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# **NEW COURSE OF ECONOMIC THEORY**

**TEXTBOOK**

**MINISTRY OF HIGHER AND SECONDARY SPECIALIZED  
EDUCATION OF THE REPUBLIC OF UZBEKISTAN**

**FSBEE OF HPE "RUSSIAN ECONOMIC UNIVERSITY  
AFTER G.V. PLEKHANOV"  
TASHKENT BRANCH**

# **NEW COURSE OF ECONOMIC THEORY**

**TEXTBOOK**



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Presented textbook is a result of joint work of scientists of “Economic theory” scientific schools of Russia and Uzbekistan. The expediency of integration of science schools based on the study of fundamental changes in economy reflecting the spheres of human life is substantiated in the textbook. A synthesis of ideas of various economic schools and trends is more profoundly presented in the process of statement of the course of economic theory.

The book has parts on current problems in the theory of market system of economic management and formation of new economic system. The authors suggested a new approach in analysis of various economic phenomena in the conditions of market relations based on the study of behavior of economic subjects at micro- and macroeconomic levels.

The textbook is intended for students, applicants and teaching staff, and also for all those who are interested in the problems of economic science.

*Project authors:*

**Grishin V.I.**, professor, doctor of economics;

**Juravleva G.P.**, Honored Science Worker of Russian Federation, professor, doctor of economics.

*Edited by:*

**Abdurakhmanov K.Kh.**, Honored Public Education Worker of the Republic of Uzbekistan, RANS Academician, doctor of economics, professor.

*Composite Authors:*

**Abdurakhmanov K.Kh.**, professor, doctor of economics; **Grishin V.I.**, professor, doctor of economics; **Juravleva G.P.**, professor, doctor of economics; **Yuldashev Sh.G.**, professor, doctor of economics; **Zokirova N.K.**, professor, doctor of economics; **Khodjaeva M.Ya.**, associate professor, candidate of economic sciences.

**References:** Doctor of economic science, professor **W. Ortmanns**;

Doctor of economic science, professor **N.H. Jumaev**;

Doctor of economic science, professor **N.V. Manokhina**.

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The people who have never studied economics  
systematically are like the deaf trying  
to estimate how orchestra sounds.

*P. Samuelson*

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## FOREWORD

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Contemporary economy synthesizes a wide range of various directions of professional activity, efficiency of which depends on the degree and quality of realization of generated by economic science and practice of potential. Education is becoming extremely important for formation and operation of new economy.

Economic knowledge is getting more urgent due to the intensive processes of globalization, integration and informatization. Accordingly, a new system of requirements to the intellectual potential of leader, manager and specialist is formed.

Formation of professional knowledge is to be started from the theoretical bases of economics, based on the knowledge accumulated by mankind for thousand years.

Diversity of studied disciplines stipulates complexity of the process of mastering economist profession and assumes the ability to synthesize obtained knowledge by means of the methods widely used in the theory and practice of management of contemporary productive, social and economic processes as well.

Formation of professional knowledge base of a future specialist in fact is process of creation of the product required to satisfy the needs of society in this resource. Consequently, control of this process is conformed to the traditional management laws. As in the production of other types of products there required necessary initial resource which will be transformed and processed into professional knowledge of a new specialist. Control of the process of knowledge transformation is implemented by functions of organization, planning, control and motivation. The quality of output depends on the quality of initial resource. Since the initial resource is knowledge shaped as a developed theory, the quality of education depends on their quality of methodic presentation.

The key requirement to the quality and content of educational and methodic materials is an objective reflection of current trends in all economic systems, phenomena and processes in global economy. This particular objective is assigned by the authors of the given textbook.

Realizing the fact that the progress of economic science is at the turn of different theoretical views and disciplines (economics, sociology, law, psychology, ecology, etc.) allowed the authors to structure the textbook, the main idea of which is to expose the whole complex of economic, social and general humanitarian problems of the present and methods for their solution in future.

The content of New Course of Economic Theory reflects the fact that contemporary world is on the edge of two civilizations – existing developed market economy (still having a certain potential of efficiency but already requiring

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uncommon new solutions in connection with the appeared progressive tendencies) and just forming, insufficiently explored (but identified already as post-industrial, information, post-modernist, new economy, etc.) civilization. As a result a new vision of economic processes and phenomena, pre-existing and existing: market, price, finance, labor, economic growth, consumption, wellbeing, etc. is formed by the authors.

Economics as a subject has always been a major component (as considered by many economists, a foundation) of comprehensive training of a contemporary specialist in the field of economy. The university graduate should possess not only solid theoretical background but practical skills.

Study of economics is to rest upon the knowledge of the basics of economy, mathematics, history obtained by the students at secondary school as well as upon deeper knowledge of higher and applied mathematics, history, sociology, statistics provided by higher educational institutions. Economics in its turn is a basis to study specific economic disciplines including marketing, management, national economy, enterprise economy, finance, world economy, tourism economy and etc. Underestimation of the significance of economics as a science, its understanding as a "craft of establishing infrastructure for engineers" is fraught with rough gaps in education of a contemporary person.

Globalization, informatization and openness of education entail not only the necessity but the possibility to unify education worldwide. Hence today it is urgent to create such theory which synthesizes the achievements of different schools of economic thought, through integration of the best practices with the requirements of the contemporary world, based on objective laws and principles of science development.

Therefore, economic theory is to include not only analysis of the market system of economic management of political economy but the analysis of economic transformation (transitional, post-industrial and global economies), i.e. analysis of problems of the formation of new types of economic management systems as well.

Economy cannot exist without human, his needs and interests. It should be noted that human behavior varies in different economic systems.

The authors of the book set the goal not only to represent relatively basic theoretical ideas popularly, establish their connection with the most important moments for practice but to assist readers in obtaining a wealth of knowledge of contemporary economics. Hence, each chapter of the textbook provides simple analysis of the most important theories, concepts, models and economic problems indicated in the chapter titles. Considerable attention is paid to methodological issues; critical categories and rules are emphasized as definitions; the principle of category introduction is sustained, i.e. each new notion is based on already studied ones.

The key principles laid as a basis of creating new edition of the textbook on economic theory are the following:

*Principle of multilevel.* After the student learned to analyze the problems of one level of complexity, he moves to the next one.

*Principles of the definition tree.* Each definition is explained several times depending on the level of complexity and, as a rule, is accompanied by its development history.

*Principle of internal unity.* The textbook is not a collection of separate, not connected with each other, articles. The whole materials are linked with prevailing methodology which is the essence of "Economics" discipline.

*Principle of multi-variant description.* Several variants of description of the same topic at this specific level of complexity.

*Principle of concretion.* The textbook is to contain the experience of solving economic problems generated by national and foreign companies and explanation of the most common mistakes as well.

*Principle of opposing.* In addition to the description of main economic theories the borders of their axiom verities are to be discussed.

*Principle of variety of technical application:* (1) as books; (2) e-books; (3) Internet-service including distance education technologies.

*Client orientation.* New edition of economic theory course is original scientific and methodic elaboration approbated at the Branch of "Russian Economic University after G.V. Plekhanov" in Tashkent. The study outputs are aimed to train economic specialists of higher qualification, state officials, teaching staff, scientific researchers and all those who are interested in the problems of contemporary world economy including economies of Uzbekistan and Russia.

Novelty of this textbook is in the following:

- firstly, an attempt to state the bases of the theory of forming new civilization, globalization and future economy in modern conditions has been made for the first time;

- secondly, the suggested description of various economic theories and views of scientists on urgent problems of market economy is intended not only for broadening of students (and readers) outlook but also for generation of their own creative economic thinking;

- thirdly, the concept of nanoeconomy with regard to economic theory, reflecting exclusively behavior of a human in economic activity with increasing the role of an individual in new conditions is introduced for the first time.

In addition almost each chapter provides separate novelty elements in description of a number of economic and theoretical problems.

The book is intended for wide audience of students and teachers of economic higher educational institutions and faculties and schools with advanced study of economy as well. It can be useful for practitioners, state officials and everyone who are interested in economic theory and policy.



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## PART I ECONOMICS AS A SCIENCE

### CHAPTER 1 METHODOLOGY OF ECONOMICS

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#### 1.1. Paradigm of economics

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Contemporary economic science results from evolutionary process of integration of various spheres of knowledge accumulated by the mankind throughout the history of its development.

Evolutionary development of economic science is reflected in transformation of the essence of the term "economy" at various stages of our civilization development and, especially, during the periods of qualitative transitions of economy from one condition into another. In this regard there is a need for deeper understanding of development and characteristics of the contemporary economic theory, as an aggregated outcome of evolutionary development of real economy. The understanding of this need requires from authors of the textbook an accurate approach to the definition of terminology which will provide the methodology content of economic science.

Studying terminology is to be started from accurate understanding of essence of the terms "**economic science**" and "**economic theory**" (economics).

In a common sense *science* is a sphere of the human activity which function is development and theoretical systematization of objective knowledge about the world in which the human lives, about the inner world of the human, and also about his relationship with the outside world. That is why the scientific disciplines studying the world of the human, are called *social*. One of these branches is *economic science*. The knowledge systematized in economic science is *economic theory* (economics) which studies rules and the principles of economy functioning.

**Economy** is a system which elements are firms and households, relations between them as well as means of production and ways of distribution of various goods necessary for society. Economic science summarizes knowledge on economy development through scientific methods of the analysis elaborated by economics.

There is an inverse connection between theory and practice, the real world and scientific knowledge. The nature of progress in science is in the fact that the time passes, and the system of scientific knowledge ceases to correspond with reality. That is when the available scientific knowledge is updated. New scientific ideas and schools, concepts and theories appear. Each of them characterizes a certain stage of economy development as a science and as a practice.

Explanation: the relations of production, distribution, exchange and consumption appeared in prehistoric period at community level expanded as a result of labor tools development and obtained a status of phenomenon. New economic phenomena changed economic relations. The more complicated the production technology becomes, the more complicated the economic relations,

processes and phenomena are, the more complicated the objectives are studied by economic theory.

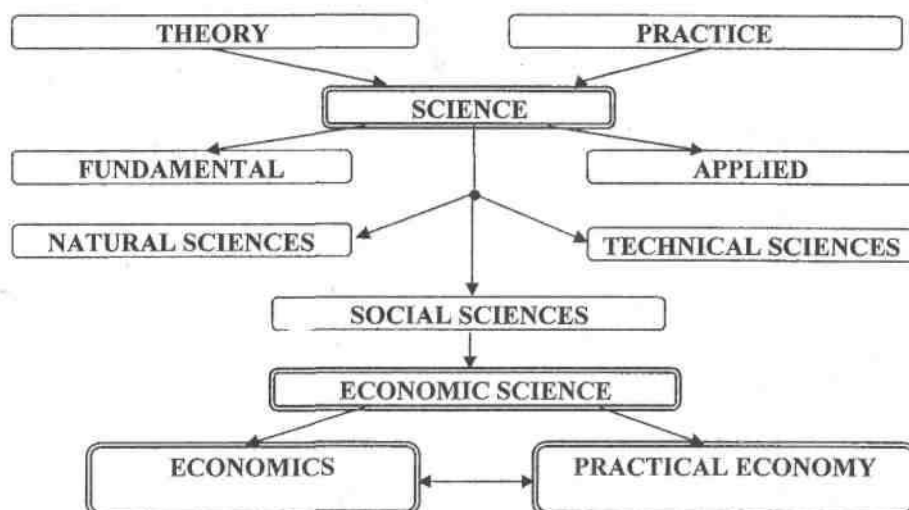


Fig. 1.1. Place of economic theory in the system of scientific knowledge

Economic theory uses a complex of research methods offered by social and mathematical sciences. Therefore, when the student starts studying economic theory he sets the *objective*: to master economic theory as the basis of economic science which provides main concept of the economy as a sphere of human activity.

**Economics** is a theory of economic relations, processes and phenomena integrated into *economic systems* (fig. 1.2).

Economic theory is a methodological background for studying applied economic disciplines. Therefore studying *economic theory* is necessary to obtain professional knowledge in a certain sphere of economy: in the field of management, accounting, banking etc.

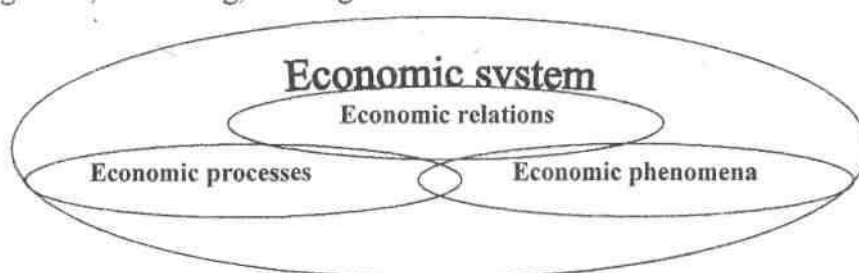


Fig. 1.2. Description of economic system

Prominent American scientist P. Samuelson called economics the queen of sciences. Nobel Prize winner M. Friedman, wrote that economy is a fascinating science; it is surprising by the fact that its fundamental principles are very simple and can be written down on one sheet of paper, nevertheless, only few understand them. According to the world-known German expert in the history of economic

thought A. Heldbrunner, this science reflecting the difficult world of economic operations requires from the reader "endurance of a camel and patience of a Saint".

Based on the aforesaid, our subsequent reasoning will rely on the analysis of the categories defining the *essence of the system approach to studying economic theory*, as difficult self-organizing system of knowledge and its basic definitions identifying operational conditions of contemporary economic systems.

Economic theory estimates the present as the period of accumulation and understanding of the facts, as the transition from various concepts to the established theory which contains a certain mechanism and research procedures that would give the status of fundamental knowledge to it. Transition period in economic science is connected with profound possibility to develop its categorical system based on the accumulated empirical facts and their theoretical understanding. In this regard we will address to retrospective aspect of the definition of the term "*economy*", thus considering not only its nature but also the content of *paradigm of economics*.

Generally *economy* is a part of everyday life of individuals in economic environment, their involvement into economic activity, using main economic categories: money, price, wages, income, expenses, etc. Today it is impossible to be beyond economy. That is why a person highly needs to understand the nature of contemporary economic phenomena and processes and be able to apply that knowledge in everyday life thus creating benefits for himself, his family and society as a whole.

*Economy as a baseline term of contemporary economic theory* was developed in VIII - VII B.C. by the Ancient Greek poet, Hesiod, and is a synthesis of two Greek words "oikos" (house, household) and "nomos" (I know, law), which word for word means the art, knowledge, set of rules on how to keep household. This term was introduced to the scientific circles by the representatives of Ancient Greece economic thought Xenophon (approx. 430 – 354 B.C.), who wrote the work entitled "Economy", and Aristotle (384 – 322 B.C.). The latter divided the science on wealth into "*economy*" (the set of use values) and "*chrematistics*"<sup>1</sup> (the art of doing money).

In contemporary understanding "economy" means reduction of costs, saving resources. For society as a whole economy means utilization of economic resources which result in maximum improvement of living standards in this particular society.

Term "*economy*" has a wider range of definitions, particularly:

1. *economy* – *economic system* of specific country, group of countries and world combining separate sectoral complexes, for instance industrial economy, transport economy, agricultural economy, etc.;

<sup>1</sup> *Chrematistics* (from Greek – enrichment) – Aristotle used the term to identify the science on enrichment, art of saving *money* and *property* and gain *profit*. Aristotle opposed *chrematistics* and *economy* (the art of managing household). Aristotle considered the role of economy in satisfying the vital *needs* and in creation of the means required to keep a household. Money is only to facilitate exchange. Chrematistics considers the situation when profit and saving money became the main goal of activity (for instance usury, speculating trade, etc.). Money is considered as wealth and goal thus losing its purpose of a medium of exchange. Aristotle treated chrematistics negatively. In particular, he noted "In the art of making fortune there is no limit in achievement of goal because the goal is unlimited wealth and possession of money. All those, who deal with money turnover, strive to increase their capital endlessly" [Aristotle. Politics - StP, 1911. - p. 25].

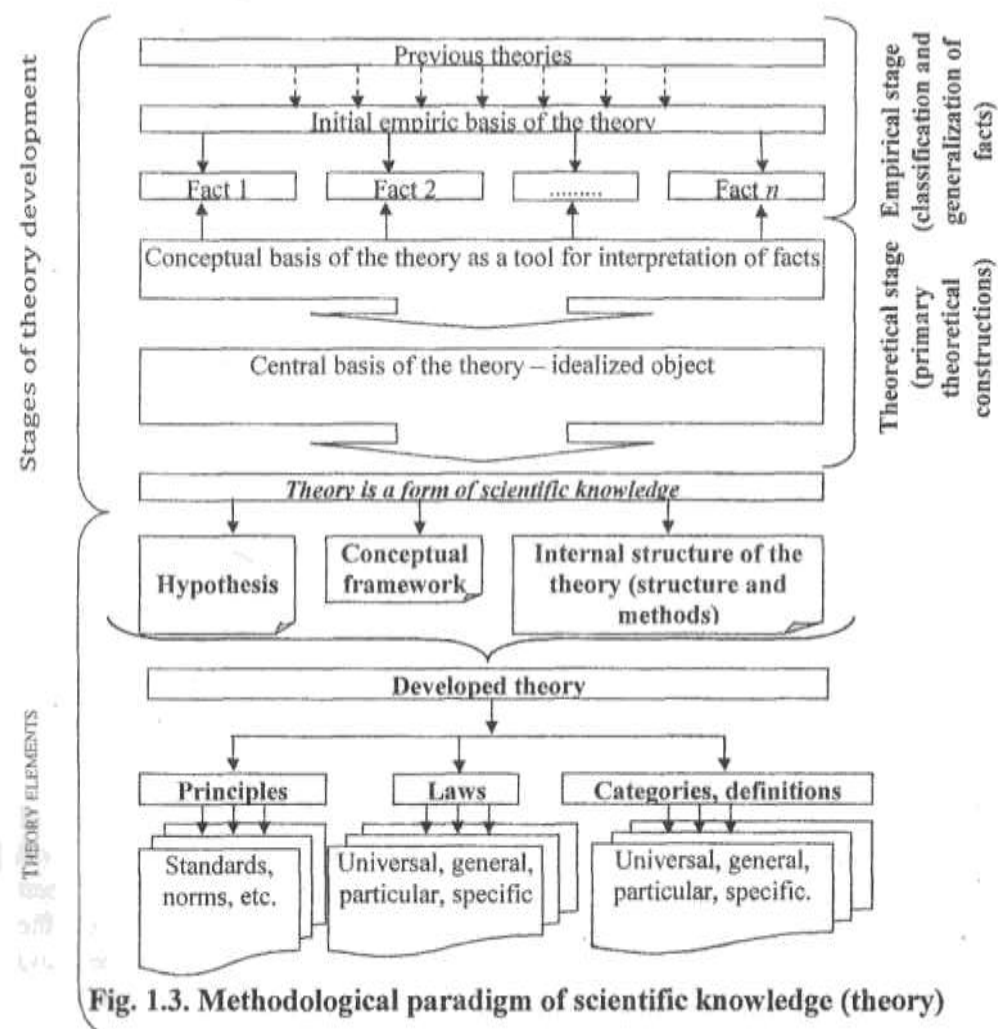


– *economic relations among people* established within the framework of economic operations corresponding to the specific development stage of production forces and establishing a certain economic system (slavery, feudal, capitalistic, mixed, etc.);

– *sphere of science* combining knowledge on economic laws, phenomena and processes; differentiated by categories depending on the conditions and types of economic operations (economic theory, population economy, labor economy, industrial economy, transport economy, agricultural economy, education economy, etc.); applying methods of social and mathematical sciences as tools.

Hence, economic theory can be considered as a *system of knowledge* which is a set of specific methodic tools used by economic entities for achievement of their economic objectives.

Each knowledge sector has a separate categorical apparatus. However there is a common logic of the science development for all sectors of knowledge. Fig. 1.3 provides methodological paradigm of the economic theory formation as a sector of scientific knowledge.



*Paradigm* in contemporary scientific understanding is identified as a logical model reflecting laconically the most critical structural elements of the considered sphere of knowledge. The model (paradigm) of economic theory construction provides opportunity to use it for establishment of methodological bases the essence of which is revealed in the system of categories, definitions, principles and methods, i.e. its basic elements.

*Theory* as a form (system) of reliable scientific knowledge represents the result of scientific activity (process) aimed at obtaining and applying new knowledge to solve technological, engineering, economic, social, humanitarian and other problems, to facilitate performance of science, technology and production as an integral system.

The nature of the scientific activity process is in combination of previous theoretical knowledge and accumulated practical experience (set of facts as an empirical basis of the theory), not systematized at the moment of research but already a social phenomenon and reflected in a theoretical form, thus requiring respective systematization (*classification and generalization*). As a result there appears a *conceptual basis of the theory* as a tool to interpret new facts, the essence of which is an idea of *concept* (Latin *conceptio* – fundamental idea).

Concept development (*creation of theoretical constructions*) is based on interpretation of empiric material (facts). Hence, conceptual basis of the theory is not a completed but more likely an intermediate complex covering *primary theoretical constructions*.

In the result of generalization and abstraction as well as on the base of certain assumptions there created a notion on *idealized object*, theoretical study of which leads to the appearance of *hypothesis*, establishment of respective system of *categories and definitions*, description of the *theory*, elaboration of respective *methods* for further development.

*Category* is a generalized mode of phenomena and processes in real time. Categorical apparatus of economics is developed not only in line with the development of real economy but also with conditions predetermining goals and interpretation of the studied economic phenomena and processes. This causes multidimensionality and discrepancy of proposed economic theories, concepts, hypothesis, etc., competitiveness and viability of which is checked in reality.

