets is influenced by relative interest rates on competing (domestic) financial instruments traded internationally. Financial market participants, both domestic and international, are concerned with prevailing interest rates; the causes of interest rate changes; the likelihood of future changes in interest rates; and the anticipated direction of those rate changes.

An interest rate can be viewed as the rental price a borrower pays for the temporary use of someone else's money. An interest rate typically is expressed as a percentage of the principal amount borrowed—commonly adjusted to represent an annual rate—that is charged to the borrower for using the funds over a specified period of time. The level of the interest rate charged a given borrower at a given time reflects the lender's assessment of the borrower's risk. There is no mystery to this: very simply, the more confident the lender is that the borrower will repay the lender on time and in the correct amount, the more comfortable the lender feels about the loan, and therefore lower rate of return is demanded, resulting in a lower interest rate charged. Higher interest rates reflect just the opposite. This is true regardless of whether borrower and lender are operating within a national market or an international one.

Many of the interest rates are open-market rates and vary frequently, perhaps daily or even hourly, in response to changes in demand and supply. Several interest rates are managed, usually set by the banks or by a government agency; these posted interest rates might remain unchanged for an extended period.

Interest rates rank among the most crucial of variables in macroeconomics as well as in the practical world of finance. Changes in interest rates have important implications for a multitude of phenomena, including the level of investment spending, consumer expenditures on durable goods, the redistribution of wealth between borrowers and lenders (debtors and creditors), and the prices of such key financial assets as stocks, bonds, and foreign currencies.

There are many different interest rates—for example, those on mortgages, U.S. Treasury bills, commercial paper, bank certificates of deposit, and bonds issued by corporations, municipalities, and the U.S. government. If investors regarded all these instruments as perfect substitutes for one another, the interest rate, or yield, would be the same for each one. Clearly that is not the case.

Let’s look first at how characteristics of markets influence interest rates. The main feature of these markets is liquidity. Liquidity involves the ease with which a security can be sold and the impact of a given volume of sales or purchases on the price of a security. The difference between the price paid when a security is purchased and the price received when the security is sold reflects the various charges or fees demanded by the brokers and the other intermediaries in the market; these charges and fees can be grouped as transaction costs. The size of these transaction costs measure the liquidity of the market.

The more liquid the market, the lower the transaction costs and the lower the interest rates attached to the securities traded in that market; the less liquid the market, the higher the interest rate the borrower must pay to sell securities to investors, for the investors want to be compensated for the costs they will incur when they sell the security. Real estate is traded in retail markets, which are not liquid.

The multitude of yields existing at any given time is accounted for by differences in default risk, tax considerations, marketability and liquidity, and length of time to maturity among various instruments.

At higher interest rates, market participants are more willing to postpone current consumption for greater future consumption—thereby supplying more funds to the credit market. In general consumers will be encouraged to save more as interest rises. Higher borrowing costs will stimulate business to finance investments out of internal sources (retain earnings and depreciation) rather than issue new debt or equity. This can be accomplished by reducing dividend payouts in order to increase retained earnings or switching to an accelerated depreciation method. Furthermore, at higher interest rates, there will be a decrease in the demand to hold money because of the greater opportunity cost of holding noninterest-bearing money balances. Thus the quantity of loanable funds supplied to the market is increased.

**2. Тhe link between present and future values**

Financial resources (money) has the time value, that is, over time their value changes. The time value of money can be considered in two aspects. The first aspect is related to the circulation of money as capital and generate income from it’s using. Investors generally prefer the same money that is available today, not those that will be tomorrow because they enable them to ever more money, and what is the tack of the financial manager.

The second aspect of reducing the cost of money over time is associated with main reasons:

1) inflation;

2) risk;

3) the ability to liquidity.

Inflation - a depreciation of paper money and non-cash , no small change for gold. Inflation can be defined as an overflow channel of monetary circulation relative to the mass of commodities , which manifests itself in a general rise in prices in the country.

*Example*. If inflation is an annual price increase of 5% is purchasing power, such as the dollar falls each year by 5%. In other words, today's $ 1 a year will be 0.95 %.

Inflationary processes taking place in the world ever . If the inflation rate is 2.3 % per year , it does not require any emergency measures. High inflation (10 % or more per year) indicate turmoil in the economy.

For the investor with $1,000, the bank that offers a 10 percent interest rate is offering a choice between $1,000 now and $1,100 a year from now. The interest rate is the price that expresses the relationship between these two values: the future value of $1,100 exceeds the present value by 10 percent. The interest rate reflects the difference between the present value and the specified future value, expressed as percent per year.

Would you prefer $500,000 today or $525,000 a year from now? If you could be sure of an interest rate of 8 percent, you could take the $500,000 today and have $540,000 a year from now: the future value of $500,000 is $540,000 at an interest rate of 8 percent. Having determined that the future value is $540,000, you know that you would rather have $500,000 now than $525,000 a year from now. But what if the interest rate is only 4 percent? Now, you would rather take the $525,000 a year from now (assuming that it’s a sure bet) because the future value of the $500,000 at 4 percent is only $520,000.

The relationships among present value, future value, and interest rates can be expressed in several ways. If both present and future values are known, the interest rate can be inferred; this calculation is

FV/PV = (1 + R)N,

where FV is future value, PV is present value, r is the interest rate, and n is the number of periods. If the present value and the interest rate are known, the future value can be calculated for any particular time interval; this calculation is

FV= PVx (1 + R)N.

If instead the future value is known, then the present value can be readily calculated; thus

PV= FV / (1 + R)N.

The alternative to the calculation is to use a set of future value and present value tables, that is, to rely on someone else’s calculations.

To speed up the calculation of the current and future value, there are special tables,which calculated the percentage factor for a number of years at a certain interest rate.

**3. Securities valuation**

The method involves the application of the present value formula which recognizes that the value of money is affected by when it is received. The axiom underlying this approach is that a dollar today is worth more than a dollar received in the future. In other words, the present value of a dollar that will be received in the future is less than the value of a dollar in the hand today.

The present value is the price that one would pay for promised cash payments in the future. Securities valuation includes the valuation of bonds and shares.

*Bond valuation* is the determination of the fair price of a bond. The bond valuation includes the following steps:

1) find the coupon payment on bond (is the periodic interest payment) by the formula:

**,

where ** is thecoupon payment on bond;

**is theface bond value (or nominal value is the amount paid to a bondholder at the maturity date);

** is theinterest (coupon) rate.

2) find the present value of the future coupon payment on bond:

**,

where ** is thepresent value of the future coupon payment on bond;

** is theexpected future coupon payments on bond;

** is themarket rate of interest on similar bonds in the financial market;

*n* – is the number of periods (years).

3) find the present value of thebondface value by the formula:

**,

where ** is thepresent value of thebondface value;

** is theface bond value (or nominal value).

4) find the bond price by the formula:

**.

*Example 1:* a company issued five-year bonds one year ago with a face bond value of $1000 and 10% coupon rate. The coupon payments paid annually. Themarket rate of interest on similar bonds in the financial market is 12%. Find the bond price.

*Solution:* the coupon payment on bond by the formula equals:

**

The present value of the future coupon payment on bond by the formula:

**

The present value of thebondface value by the formula equals:

**

The bond price by the formula equals:

**

*Conclusion:* the bond price is $927,9.

*Example 2:* a company issued three-year bonds with a face bond value of $12000 and 10% coupon rate. The coupon payments paid annually. The face bond value for the first year is $5000, for the second year is $4000, for the third year is $3000. Themarket rate of interest on similar bonds in the financial market is 14%. Find the bond price.

*Solution:* the coupon payments on bond for each year by the formula:

*For the first year*: **

*For the second year*: **

*For the third year*: **

The present value of the future coupon payment on bond by the formula equals:

**

The present value of thebondface value by the formula equals:

**

The bond price by the formula equals:

**

*Conclusion:* the bond price is $9048,6.

*Stock valuation* is the determination of the fair price of a stock. The stock valuation includes calculating common stock’s price and calculating preferred stock’s price.

*1) Common stock price* depends upon the risk level. The common stock price is defined by the formula:

**,

where **is the common stock price;

**is the annual dividend per common share. *Dividend* is the sum of money paid regularly by a company to its shareholders out of its profits.

*Ks -* is the required rate of return per share. The required rate of return per share is defined by the formula:

** ,

where **the risk-free rate of interest, %;

the sensitivity to market risk for the security;

**the average rate of return per share of the equity market, %.

*For example:* The annual dividend per common share is $4. The risk-free rate of interest is 5%, the sensitivity to market risk for the security is 1,2 and the average rate of return per share of the equity market is 12%. Find the price of common share.

*Solution:* the required rate of return per share by the formula equals:

**

If the required rate of income per share is 13,4%, the security will provide profit not less than 13,4%. The profit less than 13,4% means the price of security is undervalued.

The price of common share by the formula:

**

*Conclusion:* the price of common share is $29,9.

*2) Preferred stock price.* Owners of preferred shares receive fixed dividends from companies that issued these shares regularly. For these stocks, there is no maturity. The preferred share price is defined by the formula:

**

where **is the price of preferred share;

**is the annual dividend per preferred share. The annual dividend payments on preferred share don’t depend on company profit. If the company gets a loss, the dividends on preferred share are paid regardless of the company’s profit.

**is the preferred dividend rate of similar shares in the financial market. The preferred dividend rate doesn’t depend on financial risks.

*For example:* The annual dividend per share is $5 and the preferred dividend rate of similar shares in the financial market is 10%. Find the price of preferred share.

*Solution:* The price of preferred share by the formula equals:

**.

*Conclusion:* the price of preferred share is $50.

*Сommon stock price.*

Dividends on ordinary shares are not guaranteed. Dividend policy of each company depends on its profits. Dividends paid in a given year may be higher or lower than the dividends paid by the previous. For some years, dividends may be paid no.

Over time, the annual dividend from shares can be stable or vary, for example, increase or decrease of the rate constant for several years. Therefore, the pricing of common stock requires careful prediction of future dividends.

The price of the ordinary shares mainly determined by three factors: annual dividends, dividend growth rate, the discount rate.

The rate at which the discounted future dividends are called Required Rate оf Return. If the company have high level of risk, investors are hoping for a high Required Rate оf Return.