If initially *universal categories and laws of development* formed the concept of nature evolution, emphasized their impact on appearance and development of human intellect, then at present we are talking about the impact of human activity on nature, about how the subjective nature of human activity identifies further development of his habitat. The process of organization of human vital activity towards economic system in modern conditions identifies a new essence of economics which is being revealed in contradictions between processes and systems managed by people. For instance, on the one hand contradiction between human and nature, negative impact of human activities on environment, on the other hand – contradictions between market players striving to strengthen and stabilize their positions through achievement of their subjective goals which are not always in line with the objective laws of social development.

**Basic elements of theory**

**Table 1.1**

<b>Element</b>	<b>Content definition</b>
Generalization [Latin "generalisatio"]	Mental separation of the critical characteristics and signs which are the most typical for objects (facts) of the phenomenon under study
Abstracting	Process of abstraction from a number of characteristics and relations of the phenomenon under study and simultaneous separation of characteristics interesting for the researcher (generalization)
Assumption	A statement which is considered to be possible truth until the truth is identified
Hypothesis [Greek "hypothesis"]	Scientific assumption suggested to explain a phenomenon requiring explanation
Notion	Logical term defining a certain level in the development of intellectual activity of a human. Memory reproduces the object concept in the form in which the object has been accepted by the mind; reflexive brain activity splitting the object to the set of its characteristics and emphasizing the qualities general for all objects, creates a certain general notion, which is designated by word (term)
Category	General notion reflecting the most critical characteristics and relations of objects and phenomena of the objective world (substance, time, space, movement, reason, quality, quantity, etc.); class, group of objects, phenomena, individuals joined by a community of specific characteristics
System [Greek – whole, combined of parts, combination]	A set of elements related and connected with each other which form a specific integrity, unity
Structure [Latin "structura" – composition, location, order]	Set of sustainable relations of an object preserving the main characteristics in case internal and external changes; the main characteristics of a system is its invariant aspect
Method [Greek – course of research or learning, theory, study]	Method of constructing and substantiating the system of scientific knowledge; method of achieving the goal; set of techniques and operations of theoretical study and practical implementation of something, resulting from the knowledge of the most common regularities of development of objective reality and specific regularities of the objects, phenomenon, process under study

Principle [Latin "principium", basis]	The main primary provision of a theory; leading idea, basic rule of operation
Law	Category reflecting substantial, necessary and repeated relations between the phenomena of the real world

The logic of methodological paradigm provides that each separate stage (or element) of economics development proves this order. The study of the nature of phenomena in chronology concludes accordingly that the further the society is from the primitive state the more the subjective factor prevails, considered as constructive activity of a human aimed at satisfying his endless needs.

Economics as a science always attracted the attention of scientists and educated people. It is explained by the fact that studying economy means realization of objective necessity to learn the incentives, actions of people in economic activity, economic laws at all times from antiquity to present days. Understanding the logic of economics structure will allow students to master the nature of genesis and evolution of economic science in full measure.

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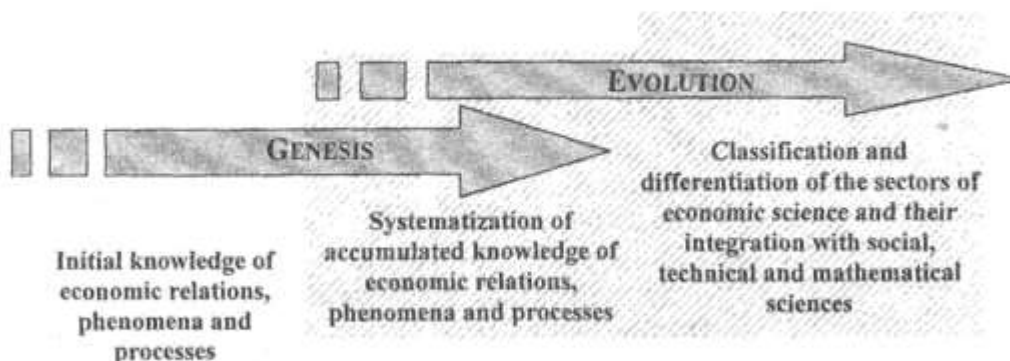
## 1.2. Genesis and evolution of economics. Schools of economic thought.

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**Genesis** (Greek "genesis") – appearance and further development of processes and phenomena.

**Evolution** (Latin "evolution" – development) – process of gradual change and development, transition from one qualitative condition to another.

In application to economics genesis and evolution mean specific features of the conditions of appearance of scientific knowledge on economic relations, phenomena and processes, development and improvement of the knowledge (fig. 1.4).



**Fig. 1.4. Uniformity of notions of genesis and evolution  
in economic science**



One should seek for the sources of economic science in the works of ancient thinkers, first of all, in the countries of *Ancient East*, the cradle of the world civilization. We highlight the ideas which provided a basis for contemporary methodology of economic science.

The first conformation of the fact of social labor division resulted from relations of supremacy and submission, i.e. existed in the ancient world character of appropriation and distribution of goods are the ancient Indian "Laws of Manu" (IV-III B.C.).

*Confucius* (551-479 B.C.) pointed out the difference between intellectual and physical labor resulted from stratification of the society to high strata (grand people, nobility by birth, slaveholders), commoners and slaves. He highlighted the need of the state protection of private property and economic wellbeing of the nobility and all higher strata, substantiated equal social utility of education and simple labor, convinced that the society divided into estates by God and nature, and called every person would strive for moral perfection by learning natural rules of the respect for elders. According to Confucianism, people will have prosperity if they manage well within regulated natural relations.

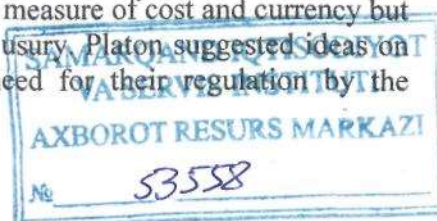
*Sun Tzu* (III century B.C.), follower of Confucius, promoted Confucius' ideas in his works and suggested that all people are equal at birth and commoners should also have the right of ownership of land, use "accumulated wealth", and slaves, farmers and craftsmen deserve freedom.

Economic thought gained further development in *Ancient Greece* (IV-III centuries B.C.).

Views of ancient Greek thinkers *Xenophon* (around 430-354 B.C.), *Plato* (428-427 B.C. – 348-347 B.C.), *Aristotle* (384-322 B.C.) may be considered as the primary theoretical preconditions for contemporary economic science. For instance the idea of utility as a basis of the value of economic goods, proper exchange of economic goods as equivalent exchange, etc. Since in the conditions of slavery physical labor was considered obscene for a free citizen, the product was estimated only in terms of utility not labor.

Xenophon considered slavery as a natural form of exploitation and slaves as talking tools; he however realized low productivity of slave labor and recommended the slaveholders to apply material incentives. One of the basic matters in Xenophon' works is a study of dualism of a commodity as economic definition. He revealed the essence of commodity value as a use value and exchange cost. Xenophon considered money as currency and treasure while condemning usury, i.e. using money as loanable funds.

Platon tried to solve contradiction between numerous needs of people and their limited capacities by studying the role of the state and emphasizing development of real sector of economy, i.e. farming and crafts, while considering trade disresponsible. In his work "Laws" Platon expressed the thought that money, being a general equivalent, should function as the measure of cost and currency but should not be used for generation of wealth and usury. Platon suggested ideas on the price basis and level as well as on the need for their regulation by the government.





Aristotle realized his economic ideas in the works "Nicomachean Ethics" and "Politics". Considering the ways of gaining wealth and satisfying needs, Aristotle separated economy and chrematistics (see above), differentiated clearly production and trade, creation of use values to satisfy needs and value added in trade sector defining the latter as profiteering which had nothing in common with the laws of nature. While analyzing the nature of cost Aristotle noted that things can be used either to satisfy certain needs or to exchange. He valued the role of money through considering its function as a measure of cost and as currency dividing it in two types: money as money (chrematistics) and money as capital (economy). Aristotle condemned the use of money to gain profit by proving that money by its nature cannot bring money.

Economic thoughts of the thinkers of Ancient Rome *Varro* (116-27 B.C.), *Cato the Elder* (234-149 B.C.), *Columella* (1 A.C.), *Seneca* (4-65 A.C.), *Lucretius Carus* (99-55 A.C.) became a continuation and concretization of the ideas of Ancient Greek philosophers. Cato in his treatise "On farming" identified the advantages of agriculture comparing with the other economic sectors. Through admitting the use of non-slave labor he justified the ways of increasing profitability of a *villa* – household based on slave labor for which he proposed "with a carrot, instead of a stick" method.

Varro in his work "On agriculture" also considers the problems of arranging slave labor, justifies advantage of agriculture comparing with urban economy. He also advocated the idea of villa self-sufficiency but did not attach any substantial importance to the market development.

The thinkers also substantiate the need of slavery but there already reflected decline and decay of slavery. For instance, Seneca asserted that all people were equal by nature: "They are slave. But they are humans". Seneca was against usury while he lent money with the help of emancipated slaves and was very rich.

Specific role in arranging the contemporary world was played by Christian and Muslim religions which contributed into the science the understanding of the need of simple labor which creates background for family wellbeing and fair assessment. *Christianity* proclaimed the simplest labor a required and holy activity.

In *Koranic culture* this principle is realized through the ban on usury as the hardest sin (Quran, Sura 2:275). Quran allows to trade based only on exchange of equivalent amounts. This preconditioned the features of contemporary Islamic banks which have no right to get interests.

The ideas of ancient scientists which laid the principle basis of contemporary system of knowledge on nature of economic phenomena and processes come to the following basic theoretical provisions:

- public division of labor, relations of supremacy and submission, differences in intellectual and physical labor affect social inequality and economic contradictions related to distribution;
- involvement of the state in protection of property rights, the rights for freedom of those who produce socially required goods (slaves-farmers, slaves-

craftsmen) as well as in settling down contradictions between the growing needs and limited capacities to satisfy them;

- material and moral incentives impact directly on efficiency of labor organization and increasing productivity as well as profitability of economy;
- equivalent of economic goods exchange is identified by the utility of a good;
- value of a good is identified in exchange cost and use value;
- priority of agriculture as a type of human activities in terms of crafts and trade;
- need for economy as a type of activity.

But those were just ideas. Development factors<sup>2</sup> of economic science as an independent discipline of scientific knowledge shaped based on collapse of feudalism and expansion of market relations as a form of capital economy in Europe in XVI-XVII centuries. This is the period of manufacture, deepening of public division of labor, expansion of internal and external markets and intensification of money circulation. More complicated relations of distribution, production and exchange resulted in wide dispersion of scientific thoughts which entailed development of various trends and schools in economic science.

*Mercantilists and physiocrats* were the first scientific schools which tried to explain the nature of national wealth generation processes systematically and define distribution principles.

*Mercantilism* (from Italian “mercante” — merchant, trader) is one of the scientific schools suggesting the society a comprehensive economic theory which promoted interests of merchants and financiers thus spread in many countries. The founders of mercantilism are Englishmen *William Stafford* (1554-1612) and *Thomas Mann* (1571-1641), Frenchman *Antoine Monchrestien* (1575-1622), Scotsman *John Doe* (1677-1729), Italians *Gaspar Scafuri* (1519-1584), Antonio *Djevonezi* (1712-1769), who stated amazingly similar views independently from each other which proves the growing scale of social phenomena and processes. Mercantilists consider the matter of economics as a sphere of circulation studied through descriptive methods.

Term “*mercantilism*” was introduced in XVIII century by *A. Smith*. The author of the term “*political economy*” was another representative of mercantilism school *Antoine Monchrestien* (1575-1622). Since publication of his book “*Treatise on political economy*” (1615) for over 300 years and up to now economics has been developing as political economy. The first part of this term comes from “*politea*” which means state structure. Accordingly, literally “*political economy*” is translated as economic laws within a state (not a separate slavery or urban economy as considered by Aristotle but in the state as a whole). Appearance of this term in that specific period of time is not accidental but stipulated by the growing role of the state on initial capital saving and external trade.

<sup>2</sup> Factor (Latin “factor” — doing, producing) — driving force, critical condition or reason of a process or phenomenon.

The source of mercantilists' ideas is connected with discovery of golden and silver deposits in America and replenishment of European countries' treasuries. This boosted commodity exchange on external markets, and mercantilists identified wealth with gold and money by asserting that success of external trade depends directly on respective government policy which saves national wealth and protects national producer, i.e. *protectionism* policy. Hence the goal of scientific studies of mercantilists was a search for the answer to the question what kind of government external trade policy should be.

Differences in development of national economies caused variety of views among mercantilists. In this regard, two streamlines are separated in mercantilism: *early mercantilism* and *late mercantilism*.

**Early mercantilism** (XV – mid. XVI centuries) is based on the idea of keeping money through the ban on removing it abroad and introduction of the public monopoly on currency trade. Money is considered as a means of saving. The Englishman W. Stafford in his pamphlet "Brief exposition of some common claims of different nationals" (1581) noted that solution of many economic problems is based on the ban on export of precious metal, import limitations, encouragement of economic activities connected with money into the country. Collapse of *monetary* views of early mercantilists was inevitable and logical. They could not manage to justify the goals of merchants and financiers.

**Late mercantilists** (T.Mann, A. Sera, partially A. Smith) considered solution of the problem of the national wealth growth in generation of active trade balance. They considered that the wealthier the state becomes, the greater the difference between the cost of imported and exported goods is. Export of the manufactured commodities and currency was encouraged if it facilitated increase of receipts from trade. Money was considered as a means of circulation being the primary precondition for commodity turnover  $M-C-M'$  operated in external trade. Mercantilists supported government regulation of trade, accordingly, state protectionism.

*Government policy of protectionism* being supported ideologically by mercantilists used financial leverages restraining import through high import duties and export promotion thus stimulating arrangement and development of export manufactures. Hence, late mercantilism studied production as a means of increasing external trade balance.

In Russia mercantilist views were expressed by the scientists who devoted their studies to the improvement of economic and political structure. Russian economist, statesman and diplomat A. L. Ordin-Nashokin (around 1605-1680) in his statements and letters, paid much attention to trade as a tool to develop Russian economy and major source of treasury replenishment; he edited "New trade regulation" which identified the main course of Russian external trade policy. He supported private initiatives and freedom of entrepreneurship; promoted development of metallurgic, metal-working, tanning, paper, glass manufactures; assessed objectively achievements of more developed states, urged to adapt the best practices not by admiring them but interpret critically based on the national interests.

Another Russian researcher *I.T. Pososhkov*, born in the family of craftsman, being a self-educated person but having outstanding capacities managed to become one of the most prominent economists of that time. In his major book "The book of scarcity and wealth" (1724) there stated economic views and proposals on reforms aimed at improvement of economic and political structure of Russia. Unlike mercantilists *I.T. Pososhkov* accepted profit within the country and considered its value dependent on productivity of labor and wages level. He prioritized active trade balance by subordinating it to the development of domestic trade, set connection between the interest and profit correctly, stated that interest should be set legally depending on the profitability of crafts. Labor was considered as a source of wealth both in industry and agriculture. By accepting the advantage of competition *Pososhkov* was mistaken in opinion that prosperity of Russia had been based on serfdom and regulation of economic life.

*Mikhail Vasilyevich Lomonosov* (1711-1765) linked independence of Russia with comprehensive development of national industry, development of natural resources, rational distribution of industry, construction of communication routes, production and utilization of machines, training population to learn crafts, development of trade as the critical factor increasing the national wealth; required guarding of national production from foreign competition through customs duties. He considered the state as the leading force of economic development and supported active intervention to the national economy aimed at improving the living standards while keeping serfdom.

*William Petty* (1623-1687) occupies special place in economic science of XVII century with his ideas published in "A Treatise of Taxes and Contributions" (1662), "Political arithmetic" (1683), "Quantulumcunque concerning money" (1682), etc.

Unlike mercantilists *W. Petty* supported the interests of manufacture bourgeoisie by thinking that the source of wealth is not money but labor and land. Accepting the regulating role of the state he asserted that its intervention should promote development of production. *W. Petty* used methods of the natural and exact sciences to discover the nature of class structure of the society, wealth, priority of material production in terms of distribution chain. He substantiated the need for accurate quantitative analysis of the phenomena under study, thus he studied categories of wages, commodity prices and profit. While identifying the wages as a price for labor, formed under the impact objective factors rather than subjective decision of a law-maker, *W. Petty* did not attributed it with the categories of labor force. He considered profit as a part of product which remains after deduction of wages and seeds, thus making it equal to the rent. He thought that the price of goods was important and studied not random, market prices, but average or natural price.

Ideas of mercantilists and *W. Petty*, promoting priorities of national interests in foreign trade, lobbied not the national interests as an economic system but separate social classes and finally collapsed the basics of international trade, area in which they did not see the source of growth of the national wellbeing. In the

second half of XVIII century as a result of internal contradictions the school of mercantilism passed its positions to physiocrats.

**Physiocrats** (Greek “*physis*” – nature + “*kratos*” – power, supremacy) are French economists who lived in XVIII century. Physiocracy based on theoretical and political programs of *François Quesnay* (1694-1774) was supported by his talented students and followers: *Victor Riqueti Mirabeau* (1715-1789), *du Pont de Nemours* (1739-1817), *Anne Robert Turgot* (1727-1781).

Being the major ideologist of physiocrats *François Quesnay* substantiated the *main postulates of physiocracy* and disproved doctrines of mercantilists. His major ideas focused on the following:

- a source of wealth is not just labor in farming but excess of produced goods over consumed in agriculture;

- variation in the aggregate social product and production costs or in other words excess of product over production costs, is assessed as “pure product” which is created only in farming where the number of use values increases under the influence of natural powers;

- in the course of industrial processing of the substance established by farming, “pure product” does not exist and wealth is not created, since only the form of the processed product is changed, but its quantity is not increased;

- the value of “pure product” depends directly on the value of production costs, i.e. raw materials, consumables and wages reduced to the minimum of livelihoods. Hence “pure product” (value added) in fact is considered as the result of added labor;

- society is divided in three classes: production class (farmers and agricultural workers), class of landlords and “barren” class of manufacturers;

- capital is formed depending on turnover and consists of primary advance payments – expenses for agricultural instruments, facilities, cattle, etc. and annual advance payments – expenses for seeds, major agricultural works and labor force.

These provisions were reflected in “Economic table” formulated by F. Quesnay, in which the whole process of reproduction and circulation of the total public good is presented schematically.

The narrow-mindedness of his theories is in the fact that only labor in farming was considered a source of wealth.

*A.R. Turgot* stated economic doctrine of physiocracy in his work “Thinking on generation and distribution of wealth” with substantial amendments and addenda:

- in classes of farmers and manufacturers he defined workers and capitalists. Turgot divides the class of farmers into two categories of people: businessmen or capitalists making advance payments, and common workers receiving wages;

- he defined profit as an independent type of income received by a businessman-capitalist, though treated it as a part of pure product, i.e. a rent. Turgot proved it by thinking that the only productive work which makes more than wages is agriculture.



The weak link of theoretical postulates of physiocrats was that by estimating wealth in natural form, physiocrats didn't investigate value as a category, and respectively, didn't identify the link between increase in utility of the exchanged benefits and cost increase within an exchange, and also primary utility in terms of exchange.

*Classical political economy.* The next serious step in development of the theory of international trade was made by classics of English political economy Adam Smith (1723-1790), David Ricardo (1772-1823), John Stuart Mill (1806-1873).

*A. Smith* contributed to the history of economic thought as a founder of classical political economy. He was the first to systematize accumulated economic knowledge in the book "Inquiry into the Nature and the Causes of Wealth of Nations" (1776).<sup>3</sup>

Being guided by the doctrine of physiocrats A. Smith formulated the overall goal of the national political economy, i.e. increase of the national wealth and power based on which he proved the following ideas:

- foreign trade is profitable if it is timely and develops independently, without the state intervention;
- protectionism shouldn't limit international trade, the country should buy everything that foreigners can make cheaper, and sell everything that produced based on some advantages;
- international division of labor and specialization on production of those goods in which the country has advantages, will allow it more effective use of domestic potential for creation of national wealth (theory of absolute advantages);
- money is not wealth but currency; it cannot be the goal of production and trade; the true wealth of the country is not in money but in land, facilities and commodities of different kind;
- major factor of wealth is a capital growth, and the factor of capital growth is savings from the income created by the industry; the more capital the nation has, the more workers can it engage in production, produce tools and machines, increase labor productivity, develop further division; therefore, industrial development of the country is defined by the limits of the available capital;
- social classes are established based on the principle of generality of income generation methods, i.e. society is divided into those who live on rent, salary and return from the capital;
- market mechanism is an obvious and simple system of natural freedom (use of labor or capital), it will be automatically counterbalanced always due to "invisible hand" of the market, i.e. to the conditions of free prices and competition depending on supply and demand;
- the state has three important duties: costs for public works; the expenses ensuring military security; costs for administration of justice;

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<sup>3</sup> A. Smith An Inquiry into the Nature and Causes of the Wealth of Nations: Anthology of economic classic: 2 v. V. I. - M., 1991. - p. 91.

- taxes have to correspond "with the force and abilities of citizens", be defined for each capable person, and collection of tax is to be cheaper, and the form and time of this collection is to correspond with the interests of payers as much as possible;

- labor, value of which never changes, is the only measure of value of all goods;

- increase of labor productivity is a consequence of labor division and specialization affected by trade exchange;

- nominal price of goods is expressed in money, and real price is equal to the work which can be received for this money or the amount of wages, profit and rent in terms of money; natural price is the price to be paid (by natural norms) to produce goods; market price is the price at which the goods are purchased (may differ from the natural price, but in competitive environment tends to it).