Valuation of common stocks of constant dividends is carried out according to the formula:



where Po – the price of common stock with constant dividends;

D - constant annual dividend per share;

Ks - Required Rate оf Return of common stock, depending on their risk.

Sample. The company pays an annual dividend of $ 3 per share. The сompany does not expect to increase of future dividends. The required rate of return on equity of 12%. What should be common stock price?



[*Dividend Growth Rate*](https://www.google.com.ua/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CDAQFjAA&url=http%3A%2F%2Fwww.investopedia.com%2Fterms%2Fd%2Fdividendgrowthrate.asp&ei=AR8wU-KiHMa2hQfjsYHwBA&usg=AFQjCNGdUbPhajBh3LeXyN-U3jSuN61fMw&sig2=o9BzPDVid2c9o_amdnB7tg&bvm=bv.62922401,d.ZG4)– the annualized percentage rate of growth that a particular stock's dividend undergoes over a period of time.

C*onstant growth stock* *valuation.* The dividends can grow with a stable annual dividend growth rate. For example, if the last dividend was $ 2, аnd the annual dividend growth rate - 5%, the next year the dividend is $ 2,10.

2 \* (1 +0.05) 1 = 2 \* 1.0051 = $ 2.10.

A year dividend will be $ 2.20:

2,1 \* (1 +0.05) = $ 2.20.

*Сommon stock price* with constant growth rate of dividends you can determine if future dividends discounted at the required rate of return:



D1 - dividend for 1 year;

D2 - dividend for 2 year.

This formula can be written differently (Gordon model):



Dо - last annual dividend paid per share;

di - the expected annual dividend per share;

Ks - required rate of return;

g - dividends growth rate.

*Example.* At the last time the company paid a dividend per share $ 1.8. The company expects that its dividend will grow annually by 6%. Determine the stock price if the required rate of return is 11%.

Solution :



*Valuation of shares for which dividend growth rate is unstable.*

For necessary to determine future dividends separately for each period and then discount those amounts to present value and add the results.

Sample. Last year, the company paid an annual dividend per share $4. It is expected that over the next 3 years the annual growth of the dividend will be equal to 20% and then established at 6%. Determine the common stock priceif the rate of return required to take 12%.

Solution :

During the first year: 4 \* 1.2 = $4.8.

2nd year: 4.8 \* 1.2 = $5.76.

Year 3: 5.76 \* 1.2 = $6.91.

For the 4th year and subsequent use the Gordon model:



Common stock price:



The key question is, why are there so many different interest rates at any one time? A related question is, why does the relationship among these interest rates change over time? The principal answer is that these securities differ in their attributes or features: some may promise to make repayment at a later date than others, some are riskier than others, and some carry tax advantages. Technically, the relevant attributes include liquidity, tax liability, default sensitivity, venue or political risk, currency, and tenure or maturity.

**Check Questions:**

1. What is the mechanic of interest rates?
2. What is the link between present and future values?
3. What does securities valuation depend on?
4. Why is it important to determine securities valuation?
5. How to determine bond valuation?
6. How to determine preferred stock price ?
7. How to determine common stock price with constant growth rate of dividends?
8. How to determine valuation of shares for which dividend growth rate is unstable?

**Topic 6: Banks as leading financial mediators**

**Plan**

1. The essence and functions of banking.

2. The classification of banks.

3. The operations and services of commercial banks.

1. **The essence and functions of banking.**

*History of banking.* The name bank derives from the Italian word banco "desk/bench", used during the Renaissance era by Florentine bankers, who used to make their transactions above a desk covered by a green tablecloth. However, traces of banking activity can be found even in ancient times.

Some have suggested, the word traces its origins back to the Ancient Roman Empire, where moneylenders would set up their stalls in the middle of enclosed courtyards called macella on a long bench called a bancu, from which the words banco and bank are derived. As a moneychanger, the merchant at the bancu did not so much invest money as merely convert the foreign currency into the only legal tender in Rome – that of the Imperial Mint.

Deposit-type financial institutions are the most commonly recognized intermediaries because most people use their services on a daily basis. Typically deposit institutions issue a variety of checking or savings accounts and time deposits and use the funds to make consumer, business, and mortgage loans. The maximum interest paid on deposit accounts is usually regulated . Thus, for practical purposes, the deposits are devoid of any risk of loss of principal. Also, these deposits are highly liquid because they can be withdrawn on very short notice, usually upon demand.

Commercial banks, the largest and most important financial intermediary, are widely diversified intermediaries in the range of assets held and liabilities issued. They are sometimes referred to as the “department store of finance.” Their liabilities are in the form of demand deposits, savings accounts, and various time deposits. On the asset side, commercial banks make a wide range of short- and medium-term loans in all denominations to consumers, businesses, and state and local governments. They are also an important grantor of long-term mortgage loans. Many commercial banks have trust departments and leasing operations, and underwrite certain classes of securities.

Commercial Bank is a financial institution that provides services, such as accepting deposits, giving business loans and auto loans, mortgage lending, and basic investment products like savings accounts and certificates of deposit. The traditional commercial bank is a brick and mortar institution with tellers, safe deposit boxes, vaults and ATMs.

Commercial banks are among the most highly regulated of all financial institutions. They are subjected to numerous regulations and examinations on both the state and federal level.

Banks play an important role for financial mediators. It is shown in such:

- Banks handle the majority of redistribution of the loan capitals, rather than any other financial mediators

- Banks by their functionary purpose take part in money proposal forming and have an influence on business cycle, economic growth, activity of other financial mediators;

- Banks provide assortment of different services for economic entities, while other mediators are specialized on the separate limited financial operations. Therefore possibilities of influence on turnover and economy on the whole at banks considerably wider, than at any type of unbank financial mediators.

An economic difference is indicated between banks and unbank financial mediators requires clear determination of essence of bank. A bank in the economic understanding is a financial mediator which executes a complex from such three base operations:

1. accumulation of money of economic entities with a right for a free order by them (for example, a bank takes the money holdings over clients)
2. free placing them in profitable assets on its own behalf and under the responsibility (a bank gives loans and creates new circulating mediums)

- carries out calculations between clients.

To the bank functions belong:

1) transformation;

2) emission (creation of new circulating mediums and adjusting of turnover);

3) stabilizing (providing the stability of bank activity and money-market).

A transformation function consists it in the change (transformations) of such high-quality features of money streams, which pass through banks, as a risk level, time estimates, volumes and spatial direction. Basing on this information it is possible to select such directions of this function:

- transformation of risks;

- transformation of terms;

- transformation of volumes;

- spatial transformation.

**Transforming of risk** is that banks whose activities are associated with high risk, taking appropriate measures can reduce these risks to their investors and shareholders to a minimum. These measures include diversification of active operations, provisioning, differentiation of interest rates depending on the riskiness of loans, deposit insurance and so on. These measures banks take on the bulk of the risk of investments.

**Transformation of terms** is performed by mobilizing significant amounts of short-term funds and keep adding to them, the banks are able to direct some of them into long-term loans and other long-term assets. This benefits is provided not only for banks (they receive higher income), but also for their customers. Borrowers are able to finance their long-term projects, and creditors - to make more revenue on their deposits in banks.

**The transformation of volumes** turns out that mobilizing large amounts of small deposits, banks are able to accumulate great masses of capital to implement large-scale projects. Without banks, these funds would have remained fragmented, would be used with low efficiency or not used at all.

Banks are able to pool the savings of many individuals and invest the funds in direct securities of varying size. Of particular importance is accepting the deposits of small savers who do not have an adequate amount of money to engage in the large denomination transactions typically found in direct financial markets.

**Spatial transformation** means that banks can accumulate resources from many regions and even from other countries and focus on funding projects to one region, one country, one object. This extends the geographic boundaries of the money market, it turns into international and global, which facilitates balancing of demand and supply in the money market in any place of the world market.

**Emission function** of banks is that only they can create additional payment and direct them into turnover, increasing the supply of money, or to withdraw them from circulation, reducing the supply of money. This function serves as the Central Bank issuing cash and deposit money, and commercial banks issuing deposit money.

**Stabilization function** associated with extremely risky banking. Implementation of this function is shown in making legislative and regulatory acts governing banking activities and the establishment of a mechanism of state control over banking. This includes following:

- Insurance of bank risks, especially credit;

- The creation of bank reserves to cover losses from banking risks;

- Establishment of a centralized economic standards of the most risky activities;

- Centralized banking supervision, and others.

The specific result of the banking activity is bank product — specific services provided by the Bank to the customer. The specifics of bank product is its limited scope of circulation and material content.

Under banking system we understand historically composite and legislatively fixed system The organizations of banking affair in country. The banking system - is not just a collection of individual banks, but consciously built on the legal basis of their unity with a clear definition of the place of subordination and relationships of its individual components and parts. It performs its specific function and role in the economy.

The legislation establishes the structure of the banking system, defines the scope of activity, the subordination of and responsibility for the various institutes that make it up.

Necessity of formation of the banking system is determined by two groups of causes:

1) associated with the need for public oversight and regulation of banking activities, coordination of commercial interests of individual banks to general public interests - ensuring the sustainability of money and a stable work of banks;

2) related to the functioning of the money market and ensuring a balance between supply and demand in the money market.

The modern banking system, as a rule, consist of two levels. On the upper level is a national (Central), and the second, lower, the system of commercial banks. For efficient operation of the banking system is not the only banks, they need proper infrastructure, which includes:

- Interbank settlement centres;

- the system of interbank communication;

- centres of technical and technological servicing banks;

- information and training centres for staff of the banking system;

- creation of the interbank deposit insurance funds; banking associations, associations, unions, etc.

**2. The classification of banks**

Commercial banks are classified by different criterias:

- by form property,

- by organizational form,

- by capital size;

- by the band of operations, what them are brought forth and by sector market, where they function.

By ownership type commercial banks are parted on:

- State - the vast majority of central banks and commercial banks separate, fully nationalized, or those in which the state owns a controlling interest;

- Private - can be established in any legal form. In international practice dominates stock form.

- Cooperative is generally created by branch sign, for example in the field of agriculture. Its activities cover the small territory is within the area of federal land, etc. Feature of them is that the number of founders (usually) may not be less than 50 persons, and that in the course of its activities, the Bank operates mainly in the interests of the founders. For example, most owners of farms in a particular area cooperative bank set up to ensure that each of them could need to take a loan out there to upgrade machinery, poultry farms or livestock, purchase of seeds, fertilizers and so on.