Developing the ideas of *A. Smith*, *D. Ricardo* put forward distribution of income as a central issue, investigated categories of money, prices and receipts, savings, wages and employment, proved the *theory of comparative advantages* in the book "Principles of Political Economy" (1817) in which he explained negative impact of protectionism on the growth of internal prices, wages and decrease in the profit rate. His main conclusion is that freedom of international trade will allow each country to specialize on production of the goods in which it has comparative advantage.

*D. Ricardo's* main ideas revealed intrinsic interrelation of categories between labor and cost:

- the only source of cost is labor of a worker which makes a baseline for incomes of various classes (wages, income, interest, rent);

- profit is a result of unpaid labor of a worker;

- there is a distinction between the labor spent for production of goods and determining its cost, and that labor which can be bought at the expense of these goods, i.e. between labor spent and labor bought;

- labor spent for production of goods acts as a source of cost;

- there is an inversely proportional link between wages of a worker and profit of a capitalist that means contradiction of economic interests of workers and the bourgeoisie.

*D. Ricardo* couldn't reveal the dual nature of labor, expressed in the structure of cost which contains both newly created and cost transferred from the means of production. Moreover *Ricardo* quite reasonably rejected the thesis about utility of goods as a source of its cost; he underestimated the role of consumers in cost regulation.

French economist *Jean Baptiste Say* (1767-1832) is an author of three-factorial model of production and income, the law of market and systematization of production relations by the phases of production, distribution, exchange and consumption. His ideas are focused on the following:

- quantity of product value is defined as a sum of incomes from production factors - wages, interest and rent or sum of production costs, i.e. work, capital and land;

- utility is a basis of cost since utility is a basis of value while value is wealth;

- expenditures are defined by supply and demand, sales are defined by production, i.e. the more the producers and products are, the easier, more diversified and more extensive the sales are;

- surplus of goods means a insufficient demand and decrease in production of goods in other sectors;

- development of one industry entails development of other sectors;

- development of foreign trade facilitates exchange on domestic market and therefore stimulates production of domestic goods;

- process of production of goods creates profit equal to the cost of the manufactured goods. It means that production of any volume of production automatically provides the profit required to purchase all goods on the market. Supply generates its own demand.

Economic crisis of the overproduction which broke out in England in 1825 disproved statements of Say.

*John Stuart Mill* is the last representative of classical school, English economist, the son of well-known economist, James Mill (1773-1836) author of the book "Basics of Political Economy" (1821) dealt with issues of rent and supported nationalization of land.

John Stuart Mill developed and specified A. Smith and D. Ricardo's views, particularly that production laws are of natural character, distribution relations evolve. His work is based on the following:

- classifications of laws of political economy by the laws of production dependent exclusively on nature (soil fertility, biology and etc.), and distribution determined by psychological motives of people, social environment. Production laws, according to Mill, are objective, while distribution laws are subjective;

- dependences between the growth of real wages and decrease of return from capital caused by scientific and technical progress;

- need of public expenditures on establishment of production infrastructure, promotion of science, etc.;

- impact of the guaranteed involvement of workers in profit on productivity and quality of work.

These ideas are reflected in works "System of Logic" (1843), "Sketches relatively some unresolved problems" (1844), "Bases of political economy with their some annexes to social philosophy" (1848), "The textbook on classical political economy", which was studied at many Western universities up to the publication of A. Marshall's works.

Russian representatives of classical economic school are prominent economist *Nikolay Semyonovich Mordvinov* (1754-1845) and well-known statesman *Mikhail Mikhailovich Speransky* (1772-1839).

N.S. Mordvinov is the statesman and public figure, he supported development of industrial capacity of Russia, its transformation into powerful agrarian-industrial country, strengthening economic role of noblemen, application of forced labor of serfs in industries, need for industrial protectionism for Russia which distinguished N. S. Mordvinov's economic views from Adam Smith's doctrine. His extensive economic program focused on clearing the way for capitalism development in Russia. Mordvinov prepared monetary reform of 1840-1843, proved theoretically the need for devaluation of Russian currency.

Works by Swiss economist and historian Jean Charles Léonard Simonde de Sismondi (1773-1842) became a certain stage of evolution in the world economic thought. He developed the ideas by A. Smith in his publication "About commercial wealth, or about the principles of political economy in their application to the trade legislation" (1803).

His observations and studies of history, economy and policy in Germany and Italy in 1804-1808 resulted in the book "New Beginnings of Political Economy" (1819) in which he proved new course of political economy and criticized economic system of capitalist society. In the center of Sismondi's economic doctrine is a distribution on which consumption and production depend. He considered that political economy is urged to be a science aimed to improve social mechanism for the sake of human happiness.

Idea of how to create future society was proposed by *socialists-utopians* Saint-Simon Claud Henri de Rouvroy (1760-1825), Charles Fourier (1772-1837) – France and Robert Owen (1771-1858), Great Britain. They criticized capitalism and requirements reorganize production, distribution and consumption, cancellation of private property, elimination of difference between intellectual and physical work, establishment of fair social system which Saint-Simon called industrialism, Fourier – harmony, and Owen – communism. Scientist K. Marx (1818-1883) proceeded with their ideas in his work "Capital" in which he summarized evolution stages of socio-economic structures, explained the laws of capitalism development, reproduction and economic crises, explained the nature of production price, cost, absolute rent, wage labor.

The dogmatic statement of main Marxist ideas used to establish socialist society in separate countries rendered a disservice to this great as of that time doctrine which has its own shortcomings.

Reaction to K. Marx's economic doctrine is a *theory of marginalism* arisen in the XX century. Marginalism is a baseline of contemporary neoclassical course of economic thought. Representatives of marginalism were economists of Austrian school Karl Menger (1840-1921), Friedrich von Wieser (1851-1926), Eugen Böhm von Bawerk (1851-1914), and also an English economist William Stanley Jevons (1835-1882).

**Marginalism** (from English – *limit*) is a theory representing economy as a system of interconnected economic entities and explaining economic processes and phenomena given a new idea of pricing. The core of this idea is a connection between the extent of satisfaction of requirements, production expenditures and price. The main categories in this course include: limited utility, productivity,

expenditures, etc. Based on subjective judgments the theory explains costs of production, demand, offer, price. Marginalism rests upon quantitative analysis and uses economic-mathematical methods and models.

By applying microeconomic analysis *K. Menger* established correlation known as a rule of decreasing utility. He opposed analysis of economic relations and indicators at the level of certain economic entity ("Robinson's economy") to the doctrine of "classics", i.e. at microeconomic level. He was mistaken by focusing on micro level which, by his opinion, provides solution of the main economic problems a scarcity of benefits and infinity of subjective requirements.

*E. Böhm von Bawerk* in his major work "Bases of the Theory of Value of Economic Benefits" suggested slightly differing concept of pricing comparing with Menger. He thought that marginal utility is set the prices not indirectly but directly by establishing borders of their fluctuations. The upper maximum edge of changes of market price for a good depends on subjective judgment of its utility by the buyer. It cannot go beyond this limit since this solution would contradict the principle of rational behavior through decreasing his wellbeing. The lowest price is caused by subjective judgment on utility of the specified good available for the seller. Being guided by the same motives, as the buyer, he cannot shift the estimate below a certain line. Marginal utilities play the role of regulators (limiters) of market prices. They have to be commensurable and measured by money. Respectively Austrians faced a challenge to explain the mechanism of such measurement and correlation.

*Friedrich von Wieser* introduced the term of marginal utility and concept of alternative expenditures. Wieser's law was formulated on the basis of alternative expenditures: real value (cost) of a thing is under-received costs of other things which could be made of these resources. As a result thanks to existence of the value (consumer) benefits and imputation the prices for production factors (production resources which form expenditures, thus the price of the manufactured product) are established.

Marginalists approached economic science to the need for application of *mathematical tools*.

One of widely known theorists of *mathematical school* is *Leon Walras* (1834-1910), Swiss economist. He developed a model of general economic equilibrium base on analysis of supply and demand. The system of the equations intended for description of economic relations between producers and consumers, sellers and buyers as well as processes and phenomena on the markets of productive services and consumer goods. Walras's mathematical structure was stationary, static. There is no a single sign of technical progress, accumulation of capital and other processes typical for real capitalism. Like his predecessors, Walras couldn't explain the nature of prices.

A role of the theory by *V. Pareto*, follower of Walras was also noticeable. Unlike other theorists of mathematical school, Pareto denies the fact of existence of casual effects in economy. Like the majority of bourgeois scientists, he recognized only functional links between the phenomena which were in fact almost beyond production relations. This was the basis for Pareto to reform



*individual function of utility of Jevons-Walras* which he thought was too abstract. It is replaced by ordinal function of preference. He also formulated a criterion of the best distribution of resources, introduced into the history of economic thought as *optimum of Pareto*.

Followers of this school of economic thought considered market economy as a system tending to the optimum of its existence, i.e. to economic success.

The economic thought of the XX century is characterized by such major courses as *neoclassical, Keynesian and institutional*.

*The school of neoclassicism* resulted from marginal revolution, relies on the main findings of classical school created by the works of A. Smith and D. Ricardo and was one of the mainstream courses in XX century.

Main achievements of neoclassical school: concept of marginal utility and marginal productivity, theory of market entrepreneurial economy in the environment of perfect competition, concept of monopolistic pricing and market, theory of production functions, theory of wellbeing.

Thanks to neoclassics by the end of 1930s microeconomics had got the content which we can see in appropriate sections of contemporary "Economics". However failed to reflect all processes at the level of the state capitalism, neoclassics came to grief during the "Great depression" and passed on "baton" on the way to the Olympus of economic science to the *Keynesian macroeconomic theory*. Later in the second half of XX century the neoclassicism became a source for such scientific course as *neoconservatism* and *neoliberalism*.

*Neoconservatism* is one of the main courses of economic thought of the late 70s and the early 80s. The main components of neoconservatism included: *monetarism* and *supply theory*. The authors of basic methodological provisions of neoconservatism are *I.Fisher, K.Viksel, F.von Hayek, M. Friedman*. The main problems solved by neoconservatism: optimization of the market economy through anti-inflationary policy and scientific and technical progress, effective correlation between the state regulation and market self-regulation, unemployment and inflation, increase of production efficiency, etc. focus on the study of long-term trends allowed neoconservatists to prove the need for modernization of the state regulation systems in Western countries of 1970-80-s through activation of market potential. Execution of economic policy offered by neoclassics led to the rapid economic growth of the countries which subsequently received the status of the developed.

*Monetarism* is a theory of economic stabilization in which the predominating role is played by monetary factors. Monetarists bring economic regulation, first of all, to state control over the money supply, money emission, quantity of the money being circulated and stocked, achievement of balance of the state budget and establishment of high bank interest.

American scientist-economist *Milton Friedman* (1912-2006) is one of the greatest leaders of contemporary economic science, recognized head of "new monetarist school", Nobel prize winner on economy in 1976.

He considered the change of money stock as the most powerful factor influencing economic activity and founded a quantitative theory of money (1956)

main idea of which was that money is one of many ways to store wealth, therefore demand for money should be considered as a special aspect of the theory of capital.

The principles of integration of formal logical scientific analysis and economic and mathematical models justified by *Friedman*, as well as separation of the real and monetary sectors laid a ground for monetarist views in 1970s. Monetarist approach to economy regulation was used widely during that period in the USA and European countries. Later monetarism laid the ground for stabilization measures of the policies in the countries establishing market economies.

**Supply theory** is an independent section of macroeconomics appeared in the early 1960s of XX century and became popular in 1980s along with monetarism. Two courses are distinguished: *moderate supply theory* and *radical supply theory*.

The moderate *supply theory* is based on the need of tax incentives for economic growth (*S. Feldstein, M. Boskin, etc.*). The radical supply theory suggests that reduction of taxes entails decrease in inflation and growth of tax revenues.

**Neoliberalism** is a direction in economic science integrating ideas of new historical school, neoclassics and traditional liberalism. Neoliberalists in contrast with neoclassical theories of growth and production functions investigating quantitative aspects of social production, consider qualitative institutional problems and keep developing ideas of traditional liberalism about entrepreneurial freedom and ownership of means of production.

In XX century the leading theorists of the concept of economic liberalism were *Ludwig von Mises* (1881-1973), *Friedrich August von Hayek* (1899-1992), *Ludwig Erhard* (1897-1977), etc.

According to Hayek economic problems have to be solved through accumulation and distribution of information. If information distributes freely competitive prices transfer economy to an optimum. Effective distribution of resources corresponding to the optimum is result of effective knowledge coordination. Hence, by his opinion, the highest human value is freedom which major guarantor is a system of private property.

Hayek suggested an alternative to the state planning, a *spontaneous construction* based on the thesis about unreality of economic equilibrium in economy. The core of the concept is refusal of state monopoly on emission of money and devolution to private issuers which was supposed to entail the discovery of new capacities of money and under the condition of operating market mechanism make the change of money supply predictable, and the prices - fixed.

Based on neoliberalism theory, German theorist, statesman and politician *Ludwig Erhard* (1897-1977) created a *theory of socially focused market economy* and embodied it in practice. Basic provisions of this theory are the following: need of free price, free competition, proper correlation between supply and demand, economic equilibrium, the state is to guarantee these conditions in market economy and to provide a social orientation in development. This theory is stated in the book "Welfare for All" published in 1956.

**Keynesian macroeconomic theory.** The founder of which is Lord John Maynard Keynes (1883-1946). The theory is the most important theoretical substantiation for state regulation of developed market economy through increase or reduction of demand by changing cash and non-cash money supply. By using this kind of regulation it is possible to regulate inflation, employment, to eliminate uneven demand and supply of goods, to suppress economic crises. Keynes's influence on public opinion was the strongest after A. Smith and K. Marx. In his main work "The General Theories of Employment, Interest and Money" (1936) he provides the theory and program of economy regulation by the state. This theory was widely adopted and got numerous supporters (*W. Beveridge, S. Harris, A. Hansen, R. Harrod, J. Robinson, A. Lerner* and many others) thus making prominent impact on economic policy of a number of western countries.

J. Keynes was proclaimed "savior of capitalism" while his theory was proclaimed "Keynesian revolution in political economy". At the same time Keynes borrowed a number of theoretical provisions from an arsenal of classical political economy of A. Smith and D. Ricardo, as well as from Marxism economic theory. He developed the principle of effective demand, the multiplier concept and general theory of employment.

In contemporary Keynesianism there are two prevailing trends: American, connected with the names of a number of US economists (*E. Hansen, S. Harris, J. M. Clark, etc.*) and European, connected, first of all, with the studies of the French economists.

Keynesianism as a course in economic science incorporated all the significant achievements, being enriched with an empirical material resulted from the study of the crisis periods, has been changing and updating its content since 1929. As a result, in the mid XX century there appears *Neokynesianism* which founders were *R. Harrod, E. Hansen, E. Domar, J. Robinson*. The next stage was establishment of Postkeynesianism as a result of world economic crisis of 1974-1975 (*R. Klauyer, A. Eykhnor, etc.*) based on Keynes's concepts, provisions of classical school of Smith and Ricardo and some ideas of K. Marx's economic theory. At the same time Postkeynesianism opposes fundamental provisions of neoclassical school, i.e. theories of marginal utility and marginal productivity. The most substantial achievements of Keynesianism are as follows:

- unlike the predecessors the Keynesian theory developed a *macroeconomic method* to study economy;
- proved the need and defined specific levers of the state regulation of market economy both during crisis and for long-term prospect;
- cyclic development of economy (recession, revival, lifting) was explained in Keynesian theory not by objective laws but by psychology of people, their aspiration to save more than to consume as their income grows thus entailing cut down of "effective demand" which leads slow down production and employment growth rates.

In the late XX century attention of scientists was focused on *institutional theory* which is stipulated by the attempt to consider contemporary economic and

social processes comprehensively and systemically, to investigate new social phenomena given that traditional methods and theories do not provide desirable result.

The name of the theory occurs from the Latin word *institution* - establishment, arrangement. The word "institution" is treated very widely: as state, corporation, labor unions, and as competition, monopoly, taxes, and as steady mentality, and as legal norms. This course of economic theory considers the problems connected with monopolies, shortcomings of free marketplace, growing militarization of economy, separate defects of "society of consumption" (such as spiritual impoverishment, etc.).

The term "institution" is borrowed from the science of law. Intrinsic characteristics of "institution" category are defined by legal norms and order of establishment and regulation of relations among legal entities. The term "institutional economic theory" was introduced by V. Hamilton in 1918 while the theory appeared on the edge of XIX-XX centuries. The main ideas of institutionalism include the following:

- institutions are the key elements of any economic system and therefore the main task of the economist is to study institutions, processes of their preservation, updating and change;

- in economic theory it is necessary to consider ideas and data of other sciences, such as psychology, anthropology, sociology etc. to facilitate analysis of institutions and human behavior;

- economy is an open evolving system operating in the natural environment, affected by technological changes and involved in more extensive social, cultural, political and authority relations;

- representation of the individual agent as a person, maximizing utility is unreal and mistaken. It is necessary to take into account institutional and cultural environment in which the person operates. Therefore, people do not simply create institutions. There is also a feedback: institutions make strong impact on the people<sup>4</sup>.

Predecessors of classical and modern institutional and evolutionary theory are:

- *Friedrich List* (1789-1846) who studied the economic role of social institutes, including the state;

- *A. Smith and K. Marx* considered update of social relations within production process focusing on the social and labor aspect of production and reproduction, they;

- *Max Weber* (1864-1920), German sociologist, offered the theory on protestant economic, including business, ethics;

- *Emil Durkheim* (1858-1917) developed a theory on socially caused and historically sustainable norms, habits and stereotypes of behavior of economic entities.

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<sup>4</sup> A.B. Tarushkina "Institutional economy: Tutorial. – St.P: Peter, 2004. - p. 14.

The feature of the institutionalism theory is that not every market system tends to equilibrium. Institutionalists thought that all market entities inevitably operate without complete information which limits rationality of their behavior. In this regard the main objective of the state, according to Institutionalists, is maintenance of conflict-free coexistence of various institutions currently operating in economic systems. Therefore the state has to regulate evolutionary development of institutions through norms and rules of behavior of economic entities.

Wide distribution of institutionalism ideas in the XX century led to stratification by "old" traditional and "new" institutionalism.

The **traditional institutionalism** is a set of rather diverse concepts. It includes: technocratic concept by *T. Veblen* (1857-1929), theories of post-industrial society (*J. Galbraith* (1908-2006), *D. Bell* (1919), theory of economic backwardness by *G. Myrdal* (1898-1987) which is still the most fundamental theory of development of the Third World countries.

**New institutionalism** is connected with:

- theory of property rights (*R. Kouz, A. Alchian*);
- theory of economic organizations (*R. Kouz, F. Knight, A. Alchian, G. Demsetz, U. Mekling, M. Jensen, O. Williamson, S. Grossman, G. Heart, D. Kreps*);
- theory of public choice (*K. Arrow, J. Buchanan*);
- economy of law (*R. Kouz, R. Pozner, G. Kalabrezzi*);
- new economic history (*D. North, M. Olson, O. Williamson, R. Nelson*);
- theory of agents (*T. Stiglitz*);
- convergence theory (*J. Galbraith, Pitirim Sorokin, Raymond Aron, Jan Tinbergen*) etc.

There are distinctions between the old and new institutionalism:

1. The old institutionalism provides important place to investigation of problems related to the transformation of industrial society into neoindustrial (i.e. information) society based on scientific and technological revolution which has to overcome social contradictions of the system. Unlike the "old" one, neoinstitutionalism is characterized by diversion from absolutization of technical factors, greater attention to the individual and social problems;

2. Traditional institutionalism tries to study economic problems by applying methods of other sciences: sociology, psychology, law. The "new" ones lead another way: study legal and other problems by using neoclassical economic theory and the tools of contemporary microeconomics and theory of games. This phenomenon was called *economic imperialism*;

3. The "old" institutionalists focused on collective activities (trade unions, state) beyond individual interests. On the contrary the "new" institutionalists study the behavior of individual who decides independently which collective to belong.

The followers of institutionalism suggest that scientific-and-technical revolution overcomes social contradictions, ensuring non-conflict social evolution of the society from industrial to postindustrial, superindustrial or neo-industrial



(i.e. information) society. Neoinstitutionalism like neoclassical synthesis is considered to be a mainstream of economic thought.

The core idea of *contemporary institutionalism* is not just in the growing role of a human as the key economic resource in postindustrial society but also in reasoning of the conclusion on total reorientation of postindustrial system aimed at comprehensive personal development, therefore the XXI century is proclaimed a century of a human. The changing economic world in the new millennium is passing through intensive development and reconstruction, appearance of understudied but logical and important for the global economy processes including but not limited to transformation of economic systems, globalization, computerization, information and intellectualization, environmental security, etc. in these conditions the economic science faces a global objective of new explanation of already transformed world.

Abundance of scientific systems (theories and schools of economic thought) in the history of economic thought caused the discussion related to the name of contemporary theoretical economic science. A part of the world society supports term "political economy", the other (larger one) is for "economics".

The term "*political economy*" in contemporary economic science is defined as a course of economic thought or a set of theoretical courses: classics, neoclassic, keynesianism, etc.; economic policy and the art of housekeeping within a state. Various aspects of economic life of the society are studied by separate economic sciences but all of them are based on the science which is usually called economic theory or simply economy, and in the most countries of the world – *economics*.

"Economics" as an academic course was launched in 1902 at Cambridge University by A. Marshall, it replaced the course of political economy of classical school by J.S. Mill. In 1890 Alfred Marshall (1842-1924) published his book "Principles of economics" which was translated into Russian as "Principles of political economy", this was not a mistake since A. Marshall considered economics as political economy. Economics is based on the marginal economic theory and tries to synthesize classical political economy and marginalism.