Depending on the organizational form of commercial banks with collective ownership in the banking market are joint-stock banks and limited liability company (mutual banks).

Joint stock banks open and closed form their capital due to the merging of individual capital founders and participants through the issue and placement of shares of the Bank. Owner, capital acts as a joint, i.e. Bank. Shareholders usually do not have the right to request the Bank to return his contributions. Therefore, joint stock banks are considered to be more resilient and reliable.

Mutual banks to form their capital due to the contributions of money (shares) in the statutory fund. Each of the participants kept ownership of his share capital, i.e., the Bank is not the owner of the capital. Equity commercial banks are organized on the principles of limited liability companies. Here is the responsibility of each participant is limited to the size of its contribution to the capital of the Bank.

Depending on the size of the assets of the commercial banks are divided into small, medium and large. The largest banks accounted for most of the assets of the banking system, which indicates a high concentration of banking capital. A territorial sign banks are international, national, regional, inter-regional, municipal.

Depending on availability of branches of commercial banks can qualify for multibranched, can have few branches, can have none of branches.

A specialization of banks can be universal and specialized. Universal banks perform wide range of operations and provide a variety of services to its customers. In Ukraine, the commercial banks can be considered universal, since almost all of them have the potential legal options for implementation of all banking products and services to attract different types of customers.

The bank is considered to be a specialized bank in the event that more than 50% of its assets are assets of the same type. Are the following types of bank specialization:

a) maintenance of a certain category of customers - banks of client specialization. Thus, for the world of banking is characteristic that stock banks serve only real exchange structures, insurance - insurance institutions and cooperative banks provide credit and settlement services co. Therefore, banks with a customer specialize made for certain types of financial services firms.

b) servicing predominantly legal and physical entities within a particular sector — banks with branch specialization (agricultural banks, commercial banks, etc.). in the small circle) providing services for the majority of its clients-banks of functional specialization. The brightest expressed functional specialization, since it fundamentally affect the nature of the activities of the Bank, determines the peculiarities of formation of assets and liabilities, the balance sheet of the Bank building, as well as the specifics of working with clientele.

For functional specialization, distinguish banks investment, innovative, savings, mortgage, deposit accounts. Investment and innovative banks accumulate temporarily free funds for long terms (including through bond loans) and provide long-term loans. Savings banks specialize in lending to population by bringing in small size of term deposits.

Mortgage banks provide credit for a long time, mostly for mortgages. A large proportion of their liabilities is formed by equity and capital mobilized through issuance of mortgage bonds. Accounts and Savings Bank has historically specialized in the implementation of short-term deposit and lending operations.

So they among active operations predominate credit and accounting operations of commercial paper, and among passive - real attraction of temporarily idle funds in demand deposits.

In the process of concentration and centralization of bank capital possible bank merger hectares of financial institutions in consortia, corporations, associations and others.

**3. The operations and services of commercial banks**

Today banks are quite diversified and offer a number of operations andservices. Commercial banks make loans for virtually any conceivable legal purpose, from vacations to cars, from homes to college educations. Banks offer home equity loans, by which home owners can borrow against the appraised value of their already purchased homes.

Depending on the economic content of all types of commercial banks are usually divided into three groups:

• passive operations;

• active operations;

• services.

Resources of commercial banks formed by ***passive operations***.They required the bank to normal operation , maintaining liquidity at the appropriate level and obtaining the planned income. Cash zaluchenikumulovaniv result of passive operations constitute the bulk of the resources of the bank.

 Passive operations include raising funds of legal entities and individual deposits; obtain loans from commercial banks and the central bank; issue of bank bonds, notes and other obligations. Results liability transactions recorded in liabilities balance sheet .

***Active operations*** is placing a bank of its own and borrowed funds for profit. Before active operations are: loans to businesses and individuals, investment in securities, the formation of cash balances and reserves, the formation of other assets (acquisition facilities, equip ment, etc.). Results asset transactions recorded in the asset balance bank.

To banking services include: clearing, cash, trust, mediation, counseling, and others. Commercial banks engage in the following activities:

- processing of payments (by way of internet banking or other means);

- issuing bank cheques;

- foreign exchange transactions;

- purchasing and selling securities;

- providing documentary and standby letter of credit, guarantees, performance bonds, securities underwriting commitments and other forms of off balance sheet exposures;

- safekeeping of documents & other items in safe deposit boxes sales, distribution or brokerage, with or without advice, of: insurance, unit trusts and similar financial products;

- cash management and other.

Types of loans granted by commercial banks:

1) Secured loans. A secured loan is a loan in which the borrower pledges some asset (e.g. a car or property) as collateral for the loan, which then becomes a secured debt owed to the creditor who gives the loan. The debt is thus secured against the collateral — in the event that the borrower defaults, the creditor takes possession of the asset used as collateral and may sell it to regain some or all of the amount originally lent to the borrower, for example, foreclosnted a portion of the bundle of rights to specified property. If the sale of the collateral does not raise enough money to pay off the debt, the creditor can often obtain a deficiency judgment against the borrower for the remaining amount.

2) The opposite of secured debt/loan is unsecured debt which is not connected to any specific piece of property and instead the creditor may only satisfy the debt against the borrower rather than the borrower's collateral and the borrower.Unsecured loans are monetary loans that are not secured against the borrower's assets (no collateral is involved). There are small business unsecured loans such as credit cards and credit lines to large corporate credit lines. These may be available from financial institutions under many different guises or marketing packages:

- bank overdrafts. Overdraft called lending bank checking account customer for payment of the settlement documents at the lack or absence in the current accounts of the borrower's assets;

- corporate bonds;

- credit card debt;

- credit facilities or lines of credit;

- personal loans.

**Check Questions:**

1. What is the essence and functions of banking?

2. Describe the classification of banks.

3. What is the classification of banks by form property?

4. What is the classification of banks by organizational form?

5. What is the classification of banks by capital size?

6. What is the classification of banks by the list of operations?

3. What are the operations and services of commercial banks?

5. What are the types of loans granted by commercial banks?

**Topic 7. Exchange activities as part of the operation of the market.**

Plan

1. Essence and economic nature of commodity exchanges.

2. Characteristics and main features of commodities.

3. Classification of exchanges.

4. The participants of the operations.

5. The organizational structure of the Exchange.

1. **Essence and economic nature of commodity exchanges.**

Modern commodity exchanges is the result of a long evolution of various forms of wholesale and also a type of organized commodity market. Time of the first commodity exchange is difficult to determine. Since ancient times, merchants gathered in a certain place to find a buyer to obtain business information, data on prices for certain kinds of goods.

Historically initially form can be considered wholesale caravan trade. It was episodic, irregular conduct, lack of a certain place and the rules of the trade.

Fair came after the caravan trade. Time and place are known in advance at the Fair. Some fairs have developed some Standart quality requirements for the product, and then introduced the practice of trading in its samples. At fairs concluded agreements with both immediate payment and a deferred payment. Fair trade conducted strictly according to rules developed. Thus, the fairs were established Standart forms of commodity contracts, bills, receipts, storage and other documents. Those who do not comply with the requirements of the Commercial Code could be excluded from the trading community. Controversial and conflict situations were solved using Fair trial.

Till the 16th century due to the rapid development oftrade as a result of discovering America and strengthening of сapitalism in Europe, there were new specialized not periodic, but constantly operating forms of wholesale - commodity exchanges.

The term bourse is derived from the 16 th-century inn named [Huis ter Beurze](http://en.wikipedia.org/w/index.php?title=Huis_ter_Beurze&action=edit&redlink=1) in [Bruges](http://en.wikipedia.org/wiki/Bruges), [Belgium](http://en.wikipedia.org/wiki/Belgium), where traders and foreign merchants from across Europe conducted business in the late medieval period. The building, which was established by Robert van der Buerze as a hostelry, had operated from 1285, Its managers became famous for offering judicious financial advice to the traders and merchants who frequented the building. This service became known as the "Beurze Purse" which is the basis of bourse, meaning an organised place of exchange. Eventually the building became solely a place for trading in commodities.

The first special apartment for an exchange was built in 1531 in the Antwerp, which was competitor of Bruges city. A slender row of columns of this house  was the symbol of exchanges for many centuries.

Exchange is:

1) place where regular at one and the same time place trades certain goods.

2) Association of merchants or Exchange intermediaries who jointly pay expenses of bidding, set the rules of trade; determine the penalties for their violation. The content of such merging is that it allows you to quickly with less cost to sell and buy goods, facilitates and simplifies the process of trade.

3) The Exchange - special pricing mechanism. By collecting a large number of buyers and sellers of the same product in the same place at the same time, market-creating the most favorable conditions for price competition. Consequence of its activity is the formation of the market prices (prices quoted) in terms of the concentration of supply and demand in time and space.

Exchange acts as a barometer of economic life, reflects the State of the economy. Exchange is an organization that aims to not only trade a massive interchangeable values, but installing them on price, which runs regularly and under common control. The formation of market prices is the central task of the exchange-traded market.

Exchange is regulated market for replacement products, which determine prices is under public control. Like other forms of organized commodity markets to exchange characterized by the following features: strictly defined rules of bidding, the presence of appointed retail space, warehouses, office space, communications and information.

As a specific form of wholesalers Mercantile Exchange has a number of features which distinguish it from other market intermediaries. These include:

1. Non-profit status of Mercantile Exchange.

Non-profit status as a highly organized commodity exchange market institutions is that the purpose of business exchanges are not getting the maximum value of the proceeds for further distribution among the founders, and ensure conditions for a successful trade exchange members. Exchange members are not benefiting at the expense of profits and of its participation in the auction.

The resulting exchange gains are aimed at ensuring and improving its operation, namely the creation of modern communication systems, shop floor equipment and facilities, remuneration of employees exchanges replenish the reserve fund, conduct market research and meet other requirements.

2. Specificity of goods, which is the object of trading on the Exchange.

In the development of exchange trade in the countries of market economy evolved a special group of products that meet specific requirements due to approved rules of stock trading and admitted to trading through the channels of exchange.

3. Absence at the time of conclusion of the contract exchange goods that are the subject of the agreement. Trades conducted only on the basis of product requirements, fixed in exchange standards.

4. Нigh dynamics of trading.

5. Objective exchange contract signing. It may consist not only in buying or selling real products, but also in reducing price risk in certain commodity markets or gaining speculative profits.

6. Possible to quickly change the roles of the seller and the buyer.

7. Openness and transparency of the bidding.

**2. Characteristics and basic features of traded goods**

Exchange product – the product of a certain type and quality, including standard contract on his delivery in the future, or the right to conclude such a contract for a certain type of goods admitted to exchange trade in the prescribed manner.

Each exchange has the right to establish the composition of products that will serve the object of exchange trading. However, it also takes into account the demands that are made to stock exchange trading commodities practice.

1) Exchange product should be a massive, i.e. produced in quite large volume of a large number of manufacturers and bought a significant number of consumers. This enables the most true set and demand, and hence discover really equilibrium price;

2) the prerequisite for the exchange of goods is a free pricing, meaning the price for this product must be mounted freely according to market conditions and other factors (social, economic, political);

3) exchange commodity production acts which took place only primary treatment, ie, raw materials or semi-finished product;

4) The exchange commodity can easily standardize on quality, storage, transportation, measurement. Standardization provides the de-monopolization of detection conditions of supply and demand for a particular product;

5) Trading goods are interchangeable, meaning it denied individual characteristics. Standardization and interchangeability of commodities make it possible to trade on samples, descriptions, catalogs and contracts postaku goods;

6) exchange the product need not be present at the time of sale on the stock exchange, it may not even be available to the owner.

Participants exchange transactions may also not be able to put or buy real goods, these transactions underlying stock speculation.

Thus, the exchange include mass-produced goods that are interchangeable, allowing them to trade on the description of the quality or standards. Also on today's exchanges conducted securities trading, the price index, bank interest.

**3. Classification of exchanges**

For a better understanding of the features of the exchanges need to be classified, i.e. combined in certain groups according to selected features of classification. Signs of classification of exchanges include:

• type of traded goods;

• principle of organization (the state's role in the organization of exchanges);

• the legal status of the exchange;

• range of products submitted for exchange trading;

• the scale of the action;

• the degree of participation of visitors in exchange trading;

• types of transactions;

• the level of business activity.

1) In world practice, depending on the type of commodities allocated commodity, stock, currency exchange. Commodity exchange - an organization with legal personality, which forms the wholesale commodity market through the organization and regulation of stock trading that takes the form of overt auction held in a certain place at a certain time and according to established rules it.

Stock Exchange – permanent regulated securities market, which creates opportunities for mobilization and redistribution of financial resources. Currency exchanges are created for the Organization and servicing of the foreign currency market. There are also mixed:

2) according to the principles of the Organization (role of the State in the creation of Exchange and legal status) abroad, there are two types of exchanges:

a) publicly-legal (national stock exchange);

b) private-legal (private Exchange);

c) mixed.

The exchanges, which are public in nature, are also state that comprehensively regulates its activity. A member of such exchanges can be any entrepreneur who is entered in the commercial register and has a certain size of turnover capital. Persons who are not members of the Exchange are also permitted to conduct operations according to the single ticket.

Exchanges that are private-law nature, characterized by a limited number of members, who participate in auctions. In the activity of such exchanges is important role of self-organisation and self-government Exchange cooperation.

3) legal status Exchange registered mainly as a joint stock company, Ltd. or in other forms.

• principle of organization (the state's role in the organization of exchanges);

• the legal status of the exchange;

• range of products submitted for exchange trading;

• the scale of the action;

• the degree of participation of visitors in exchange trading;

• types of transactions;

• the level of business activity.

The American Exchange "Chicago Exchange" includes the circulation of agricultural products (cattle and live hogs), ferrous metals (Palladium, Platinum, zinc, aluminum, silver, and nickel), gasoline. b) To highly specialized include: Londons′na exchange of wool, the London petroleum Exchange (fuel oil, diesel fuel, oil).

On universal exchanges undertaken operations not only with a wide range of products, but also with the currency, securities, as well as contracts.

5) The magnitude of the exchange are divided into international, national and regional. International Exchange serve specific global markets. Such auctions are representatives of business circles of various countries. In addition to international exchange is still operating within the same state, they are called national. Regional exchanges are smaller in scope and significance, they serve specific regional markets of a country.

6) according to the degree of participation of visitors in the Exchange auctions commodity exchange are divided into open, closed, and mixed. Bid on closed exchanges can take part only stock brokers (brokers). Such exchanges are created as free Corporation or private institution (United States exchanges, England).

In open markets in addition to the auction exchange intermediaries may also participate and visitors. Open Exchange is a public-law organizations. Such exchange is common in Europe (France, Belgium, Netherlands). In the mixed type of exchange established by individuals and legal entities operating as a closed organization, but is licensed by the state and governed by the Uniform Business Exchange trading.

7) By the agreements concluded, distinguish real goods commodity exchanges, futures, optional and mixed. Sales contracts for exchange of real goods accompanied by the subsequent delivery of the goods.

The Futures Exchange are mostly selling contracts (agreements) on realization of goods that will be produced in the future period (for example, an agreement on the terms of purchase of the crop of the future). Most of the exchanges that operate abroad now have futures. The Exchange, which mainly are option konktakti, called option. The mixed stock exchanges in parallel are different types of agreements.

8) by the level of business activity is highly radioactive, medium and are sedentary.

**4. The participants of the** **operations**

The participants of the operations on exchanges come forward : Trade firms, what enclose agreements for the funds to and the name; Industrial firms , What will realize the products of the enterprises or feel need for raw material ; Agricultural enterprises; Workers the apparatus of commodity exchange.

Present in trade hall can be contingent to parted on such groups of individuals, what:

1) conclude agreements;

2) arrange the process of the conclusion of agreements;

3) supervise the move of the transaction of stock bidding ;

4) observe behind the transaction of bidding.

The composition of persons who enter into transactions, defined the rules of Exchange trade and may vary depending on what Exchange is open or closed. On the exchange-traded contracts in the building of the Hall are eligible members of exchanges, brokers and their representatives accredited on the Exchange, permanent and occasional visitors. On closed exchanges contracts are entitled exclusively to members of the stock exchange and stock brokers, purchased the right to conclude agreements.

Another group that organizes conclude exchange transactions, are employees of the exchange. Monitor the conduct of trading on the Exchange members have the right to exchange council revizinoyi Commission, representatives of state bodies in the sphere of the exchange activity. Observing the conduct of bidding may be press (continuously accredited exchange or occasional), others admitted the exchange.

2. Stock brokers, their functions and kinds of Stock transactions on the acquisition or sale of products in terms of stock trading on closed exchanges can be carried out only through Exchange intermediaries (brokers, brokers, dealers). The benefits of using Exchange intermediaries:

1. Mediation when concluding the agreement.

2. Effectiveness of the execution of orders

3. A high level of knowledge about the features and current state of the market of the product, which creates prerequisites to obtain qualified customer information and advisory services. 4. Opportunities for resellers additional services in the area of lending, licensing and more.

Among the large number of intermediaries operating in a market economy, stock brokers and traders occupy a significant place. Brokerage is to establish through an intermediary broker contact between the seller and the buyer.

Broker never a party to the agreement, it only deals with the construction of the parties that are committed to the agreement, which is signed through him. The broker does not represent any of the parties, it operates on the basis of individual orders.

Consider the functions of a broker on the Exchange are:

1) the study and analysis of demand and supply of products, which are sold through the Exchange;

2) consultancy work on existing trends in the dynamics of prices for raw materials, securities, currency. Analyzing the change in prices of goods, the broker can give tips on insuring against price risk.

3) mediation in the purchase or sale of products on the market (acceptance, transfer and execution orders on stock transactions);

4) depositing funds (margin) in the clearing house;

5) keeping accounts of clients;

6) paperwork on arranged agreement;

7) informing the client about the status of the implementation of its mandate. Brokers are attached to brokerage firms. Brokerage firm opens the Member Exchange, or existing brokerage firm buys seats on the Exchange. The main task of the brokerage firm is to provide communication between customers (manufacturers, buyers, resellers, profiteers, etc.) and Exchange. Brokerage firm has a State, which is determined by the founders, and the brokers who work directly in the stock room. Brokers work with brokerage contract.

Brokers receive a commission for their work. Broker's fee for mediation and representation of clients at the conclusion of agreements can be as a percentage of cost of goods sold (3-20%) or formed in a fixed payment amount awarded for his participation contracts.

Another type of stock brokers - dealers that enter into agreements on their own behalf and for its own account for the purpose of further resale of the goods. Dealing involves the following operations:

1) identify possibilities of speculative exchange transactions;

2) the purchase and sale of commodities (contracts for their supply) to exchange its own name and for its own account, registration and registration transactions.

3) obtaining financial results of concluded agreements.

**5. The organizational structure of the Exchange**

Organizational structure Exchange formed with consideration of its high liquidity, low costs, possibility of quick and current awareness of all participants trade and adjustment of their actions. The supreme body, which supervises the activities of stock exchanges, is the general meeting of founders and members of the Exchange. Permanent management body in the period between the General meetings of the members of the Mercantile Exchange is the Exchange Council (Committee).

Meeting of members of the Stock Exchange Council of elected and the auditing Commission, which exercises control over financial and economic activity of the Exchange.

Current management of the exchange has executive management. Executive Director (or President), his deputy, the structure and determine the direction of the general meeting of members of the exchange. Director and employees of the exchange can not be members of the exchange and contracted. The main objective of the exchange officials - providing services to members of the stock exchange and customers to effectively carry trade process.

Rights of Executive Director (President): Act on behalf of the Exchange, to represent it in all instances and organizations; to conclude treaties, issue orders, and open the accounts in banks; to issue orders, instructions on the activity of the Exchange; to approve regulations about structural subdivisions of Exchange, determine the number of workers to exchange their professional qualification structure and level of remuneration.

The main objective of the exchange officials - providing services to members of the stock exchange and customers to effectively carry trade process. Special Features Exchange performing its specialized agencies - some stock commissions and departments that carry out specific functions in service exchange trading. The main ones are:

The Audit Commission, the main function of which is the revision of the financial activity of the Exchange. Arbitration Commission-quickly considering disputes arising between the members and other participants of the exchange trading during the conclusion and execution of stock transactions.