Development of any discipline of knowledge including economic knowledge is a consecutive shift of scientific courses within which the basic theoretical definitions are revised.

In XX century scientists discussed a wide range of issues not only in terms of political economy but also in terms of economics. According to J. Keynes neoclassic is just a private case of a common theory. At present the most prominent western economists have questions to "Economics" including (W. Leontief, J. Galbraith, M. Blaug, M. Alle, etc.). The Nobel Prize winner W. Leontief called "Economics" a primitive surrogate of economic theory and practice. Moris Alle, the Nobel Prize winner (1989) spoke of "mathematical charlatanism", "wild econometrics" operated within the framework of neoclassic.

Currently economic science is passing through the period of new information accumulation which is to be comprehended and analyzed. Previous ideas no longer work. The way out of the situation is to be based on creation of **new economic theory** which does not reject the heritage of the previous positive achievements in

analysis of economic reality by different schools of economic thought but creatively overcomes them given advanced worldwide processes and phenomena (fig. 1.5).

**Contemporary economic theory** is a theory appeared in the early XXI century and new millennium. But temporary characteristic is just a part of the problem. Acceleration of socio-economic development, overall transformation of economic systems across the world which are the focus of economic theory as a science cause objective need for content modernization.

Today scientists-theoreticians due to established situation in the world act as initiators of new economic school or a vector of new scientific paradigm entitled **new economics** (or **neoeconomics**).

Economics intends to find the answer to the question on how economic world operates. Any world is a system. The system is economic space where a human lives. But unlike the nature, physical world given to the human objectively at birth, the economic system is linked to the human which is a pivot, a core of this system. Economy cannot function without human, his interests and needs. This is what economics is to study.



**Fig. 1.5. Schools of economic thought and courses of economic science development**

In economic system economic phenomena and processes are not equal: some are more significant, the others are less significant. We believe that in the globalizing economy the most important is not only material but also spiritual wealth of nations. It is a goal, while the means of achieving the goal is a behavior of economic entity in new conditions; hence it is defined as a *subject* of economic theory. The *object* of economics has been and remains real economy and economic activity of the people living in different economic systems.

Hence, *new economics* is not a new science but a new development stage of the previous science on the art and laws of managing economic activities in various economic systems, as regards to new operational conditions based on the set of the most critical achievements of the economic thought of the past, present and future. This requires a new approach to the understanding of the nature of basic economic categories, phenomena and processes.

Thus the national wellbeing in the contemporary world is defined not only by the level of economic development but the confidence of the people in tomorrow. The welfare of the society depends not only on skill and qualification of executors but on the change of a human position in the process of labor. The human is not a master but a creator. General moral environment of the society, its spiritual life, the idea on the role of the nation in the world community and other nonmaterial values are becoming highly important. All these processes are to be studied and described by the economic science.

The process of historical development of new economics proves that elements of new civilization appear in the previous civilization. The knowledge of operational principles of the latter is important for understanding of the evolution of human society and economic activities. At the beginning these new elements show themselves as single phenomena, then they become more powerful, their share is growing, they establish a separate sector or sub-system in economic system. When new sub-system gains a prevailing position, the economic system becomes new (new, information, etc. economy). Most of the countries in contemporary world, including Uzbekistan and Russia, are on their way to the new economy.

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### 1.3. Subject and methodology of economic theory

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The current stage of economic theory development is based not only on diverse empirical material but also on methodological basics as a set of scientific views. Further development of scientific knowledge is connected with development of economics in line with its subject.

Defining the subject of science means identifying what the science comprehends. From the *philosophic*<sup>5</sup> point of view, *subject* is a category designating an integrity separated from the world of objects in the process of human activity and cognition. In *logic*<sup>6</sup> the subject is what the human thought is

<sup>5</sup> Encyclopedia of philosophy. - M., 1970. V. 2. - p. 345

<sup>6</sup> N.I. Kondakov "Logical dictionary". - M.: Science, 1971. - p. 413

aimed at. In a common sense subject is everything that can be accepted, discussed and defined.

The subject of theory is defined as mediate and immediate.

*Mediate subject of theory* is something that was mediated by the laws of theory, an area where the laws of theory are empirically true, i.e. application of the theory. This is either the area of idealized objects beyond theory or material subjects with respective material relations in terms of which the theory is applied. Indirect subject is typical for economics, studying real processes, systems and relations.

*Immediate subject of theory* is what this theory studies, i.e. in terms of what laws of the theory are true. In fact they are true in terms of simplified and idealized material subjects and mentally created subjects which have no analogs. It is clear that the truth of the theory cannot be empirical since idealized objects are represented through the meaning of words (terms) and are not perceived sensually but an *analytical truth* identified based on the meaning of words (terms). The laws of the theory relate to the idealized objects only to a certain extent.

The *actuality of theory* is considered as immediate subject of the theory, i.e. the area of simplified and idealized objects, while the application of theory, i.e. *applied science* - almost always is the area of material, sensually given objects, i.e. material object, mediated by idealized subject.

For economic theory at the stage of empirical classification and generalized elaboration of theoretical constructions mediated object is typical being an analytical truth. At the theoretical stage of forming primary theoretical constructions, when the core of the theory creates the idealized object, i.e. immediate subject (fig. 1.3).

For economic theory not only philosophic and logical aspect of nature of the subject is important but also the *retrospective* one.

The ideas on the subject of economic theory changed in the course of accumulating knowledge on the forms and content of economic activity.

There are some definitions of economics or as it has been called until recently, political economy:

- Science on the types of activity related to exchange and monetary deals between people; science on every-day business operations of people, generation of livelihoods and consumption;
- Social science which studies behavior of the people and groups of people within production, distribution, exchange and consumption of material goods;
- Science on how the mankind deals with the objectives related to consumption and production;
- Science on wealth;
- Science on the laws regulating production and exchange of materials goods at various stages of social development;
- Science studying wealth, incentives able to encourage and discourage people;



– Science focused on the social relation among people in terms of production, social structure of production, etc.

The world of economy is very complicated. Millions of people, economic sectors, enterprises interact with each other in this world. Thus the range of definitions is quite wide.

Economics as a system of scientific knowledge provides the idea on unified organizational sources and application of this knowledge almost in terms of all spheres of human activities. That's why the *subject* of economy as the general economic theory is universal, i.e. should study both from the view of the concepts accepted by the science and from the point of view of contemporary stage, i.e. the problems the economics will have to decide.

The subject changed in line with the evolution of scientific views in economics. The mercantilists considered the national wealth as the subject, physiocrats transferred the subject to political economy, national wealth, from circulation to production. Representatives of English classical school of political economy extended the subject of political economy to the studies of the conditions of production and saving (A. Smith) as well as distribution (D. Ricardo) of the national wealth generated in all sectors of material production including industry, agriculture, construction, forestry, etc.

Separate economists have the same opinion on the subject of political economy considering political economy as a science on production, distribution and consumption of national wealth. However the understanding of the latter has been changing during the process of development of economic thought. Initially, the national wealth was considered as money, then as production output, at present the national wealth includes the human, his intellect, and information as a source of further development of the society.

The practical function of classical political economy is substantiation of the factors increasing the national wealth (deepening the social distribution of labor, production expansion, employment growth, minimization of the public expenditures in the national income of the society, etc.). This theory has positive (actual) and normative (as it should be) functions of economics. The practical conclusion is a warning against any interventions of the state in the natural course of market processes.

The idea that the subject of economics is social relations established by labor and the laws regulating the labor was stated by some economists in XVIII century. It was widespread among Russian economists in the beginning of XX century. In this regard G.V. Plekhanov made a great contribution. He defined the subject of political economy as a science on development of production relations, made critical clarifications to separate immediate production relations (socio-economic, property, ownership relations) and production-organizational relations.

Economic thought of the past saved another understanding of political economy as a science on national or social economy. German economists V. Rocher and K. Buhner proclaimed the national economy as the subject of political economy which they meant as relation of people to external environment.

Marginalists considered that the subject of political economy was behavior of

individuals and social institutions (firms, groups of people, etc.), solutions and means to achieve their goals. The practical function was in-depth study of the entity's incentives in a certain economic situation to substantiate economic policy of the firm. This course is linked with appearance of microeconomics.

A. Marshall analyzed the main courses of classical political economy and economy of marginalism and identified the subject of economy as a study of normal vital activity of human society: study of wealth and partially - human, particularly, incentives to encourage and discourage.

According to Keynesianism the subject of economics is operation of the national economy as a whole. The practical function is to formulate the national economic policy. The main conclusion is a need to facilitate total demand of population and business.

P. Samuelson who synthesized macro- and microeconomics states that economics as a science on everyday business life and activities of the people.

J. Robinson said that political economy was a science that studied behavior of the people as a connection between the goals and limited resources having alternative ways for application or achievement of the stated objectives.

Most often contemporary economic literature provides the subject of political economy as a study of "rarity", limited resources. Thus explaining the subject of the study the economic market theories identify three main problems:

1. What (goods and services) and in what quantity should be produced?
2. How these goods and services should be produced?
3. For whom these goods and services should be produced?

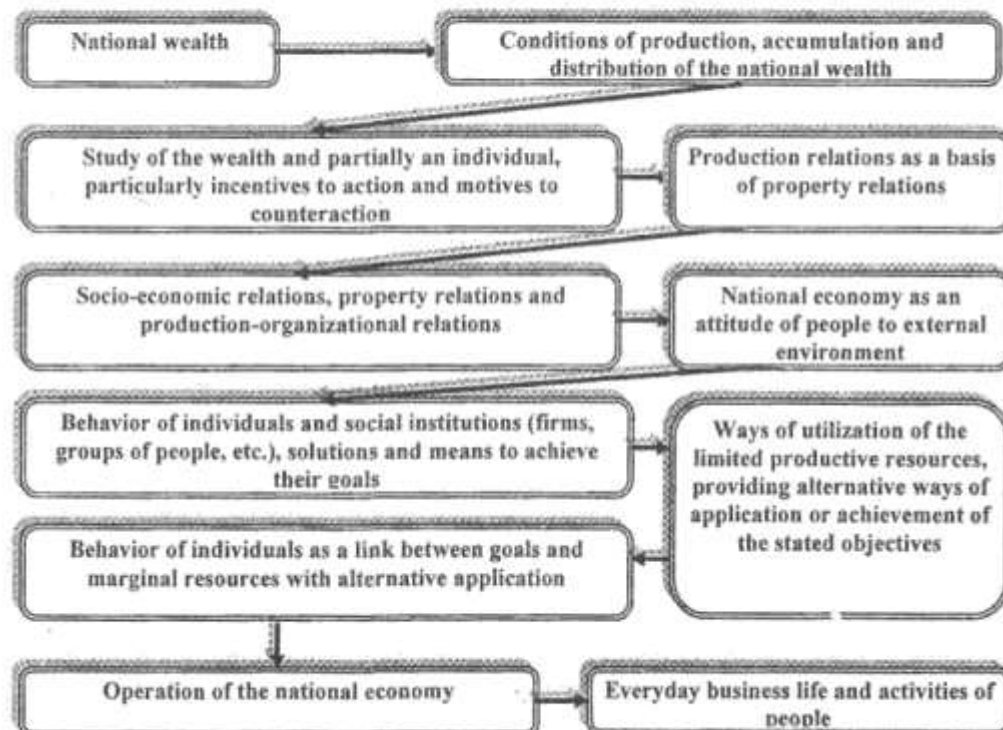


Fig. 1.6. Development of the subject of economics

According to the aforementioned the book of S. Fisher, R. Dornbush and R. Shmalenzy provides: "Economics is a discipline which studies how the society with limited deficit resources decides what, how and for whom to produce". To separate terminologically economy as an objective phenomenon and subject of the study from economy as a science the latter is called "economics".

The essentials of the market economic theory are microeconomics, and macroeconomics, which have their own subjects of study formulated as follows. Microeconomics is a section of economy studying the choices made by small economic entities like firms and households. Macroeconomics is a section of economy studying large-scale economic phenomena like inflation, unemployment and economic growth.

The definition of "economics" as it is provided in the book with the same title by C. McConnell and S. Brue: "Economics is a section for effective use of rare resources in production of goods and services to satisfy material needs". We may also refer to the definition by P. Samuelson and V. Nordhouse from which it follows that "economics" is a unification of two sciences under one name – micro- and macroeconomics. "Economics is a science of how the society uses scarce resources to produce various articles of value and distributes them among various population groups... There is a large difference between macroeconomics which studies economic performance as a whole and microeconomics which analyzes behavior of individual components like industry, firms, and households".

J. Robinson writes that political economy is a science which studies behavior of individuals as a link between goals and narrow means that have alternative ways of application.

Recently there has been a trend to studying general human values resulting from the process of natural self-regulation of life, from general laws of interaction between living organisms and material environment, nature. Our ideas on the subject of economics have been changing accordingly. A human lives in the world of limited capacities. His physical and intellectual capacities are limited; the time a person can spend on a specific activity is limited; the means for achieving the goal are limited. The limitation of available resources is the most critical and tough condition stipulated by objective reality on the size and capacities of social and personal wellbeing. Limitation of resources is in principle impossibility of simultaneous and full satisfaction of all people's needs. A society and an individual always face the problem of choosing the directions and solutions of using limited resources with the competitive aims. The methods to settle this problem are the *subject of economic science*.

At studying the subject of economic theory with the view of its clearer understanding, it is expedient to emphasize the following:

- *Sphere of the research* is an economic life or environment in which economic activity is implemented;
- *Object of the research* - economic phenomena and processes;
- *Entity of the research* - person, group of people, state;

– *Subject of the research* - vital activity of “economic man”, group of people and state, their economic behavior owing to their economic environment.

Since the economy is a complicated and multilateral object of the research, then various economic sciences including fundamental and those claiming to being fundamental choose as their subject only some aspects of the considered object.

The levels of the research of economy may vary greatly. Depending on the scale, economy is divided into microeconomics and macroeconomics (fig. 1.7).

**Microeconomics** is linked with economic activity of individual economic entities (enterprises, firms, consumers, households, wage workers, entrepreneurs, traders, etc.), it helps to understand why the specific decisions are made on the lowest level of economy.

**Macroeconomics** is linked with the functioning of national economy as a whole; it studies general economic processes at the level of society (production of national income, unemployment, inflation, etc.) and shows what the state should do to ensure prosperity of the society.

**Mezoeconomics** also should be noted, it studies behavior of interim systems or sectors of national economy (agricultural, military-industrial establishment, etc.) and **super macroeconomics** which explains the behavior of world economy as a whole.

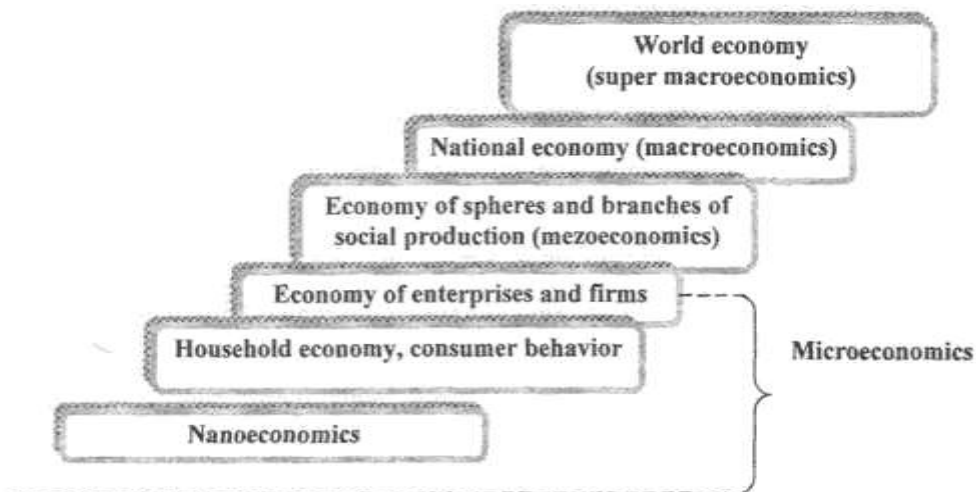


Fig. 1.7. Economic levels and respective economics sections

The *national economy* has separate sectors which combine three large groups:

- *Primary economy* (agriculture and forestry, fishery, extractive industries);
- *Processing economy* (oil processing, metallurgy, food industry, etc.);
- *Service economy*, which serves production (transport, storage, trade, advertising, information, etc.), population (domestic, housing, public utilities, trade, repair of clothes, furniture and shoes, hairdressing, etc.), the state.



The basis of *production economy* is laid by enterprises (firms) producing goods and services.

Each person, each family has an *individual small economy* requiring economic decisions in line with expenditures and income. This includes housing, household, private property, money, etc. the main economic processes here include domestic labor, recreation, meals, raising children.

Our civilization is currently entering new, so-called *nanorevolution* based on *nanotechnologies*. What is it?

The word “nano” comes from Greek “nanos” – translated as “dwarf” and means one billion part of something. The initiator of nanorevolution was Nobel Prize winner Richard Feynman, who predicted in 1959 that in future the mankind will be able to synthesize anything from separate atoms. In 1974 Norio Taniguchi introduced term “nanotechnology” to describe the process of creation of new objects and materials from separate atoms.

Economics studies the problems of nanotechnological development in the section “Economy of economic entities” or at the international level in “Behavior economics”. These problems come from interaction of a human with society and nature. This interaction does not remain unchanged in the history of the mankind. Some forms, phenomena and processes appear, develop, improve and sometimes disappear replaced by the others thus changing the human habitat. The latter may consider globalization, contemporary scientific and technical boom, pro-environmental operations, corporate economy, network economic sector and so on.

In the process of nanoeconomic development the person acts as a nanoplayer studied by social sciences including economics.

Some scientists believe that industrial economy has already exhausted, there is a need for absolutely new economic system providing the highest economic operation, i.e. spiritual and moral. This is possible upon availability of a personality, i.e. free person able to work and embody cultural principles and spiritual values. That is why *nanoeconomics* are currently emphasized as a level of economy.

Human in all times, except the primary age of gathering, whether admitted or not, has been performed his main functions in economy:

- *Reproduction function* which means that individual activities in economy are aimed to reproduce yourself, vital forces and living conditions;
- *Production* which reflects the attempt of the human to modify natural resources to establish material goods;
- *Protection (security)* aimed to preserve sustainability of economy and protection from internal and external risks (unemployment, bankruptcy, hunger, injuries and illnesses, wars, etc.).

All these functions are linked and interrelated thus it is important to ensure comprehensive realization.

A human plays three major roles in the market economy. On the one hand he acts as a manager, producer or seller of goods and services, on the other as a basic

consumer of those goods and services, on the third part the human manages production, distribution, exchange and consumption, i.e. economy at all levels.

The dual nature of a human is often emphasized. In the classical political economy A. Smith explained the individual economic behavior in the market economy by two characteristics: desire for improving wellbeing (personal egoism) and propensity to exchange. In the XX century the individual is considered as the major production force of the society, in particular: labor force or ability for labor, consumer force, ability for consumption. Labor is a function of labor force, consumption is a function of consumption force. The prominent Russian scientist N. Kondratiev speaking of social ideal emphasized the need of taking into account the contradictions caused by the dual nature of the human between actual and due.

A number of definitions are used for characterizing the role of the individual in the system of contemporary economy: economic person, labor force, personal factor of production, labor resources, human resources, human capital. Economics provides numerous models and concepts of behavior and role of the person in economy.

*Model of a human*, economics has a unified idea on the individual, operating within a specific system of socio-economic coordinates and, as a rule, with application of mathematical tools.

*Concept of a human in economy* is a system of views on the individual as an object and entity of economic activity.

The study of the models of economic behavior was launched in the works of the thinkers in Ancient Greece. Aristotle explained the incentives of slaveholders by the satisfaction of rational needs. Plutarch noted that "with the need in necessary the thirst for redundancy comes together and after. This incessant passion is as destructive as a habit to live in wretchedness".

Comparing with the concepts of the individual in economics the most widespread include the concept of "economic man" by A. Smith and D. Ricardo, "human nature" by I. Bentham, "human capital" by G. Becker, etc.

Regarding the conditions for establishment of a new postindustrial economic system, nanorevolution and technologies of social production the individual, his personality also changes.

In-depth transformation of the individual, prominent increase of his importance in the social life requires elaboration of new nanoeconomic concepts.

The paradox in economics is when the role of the individual, personality has become decisive; the individual has disappeared from the pages of textbooks and tutorials. This paradox requires a solution at least through one more level of the study of economy, i.e. nanoeconomics.

Knowledge of all levels of economics is extremely important to understand how the economy functions. Paul E. Samuelson noted that individual is educated less than a half if he knows only one part but has no idea about the other part of the theory.

*The main goal of economy* is to ensure vital capacity, maintenance of vital activity, creating conditions for prolongation of human race, improvement of well-being of the society members.

Another representative of historical school C. Menger emphasized that economic knowledge is provided by not a single science but a network of independent economic disciplines with specific objectives, subjects and logical solutions.

Specific economic disciplines provide a system of the rules required for practical operations, thus relate not to a general theory but to the art of economic practices. Hence it is reasonable to split economic science by separating *theoretical* and *applied* parts. Despite this separation is conditional to some extent, it reflects real distinctions on the object of the study, in the ways of learning and methods of description of economic objects and phenomena applied by theorists and practitioners.

Economy as a science strives to exhibition and description of economic processes and phenomena in "pure", "ideal form", uses a number of abstract categories and ideas, models which reflect the reality quite approximately. Despite inadequate reflection of reality theoretical models are useful in terms of describing general economic situation, identification of the critical factors, obtaining close ideas, guidelines.