Department of exchange of goods, which makes the study and analysis of supply and demand, quality control and compliance standards, advising consumers about product characteristics and possible uses of preparing proposals on the possibility of implementing new products through commodity exchange and the removal of exchange trading of old products

Department of Registration and control the execution of exchange transactions, whose main function is to register the exchange transactions of sale and exchange of goods and control over their implementation; preparation for the quotation of material on commission concluded exchange agreements; advising interested organizations and individuals on matters within the competence of the department.

Clearing House (Clearing Center) - ensures the mutual settlements between bidders. Information Service Division, provides receipt, storage, processing and transmission of information circulating on the stock exchange; makes it possible to analyze the dynamics of prices, number of transactions and other indicators for the day, week, month and year; provides members and visitors to exchange information services.

Administrative department accomplishes the transaction of book-keeping affairs, Decides question work and earnings, pidbor and the studies of staff. The department of skladskogo economy is engaged in legalization , By allocation and the storage of stock commodity.

**Check Questions:**

1. What is essence and economic nature of commodity exchanges?

2. What is сharacteristics and main features of commodities?

3. What is main features of commodities?

3. What is сlassification of exchanges?

4. Who are the participants of the operations?

5. How is built the organizational structure of the Exchange?

**Topic 8. Types of exchange contracts**

**Plan**

1. Definition of spot market and forward market.
2. A futures contract.
3. Options Contracts and their types*.*
4. **Definition of spot market and forward market.**

In exchange agreement with real commodities and term agreements can be concluded. Spot and forward contracts relating to contracts with the actual commodity.

The spot market or cash market is a public in which financial instruments or commodities are traded for immediate delivery. Spot trades are settled "on the spot", as opposed to at a set date in the future. Also known as "cash trades".

Also called the cash market or the physical market, the spot market is where assets are sold for cash and delivered immediately. In spot market delivery of cash and commodity must be done after two working days of the trade date.

It contrasts with a futures market, in which delivery is due at a later date. Spot trades are the opposite of futures contracts, which usually expire well before any physical delivery.

Spot markets can operate wherever the infrastructure exists to conduct the transaction.

For example, if you wish to purchase Company XYZ shares and own them immediately, you would go to the cash market on which the shares are traded (the New York Stock Exchange, for example).

For the most part, spot markets are influenced solely by supply and demand.

*Difference between forward market and spot market:*

Forward market is the marketplace that sets the price of a financial instrument or asset for future delivery at prices agreed upon today (date of making the contract). Contracts entered into in the forward market are binding on the parties involved. Forward markets are used for trading a range of instruments including currencies and interest rates, as well as assets such as commodities and securities. Forward contracts are personalized between parties and therefore not frequently traded on exchanges.

For the most part, spot markets are influenced solely by supply and demand, whereas forward and futures markets are also influenced by expectations about future prices, storage costs, weather predictions (for perishable commodities in particular), and a host of other factors.

**2. A futures contract.**

A futures contract (generally a short form of "[commodity](http://www.marketswiki.com/mwiki/Commodity) futures contract") is a legally binding agreement transacted on a [futures exchange](http://www.marketswiki.com/mwiki/Futures_exchange) to make or take [delivery](http://www.marketswiki.com/mwiki/Delivery) of a specified commodity or other asset, at a fixed date in the future, at a price agreed upon between [buyer](http://www.marketswiki.com/mwiki/Buyer) and [seller](http://www.marketswiki.com/mwiki/Seller) at the time of the [trade](http://www.marketswiki.com/mwiki/Trade). One of the more obvious differences between forward and futures contracts is that futures contracts are always sold on organized exchanges, while forward contracts typically are not. The contract may be bought and sold either for [risk management](http://www.marketswiki.com/mwiki/Risk_management) ([hedging](http://www.marketswiki.com/mwiki/Hedging)) or in order to profit from a correct prediction of movement in the market ([speculation](http://www.marketswiki.com/mwiki/Speculation)). This contrasts with [options](http://www.marketswiki.com/mwiki/Options) trading, in which the option buyer may choose whether or not to [exercise](http://www.marketswiki.com/mwiki/Exercise) the option by the [options exercise](http://www.marketswiki.com/mwiki/Options_exercise) date. Trading on futures exchanges can be accomplished only by members and their agents or employees, and is done only in so-called "pits," that is, speciallv designated trading areas.

*Specifications of a Futures Contract.*

The futures contract itself specifies exactly what is being bought and sold, and the manner in which the transaction takes place. A futures contract defines:

* The standard, fixed quantity of the commodity being traded (e.g, 5,000 bushels of corn, 1,000 barrels of heating oil, 12,500,000 Japanese yen, etc.)
* The quality [grade](http://www.marketswiki.com/wiki/index.php?title=Grade&action=edit&redlink=1) of the commodity (this is not relevant for all commodities; national currencies, for example, do not have varying degrees of quality)
* Rules for price adjustments for commodities delivered that are either above or below the specified quality grade
* The [minimum price fluctuation](http://www.marketswiki.com/mwiki/Minimum_price_fluctuation) for the contract (e.g., 1/4 cent per bushel)
* The day on which the actual commodity is to be delivered, and the manner in which the buyer will take possession of the commodity, if not [offset](http://www.marketswiki.com/mwiki/Offset) before [expiration](http://www.marketswiki.com/mwiki/Expiration) of the futures contract.
* The unit pricing of the commodity (e.g. cents per bushel, or dollars per barrel)
* The hours and days during which the contract will be available for trade at the exchange.

*Background the futures contract.*

The concept of the futures contract has agricultural roots. Farmers raised livestock and grew crops and other [agricultural commodities](http://www.marketswiki.com/wiki/index.php?title=Agricultural_commodities&action=edit&redlink=1) and brought them to market to sell to commercial entities.

Substantial risk existed on both sides of that transaction and process. Farmers arriving late to market with their goods could find that the buyers had already completed their purchases with others, and there was no one remaining to buy the crops. Buyers were vulnerable to the [delivery](http://www.marketswiki.com/mwiki/Delivery) of substandard products or no products at all if the growing season had failed to produce enough of the [commodity](http://www.marketswiki.com/mwiki/Commodity).

Buyers needed a way to ensure that the quantity and quality of commodity they needed would be available when they needed it. Farmers needed a way to know that a glut of available crops would not put them out of business.

The price of any valued commodity rises and falls over time. Myriad factors affect the perceived value of everything. Weather patterns, the global economy, problems at storage facilities - there is an endless variation of circumstances that change prices, and all of it is at some level unpredictable. Further, the degree and manner in which prices respond to these factors is also difficult to predict.

In this environment, suppliers and buyers of commodities are faced with the unpleasant reality that regardless of the price right now for the goods they buy and sell, there is no way to know with certainty what the price will be next year, or even next month. What *is* certain, is that both buyer and seller need a way to lock in a price to realize an acceptable profit now, next month, next year and beyond.

The development of the futures contract created an effective way to control this risk. A futures contract is a method by which a buyer and a seller agree to complete a contractual transaction for a commodity or financial instrument in a specific future "contract month," for a specific price. For example, a farmer and cereal maker could create an agreement to buy 5,000 bushels of corn for $3.00 a bushel, with the understanding that the corn would be delivered to the cereal maker at the end of next April. (In reality, of course, in futures, the farmer and cereal maker do not know who they are transacting business with, as it is anonymous; thus the farmer enters the futures markets, as does the cereal maker, and they transact business based on future price, not based on market user.)

With the contract in place, both buyer and seller have an exact understanding of the total sale price. No matter what might happen to the cash price of the commodity by next April, the contract enforces the original, agreed-upon price.

The exact market value of a futures contract at any moment is determined by factors both subjective and quantitative. The futures price for a commodity depends in part on the cost to produce and store the goods, current supply and demand, and anticipated supply and demand into the future. [Value](http://www.marketswiki.com/wiki/index.php?title=Value&action=edit&redlink=1) is a fluid and changing thing. Price must be "discovered," or agreed upon, by finding the meeting point between seller and buyer.

Whatever the item underlying the futures contract, every market needs certain ingredients to flourish. These include:

* Risk-shifting potential. The contract must provide the ability for those with price risk in the underlying item to shift that risk to a market participant willing to accept it.
* Price volatility. The price of the underlying item must change enough to warrant the need for shifting price risk. Futures markets are also influenced by expectations about future prices, storage costs, weather predictions (for perishable commodities in particular), and a host of other factors.
* Cash market competition. The underlying cash (or physicals) market must be broad enough to allow for healthy competition, which creates a need to manage [price risk](http://www.marketswiki.com/mwiki/Price_risk) and decreases the likelihood of market corners, [squeezes](http://www.marketswiki.com/wiki/index.php?title=Squeeze&action=edit&redlink=1) or [manipulation](http://www.marketswiki.com/mwiki/Manipulation).
* [Liquidity](http://www.marketswiki.com/mwiki/Liquidity). Active trading is needed so that sizable orders can be executed rapidly and inexpensively. New futures products often take a while to gain traction to be what is considered by market participants liquid enough to take part in the market.
* Standardized underlying entity. The product underlying the futures contract must be standardized and/or capable of being graded so that it is clear what is being bought and sold.

*Trading the Contract*

Contracts are traded at the [futures exchange](http://www.marketswiki.com/mwiki/Futures_exchange) that offers them, according to the rules of the exchange and the specification of the contract.

Trading in futures contracts falls into two general categories: [hedging](http://www.marketswiki.com/mwiki/Hedging) and [speculation](http://www.marketswiki.com/mwiki/Speculation).

Hedge trading is done by people and companies that have an actual interest in the commodity itself. Farmers buy and sell futures contracts as a way to control the price at which they'll sell their crops. Produce companies use futures contracts to control the risk of skyrocketing future prices. International corporations can buy and sell currency and [interest rate futures](http://www.marketswiki.com/mwiki/Interest_rate_futures)contracts as a way to hedge against unfavorable exchange rates and other cross-country economic factors.

Speculators are futures traders who do not have a direct interest in the actual commodity. Speculators take part in the futures markets to buy and sell contracts in the hope of simply profiting in the changing price. A [trader](http://www.marketswiki.com/mwiki/Trader) believing that crops in the central USA will be damaged by coming weather can buy grain contracts, and sell them for a profit if the price of grain does rise.

Speculative traders provide an important boost in liquidity for all participants. The fewer traders in a market, the harder (and generally less favorably priced) it is to buy and sell contracts. Speculators provide hedgers with more potential trading partners, and generally provide more stability in the market's operation.

That speculators don't have an interest in the actual commodity can often cause confusion for investors learning about the futures markets. How can someone sell a commodity that they don't produce, and isn't a buyer obligated to assume responsibility for boxcars full of cattle, or suitcases full of money?

Up until the date for delivery nears, it simply doesn't matter whether the seller actually has the goods because what is being bought or sold is the future promise, the contract, *not* the actual commodity. A promise to deliver grain in six months can be made by anyone.

A contract to buy can be offset by selling it to somebody else. An obligation to sell a commodity can be offset by buying a contract from someone else. A trader who buys and then sells the contract is free of obligation.

As the delivery date becomes imminent, the exchanges do require participants to prove their ability to actually buy and sell, for those commodities that are actually delivered.

All futures contracts are immediately registered in the Clearing House Exchange. After that the buyer and the seller will not act against each other as the parties signed the contract and deal only with the Clearing House Exchange.

Settlement Chambers in order to ensure the implementation of all agreements signed in the stock room of the agreements require participants to futures trading deposit guarantee fees. These tools, which are called margin, is the financial collateral agreement. Participants trading on the futures market are obliged to invest guarantee contributions (margin) as the financial capabilities of the seller and buyer meet their obligations according to the futures contract.

The size of the guarantee fee is determined by the level of risk. In volatile markets usually require a significant contribution in the stability of market conditions - less. Margin for futures exchange usually set in the range of 2 - 15% of the nominal value of the contract.

There are two types of margin:

- Initial margin - the amount of money that is paid to the brokerage firm at the opening of the futures position.

- The variation margin - a transfer of funds to restore the value of the contract after the price change for financial guarantees its implementation. Each of the parties to a futures contract can unilaterally at any time eliminate the futures contract by making offset (reverse) transactions for the same amount of goods. Liquidation of futures involves the payment to the futures clearing houses, or receiving it from the difference between the contract price on the date of signing and the current price.

The difference between the current and futures prices is called basis. Thus, the basis of the available price - futures price. Basis can be

- positive (actual price is higher than the futures market);

- Negative (price lower than the actual market futures);

- Zero.

On basis magnitude influences the array of factors, such as:

Demand and proposal on assets on certain run;

The magnitude of the stocks of commodities;

Forecasts on products manufacturing;

Demand and proposal on analogous products;

export and import;

Transport expenses;

Seasonal fluctuation in priceses;

The availability of compositions for storage products and another.

Under normal conditions the futures prices of real goods is higher than the current price. This market is called normal. If futures prices are lower than current prices, then the market is inverted.

If price increases over a period of relatively futures prices, this phenomenon is called increasing or narrowing base. Weakening or expansion base occurs when the price is reduced relative to the available futures prices during the period. The phenomenon, when available and the futures price converge is called convergence.

If the futures contract is signed, then he can be liquidated by entering into opposite transactions with an equal quantity of the goods or the supply of goods within the period stipulated by the contract.

Price of the futures contract is established as a result of free competition among participants of the trade during the exchange trading. Buyer of futures contract is called the side and he takes a long position or short position.

**3. Options Contracts and their types***.*

An option is a contract which gives the buyer (the owner) the right, but not the obligation, to buy or sell an underlyingasset or instrument at a specified strike price on or before a specified date. The seller has the corresponding obligation to fulfill the transaction – that is to sell or buy – if the buyer (owner) "exercises" the option. The buyer pays a premium to the seller for this right. An option which conveys to the owner the right to buy something at a specific price is referred to as a call; an option which conveys the right of the owner to sell something at a specific price is referred to as a put.

The value of an option is commonly decomposed into two parts:

• The first part is the intrinsic value, which is defined as the difference between the market value of the underlying and the strike price of the given option.

• The second part is the time value, which depends on a set of other factors which, through a multi-variable, non-linear interrelationship, reflect the discounted expected value of that difference at expiration.

Options contracts have been known for many centuries, however both trading activity and academic interest increased when, as from 1973, options were issued with standardized terms and traded through a guaranteed clearing house at the Chicago Board Options Exchange. Today many options are created in a standardized form and traded through clearing houses on regulated options exchanges, while other over-the-counter options are written as bilateral, customized contracts between a single buyer and seller, one or both of which may be a dealer or market-maker. Options are part of a larger class of financial instruments known as derivative products, or simply, derivatives.

Exchange-traded options (also called "listed options") are a class of exchange-traded derivatives. Exchange traded options have standardized contracts, and are settled through a clearing house with fulfillment guaranteed by the Options Clearing Corporation (OCC). Since the contracts are standardized, accurate pricing models are often available.

A contract that allows the holder to buy or sell an underlying security at a given price, known as the strike price. The two most common types of options contracts are put and call options, which give the holder-buyer the right to sell or buy respectively, the underlying at the strike if the price of the underlying crosses the strike. Typically each options contract is written on 100 shares of the underlying.

For example, a trader believes that the price of a stock will rise from its current price of $40 to a level nearing $100. Rather than purchasing the stock itself, she can purchase a call option for a fraction of the price at a strike anywhere between $40 and $100. If the stock does indeed rise to $100, and assuming the call option was bought at a strike of $75, the holder stands to gain $25 per share on the contract, minus any premiums paid for the option itself.

Contract specifications:

Option contracts may be quite complicated; however, at minimum, they usually contain the following specifications:

• whether the option holder has the right to buy (a call option) or the right to sell (a put option)

• the quantity and class of the underlying asset(s) (e.g., 100 shares of XYZ Co. B stock)

• the strike price, also known as the exercise price, which is the price at which the underlying transaction will occur upon exercise

• the expiration date, or expiry, which is the last date the option can be exercised

• the settlement terms, for instance whether the writer must deliver the actual asset on exercise, or may simply tender the equivalent cash amount

• the terms by which the option is quoted in the market to convert the quoted price into the actual premium – the total amount paid by the holder to the writer

*Types Options.*

Options can be classified in a few ways.

According to the option rights:

• Call option – a contract which gives the buyer the right, but not the obligation, to buy an underlyingasset;

• Put option - a contract which gives the buyer the right, but not the obligation, sell an underlyingasset.

According to the underlying assets:

• Equity option ([stock options](http://en.wikipedia.org/wiki/Stock_options));

• bond options and other interest rate options;

• Future option

• Index option

• Commodity option.

Naming conventions are used to help identify properties common to many different types of options. These include:

• European option – an option that may only be exercised on expiration.

• American option – an option that may be exercised on any trading day on or before expiry.

• Bermudan option – an option that may be exercised only on specified dates on or before expiration.

• Asian option – an option whose payoff is determined by the average underlying price over some preset time period.

• Barrier option – any option with the general characteristic that the underlying security's price must pass a certain level or "barrier" before it can be exercised and other.

In general, standard option valuation models depend on the following factors:

• The current market price of the underlying security,

• the strike price of the option, particularly in relation to the current market price of the underlying (in the money vs. out of the money),

• the cost of holding a position in the underlying security, including interest and dividends,

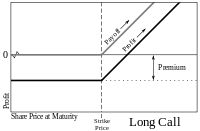
• the time to expiration together with any restrictions on when exercise may occur, and

• an estimate of the future volatility of the underlying security's price over the life of the option.

The basic trades of traded options:

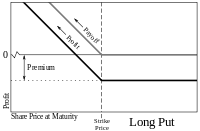
**Long call**

A trader who believes that a stock's price will **increase** might buy the right to purchase the stock (a [call option](http://en.wikipedia.org/wiki/Call_option)) at a fixed price, rather than just purchase the stock itself. He would have no obligation to buy the stock, only the right to do so until the expiration date. If the stock price(spot Price,S) at expiration is above the exercise price(X) by more than the premium (price) paid P, he will profit i.e. if S-X>P, the deal is profitable. If the stock price at expiration is lower than the exercise price, he will let the call contract expire worthless, and only lose the amount of the premium. A trader might buy the option instead of shares, because for the same amount of money, he can control ([leverage](http://en.wikipedia.org/wiki/Leverage_(finance))) a much larger number of shares. For example, if exercise price is 100, premium paid is 10, then a spot price of 100 to 110 is not profitable. He would earn profit if the spot price is above 110.



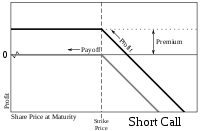
**Long put**

A trader who believes that a stock's price will **decrease** can buy the right to sell the stock at a fixed price (a [put option](http://en.wikipedia.org/wiki/Put_option)). He will be under no obligation to sell the stock, but has the right to do so until the expiration date. If the stock price at expiration is below the exercise price by more than the premium paid, he will profit. If the stock price at expiration is above the exercise price, he will let the put contract expire worthless and only lose the premium paid. In the whole story, the premium also plays a major role as it enhances the break-even point. For example, if exercise price is 100, premium paid is 10, then a spot price of 100 to 90 is not profitable. He would earn profit if the spot price is below 90.

[](http://en.wikipedia.org/wiki/File:Long_put_option.svg)

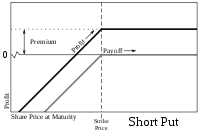
**Short call**

A trader who believes that a stock price will **decrease** can sell the stock short or instead sell, or "write", a call. The trader selling a call has an obligation to sell the stock to the call buyer, at the buyer's option. If the stock price decreases, the short call position will make a profit in the amount of the premium. If the stock price increases over the exercise price by more than the amount of the premium, the short will lose money.

[](http://en.wikipedia.org/wiki/File:Short_call_option.svg)

**Short put**

A trader who believes that a stock price will **increase** can sell the stock or instead sell, or "write", a put. The trader selling a put has an obligation to buy the stock from the put buyer, at the buyer's option. If the stock price at expiration is above the exercise price, the short put position will make a profit in the amount of the premium. If the stock price at expiration is below the exercise price by more than the amount of the premium, the trader will lose money, with the potential loss being up to the full value of the stock.

[](http://en.wikipedia.org/wiki/File:Short_put_option.svg)

**Check Questions:**

* 1. What is the definition of spot market?
  2. What is the definition of forward market?

3. What is the futures contract?

4. What is options contract?

5. How Options can be classified?

**Topic 9. Еxchange market and its infrastructure**

**Plan**

1.The essence of Exchange market.