*Theoretical economy* is economy as a science (economic theory) which was established as the theoretical direction in economic science linked with the separation of general regularities of economic processes behavior.

Economy as a science is closely linked with *economic-mathematical modeling*, and in a wider sense – *economic cybernetics* and *econometrics*. The latter studies quantitative rates, links between economic characteristics based on application of mathematical models and statistical methods of processing economic information.

*Applied economy* interacts with specific economy, based more than theory on experience, practice, specific indices of economic activities. It sets practical objectives of economic analysis, studies specific economic situations in terms of micro- and macroeconomics while avoiding excessive abstracting and distance from realities.

Economy as a theoretical and applied science uses indices of *economic statistics*. However it does not mean that economy should be considered as empirical science based on experience.

Economy is a methodological basis of the whole complex of sciences:

- Sectorial (trade, industry, transport, construction, etc.);
- Functional (finance, credit, marketing, management, forecasting, etc.);
- Inter-sectoral (economic geography, demography, statistics, etc.).

This science is one of social sciences, along with history, philosophy, law, etc. It strives to reveal a certain part of social phenomena of human vital activity, for instance the science of law is focused on one part, and the science of ethics – on the other one, only the total set of theoretical social and historical sciences is able to explain all aspects of the social life. That is why it is wrong to require checking economic provisions by real facts.

Economy take into account the knowledge achieved by specific economic sciences, sociology, psychology, history without which the conclusions obtained by economy may be mistaken. The link between economy (economics) and other economic sciences can be reflected as demonstrated on fig. 1.8.

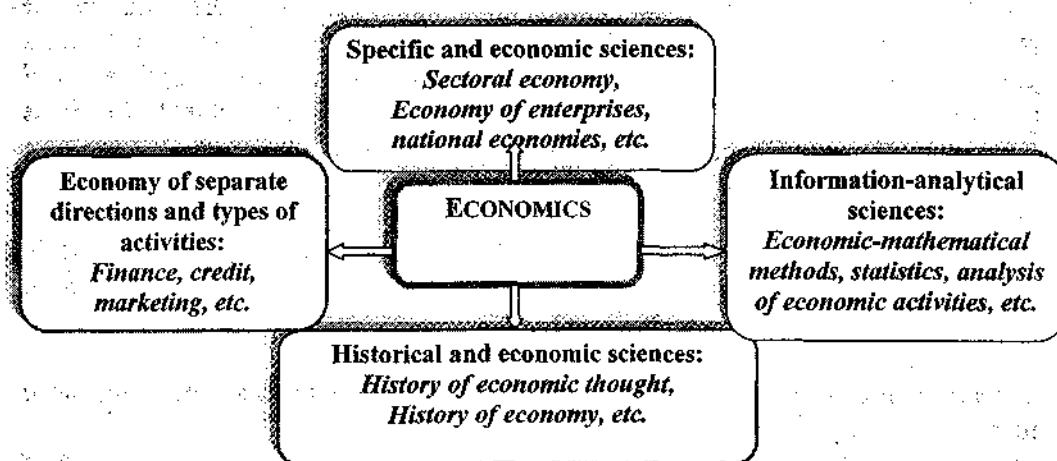


Fig. 1.8. Links between economics and other economic sciences

Economic science has two courses depending on the application area of its results:

- *Positive (descriptive) economy* aimed mainly on objective explanation of economic processes and phenomena, building scientific hypothesis and concepts on their basis, identification of operational rules of economic systems;
- *Normative economy* answers the questions how things should happen to achieve the desired out-puts.

*Forecasting* as a special branch of economic science is a scientific anticipation of what may happen in future. In fact it is a science of economic expectations.

Practical significance of economy as a science (well-known formula by Auguste Comte) is that knowledge brings anticipation, anticipation leads to action. Economics should be in the basis of economic policy running through the living practice. Action (practice) leads to knowledge, knowledge to anticipation, anticipation to the proper action.

Economy is not a set of rules on how to become rich. It does not provide ready solutions of all problems. Theory is just an instrument, mode of understanding economic reality. Proper use of this tool, knowledge of the basics of economy can assist in making the right choice in many situations.

Economic science should be separated from economic policy.

*Economic policy* is committed system of activities of the state and firm in terms of production, distributions, exchange and consumption of goods. The state



economic policy is to reflect the interests of the society, all social groups and aim to strengthen the national economy.

Economic policy focuses on finding solutions of economic problems and putting their mechanisms in operation. Politicians, using economic theory, should take into account cultural, social, legal and political aspects of the problem to be solved, if they want their decisions to be successful. Achievement of the economic policy objectives may lead to the change of economic system, its improvement or damage.

When studying economic phenomena it is very important to ignore all of sympathy and antipathy, personal benefits and interests, try to state only truth in the way it is, remembering a wonderful formula of French judicial oath "I will tell the truth, the whole truth and nothing but the truth".

The course of economy is a textbook to understanding economic reality without claims for the national monopoly.

If the subject of science is characterized by *what* it studies, then the method – by *the way* it is studied. One follows from the other. The reality of results depends on the correctly applied method. Term "method" comes from the Greek word which means "mode", "course of the study".

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#### **1.4. Modern approaches and research methods of economics**

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*Method* is a complex of techniques, ways, principles, by means of which the ways to achieve the goals are identified.

Theoretical substantiation of the methods used in the science is called methodology. "Methodology" means a study on the methods of learning.

*Methodology of economics* is a doctrine on scientific methods of learning economic life of the society.

Economy as a science applies a wide range of scientific methods requiring in separate consideration.

The stage of empirical study of the scientific facts is not just a baseline but a process of transition from "poor" theoretical content to deeper empirical one.

Theory development does not have immanent logical vector of theoretical thought but an active processing of empirical information into a theory content, concentration and enrichment of notional apparatus which set limits to the possible logical formalization of elaboration process. Therefore, on the one hand there is a need to build a logical hierarchy of the category apparatus in which:

- The principle is considered as a fundamental basis of the theory;
- The law as a reflection of the most sustainable links and relations in the object;
- Category as an instrument to learn the sides and natures of the phenomena under study.

On the other hand, the necessity to choose optimal methods of theoretical study, expanding and supplementing the knowledge on the object, i.e. economic process, system or relations. The point is that the ways and methods of studying economic reality.

Diversity of economic phenomena and processes causes diversity methods to study them. There are three aggregated groups of methods: general philosophic, general scientific and applied in specific situations, for instance logical-economic and economic-mathematical methods.

**General philosophic methods** provide baseline for development of economic science. Historical experience stipulated various economic approaches to study economic activities of people, various scientific schools based on various philosophic visions including metaphysics, dialectics, materialism.

**Metaphysics** is what follows after physics. This term defines the part of Aristotle's philosophic concept which studied higher, unreachable by the sense organs, perceived only conceptually and unchanged beginnings of all in the world.

**Dialectics** is a science on common scientific laws of development of nature, society, human and his thinking. It requires study of reality in terms of the links between phenomena, their transformation and evolution.

**Materialism** is a course of philosophy based on the idea that the world is material, exists objectively, i.e. irrespective and beyond the consciousness of a human; matter is primary and exists eternally. The possibility of knowing the world and its laws affirms.

**General scientific methods** are those used in many or all sectors of scientific knowledge. The general scientific methods include: historical, logical and the method of scientific abstraction.

**Historical method** requires that economic phenomena are to be studied not in terms of development but also in terms of specific living environment of separate nations, countries, regions including historical traditions, cultural features, customs.

**Logical method** refers to the abstract-theoretical and based on application of analysis and synthesis, induction and deduction.

Cognitive nature of the methods of **formal logic** allows their application as one of the critical tools of theoretic analysis. In this regard, the **logical methods** can be defined providing processing of empirical facts of the science aimed at generalization of the causal relations in the multifactor characteristics of the object.

We consider some formal and logical methods and principles which are very important in analysis of the logic to build theoretical concepts, system of principles, laws, definitions characterizing economic phenomena, processes and systems (tab. 1.2).

However deepening knowledge on the object limits application of conclusion rules of traditional logic and transfers the cognitive process to the stage of contemporary **inductive mathematical, probabilistic**, etc. logic which provides solutions for more flexible, multivariate estimates and statistical correlations of the object development. Along with the general logic methods of conclusive knowledge special methods of science are also used chosen depending on the goal and application area.

In this regard the methods of implementation of the formulated theories (concepts) in the process practical economic activity can be identified. These are the methods of analysis of economic activity relying on quantitative characteristics. Various concepts and conceptual ideas of contemporary economics are formulated on their basis.

Thus, further assessment of phenomena and processes should be made through the methods which not only reflect specific features of economic operation but also explaining cause and effect relations in its development.

Based on quantitative analysis of interrelated processes and phenomena, there created a system of principles, laws and definitions underlying in the basis of economics. Hence the objectivity of reality interpretation depends on what methods are used at all stages of empiric study.

**Table 1.2.**

**Content of the logical research methods of economy**

Content of method or principle	Assessment of the role of method in learning economy
<i>Axiomatic method</i> (Aristotle IV B.C., Descartes, Pascal, Spinoza, Newton, Leibniz (XII) is an intuitive application of the method as a way to build deductive construction of the theory based on some non-proved by this theory suggestions (axioms) while the rest provisions of this theory are taken from the axioms according to the logical rules.	In terms of studying economy axioms are nothing but assumption, hypothesis. This stipulates the requirement of empirical verification of initial provisions of the theory accepted as axioms. In any case the method plays important role in interpretation of axiomatic theories when the truth of all assertions is substantiated as a result of strict observance of the deductive technique of conclusion: from general to private
<i>Method of similarity</i> (J.S. Mill (1806-1873)). Setting causal relations between the phenomena of nature and society through comparing similar facts as a set of observed circumstances and identification of the circumstance which is the direct reason of the phenomenon.	The method explains the similarity and plays an important role in classifications based on quantitative assessment of similarity or unclear signs in economic-statistic methods of expertise when modeling complicated systems. By using the method of similarity in the studies it should be noted that the extent of probability of conclusions by this method depends on the number of the cases studied and on the extent of discrepancy of all other circumstances, moreover, which appeared in all cases and turned out the only one.

<p><b>Method of difference</b> (F. Bacon (1561-1626), J.-S. Mill (1806-1873)). Setting the causal relation between the natural phenomena and society through comparing uniform facts as a set of observed circumstances and identification of the reasons why they differ.</p>	<p>The method of difference provides more probable knowledge comparing with the method of similarity due to the phenomenon under study, because the researcher is to arrange an experiment, attract empiric proofs to exclude all circumstances except for one. The method allows differentiate the characteristics, functions, operations, etc. , and relying on this to formulate typological characteristics of business-processes, find alternative solutions in positioning business on the market, etc.</p>
<p><b>Method of concomitant variations</b> (J.-S. Mill (1806-1873)). Inductive method for definition of the reasons which allows definition of the reason for the change of circumstance by the change in precedes circumstances.</p>	<p>This method leaves the question on the causal relation in each specific case without answer that is why it is used at the first stage of the study as a factor identifying changes.</p>
<p><b>Principle of abstraction</b> is a logical principle, baseline for definition through abstraction and linking three types of universal definitions, i.e. classes, characteristics and relations of equality.</p>	<p>The principle of abstraction applied as a method of study requires consideration of any equality relation defined in terms of a set: decomposition of the set (division, classification, pair-wise, noncrossing and non-empty classes of the element equal in a certain relation – abstraction classes). Self-decomposition (split by classes) is called factor set by this relation.</p>
<p><b>Transition from abstract to the specific</b> is a method of scientific study stipulating the transition of theoretical thought to more complete, comprehensive and holistic reproduction of the subject. The “abstract” in a broad sense is understood as “poverty”, limited knowledge, while the “specific” as completeness, richness of content. Between the real specificity and its reproduction in mental specificity of theoretical system there are interim links of conceptual analysis which allow explanation and solution of contradictions appeared within the learning process.</p>	<p>The principle is used within already established conceptual apparatus of science and tentative definition system based on which the theoretical knowledge is developed as differentiated but internally interconnected integral theoretical system. For instance the unity and difference between the abstract and the specific labor, cost and exchange value, etc. For instance, when estimating the instrument of reengineering business processes “abstract” is a set of many related</p>



	program objects; "specific" includes technical assignments, requirements, etc. or a set of formalized business-processes. Methodically the function of formulating requirements to the business-process is a movement from the abstract to the specific while formulation of the system based on the requirements is a transition from the specific to the abstract.
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If the method of science in a broad sense is a way of studying its object and subject, then at the stage of the theory formation, when the object is arrangement of scientific knowledge, the logical methods prevail to study causal relations of the phenomena. Depending on the subjective factor there distorted methodological provisions which expand the objectives on the study of economic phenomena, processes and systems, formulation of the theory in line with contemporary requirements.

**Analysis** is a mental division of the phenomenon under study into components and study of each separate component. By applying **synthesis** economics recreates a single integral picture. Induction and deduction are widespread. Through **induction** the transition from studying single facts to general provisions and conclusions is made. **Deduction** makes possible the transition from the general conclusions to the particular ones. Analysis and synthesis, induction and deduction are applied in economics as a complex. Their combination ensures system, comprehensive approach to complicated (multi-element) phenomena of economic life.

Positive and normative analysis is often used to study economic problems. J. Keynes wrote that the positive science can be defined as a set of systematic knowledge related to what happens. The normative science as a set of systematic knowledge demonstrates what should be thus having something ideal as the subject, something varying from reality.

**Positive analysis** gives an opportunity to see economic reality the way it is, consider *what was, what is or what may be*. It focuses mainly on objective interpretation, scientific explanation of the observed economic processes and phenomena, formulating on their basis scientific hypothesis, concepts, correlations in operation of the economic systems. Positive assertions are not necessarily true but any argue regarding the positive assertion can be solved through verification of the facts. The theory is to be proved by the practice.

**Normative analysis** is based on the study of what and how things should be, what should be done to achieve the desirable outputs. The normative assertion more often is concluded from the positive, but objective facts cannot prove whether it is a true or a lie.

Economic theories are formulated as positive assertions, most divergences among economists appear in terms of considering the normative analysis.

The key general scientific method is a **method of scientific abstraction** (from Latin "abstraction"). The researcher abstracts from the secondary characteristics of

the phenomena to identify what is repeated in them substantially and regularly. This is how general definitions stem: production in general, needs, distribution, exchange, etc.

**Historical and logical methods** occupy an important place in the study of economic phenomena. They do not contradict each other but used in a complex since the starting point of historical study is the same in general and particular as the starting point of logical study. However the logical (theoretical) study of economic phenomena and processes is not a mirror imaging of historical process. Under specific conditions of specific countries the economic phenomena may appear which are not typical for the prevailing economic system. If in fact (historically) they happen, then in the theoretical analysis they can be ignored. We can distract from them. The historian cannot ignore such phenomena. He has to describe them.

By using historical method economy studies economic processes and phenomena in the consequence of their real appearance, development and replacement by the others. This approach allows concrete and visual demonstration of the features of various economic systems.

The historical method demonstrates that the development in nature and society goes from *simple* to *complicated*. In terms of the subject of economy this means that within the set of economic phenomena and processes it is necessary to define first of all the most simple ones, which appeared first and providing the baseline for more complicated ones. For instance in terms of market analysis such an economic phenomena is a commodity exchange.

**Table 1.3**

**Logical and economic research methods of economy**

Method	Method content
<i>Horizontal (dynamic) analysis</i>	Definition of absolute and relative deviations and rates of changes in economic organization comparing with the previous period.
<i>Vertical (structural) analysis</i>	Study of the structure of final financial data and comparison for several years.
<i>Trend analysis (one of horizontal versions)</i>	Applied to study dynamic rows and provides opportunity to identify the trend based in which possible estimates are made; accordingly it means analysis of development trends, i.e. perspective analysis.
<i>Coefficient analysis (relative ratio)</i>	Definition of correlation among various indices of financial reporting to assess development risks and trends in organization.
<i>Comparative (dimensional) analysis</i>	Comparison between the indices of the organization and competitors as well as average sectoral.
<i>Factor analysis</i>	Definition, measurement and study of separate factors and their impact on organizational performance.

<i>Functional-cost analysis</i>	Study of the organization as a complex of functions which performance is linked with materials costs and identification of the solutions to minimize those costs.
<i>Heuristic methods</i>	Forecasting the condition of the organization under the terms of full or partial uncertainty through expertise by specialists.

Economic processes and phenomena have *qualitative* and *quantitative certainty*. In this regard *logical-economic* and *logical-mathematical* methods are used. The features of *logical-economic methods* include the following:

- comparative analysis of the absolute and relative values based on which the deviation from the set of basic level is assessed, the general trends and correlations in the development of economic organizations are defined;
- classification and systematization of the data on phenomena in the organizations under study and respectively justification of the cause and effect relations;
- assessment of the change in the level of the phenomenon; definition of the role of factors in the change of the output data; assessment of interrelations between structure modifications and dynamics of organization;
- using the graphic method demonstrates dynamics of development of economic processes at organization.

If the number of considered factors is insignificant (i.e. the studied phenomenon or process is not difficult) and their impact on the result of interaction can be expressed as a directly proportional or inversely proportional functional (determined) dependence the measurement is made by using traditional logical-economic methods.

If it is required to study and measure simultaneous and often inconsistent impact made by a set of factors on the result of their interaction, and in case of absence of the functional dependence, economic-mathematical methods must be used.

Therefore economics uses *mathematical* and *statistical* methods and *means of research* widely which allow to reveal the quantitative party of the processes and the phenomena of economic life, their transition to new quality. Thus the computer facilities are widely applied. The special role is played here by the method of *economic-mathematical modeling*. This method, being one of system methods of research, allows formalized reasons of changes of economic events, correlation between these changes, their consequences, opportunities and impacts costs, and also makes forecasting of economic processes real. By means of this method economic models are created.

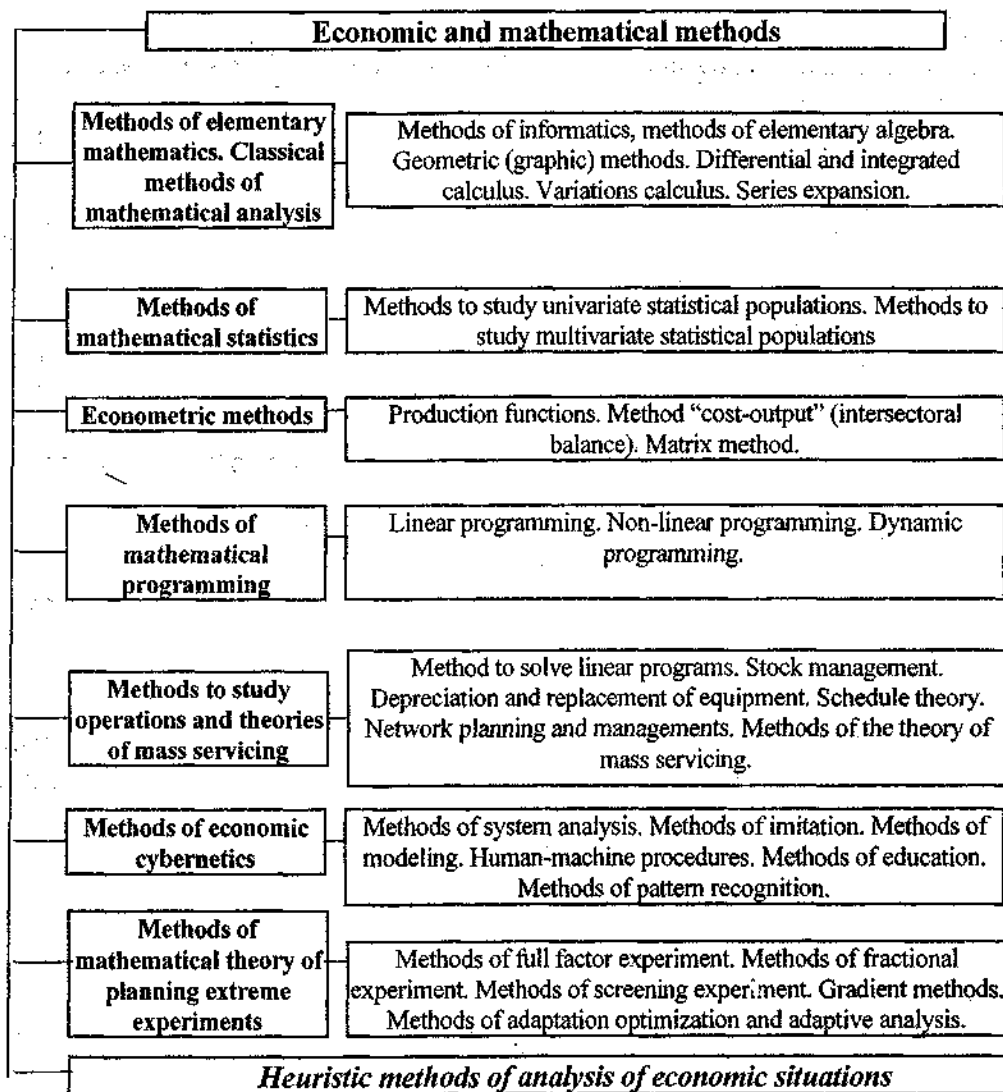
*Economic model* is a formalized description of economic process or phenomenon which structure is caused by its objective properties and a subjective special-purpose character of research.

In terms of modeling it is important to note the role of the functional analysis in economics.

*Functions* are variables dependent on other variables. Functions are in our

everyday life while we hardly realize it. They take place in equipment, physics, geometry, chemistry, economy etc. In terms of economy, for example, the functional link between the price and demand should be noted. Demand depends on the price. If the price of goods rises, the demand for the other things being equal decreases. Thus the price is an independent variable or argument, while the demand is a dependent variable, or function. Thus, it is possible to tell briefly that demand is the price function. But demand and price can interchange their positions. The higher demand is in case the other equal conditions the higher the price is. Therefore, the price can be the demand function.

*Economic-mathematical modeling* as the method of economics was widely applied in the XX century. However the subjectivity element in creating economic models sometimes results in mistakes.



**Fig. 1.9. Classification of economic and mathematical methods**

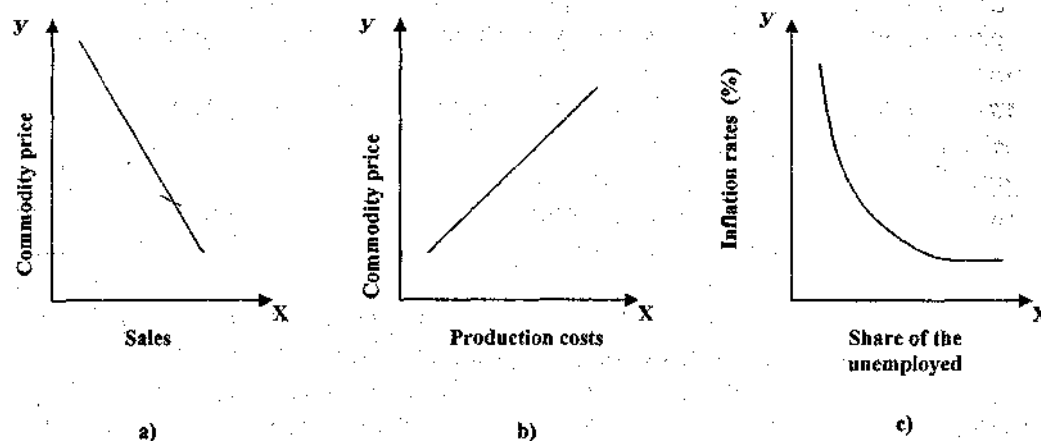
The Nobel Prize winner, French economist Maurice Allais wrote in 1989 that for 40 years the economic science had been developing developed in the wrong direction: towards absolutely artificial and idealistic mathematical models with prevailed mathematical formalism that represents, as a matter of fact, a big step back.

Economic and mathematical methods allow modeling of phenomena and processes in the economic organization and beyond it. The main objective of the economic and mathematical analysis is the fullest formalization and quantitative justification of administrative decisions. The objects of the economic and mathematical analysis may include material and information components of organization, situations, decisions, processes. The analysis results in the description of the organization structure, conformity of its functioning as well as alternative options of development.

The majority of models, the principles of economics can be demonstrated graphically, i.e. in the form of mathematical equations, that is why when studying economics one should know mathematics and be able to make and read diagrams.

Each of the above described methods assumes use of indicators in line with purpose of the analysis, namely – measurement and sustainability assessment, as a condition of the economic organization.

**Diagram** is a visualization of dependence between two and more variables. Dependence can be linear (i.e. a constant), then the schedule represents a straight line located at an angle between two axes – vertical (designated usually with a letter “Y”) and horizontal (X).



**Fig. 1.10. Diagrams: a – reciprocal linear dependence; b – direct linear dependence; c – non-linear dependence.**

If the diagram line descends from the left to the right, there is a feedback between two variables (upon the reduction of prices for commodities the volume of sales usually grows – fig. 1.10 a. If the line is ascending, there is a direct relation (upon the growth of costs of production the prices usually grow – fig. 1.10 b.



Dependence can be nonlinear (i.e. changing), then the chart has a curve (in process of inflation reduction unemployment tends to increase – Phillips's curve, fig. of 1.10 c).

Within graphic approach the charts, i.e. the drawings demonstrating the ratio between indicators, are applied widely. They can be circular, bar, etc. (fig. 1.11).

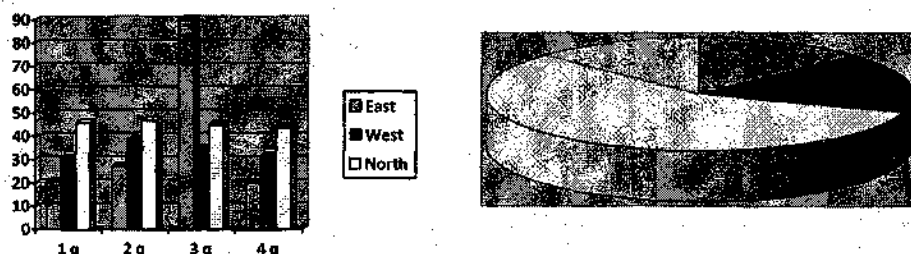


Fig. 1.11. Sample charts

**Schemes** visualize indicators of models and their interrelation.

Economic theories are formulated in the form of positive statements; the majority of divergences among economists arise when considering the issues of the normative analysis.

When studying economic life of people, groups of people and society as a whole economic experiments are possible and required though not always all probable results of these experiments can be predicted.

Economic experiment is an artificial reproduction of an economic phenomenon or a process to study it in the most favorable environment and practice it.

Conscious mass economic experimenting at micro level is linked with R. Owen, P.J. Proudhon, F. Taylor, G. Ford and E. Mayo's activities, while at macro level – with J.M. Keynes and M. Friedman.

The correlation between theoretical analysis and facts of practical economic life is of specific significance in scientific studies, which is called "**big antinomy**". Attractiveness of this method is in provision of a continuous link between the theory and practice and therefore prevents the costs of unhistorical approach to economic reality. The fact that at present the neoclassical theory came off reality, or on the contrary, the reality far away from the theory which describes the competition from the same positions as considered by A. Smith, and then A. Marshall, i.e. as the perfect, once again emphasizes fruitfulness of this method of research.

The "big antinomy" is nothing but dialectics of the general and special which is shown in economy on the one hand as availability of the national models of economy – German, Swedish, Japanese etc., and from the other – it has general characteristics.

In the second half of the XX century the **system approach** is approved as a universal method of scientific research. The big and small, open and closed

systems become the content of scientific knowledge. The separate phenomena or their sets are considered not separately, but as parts, elements and components of the whole.

Transition from a centrism subject, i.e. concentration on studying of a separate subject in a separately from its links with the other subjects, to the system research means, first of all, detection of dependences, interconditionalities, subordinations between elements and system components.

It should be noted that the use of the term "system" has the long history going back to the antique era. The Greek philosophers used it in terms of integrity of the world order. From Greek "system" means something whole, consisting of the parts linked among themselves and forming integrity.

Simultaneously with criticism of the neoclassical theory new knowledge of economic development is obtained stimulating development not just as a simple new economic paradigm (strictly scientific theory embodied in the system of definitions, expressing essential lines of reality) but as a scientific syntagma (literally something connected) – strongly goal-oriented system of cognitive components of knowledge by various schools of economic thought, is qualitative, they may be, diverse by methodology but form harmonious complete project which knots are these components.

New approach to the vision of the world national economy, economy of the region is characterized by cluster idea.

*Cluster* is the term borrowed from the exact sciences, gained rather wide circulation in informatics, programming, mathematics, physics, chemistry, economy, sociology and other areas of knowledge. Today this term is not too obvious, but obviously fashionable concept. In physics the cluster is understood as "subsystem" of a larger number of poorly connected atoms or molecules; in astrophysics – small groups of atoms or molecules forming a steady quasimolecule; in informatics – group of objects with the general signs, a set of sectors (files or their parts) on a hard disk; in programming – the group of blocks defined as a unit; in geography – placement of production or productive forces on a certain territory, in specific local conditions.

In economic literature the cluster is defined as the industrial complex created on the basis of territorial concentration of specialized suppliers, the main producers and the consumers connected by a technological chain and being an alternative to sectoral approach. The cluster is an innovative and most effective form of achievement of high level competitiveness.

Under conditions of the market economy the experience of industrialized countries demonstrates that each participant of production in the leading industries has an extensive network of partners, which as a rule are small enterprises. The leading role in development of integration processes and formation of the uniform enterprise environment, undoubtedly, belongs to small business. The small business generates the most active impulses of production-cooperation and innovative interactions between small and large business, facilitates the trend to establish industrial clusters.

The cluster as a social and economic phenomenon represents a network of regionally concentrated and interconnected companies, suppliers of the equipment, accessories, services, scientific and other organizations supplementing each other and strengthening competitive advantages of the separate companies and a cluster as a whole.

Examples of successful clusters are the groups of IT companies in the Silicon Valley (USA), telecommunications in Helsinki (Finland), movie productions in Hollywood (USA), shipbuilding in St. Petersburg. The cluster arises from the logic of contemporary life, not because of aspiration of economic entities to be together but from the understanding of impossibility to survive being alone. Only under mutually advantageous conditions of partnership and support from the state the optimum and prospects of contemporary clustering processes are reached.

Clustering concept is used for formulation of the strategy on stimulation of economic development under new conditions.

So, summarizing the material of this chapter we can define the essence of such definitions as *economic science, economic category and economic law*.

*Economic science* is a systemized description of reality on the basis of reflection and abstract generalization of the major characteristics by means of definitions, concepts, categories, presented as the law, the rule or the model of economic life.

The essence of economic phenomena is discovered step by step by means of abstract thinking which requires certain logical definitions more or less reflecting economic reality in the course of development.

*Economic categories* are the logical definitions reflecting the most general and essential sides of economic life of the society. Categories are, for example, demand, offer, credit, property, market, salary, profit, etc.

In economy like in any other area of public life and nature the necessity and consistency pave the way through externally seeming chaos and heap of accidents. Economic processes in the society are ruled by internal laws inherent to them, i.e. the laws of public actions of the people. In the book "Legal philosophy" F.Gegel wrote about political economy as a science which makes "credit of thought" because having numerous accidents it finds laws among them. Any law expresses the essence of a phenomenon. The law and essence – concepts are uniform (one-serial) definitions and represent the depth of the knowledge of the world the person. The phenomenon is wider, richer than the law, however the law catches internal essence of the phenomenon.

*Economic law* is the most essential, steady, constantly repeating objective cause and effect relations and interdependence in economic phenomena and processes. Economic laws shouldn't be mixed with the laws of the nature, with natural sciences laws as there are a number of essential and basic distinctions:

- 1) natural laws are the laws of the nature, economic ones are the laws of development of public life, economic activity of people;
- 2) natural laws are eternal, economic ones have historical character;

3) formulation and application of the natural laws happens more or less smoothly while economic laws face strong counteraction from dying-off forces of society.

Economic laws unlike the laws of the nature don't work by themselves, the economic process is not automatic. They need actions of the people living and working in a certain economic system.

*Economics methodology* assumes the *general approach* to studying of economic phenomena, uniform understanding of reality, uniform philosophical basis. The methodology is urged to help to resolve the main issue: by means of what scientific methods, techniques of reality cognition economics achieves true highlighting of functioning and further development of a certain economic system? There are some traditional approaches in economics methodology:

- subjective (from subjective idealism);
- neopositive-empirical (from positions of neopositive empiricism and skepticism);
- rationalistic.

*Subjective approach* uses the economic entity making impact on the environment as starting point of analysis, and sovereign "I" is absolutely independent, therefore all are equal. Object of the economic analysis is the behavior of the economic entities ("homo-economics") therefore theoretical economy is considered as a science about the human activities determined by the borders of the needs. The main category in this approach is a need, utility. The economy becomes the theory of the choice which made by the economic entity from a variety of options.

*Neopositive-empiric approach* is based on more careful studying of the phenomena and their estimates. The technical apparatus of research becomes the core elements which turns into a knowledge subject (mathematical apparatus, econometrics, cybernetics etc.) while the result of research is a variety of economic models which are the main categories. This approach assumes division into microeconomics, i.e. economic problems at the level of firms and sectors and macroeconomic, i.e. economic problems in the whole society.

*Rationalistic approach* aims at discovering the "natural" or rational laws of a civilization. It requires study of economic system as a whole, the economic laws regulating this system, studying of economic "anatomy" of society. Economic tables of Quesnay are the top of this approach. The purpose of economic activity of the person is an aspiration to benefit, and the purpose of economics is to study not behavior of the person but the laws regulating production, distribution of a public product, how it occurs (D. Ricardo). Such an approach allowed recognizing division of society into classes, unlike the subjectivists representing society as set of equal subjects. The main attention this approach was paid to the cost, price, economic laws.

Internationalization of economic life at the edge of XX and XXI centuries gradually leads to qualitatively new state of the world, i.e. comprehensive globalization. There is an essentially new way of housekeeping based on

submission of economic processes both in the world and in separate national economies to the same laws. This, in turn, generates the need for generalizing (global) disciplinary approaches to move to a new level of integrated interaction between various branches of scientific knowledge. *Synergetics* serves as response to the demand for certain new type encyclopedic knowledge.

The ideas of Synergetics were born in the sphere of natural-science knowledge, nowadays actively got into philosophy, political science, ecology, education, and also into economy, Synergetics approach is a basis of new thinking in the XXI century.

The Synergetics introduces the new methods, new visions of problems in an economic perspective. This is interdisciplinary approach relying on the results of the exact sciences, natural-science disciplines, allows to make the argument of conclusions of the economic analysis more exact and evidential, to separate the key factors from the minor.

The importance of Synergetics is in its uniting role. Progress of each branch of special knowledge nowadays more and more depends on its "union" with philosophical and general scientific knowledge. As fairly noted by V.I. Vernadsky, growth of scientific knowledge of the XX century quickly erases sides between separate sciences. All of us more specialize not on sciences but on the problems which on the one hand allows going deeper in the studied phenomenon, and on another – to expand its coverage from all points of view.

Synergetics differs from traditional approaches by width and transition to higher level of generalizations. Hence this interdisciplinary course leads to a new type of scientific knowledge. Synergetics is characterized today as a new informative model where analysis ceases to be dominating while synthesis rules. On the basis of interdisciplinary synthesis the complete, integrating view of problems of development of a human civilization is provided. The core of Synergetics is in high-quality changes in difficult systems with nonlinear multiple behavior.

Now *Synergetics* is considered as an area of the scientific studies aimed at the general regularities in the process of education, development and destruction of difficult non-equilibrium self-organizing systems. Using contemporary mathematical apparatus, scientists approached to formulation of the general theory of development – "a universal evolutionism".

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### Control questions

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1. What is the difference between the term "economic science" and the term "economics"?
2. Characterize the link between economics and practical economy.
3. Formulate the definition of "economic system".
4. How did the understanding of economy as a science transform? What factors affected the evolution of the system of economic knowledge?



5. What is a paradigm? Describe a paradigm of theory formation.
6. Explain the essence of basic elements of the theory.
7. Characterize the essence of the process of scientific activity. Give the characteristics to the terms "genesis" and "evolution" in economic science.
8. What are the main ideas of thinkers and philosophers of antiquity in the basis of contemporary system of knowledge on the nature of economic phenomena and processes?
9. Name the first schools of economic sciences. What their origin was connected with?
10. Characterize the mercantilists' views. What was their "weak link"?
11. Explain the essence of ideas by W. Petty.
12. Who was the founder of physiocracy? What are the main ideas of physiocrats?
13. Who are the founders of classical political economy and what are their views?
14. What does the marginalist theory lean on? What is the essence of marginalist errors? What was the prerequisite of the development of mathematical school?
15. What are the main achievements of neoclassical school? Explain their essence. Name the reason of fiasco of neoclassics in the beginning of the XX century.
16. Neoconservatism and neoliberalism as directions of neoclassical school.
17. What are the main achievements of Keynesian macroeconomic theory? What is the evolution of Keynesianism?
18. Institutional theory: origin, ideas of founders, main directions of development.
19. Philosophical and logical essence of subject of the theory. Evolution of views of the subject of economics.
20. Name the factors defining the subject of economics. Levels of research of economy.
21. Concept of the "model of a human" and "the concept of a human" in economy.
22. Main goal of economy and its influence on interrelation between economics and other branches of scientific knowledge.
23. Areas of the application of economic knowledge: positive and normative economy.
24. What are the factors defining the need for development of methodology of economics.
25. Explain the essence of logical and economic and economic and mathematical methods of research. Explain the essence of the "big antinomy" method.

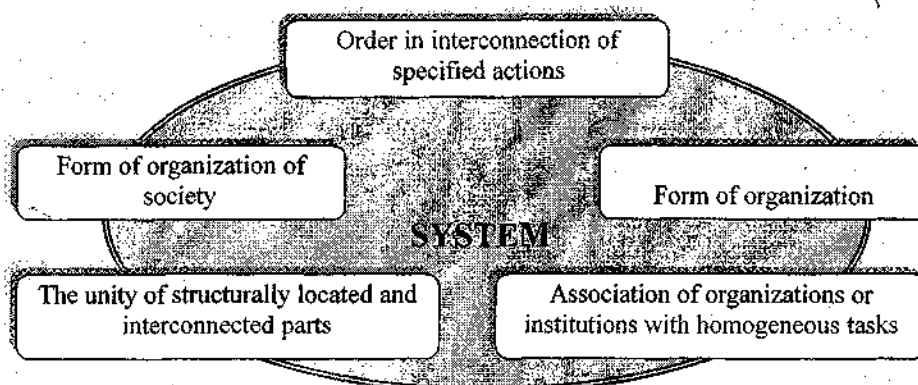
## CHAPTER 2

### ECONOMIC SYSTEMS AND INTERESTS OF ECONOMIC ENTITIES

#### 2.1 Economic systems: essence and types. Economic choice.

Generally, system is a set of inter-related and interacting elements, the movement of each of them changes position in the system of the others, and accordingly, alters the system itself. There are many examples of natural systems (e.g., forest, tree, solar system) and artificial systems, created by human (e.g., car, house, computer, etc.). But our task is to study economy as a system, considering all complex of its constituent elements and interconnections between them. Modern economic system includes artificial and natural subsystems, and human is a connecting link in it.

There are several definitions of the system, mutually complementary and completely revealing the essence of this definition (fig. 2.1).



**Fig.2.1 General descriptions of system as a scientific definition**

The economic system also has a various options of description, after analyzing of which we can create own one, reflecting special features of our time, tasks faced on the state, entrepreneurs and an individual.

In the Great Economic encyclopedia<sup>7</sup> the term "*economic system*" is characterized as systematized and ordered complex of social and economic and organizational relationships between producers of goods (material and spiritual) and services and their consumers. In this case, in the basis of identification of economic systems there are such categories as:

1. Economic condition at a certain stage of development of society (e.g., Russia during Peter I, the formation of feudal statehood during Amir Timur in the XV century, etc.);

<sup>7</sup>Great Economic encyclopedia. - M.:Eksmo, 2007. — p. 764.

2. Stages and levels of social and economic development of the society (e.g., social and political formations of capitalism, socialism, market economy, mixed economy, etc.);

3. Economic systems, which are characterized by directive motives of economic activity, its structure and so-called by German historical school substance;

4. Organizational types that are associated with different ways of coordination activities of economic entities in the ordoliberalism;

5. Social and economic system, based on two characteristics: the form of property of economic resources and the coordination manner of activity of business entity. This criterion is becoming more and more actual, since modern classification of economic systems (traditional, command, market, mixed) is implemented on just its basis.

Analyzing the interpretation of studied term "economic system", it should be noted that one way or another each of these criteria is agreed with the motive, based on the property. The state of the economic system in a feudal society was based on the operational efficiency of the peasants' and artisans' labor, the system of taxes and duties, that is, the system of transferring property rights for the manufactured product. Social and economic criteria, got its place in economic science, is inseparably linked with the motivation of labor and freedom of choice of its applications, as well as with the organization of institutions, harmonizing conflict-free interaction between subjects of market relations.

Another definition, given in the Great economic dictionary<sup>8</sup>, says that *the economic system* is historically arisen or law established complex of principles, rules and regulations acting in the country and determining the form and content of the basic economic relations originating in the process of production, allocation, exchange and consumption of economic output.

It should be noted that the principles, rules and regulations determining the shape of economic relations arise when these relationships transit from status of single to status of many, that is, the status *event*. When they obtain a systematized character and its categorical apparatus defined initially by science, and then expressed in the form of normative document. Consequently, this definition does not reflect such an element of the economic system as a *process*. In this case, the system is defined as a static (fixed) complex of principles, rules and regulations.

In another economic dictionary<sup>9</sup>, the economic system is characterized as a system of social production, i.e. the complex of productive forces and production relations. It is a complex, probabilistic dynamic system covering the processes of production, exchange, distribution and consumption of material goods. The economic system belongs to class of *cybernetic systems*<sup>10</sup>, which has a multistep hierarchical structure, and its separate links (levels of the hierarchy) are also

<sup>8</sup>Borisov A.B. Great economic dictionary – M.: Book world, 2008. – p. 830.

<sup>9</sup>The great economic dictionary. /edited by Azriliyan A.N. – M.:Institute of new economy, 2004. – p. 1018.

<sup>10</sup>Cybernetic system consists of great number of interconnected objects (system elements), which are able to remember, apprehend and process data as well as exchange it.

complex, probabilistic and dynamic systems having some autonomy and some of the opportunities for self-regulation.

A definite advantage of this characteristic of the economic system is its complexity, however, the transition to the cybernetic level hold us away from the possibility to adapt our understanding of studied definition to the economic reality, in which we live. In this case, it becomes clear that to characterize the economic system with one universal definition in a few lines covering the specifics of the economies of various countries and the reflecting state of the global economic system is not possible.

In the latest textbook published by the staff of Russian Economic Academy named after G.V. Plekhanov "New course of economic theory"<sup>11</sup>, the economic system is considered as:

- specially ordered system of relations between manufactures and consumers of material and nonmaterial goods and services;
- set of mechanisms and institutions to adopt and implement solutions related to production, income and consumption within a specific geographic area;
- organized and coordinated with one way or another economic activities.