2. Market participants.

* 1. Types of foreign exchange market.

**1. The essence of Exchange market**

The exchange market (currency market) is a component of the financial market for the trading of currencies. The foreign exchange market determines the relative values of different currencies.

The price at which one nation’s currency is exchanged for another’s is the foreign exchange rate. An exchange rate exists between each pair of nations that engages in international commerce. The foreign exchange market is the market in which such national currencies as dollars, euro, yen and others are exchanged. It is not an organized market with fixed hours and a physical meeting place, such as the New York Stock Exchange or the Chicago Board of Trade. The foreign exchange market is an over-the-counter market, the primary communications instruments being the telephone and the computer. The market has developed rapidly in the past quarter century, and the volume of activity has escalated dramatically in response to the growth in the volume of world trade in goods and services, and especially in response to the expansion of international capital flows— the acquisition of financial and real assets across national borders. Among the most important financial centers are New York, London, Tokyo, Paris, Frankfurt and other.

*For example*, two banks engage in transactions of buying and selling the dollars (*table 1*). Find the balance of currency transactions.

*Table 9.1* – Statistical data

|  |  |  |
| --- | --- | --- |
|  | Buying | Selling |
| Bank A | 120 million dollars | 100 million dollars |
| Bank B | 90 million dollars | 95 million dollars |

*Solution*: The balance of currency transaction is the difference between the quantity of bought foreign currency and the quantity of sold foreign currency:

**,(1)

where **is the balance of currency transaction;

**is the quantity of foreign currency that is bought;

**is the quantity of foreign currency that is sold.

*Bank A*: The balance of currency transaction:

*.*

*Bank B*: The balance of currency transaction:

*.*

*Conclusion*: the bank A increased dollar positions by 20 million dollars and the bank B reduced dollar positions by 5 million dollars.

Most important factors influenced on the exchange market (currency market) are the following:

I. Economic factors, such as:

1) *Economic policy* comprises government fiscal policy (budget / spending practices) and monetary policy (the means by which a government’s central bank influences the supply and “cost” of money, which is reflected by the level of interest rates);

2) *Government budget deficits or surpluses*: The market usually reacts negatively to widening government budget deficits, and positively to reducing budget deficits. The impact is reflected in the value of a country’s currency;

3) *Balance of trade*: The trade flow between countries illustrates the demand for goods and services, which in turn indicates demand for a country’s currency to conduct trade. Surpluses and deficits in trade of goods and services reflect the competitiveness of a nation’s economy. *For example*, trade deficits may have a negative impact on a nation’s currency;

4) *Inflation levels and trends*: Typically a currency will lose value if there is a high level of inflation in the country or if inflation levels are perceived to be rising. This is because inflation erodes purchasing power, thus demand, for that particular currency;

5) *Economic growth and health*: Reports such as gross domestic product, employment levels, retail sales, capacity utilization and others, detail the levels of a country’s economic growth and health. Generally, the more healthy and robust a country’s economy, the better its currency will perform, and the more demand for it there will be;

6) *Productivity of an economy*: Increasing productivity in an economy should positively influence the value of its currency, because the national currency is strengthened.

II. Political factors. Internal, regional, and international political conditions and events can have a profound effect on currency markets. Political upheaval and instability can have a negative impact on a nation’s economy. All exchange rates are susceptible to political instability and anticipations about the new ruling party. The events in one country in a region may stimulate positive or negative interest in a neighboring country and, in the process, affect its currency.

**2. Market participants**

Infrastructure of exchange market (or currency market) includes large banks, central banks, institutional investors and retail investors, corporations, governments, and other financial institutions.

The foreign exchange market participants are the following:

1) *Banks*. A commercial bank is a type of financial institution and intermediary. It is a bank that provides transactions, savings, and money market accounts and that accepts time deposits. A commercial bank accepts deposits and channels those deposits into lending activities, either directly or through capital markets. A bank connects customers with capital deficits to customers with capital surpluses on the world’s open financial markets. A large bank may trade billions of dollars daily.

2) *Commercial companies*. An important part of currency market comes from the financial activities of companies seeking foreign exchange to pay for goods or services. The thousands of large and small import and export firms in the country, together with their foreign counterparts must buy or sell foreign currencies in connection with their business. Commercial companies often trade fairly small amounts compared to those of banks, and their trades often have little short term impact on market rates. Nevertheless, trade flows are an important factor in the long-term direction of a currency’s exchange rate. Some multinational companies can have an unpredictable impact when very large positions are covered due to exposures that are not widely known by other market participants.

3) *Central banks*. National central banks play an important role in the foreign exchange markets. They try to control the money supply, inflation, and interest rates and often have official or unofficial target rates for their currencies. A central bank issues money on behalf of a government, and regulates the money supply. A central bank can use their official foreign exchange reserves to stabilize the currency market.

4) *Hedge funds*. Hedge funds are the institution that bought or sold the currency but has no plan to actually take delivery of the currency in the end; rather, they were solely speculating on the movement of that particular currency. Hedge funds control billions of dollars of equity.

5) *Non-bank foreign exchange companies*. Non-bank foreign exchange companies offer currency exchange and international payments to private individuals and companies. Such financial entities as private pension and government retirement funds, and money market mutual funds in one country, which seek to purchase financial assets (relatively high-yielding CDs and other money market instruments, bonds, and stocks) in another country. Non-bank foreign exchange companies offer currency exchange with payments (i.e., there is usually a physical delivery of currency to a bank account).

6) *All the tourists and other travelers* around the world who want foreign currencies. For example, Americans want euvro to finance vacations in Italy, and Japanese businessmen need dollars to travel in the United States.

7) *Money transfer / remittance companies*. Money transfer companies / remittance companies perform high-volume low-value transfers generally by economic migrants back to their home country. The largest and best known provider is Western Union.

**3. Types of foreign exchange market**

There are the following types of foreign exchange market, such as:

1) *Spot market or cash market* is a public financial market, in which currency or financial instruments are traded for immediate delivery between two countries. A spot market can be:

- an organized market, an exchange market or

- over the counter market is the market where traded the financial instruments such as stocks, bonds, commodities directly between two parties.

*Spot contract* is an agreement to buy or sell the currency today. Foreign exchange spot trading is buying one currency with a different currency for immediate delivery, rather than for future delivery. Spot markets can operate wherever the infrastructure exists to conduct the transaction. The spot market for most instruments exists primarily on the Internet.

When exchange of the foreign currencies are used two exchange rates: exchange rate for buying currency and exchange rate for selling currency. When buying currency a person should pay for the currency higher price, while when selling currency a person should sell the currency for lower price.

*Exchange rate for buying currency* is the price that the bank is willing to pay for foreign currency.

*Exchange rate for selling currency* is the price for which the bank is ready to sell the foreign currency.

*For example*, if a bank exchange the dollar as 7,96 – 8,11 UAH/USD; this means that the bank is willing to buy dollars at 7,96 and sell dollars at 8,11 hryvnia per dollar.

Higher price refers to the exchange rate for selling currency; the lower price refers to the exchange rate for buying currency.

*Income on currency transaction* is calculated as the difference between the exchange rate for selling currency and the exchange rate for buying currency.

**, (2)

where **is the income (return) on currency transaction;

**is the exchange rate for selling currency;

** is the exchange rate for buying currency;

** is the quantity of bought or sold foreign currency.

Also, the *income percentage on currency transaction* is calculated as the difference between the exchange rate for selling currency and the exchange rate for buying currency divided by the exchange rate for selling currency.

**, (3)

*For example*: the bank sells 80 000 euro according to the spot contract. The bank sells euro at an exchange rate 12,4 hryvnia per euro, and buys euro at an exchange rate 12,26 hryvnia per euro. Find the income on currency transaction.

*Solution*: the income on currency transaction by the formula (2):

*.*

The income percentage on currency transactionby the formula (3):

**.

*Conclusion*: the income on currency transaction equals 11200 euro or 1,13% per euro.

2) *Forward market* is a financial market where sign the contracts between two parties to buy or sell the currency at a specified future time at a price agreed today. This is in contrast to a spot contract, which is an agreement to buy or sell the currency today. Forward contracts signed between central banks and between large and financially stable commercial banks.

The time interval between the signing and execution of the contract can be from 1 to 2 weeks, 1 to 2 months, to 5-7 years. Exchange rate specified in the contract is a forward exchange rate. Forward exchange rate is fixed at the contract signing and can not be changed during the term of the contract.

The difference between the forward and the spot exchange rates is the *forward premium*, generally considered in the form of a profit, or loss, by the purchasing party.

**, (4)

where **is the forward premium;

** is the forward exchange rate;

**is the spot exchange rate;

**is the quantity of bought or sold foreign currency.

The forward premium *percentage* is calculated as the difference between the forward exchange rate and the spot exchange rate divided by the forward exchange rate:

 (5)

*For example*: the bank sells 84 200 dollars according to the forward contract during 20 days. The forward exchange rate is 1,919 dollars per pound sterling and the spot exchange rate is 1,9. Find the forward premium and the forward premium percentage.

*Solution*: the forward premium be the formula (4):

**

*Conclusion:* the forward premium of a bank is $1599,8.

The forward premium *percentage* by the formula (5):

**

*Conclusion:* the forward premium *percentage* of a bank is 0,99%.

3) *Futures market* is a central financial exchange where bank can trade standardized futures contracts; that is, a contract to buy specific quantities of a currency or financial instrument at a specified price with delivery set at a specified time in the future.

Futures contracts differ from forward contracts because futures contracts are signed between different economic entities and may be resold in the futures market during the term of the contract. Futures exchange rate is floating and can be changed during the term of the contract.

The result of a futures contract is *margin*. Margin can be positive and negative. *Positive margin* (profit) exists when a bank sells the currency at a higher rate than its exchange rate on the day of contract fulfillment. *Negative margin* (loss) exists when a bank sells the currency at a lower rate than its exchange rate on the day of contract fulfillment.