The complexity and diversity of the economic systems made scientists to formalize them as a function of:

$$ES=f(A_1, A_2, \dots, A_n).$$

Where  $ES$  – is economic system, determined by the properties  $(A_i)$ , existing in a number  $n$ .

These properties can be as criterions when differentiate economic systems and the determination of their type.

The most important properties of the economic system  $(A_i)$  determine the condition of its structural elements: economic activity, the production relationships, the productive forces, economic resources, production capabilities, results and efficiency of the economic system.

**Economic activity** of people is the process in which economic theory emphasizes four stages: production, distribution, exchange and consumption.

**Production** is the process of creating material and spiritual values necessary for the existence and development of human.

**Distribution** is the process of determining of the portion, quantity, proportions, in which every economic human takes part in a manufactured product.

**Exchange** is the process of movement of material goods and services from one entity to another; the form of public communication between manufactures and consumers, mediating public exchange of goods.

**Consumption** is the process of using the results of production to meet specific needs.

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<sup>11</sup>New course of economic theory: Text-book.- Tambov: published by, House of TSU after G.R.Derzhavin, 2010. – p.80.

Today economic activity is characterized by such terms as entrepreneurship, business, commerce, management, and marketing.

**Entrepreneurship** is an economic activity with usage of novelty, risk, invention in order to get incomes. In a broad sense, it is enterprise, initiative, and the activity in sphere of economy. In a narrow sense, it is economic activities of the owner or a business entity.

Entrepreneurship is one of the form of business.

**Business** is often characterized as:

- business (work);
- any kind of activities making profit or personal benefit (fraud is also a business);
- a system of business administration or the system that we have created to satisfy our desires.

The essence of business system is that each entity of market economy is involved in its own business, and at the same time, the society uses such mechanisms thanks to which business does not harm other people which legally realize their own economic initiative, enterprise, and business acumen.

**Commerce** is a trading activity of people aimed to making trade profits. In a narrow sense, it is part of the business activities in sphere of circulation of direct distributing of goods and getting profit. In a broad sense, it is the conclusion of business transactions as part of any business.

The main goal of modern commerce is a comprehensive service of production directly and rationalization of the sphere of circulation.

There are **leasing** (a peculiar combination of lease and loan for realization of production means) and **factoring** (a form of commercial activities, accelerating trade deals for the sale of products by purchasing requirements from manufacturing company which they claim to their customers) among the newest forms of social activities.

**Management** is an activity for production management. It can be described as a collection of principles, methods, means and forms of production management, developed and applied in developed countries in order to improve efficiency, economy and increase of profits.

**Marketing** is the system of organization of activity of the enterprise (firm) when there are requirements of the market, the real demands and requirements of customers in goods and services, production and marketing opportunities of this enterprise (firm) in the basis of economic decisions- making.

**Welfare** is a thing, means, anything that satisfies human needs and meets the interests, goals and aspirations of the people.

**Material goods** are used in the economic activities; they are divided into gratuitous (not assigned to anyone) and economic benefits. The latter are in a limited amount, sometimes they are called *economic goods*, because they are the object of people's economic activity.



Not only material things are added to material goods (gifts of nature, products of labor, etc.), but also all the rights (patent, copyrights, of travel, of user etc), shared responsibilities, mortgages, all types of monopolies and privileges.

Besides material goods there also distinguished *nonmaterial goods* which are the goods, affecting the development of human capabilities; they are created by non-manufacturing sectors (healthcare, education, physical education and sports, art, cinema, theater, etc.). There are *internal and external goods* are differed among nonmaterial goods. The first ones are the benefits given to human by nature, which he develops as he wishes (the muscles, health, business skills, professional skills, the ability to get satisfaction from books, lectures, music, etc.). The second ones are those which are given by external world to meet the abilities of human (reputation, business connection, etc.), or goods that are beneficial to themselves and to others (labor service, domestic services).

A special group of goods necessary to human are services. Their specificities in that they do not have a material form, they cannot be directly accumulated. They can be consumed only at the time of their production. In conditions of commodity production most of the benefits become a commodity.

**Commodity** is the product of labor, capable to meet any human needs and intended for exchange.

**Commodity** is an original category of commodity economy, its "economic cell." This is because of the fact that a huge accumulation of goods forms a material content of wealth of society.

**Commodity** is an elementary form of wealth. Today wealth includes not only material goods, having the role of the goods, but all that is valued by society, including intelligence, clean air, etc.

By functional purpose, commodities are divided into two large groups: consumer goods, intended for personal consumption, and means of production, intended for productive consumption. *Money* is a special kind of commodity. Their peculiarity lies in the fact that it is a *universal equivalent*, that is, anything can be bought for money.

Demands should be distinguished from consumption.

**Demands** are need, requiring to be met, the demand for something that is necessary to sustain life and development of the body, the personality.

According to the theory of an American scientist A. Maslow, all the demands according to the principle of the hierarchy are placed in the following ascending order - from the "lower" material to the "higher" spiritual: physiological demands (food, drink, sex, etc.); the demand for security (protection from pain, anger, fear, etc.), the need for social relationships (love, tenderness, particularity to a group, etc.); demand for self-respect (the recognition, approval, etc.), self-actualization (realization of a abilities, understanding, comprehension).

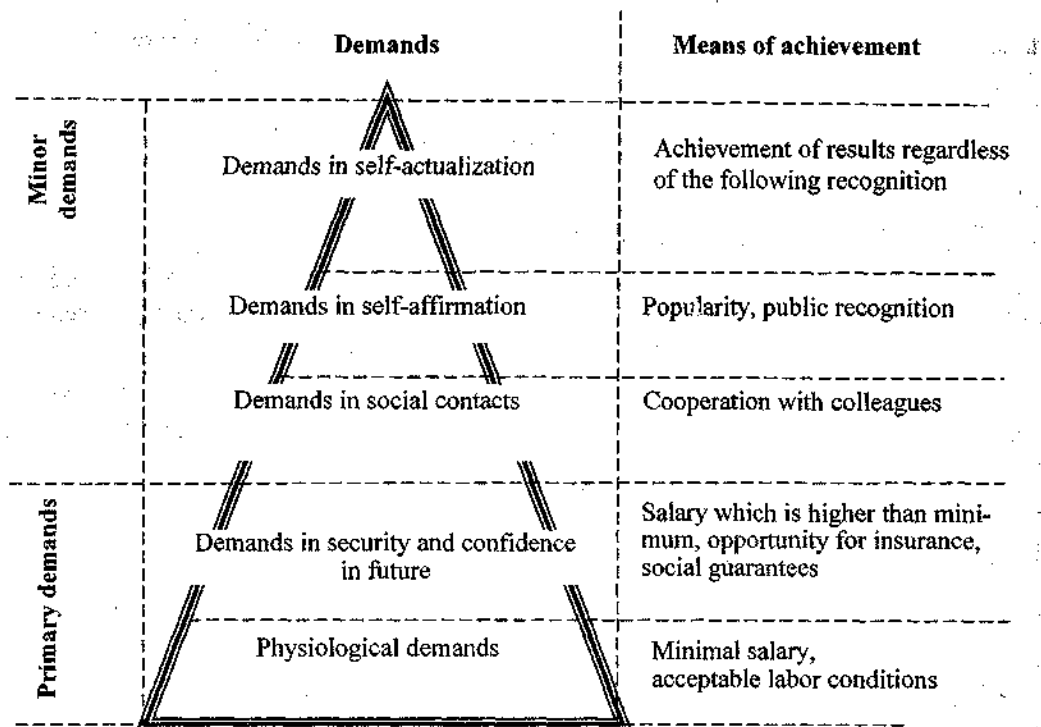


Fig. 2.2. A. Maslow pyramid

Needs can be divided into economic and non-economic, conscious and non-conscious, false understood. Economic requirements impel to efficient use of available resources to achieve specific results.

A. Maslow suggested that the needs in the hierarchy appear gradually, starting with physiological, etc. The satisfaction of *primary* needs leads to appearance of the needs of higher order.

People do not just satisfy need one by one, but move up, changing the value to themselves of certain requirements. It is impossible to jump through one level of the hierarchy of needs. *Self-actualization* is the highest degree of human motivation; it is a desire and volitional actions of a person to become who he can become. To *get self-actualized* is to become that kind of person who he can be, to reach maximum potential. The problem is in the fact that:

- people often do not know their abilities, their purposes or talent;
- person is aware of his abilities, but does not want to work for their development (weak will);
- person is aware of his abilities, but he cannot work for their development, due to a number of reasons (material, physical, etc.).

According to A. Maslow, about 1.0% of all people reach a higher level of motivation. A. Maslow did not consider situational factors and insisted on that the requirements act as motives logically bottom-up.

All four stages of economic activity (production, distribution, exchange and consumption) are in a relationship and interaction.

**Process of reproduction** is the constant repetition of economic activities (all stages) in the same or increased volume and is characterized by interaction of three simple elements: labor force, objects of labor and means of labor.

**Labor force** is a combination of physical and mental powers of human, his ability to work.

The **labor** is a consumption of labor force in the production process, or purposeful human activities aimed at changing of the objects of nature, adapting them to human needs. Labor is a source of wealth. All material goods and services are the result of human labor. Even the ancients understood the special role of labor. For example, the famous words of Horace: "Nothing comes to mortal without hard work."

**Objects of labor** are what human labor is aimed at, what constitutes the material basis of the future finished product.

Objects of labor are given by nature itself (e.g., ores), or the product of previous labor, i.e. raw materials.

**Means of labor** is a thing or complex of things that a person puts between himself and the object of labor, what a person uses to act on the object of labor, creating finished product.

Means of labor is a key indicator of the level of production development. It is known that economic eras differs not what is produced, but the way how it is produced, which type of labor means.

**Material means of labor** are divided into *natural* (land, stick, stone, etc., domesticated pets, organic fertilizers, and organs of the worker's body) and *technical* (i.e., created by human).

Technical means of labor consists of **work tools** - various machines, mechanisms, accessories, tools, engines, transmission devices.

By analogy with the human body labor mechanical means can be defined as "bone-muscle production system"; means of labor which are used for storing of objects of labor, comprise "vascular system of production" (pipes, tanks, barrels, etc.); control device can be described as "the nervous system of production."

The interaction of labor force and means of production is realized through **technology and organization of production**. The technology reflects the technical side of production and represents a method of human impact on the objects of labor, based on the use of mechanical, physical, chemical properties of means of production. Organization of production ensures the unity, the interaction of all employees, participating in the production, related between each other with division of labor, as well as the organization using labor force and means of production. Through such forms as specialization, combining, cooperation and concentration of production, etc., interconnection of production develops by sector and territorial areas. Improvement of complex and flexible system of organizational connections is an important term for economic growth.

Economic activity of the people is performed under certain conditions, in certain circumstances, *economic and social environment*. In their economic activity people are restricted and specified: first, the nature (climate and soil conditions, the terms of heredity, the number of population, the quality of food, housing, clothing, etc.), i.e., the economic environment, and second, public organizations (property relations, the state structure, rules and laws of existence, etc.), i.e., the social environment.

The totality of means of production and the people who have knowledge, manufacturing experience, skills for labor, setting in motion means of production is called *productive forces*.

The main *productive force of society are people*, who are participants of social production. The means of production is the result of mind activity, labor, and economic activity of human. Improving the means of production, development of natural resources, learning laws of nature and of society – is determining factors of continuous development of productive forces.

Human has always been and remains a central figure in the economy. Out of human there can be no economy. Economy, economic activity created with human, with the help of human and in the name of human. But economy, created by a man has very strong influence on the formation and development of the human personality.

Human for receiving livelihood impacts on nature (cultivate the land, mines minerals, cultivated gardens, etc.). But nature also impact on people, their skills, appearance. In general, to separate human from nature is only possible mentally.

The modern science of human life activity emphasizes the connection between human and the cosmos. The thought of life and life activity of people as a cosmic phenomenon has existed long time ago. At the end of the XVII century, Dutch scientist Ch. Huygens in "Kosmotheeoros" noted that life is a cosmic phenomenon. This idea was fully developed in works of Russian scientist V. I. Vernadsky about noosphere.

*Noosphere* is a new phenomenon on the Earth. The man for the first time became the great geological force in it. Thanks to his labor and thought he can radically reform his life, change the conditions of life activity in comparison with the past. The power of human on earth, according to this doctrine, is related not with his substance, but with his brain, his mind and his labor, guided by this mind.

*Economy* is interaction of human with nature, his environment in the interest of ensuring of life process, existence and development of man and mankind.

Human's role in the economy in individual periods of his life is different, and it is determined by how much various benefits a person gets from the family, the community and how much he returns to them.

Thus, from a purely economic point of view, a person creates income, which significantly exceeds volumes of used goods by him and thereby returns a kind of "debts" to family and society that have formed naturally in the time of

his childhood and partly youth. He also "advances" his material well-being in old age.

A special place in productive forces occupies *land*. In some industries, it is used primarily as an object of labor (mining industries), in others - as a means of labor (in agriculture). But everywhere it is a material condition of production.

The productive forces form a leading side of public production. Each phase of development of the productive forces corresponds to definite productive relations, acting as a social and economic form of their movement.

Productive or economic relations form a framework of economic organization of society, and together with productive forces determine the specific forms and types of economic systems.

The result of economic activity, the interaction of the productive forces and productive (economic) relations of the economic system is an economic product.

*Economic product* is what is produced, created and used in the economy.

There are economic and technological relations.

*Economic relations* include relationships associated with all stages of economic activity: production, allocation, exchange and consumption.

*Technological relations* are formed in the process of interaction between human and means of labor, human and objects of labor, between people during the implementation of production process.

Developed in this period of time the system of productive forces and the technological relations is called *the technological mode of production*.

*Economic resources* are complex of various elements of production, which can be used in the process of creating material and spiritual goods and services.

All economic resources, in conditions of their role in the production process can be divided into three types: *labor, natural and investment*. *Labor resources* include people, their labor force; *natural* - land, its subsoil, forests and water; *investment* - the means of production, which form the capital. Without the presence of all three types of resources, the production process is impossible.

In addition, there are *material* (means and objects of labor), *financial* (cash resources directed to the production), *informative* (data necessary for the functioning of the automated production and management of it with the help of computer hardware) resources.

At any given moment, necessary resources for the economic activities are limited. The fact that a particular thing occurs rarely or hard-to-get, for an economist it is not defined as "limitedness of resources." The latter characterizes the situation when there is lack of resources to fully meet the demands of each individual. In any country, people desire to have more goods and services than they receive.

In real life humanity uses not all available resources. Sometimes resources used earlier can become "superfluous" and unnecessary. For example, labor surplus in periods of economic recession in production. But that does not change the fact that at this point of time there is a certain amount of economic resources and no more.



"Limitedness of resources" is often called rarity of resources relative to infinity of human demands. The latter constantly grow and changing with the development of society, the growth of economic activity, market expansion, etc. It is not accidentally that the statement appeared: "More you have, more you want to have."

Economic theory distinguishes *absolute* and *relative* limitedness of resources. Absolute limitedness is lack of productive resources to simultaneously satisfy all the demands of society. But if you narrow the range of needs, the absolute limitedness of resources becomes relative, as for a limited range of needs resources are relatively limitless.

Absolute limitedness is mainly typical for natural and labor resources, relative onto material, financial and information resources.

The problem of scarcity becomes complicated because certain resources (such as minerals) are not only limited, but also non-reproducible. Today, humanity does not know how to restore their reserves. Other economic resources are reproducible. For example, on the site of the cut-down garden there can be grown new fruit trees. However, it will require 5-10 years.

But since resources are limited, the society must make a choice. The essence of *problem of choice* is that if each economic resource used to meet the multiple needs is limited, there is always the problem of alternate of its use and search of the best combination of scarce resources.

Making choice society is forced to give up something, to waive something, that is, to sacrifice in order to get the desired result. What we give up, is called *imputed (hidden) costs* of achieving selected result.

Choice has to be made by an individual (with a certain amount of money to go to the theater or buy a video cassette), a firm (with the expansion of production to buy new machines or hire additional employees), a state (increase army or to build a hospital, etc.). If resources were unlimited, there would be no need to save. The problem of choice would be disappeared.

*Production capabilities* of the economic system are limited by scarcity of applied resources that with the development of society is not only preserved, but sometimes increases. This is because non-renewable natural resources run out; consumption does not give a new impetus to the development of production of new products and services. Qualitative characteristics of the latter change causing the rise of demand for consumer goods and investment.

If economic resources are used for the construction of residential houses, their cost is composed from the cost of land, materials and labor force. Imputed costs will be a hospital, school, library, etc., which could be built at the expense of the same resources. The state can spend absolutely all the resources for the construction of housing, and can reduce the amount of construction in order to also build schools and hospitals. Thus, the volume of construction of residential houses, hospitals and schools are not only alternative, but also interchangeable (tab. 2.1).

Table 2.1

**Alternative capabilities of construction  
of residential houses, schools and hospitals**

Capabilities	Construction of residential houses (pcs)	Construction of schools and houses (pcs)
A	15	0
B	14	1
C	12	2
D	9	3
E	5	4
F	0	5

Description of this situation is shown on the diagram of production capacities of the national economy (see fig. 2.3).

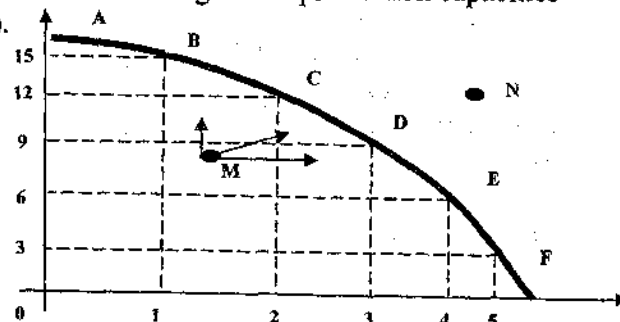


Fig. 2.3. Production capabilities line

Horizontally number of houses is positioned, and vertically - the number of schools and hospitals. Fixing the numbers of the table on the diagram and having connected them, we get the production capabilities curve.

Considered case shows that the economy of full employment is always alternative, i.e. it must choose between the construction of residential houses and the construction of schools and hospitals by reallocating resources.

Production capabilities curve shows the value of alternatives to the society. At the absolute use of resources (full-employment economy) all the points of possible combinations of production houses, schools and hospitals are on the production capabilities boundary (*production capabilities line- PCL*).

Society, located on the considered maximum level of production capabilities, due to lack of resources, is unable simultaneously increase military and civilian production and move into the point N.

If there is choice of incomplete workload of capacities or unemployment various combinations of production of residential houses, schools and hospitals are located not on the curve, but, for example, at the point M. This point shows that if using additional resources civil and military production can be increased.

Production capabilities curve can illustrate differences existing in the field of production capabilities in specific countries.

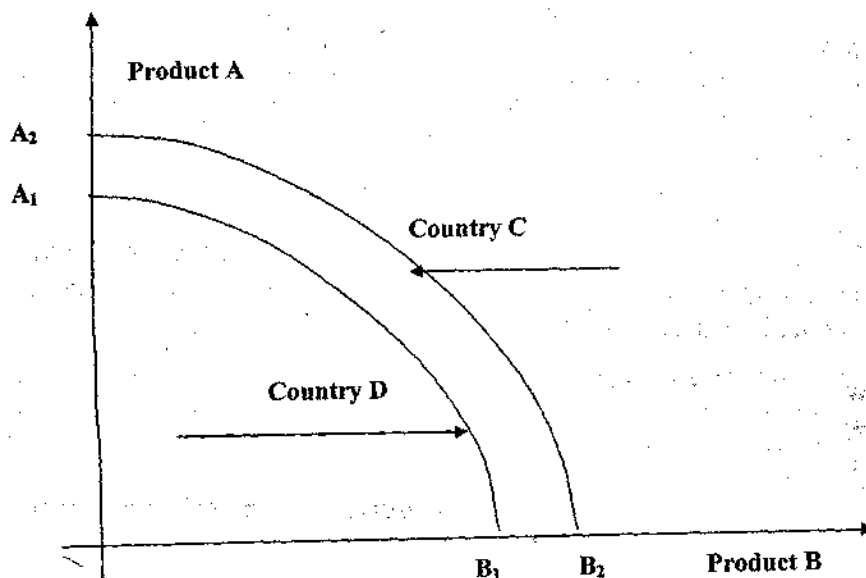
It is obvious that the production potential of country C is more powerful than country D. If country D decided to completely concentrate on the production of product A, its potential would allow reaching a maximum at point A<sub>1</sub>. Country C,

With a similar task will reach maximum of production at point  $B_2$ , it is explained by superiority of country C in the production of B.

Production capabilities curve, being just an abstract model, illustrates the four main ideas:

- limitedness of resources means that all combinations of product output, located outside of the production capabilities curve are not feasible;
- choice opportunity is expressed in necessity for society to carry out the selection from different reachable product combinations, located on (inside) this curve;
- the downward slope of the curve implies idea of imputed costs (alternative costs);
- concavity of curve shows an increase of imputed costs and, as a consequence, decrease of profitability.

Thus, production capabilities curves of two countries, producing the same products, are shown on the fig. 2.4.



**Fig.2.4. Production capabilities curve of two countries**

"Efficiency" category is closely related to the concept of production capabilities. The functioning of the economy on the edge of production capabilities shows its effectiveness<sup>12</sup>.

*Effective economic system* assumes rational behavior of economic entities, which means maximizing the benefits (outcomes) and minimizing costs by producer and consumer of material goods and services.

*Vilfredo Pareto* (1848-1923), investigating the efficiency of production and distribution of goods in a market economic system with limited resources, came to the conclusion that it was a condition in which no one can improve his condition, without worsening the position of at least one of market participants. Such understanding of the efficiency is called *Pareto optimum* in the economic literature.