Margin can be calculated by the formula:

**,(6)

where **is the margin;

**is the number of contracts;

**is the quantity of foreign currency that is bought or sold;

**is the exchange rate on the day of the contract signing;

**is the exchange rate on the day of the contract fulfilling.

*For example*: the bank sells 120 000 dollars according to the futures contract during the week; the number of contracts is 10. The exchange rate of hryvnia against the dollar on the day of signing the contract is 8,4. The exchange rate of hryvnia against the dollar on the day of fulfill the contract is 8,1. Also, during the week a bank buys 80 000 dollars; the number of contracts is 8. The exchange rate of hryvnia against the dollar on the day of signing the contract is 7,96. The exchange rate of hryvnia against the dollar on the day of the contract fulfillment is 8,1. Find the balance of currency transactions and the margin.

*Solution*: The balance of currency transaction by the formula (1):

**

*Conclusion*: the bank reduced dollar positions by 40000 dollars.

The margin by the formula (6):

1) when selling the currency (dollars):  **;

2) when buying the currency (dollars):  **.

*Conclusion*: the bank makes the positive margin when selling the currency (the profit equals $360000); the bank makes the negative margin when buying the currency (the loss equals -$89600).

4) *Option market* is the market where currency option contracts are concluded. Foreign exchange option contract is similar to futures contracts. However, an option contract has one feature. According to the futures contract the currency transaction is compulsory, even if the transaction is unprofitable for the bank. Option contract gives the right of choice for the bank: if the currency transaction is unprofitable, the bank may reject the contract, and if the currency transaction is profitable, the bank carries out the currency transaction.

*Internal option price* is the difference between the market exchange rate without option and exchange rate specified in the option contract. Internal option price can be calculated by the formula:

**, (7)

where **is the internal option price;

**is the market exchange rate without option;

**is the exchange rate specified in the option contract;

**is the quantity of purchased or sold foreign currency.

*Option premium* is the difference between the market option price and internal option price.

**, (8)

where **is the option premium;

** is the market option price;

**is the internal option price.

Option premium *percentage* is the difference between the market option price and internal option price divided by the market option price.

 (9)

*For example*: the bank signed the option contract to buy 24 150 pounds sterling at the exchange rate at 1,9 dollars per pound sterling after 2 months. The market exchange rate is $ 2 dollars per pound sterling. The option contract in the market can be sold for 2825 pound sterling. Find the option premium and the option premium percentage.

*Solution*: the internal option price by the formula (7):

** pounds sterling

The option premium by the formula (8):

** pounds sterling

*Conclusion*: the option premium is 410 pounds sterling, if the internal option price is 2415 pounds sterling.

The option premiumpercentage by the formula (9):



*Conclusion*: the option premium *percentage* is 14,5%.

**Check Questions:**

1. What is the essence of Exchange market?

2. List the market participants.

3.What are types of foreign exchange market.

**Topic 10. Innovative** [**infrastructures**](https://www.google.com/search?es_sm=122&q=Infrastructure+innovation+market&spell=1&sa=X&ei=Fo5jVYPkMoOHygPy74HQBQ&ved=0CBkQBSgA)

Plan

1. The essence of  [innovative infrastructures.](https://www.google.com/search?es_sm=122&q=Infrastructure+innovation+market&spell=1&sa=X&ei=Fo5jVYPkMoOHygPy74HQBQ&ved=0CBkQBSgA)

2. A business incubator.

3. Technology park.

1. **The essence of** [**Infrastructure innovation market**](https://www.google.com/search?es_sm=122&q=Infrastructure+innovation+market&spell=1&sa=X&ei=Fo5jVYPkMoOHygPy74HQBQ&ved=0CBkQBSgA)**.**

Innovation is vital for prosperity. Innovation is the engine of economic growth and improved living standards. A recent evidence review noted that over the past half century the private rate of return to research and development (R&D) in developed economies has been strongly positive, ranging from 20 per cent to as high as 75 per cent. Innovation has been transforming the world economy since the industrial revolution. Using knowledge effectively enhances productivity and welfare and creates new market opportunities. Innovation has been, and will continue to be, a key driver of growth and economic prosperity, accounting for up to 70 per cent of economic growth in the long term. It enhances health and welfare and helps to address key challenges facing society.

Infrastructure has an important role in the functioning innovation system. The main elements of the innovation infrastructure is business innovation, telecommunications and retail chains, technology parks, technopolises, business incubators, innovation and technology centers, innovative companies, research institutes and others.

It provides a flow of information, knowledge, technologies and interactions between different institutional structures. The purpose of the innovation infrastructure is not only effective in promoting scientific and technical activities of economic entities, but also in ensuring their activities in the public interest, strengthening product competitiveness, preservation and further development of scientific potential.

**2. A business incubator**

The concept of business incubation began in the USA in 1959 when Joseph Mancuso opened the Batavia Industrial Center in a Batavia, New York. Incubation expanded in the U.S. in the 1980s and spread to the UK and Europe through various related forms (e.g. innovation centres, pépinières d’entreprises, technopoles/science parks). The U.S.-based National Business Incubation Association estimates that there are about 7,000 incubators worldwide.

A business incubator is a company that helps new and startup companies to develop by providing services such as management training or office space.

Business incubators differ from research and technology parks in their dedication to startup and early-stage companies. Research and technology parks, on the other hand, tend to be large-scale projects that house everything from corporate, government or university labs to very small companies. Most research and technology parks do not offer business assistance services, which are the hallmark of a business incubation program. However, many research and technology parks house incubation programs.

In 2005 alone, North American incubation programs assisted more than 27,000 companies that provided employment for more than 100,000 workers and generated annual revenues of $17 billion.

Most common incubator services:

• Help with business basics

• Networking activities

• Marketing assistance

• High-speed Internet access

• Help with accounting/financial management

• Access to bank loans, loan funds and guarantee programs

• Help with presentation skills

• Links to higher education resources

• Links to strategic partners

• Access to angel investors or venture capital

• Comprehensive business training programs

• Advisory boards and mentors

• Management team identification

• Help with business etiquette

• Technology commercialization assistance

• Help with regulatory compliance

• Intellectual property management

Entrepreneurs who wish to enter a business incubation program must apply for admission. Acceptance criteria vary from program to program, but in general only those with feasible business ideas and a workable business plan are admitted.

Although most incubators offer their clients office space and shared administrative services, the heart of a true business incubation program is the services it provides to startup companies.

The amount of time a company spends in an incubation program can vary widely depending on a number of factors, including the type of business and the entrepreneur's level of business expertise. Life science and other firms with long research and development cycles require more time in an incubation program than manufacturing or service companies that can immediately produce and bring a product or service to market. On average, incubator clients spend 33 months in a program. Many incubation programs set graduation requirements by development benchmarks, such as company revenues or staffing levels, rather than time.

More than half of all business incubation programs are "mixed-use" projects, meaning they work with clients from a variety of industries. Technology incubators account for 39% of incubation programs.

Business incubation is a means of meeting a variety of economic and socioeconomic policy needs, which may include job creation, fostering a community's entrepreneurial climate, technology commercialization, diversifying local economies, building or accelerating growth of local industry clusters, business creation and retention, encouraging women or minority entrepreneurship, identifying potential spin-in or spin-out business opportunities.

There are such groups performance criteria of business – incubators:

1. Indicators characterizing the business - incubator as a kind of commercial structure, maximize revenue, minimize costs, increase profitability; net profit maximizing firms, use of the resource and others.

2. Indicators that reflect the specific business - incubator in solving the problems of entrepreneurship: the number and size of firms operating in the areas of business - incubator; age, specialization; the growth rate of economic activity; the fraction of firms ceasing their activity due to groundlessness assigned in their base ideas or assumptions or commercial failure.

About one-third of business incubation programs are sponsored by economic development organizations. Government entities (such as cities or counties) account for 21% of program sponsors. Another 20% are sponsored by academic institutions, including two- and four-year colleges, universities, and technical colleges.

In many countries, incubation programs are funded by regional or national governments as part of an overall economic development strategy. In the United States, however, most incubation programs are independent, community-based and resourced projects. The U.S. Economic Development Administration is a frequent source of funds for developing incubation programs, but once a program is open and operational it typically receives no federal funding; few states offer centralized incubator funding. Rents and/or client fees account for 59% of incubator revenues, followed by service contracts or grants (18%) and cash operating subsidies (15%).

Many for-profit or "private" incubation programs were launched by investors and other for-profit operators seeking to hatch businesses quickly and bring in big payoffs. At the time, nearly 30% of all incubation programs is for-profit ventures.

Incubators often aggregate themselves into networks which are used to share good practices and new methodologies. Europe's European Business Centre (EBN) association federates more than 250 European Business Innovation Centres (eBICs) throughout Europe. France has its own national network of technopoles, pre-incubators. This network focuses on internationalizing startups.

The Startup Federation is an international incubator network that includes incubators such as Washington, New York City's General Assembly, Boston'sCambridge Innovation Center, London's Warner Yard, Berlin's Betahaus, and others. The network allows collaboration between members of each incubator. Of 1000 incubators across Europe, 500 are situated in Germany.

**3. Technology park**

A university research park, science park, or science and technology park is an area managed in a manner designed to promote innovation. It is a physical place that supports university-industry and government collaboration with the intent of creating high technology economic development and advancing knowledge. There are many approximate synonyms for "university research park", science park", technology park, technopolis and biopark. The appropriate term typically depends on the type of affiliation the parks has with an institution of higher learning and research, and also perhaps the sort of science and research in which the park's entities engage.

These parks differ from typical high-technology business districts in that university research parks and science and tech parks are more organized, planned, and managed. They differ from science centres in that they are a place where research is commercialized. Typically businesses and organizations in the parks focus on product advancement and innovation as opposed to industrial parks that focus on manufacturing and business parks that focus on administration.

The parks offer a number of shared resources, such as incubators, programs and collaboration activities, uninterruptible power supply, telecommunications hubs, reception and security, management offices, restaurants, bank offices, convention center, parking, internal transportation, entertainment and sports facilities, etc. In this way, the park offers considerable advantages to hosted companies.

Science and technology parks are supported by universities in order to bring in industry with which they can collaborate, and by local government in order to improve the prosperity of the community.

**Check Questions:**

1. What is the essence of  [innovative infrastructures?](https://www.google.com/search?es_sm=122&q=Infrastructure+innovation+market&spell=1&sa=X&ei=Fo5jVYPkMoOHygPy74HQBQ&ved=0CBkQBSgA)

2. What is a business incubator?

3. List common incubator services.

4. What is technology park?

5. What are the benefits of technology parks?