Production capabilities curve can be interpreted as *product transformation curve*, which shows how a single product "is transformed into another" by switching some of the factors from production of one welfare to the production of the other.

The amount of one commodity, which must be sacrificed to increase the production of other commodity, is called alternative costs or cost of lost opportunities. If the production of one additional unit of *X* requires rejecting three units of product *Y*, then these three units of product *Y* make the alternative costs of product *X*.

For each point, which means a set of goods *X* and *Y*, located on the production capabilities curve, we can calculate *marginal rate of product transformation* (MRPT or MRT), which, in fact, is a characteristic of the magnitude of alternative costs at each point of the curve.  $MRPT_{XY}$  shows how much production of welfare *Y* should be reduced so output of welfare *X* increases by unit:

$$MRPT_{XY} = \frac{\Delta Y}{\Delta X}$$

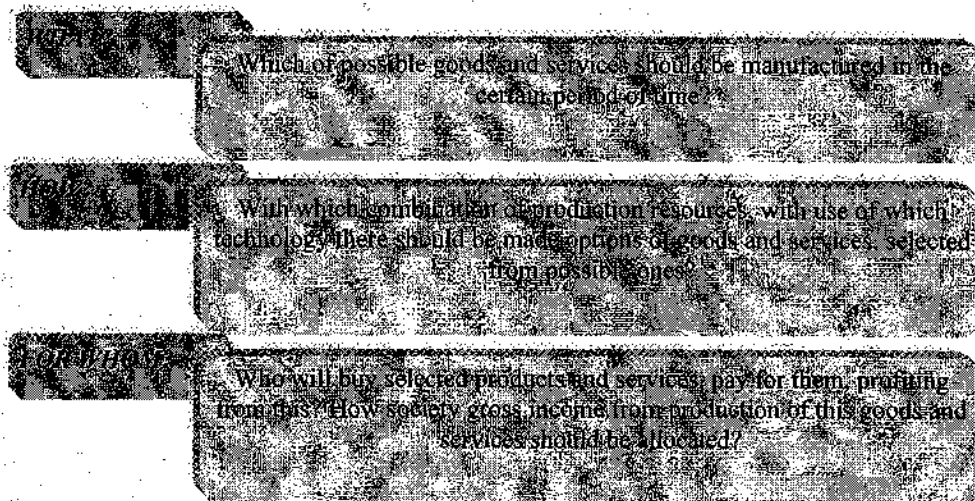
*Alternative (imputed, hidden, lost opportunities) costs* are the cost of one welfare, expressed in another, from which it had to be given up. Whatever kind of activity economic subject is engaged, it always bears the costs of lost opportunities. A reflection of the problem of choice is putting three main issues of the economy: "What?", "How?", "For whom?" (fig. 2.5).

In order to solve the main problem of the economy - the distribution of scarce resources, every economic system answers to the following three questions in its own manner.

In its development human society used and uses various economic systems, among which there are traditional, market, command (or centralized) and mixed economy.

<sup>12</sup>Economic efficiency is a ratio of results and costs in economy activity.

**Traditional economy** is based on traditions, transferred from generation to generation. These traditions determine what kind of goods and services has to produce, for whom and how. The list of goods, production technology and distribution are based on the customs of the country. Economic roles of the members of society are determined by heredity and caste. This type of economy persists today in some so-called underdeveloped countries, where technological progress penetrates with big difficulties, since it tends to undermine customs and traditions established in these systems.



**Fig.2.5. Main issues of economic system**

**Market economy** is characterized by private property of resources and the use of markets and prices to coordinate economic activities and management. What, how and for who produce, define markets, prices, profits and losses of economic entities.

Manufacturer aims to produce ("what") products which meet customers' demands and brings him the greatest return. The consumer decides himself which product to buy and how much money to pay for it.

Since under the conditions free competition pricing doesn't depend from the manufacturer, the manufactures, answering "how" question, produce products with lower expenses than his competitor, in order to sell more and at a low price. To solve these task technologies, organization of production, technological progress, various methods of management are used.

"For whom?" question is resolved in favor of consumers with the highest income.

In such economic system, the government does not intervene in the economy. Its role is protection of private property, the establishment of laws, facilitating the functioning of free markets.

**Command or centralized economy**, is the opposite of a market economy. It is based on state property of all material resources. Hence, all economic decisions are

made by government bodies through centralized (directive) planning. To each enterprise production plan provides what and of which quantity to produce; allocate some resources, equipment, labor, materials, etc., which determines salvation of the question on how to produce; production plan indicates not only suppliers, but buyers, i.e., solves question for whom to produce. The allocation of resources to the enterprise is based on the long-term priorities, which permanently detaches the production of goods from the demands of society.

*Mixed economy* involves the use of the regulatory role of the state and economic freedom of manufacturers. Entrepreneur and workers move from industry to industry in their own decisions, not by government directives. State fulfill antimonopoly, social, fiscal (tax) and other economic policies, which in some degree contributes to the economic growth of the country and improvement the living level of the population.

The modern world is characterized by a wide variety of mixed models. For example, Swedish system is famous; the core of the system is social policy. The Japanese model of the economy is characterized by advanced indicative (recommendation) planning and coordination of activities of the government and the private sector. In the American economy, the state plays an important role in establishing the rules of economic activity, regulation of business, the development of education and science. But most decisions are made based on the situation on the market and pricing in it.

The modern world is characterized by the presence of different economic systems, which are used *different criteria* for the classification. Today, the best known are *the formational* and *civilizational approaches*.

According to the first approach five economic systems are identified (or five modes of production): primitive-communal, slaveholding, feudal, capitalistic, and communistic.

According to the second approach seven civilizations are identified: Neolithic; East slaveholding (Bronze Age), antique (Iron Age), feudal, pre-industrial, industrial, post-industrial.

Recognition of *civilized approach* does not automatically deny *the formational*. The concept of "civilization" and "formation" often characterize the development of society from different sides and in different coordinate systems. That is why we can say that the change of formations is the path of development of human civilization.

*Formation approach* allow reveal a legitimate stage in the historical development of society and highlight five ways of material production (primitive communal, slaveholding, feudal, capitalistic and communistic) based on statement that a crucial role is played by the direct production process or production method.

Today the classic highlighting of five modes of production is questionable for a number of reasons, including the fact that it is applicable only for Western Europe, and has not universal significance. Therefore, consideration of the processes of global development at the level of formation, the mode of production of materials for all theoretical and historical significance cannot cover the whole complex range of world events. Certain limitation of this approach is obvious.



Therefore, in the economic literature attempts are taken to use other criteria for the analysis of the phenomena and processes of social life.

In the economic literature, views on tendencies of development of economic systems are various. Some believe that the defining trend of development of systems is a tendency towards uniformity and unification of all structural elements. For example, E. Preobrazhensky said that the various systems of management may exist within the framework of the national economy on the basis of full economic balance between them, but this balance cannot exist for a long time, because one system has to devour another.

Other economists believe that the co-existence of different economic systems mutually enriches these systems, and that leads to economic growth and the emergence of a qualitatively new economic system. For example, the deepest sense of the NEP is that for the first time the possibility of mutual fusion of different economic forces was discovered, on base of that growth was provided. The modern theory of convergence is based on the thesis that different economic systems in the process of their own development and improvement eventually merge and create a new economic system.

This discrepancy of views reflects discrepancy of development of economic systems, when one trend replaces another. The modern development of many countries confirms this theoretical conclusion: the universal nationalization replaced denationalization; universal planning - rejection of it; centralization - decentralization, etc. The stronger vibration is, the more difficulties are in the economic development of the country.

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## 2.2. Economic entities and their economic interests

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There are great number of main entities of economic activity— individuals, enterprises, households and overall national governments. In the economic system they are in close relationship and interaction.

**Household** is an economic unit, which operates in the consumer sphere of economy, may consist of one or several persons. It provides the production and reproduction of human capital, makes independent decisions, is owner and supplier of a factor of production in a market economy, seeks to maximize the satisfaction of personal demands (not for the profit increase).

**Enterprise (firm)** is an economic unit, which operates to gain income (profit), seeks to maximize revenue, takes decisions independently, using the factors of production for manufacturing products in order to sale them. It involves investing their own or debt capital in business, which entails the risk and responsibility. The resulting profit enterprise (firm) spends not just for personal consumption, but for the expansion of production.

**The state (government)** is represented by various government agencies carrying out legal and political authority to ensure, if it is necessary, control on economic entities and the market to achieve social goals. Budget organizations that

represent the state, do not aim to make a profit, but realize the functions of state regulation of the economy.

In any economic system economic interests determine trends of development of economic activity, the motives of behavior of economic entities.

**Economic interest** is a form of manifestation of economic demands. Interests express economic benefit, advantage, realizing which an economic entity ensures its independence and self-development.

The active role of the individual in economic life is largely determined by economic motives for his behavior.

**Motive** is an internal stimulus to activity aimed at satisfaction of needs.

The structure of the behavior motive include: *the need* which human wants to satisfy, *the welfare* that can satisfy the need, *the action*, necessary for obtaining the welfare; *the expenses* associated with obtaining the welfare.

If the motive acts as an internal stimulus to activity, than stimulus is an external stimulus.

**Stimulus** (from Lat. «*Stimulus*», which means goad or stick which were used to drive on animals) – are the goods (objects, values, benefits) that can satisfy the needs, resulted from the implementation of any action. Stimulus motivates a person to certain behavior.

Stimulus can be divided into *economic* and *non-economic*. The latter include *organizational, legal, moral, psychological, and social*.

Scientists of different eras have paid great attention to the problems of economic interests, considering them from very various sides: what is the economic interest, what is its origin, what are the forms of its manifestation, the role it plays in the development of society, etc. And, of course, they found a variety of opinions and views on these issues.

Until the late 50s of XX century problems of economic interests in the former Soviet Union were studied mainly by psychologists. Understanding of its essence by many of them, content and location of economic interests in society is revealed by famous psychologist G.T. Kovalevsky. He writes: "Interest is a state of mind, directivity of thoughts. Anything that encourages people to work, goes through his head, is realized by him. Before a man begins to act interest to a particular activity occurs in his mind which is necessary to meet his demands".

The views of economists about the nature of the definition of "economic interest" can be grouped into three basic positions. Economic interest - is:

1. Subjective category, a state of mind, directivity of thoughts and attention of the subject, specified, ultimately, by economic relations;
2. The unity of the objective and the subjective or unity of objective content and subjective form;
3. Objective category, acting directly as a manifestation of the relations of production.

This, of course, is a very general classification of the positions of various authors on the subject of economic interest.

Economic interest is not identical to the demands. Demands, above all, are its foundation, act as the subject of the relationship expressed by economic interest.

Thus, the economic interest as a category of economic theory expresses the relationship regarding the satisfaction of the economic demands of their bearer; as a result they are reproduced as specifically defined subjects of these relations. Specialists are very familiar with catch phrase of F. Engels that "the economic relations of any given society are manifested primarily as interests."

The differences between the needs and interests are primarily in the nature of the relationship between society and the conditions of its material existence. The need expresses this relationship in a two-side way: it is a product of production and, at the same time, its stimulus, the engine of production development. But interest expresses this connection between society and the conditions of its existence in one-side way only. It is the driving motivation of development. As for the origin of the movement, its goals, they cannot be found on the surface of the phenomenon, they are hidden and are in demand.

Peculiar connecting link between the need and interest is a social necessity. The interest and need can obtain public and social nature. This is one of the form of expression. However, in their interaction with each other, they need in social necessity. Any modern society, whether it is a market or a command economy, there are needs in the army, police, and officials. This necessity is imposed from the outside, it is a social necessity. Every business entity, every citizen of society needs to be protected from thieves, is interested in the well-established security service. It is his inner requirement, a necessity. However, it should be considered as a social necessity generated by the fact of existence of society, the social being.

The "social necessity" category in a certain sense raises the need and interest to the level of the whole society. Meanwhile, the need and interest are always specific, they are inherent to a particular subject: the single individual, group of people, class, or the whole society. As a result, economic interest and the need have three levels: individual, group people or class, the whole society. Interests on these three levels can be similar, but the needs can be the same. However, more often they are not similar or similar in some parts, and needs cannot be identical.

The variety of economic entities generates a variety of economic interests. Economic interests are grouped by various criteria. On the basis of identifying the carrier of interest there are distinguished public, collective and individual interests, national and international, regional and departmental, group and family, class interests of different social groups (workers, unemployed, young people, pensioners, etc.). Special groups form following interests: current and perspective, rational and irrational, genuine and false, financial, work, moral, etc.

All of these interests exist in unity, but between them, there are contradictions. For example, a personal interest in getting the greatest benefits can resist collective interests.

Economic theory studies not only objective, but subjective forms of manifestations of the existing social and industrial relations, not only specific forms of economic interests, but also their collision, reflecting the inner

contradictions and struggle of opposites, and manners of resolution of these contradictions.

Society and public groups need in gathering ideas, satisfaction of needs and usage of universal human values, overcoming aggravation of contradictions and unsubstantiated claims. On their basis the complex of motives of actions, behavior and relationships is formed, which can be summarized as a combination of the notions about satisfaction of needs and aspirations to join the achievements of civilization (the universal human values of the material and spiritual nature), and providing of prosperity.

In number of interests priorities are usually given to freedom of development of needs; the emphases are on the rights (expressing opinions, unity of like-minded, development of their own views, requirement restrictions of other power), less - on the responsibilities (respect for a partner, coordination, record of the demands and desires of the opposite direction).

Mind efforts and actions focus on protecting interests, justified prospects of social and economic well-being, which is particularly important in the new economy.

The collection of interests can be defined as a range of vital circumstances in a particular area for ethnic and social groups, which in a civilized and cultural sense are historically constitute themselves as a united nation, in a political respect are self-organized as a state.

Long-term interests of any country reduced to three substantial purposes: prosperity of people, protection and improvement of area of its life activity, preserve and development of national culture. In content, they are integrated expression of the vital interests of personality, society and state.

At the present stage interests of personality consists of real constitutional rights and freedoms, physical security, improvement of the quality and standard of living, physical, spiritual and intellectual development. From this point of view, the work activity is extremely important as a condition for the people to realize their creative potential, spiritual inquiry and material demands.

The interests of society include a consolidation of democracy, achievement and maintenance of the public harmony, increasing the creative activity of population and spiritual development of all social and ethnic groups.

Interests of the state consist in protection of the constitutional order, sovereignty and territorial integrity, establishing political, economic and social stability, in the unconditional execution of the laws, in the maintenance of law and order and in the development of international cooperation on the basis of the partnership.

The implementation of individual interests contributes realization of common interests only if their carriers unite, neither of them can effectively function autonomously. These interests express generic aspirations of all members of

society - the citizens of the state to ensure its independence, well-being and quality of life of people, the preservation of its cultural and spiritual values.

In space and geographical plan with the development of international communication interests take the form of national and state. Its synonym is widely used too - the term 'national interest', which refers not to the "nation-ethnicity", but to the "nation-state", i.e., all those people, the population living under the laws of the state and are equal in front of these laws.

National interests dictate priorities for cooperation and the use of its own economic potential, specified with the amount of life demands; which include: a worthy place in the world community, the health and well-being, the territorial integrity, the maintenance of traditions, material and spiritual values. Developing in different regions of the world processes in the most direct and significant manner may affect the state and prospects of the development of peoples, sometimes - the understanding and definition of national goals. Accordingly, national and state interests perform function of activity of influence on other states through power, economic and psychological methods. Here with interests of leadership, aggression deterrence, reliability of life activity, spiritual and cultural independence and material prosperity.

At each stage of the historical development of national and state interests create their own priorities in the political, economic, military and technological spheres, but national peculiarities remain the main: preservation of spirituality, national health, dignity and the well-being.

Formation of national and state interests becomes a determining factor in the system of basic priorities of economic development, social prerequisites and institutional mechanisms of statehood.

For many countries national and state interests are expressed in specific wording, it is the stability of its economy, the principles of integration unions, corporate ambitions of multinational companies, or hope for a charity, and various kinds of assistance.

In order to efficiently and consistently protect national and state interests, they must be understood. The leaders of the states usually are extremely rational and tough in pursuing their national interests in accordance with the way they understand them or how they are perceived by the mass consciousness in the state. The phrase, that Britain has no permanent friends or permanent enemies, permanent things are only "interests", as typical and true today as nearly a hundred and fifty years ago.

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### **2.3. Property as a market economy institute.**

#### **Transformation of property relations in transition economy.**

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The concept of "economic institutions" inserted into scientific use by institutional and sociological direction of economic theory. Representatives of institutionalism are interested in two main issues: the economic power and control over the economy, and therefore they use the concept of "institutions."

*Economic institutions* are commonly understood as rules of the game in a society or restrictions more formally created by people forming human interaction.

Institutions create the structure of exchange stimulus, social, political or economic. Institutions are both formal laws (constitutions, laws, property rights) and informal rules (traditions, customs, codes of behavior). The institutions were created by people to maintain order and remove uncertainty in the exchange. Such institutions, along with the standard limitations, accepted in the economy, determined set of alternatives, and thus determined the production and distribution costs and therefore profitability and the likelihood of involvement in economic activities. Jack Knight believes that *the institutions* are a set of rules that structure social mutual relations in a special way, which all members of this community should know.

*Formal institutions* are often created to serve the interests of those who control the institutional changes in a market economy. The pursuit for own interests of ones can have a negative effect in others.

*Public institutions* implementing ideological and spiritual demands, often affect social organizations and economic behavior. Attempts of state to manipulate the public institutions, for example, the rules for their own purposes have often been unsuccessful. Institutions can be considered as social capital, which can be changed through depreciation and new investments. Formal laws can change rapidly, but compulsion and informal rules changes slowly. In addition, here the example is Russia, which adapts appropriate economic institutions of capitalism to market model. Informal rules, regulations, customs are not created by authorities, they often develop spontaneously.

Institutions slowly adapt to changes in the surrounding environment, so the institutions that were effective before, become ineffective and remain the same for a long time, since it is difficult to turn society from the historical path, set long time ago.

Between institutions and organizations there is a difference. While institutions are a set of rules and laws that determine the interaction, the action of individuals, organizations are corporate actors, which can themselves be objects of institutional limitations. Organizations have an internal structure, the institutional framework, determining the interaction of individuals that make up the organization. Some collective associations, thus, can be both institutions and organizations, for example a company, a government bureaucracy, church or educational institute.

To understand the connection between the institutions and the production efficiency the concept of transaction costs is essential. *Transaction costs* term was implemented into scientific use by Nobel laureate Ronald Coase. These costs are not associated with the production as such, but with its attendant costs: searching for information on pricing, contractors of business transactions, costs of making business contracts, monitoring of their execution, etc.

J. Commons for the first time used scientific use of term "transaction"; it is not the exchange of goods, but the alienation and assignment of property rights and



freedoms, created by society<sup>13</sup>. This definition is meaningful by virtue of the fact that institutions ensure spreading of will of an individual outside area, in the framework of which it can affect the environment directly through their actions that is beyond physical control and therefore, are transaction unlike the individual behavior as such or exchange of goods. J. Commons distinguished three basic types of transactions:

1. *Transaction of deal* - serves to implement the actual alienation and appropriation of property rights and freedoms, in its implementation there must be mutual consent of the parties, based on the economic interests of each of them. In the transactions of deal, it's fulfilled condition of symmetry of relationships between the partners. The distinguisher of the transaction of deal, in J. Commons judgment, is not the production, but transfer of goods from hand to hand;

2. *Transaction of management* - its key element is ratio of management and subordination, which assumes such interaction between people, when the right to make decisions only belongs to one side. In transaction of management behavior is clearly asymmetric, that is a consequence of asymmetric position of the parties and, respectively asymmetry of legal labor relations;

3. *Transaction of rationing* - in it asymmetry of legal position of the parties remains, but the place of a managing side occupies collective body that performs the function of the specification of property rights. To transactions of rationing refer: budgeting of company by the Board of Directors, the development of the federal budget by government and its approval by authority of representative government, the solution of arbitrage regarding dispute occurring between active agents, through which wealth is distributed.

In economic theory five basic forms of transaction costs are marked out:

1) *information search costs*. Associated with the search for contracting party of economic transactions and the search for the most favorable terms of buying and selling;

2) *costs of conducting negotiations and contracting*. These are the costs for making agreement between the contracting parties, negotiations of the terms of sale, legal registration of the transaction;

3) *costs of measurement*, costs, related to the definition of quality, security for health. Actions of organizations for reducing this type of costs: trade name ("brand"); standardization of output products; guarantees provided by accompany (free warranty repairs, the right to exchange defective products on good one, etc.);

4) *costs of specification and protection of property rights*. Specification of property rights - consolidation of the individual authorities (included in the concept of property rights) for one or more economic entities. The costs associated with the costs of the establishment of an object and the subject of property, the functioning of the judicial system, the authorities of law and order and so on;

5) *costs of opportunistic behavior*. Associated with dishonesty, fraud, information hiding.

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<sup>13</sup> Commons J. R. Institutional Economics. // American Economic Review. 1931. V. 21. - p. 652.

In any society economic agents tend to reduce the value of transaction costs; this is contributed by economic institutions, reducing uncertainty, faced by economic agents in the course of their activities. Main objective of the institutions is to establish a stable structure of interaction between people.

Efficiency of ways of coordination should be considered not from the point of view of normative assessments (bad or good), but in conditions of savings of transaction costs. Of course, it is not the only criterion, but it helps to understand why the attempt to build all public production by type of firm or a "single factory" was untenable. For the regulation from the center (State plan) is accompanied by a huge transaction costs, specified with impossibility to focus all information, scattered in society, about resources, preferences of consumers and so on in a single center.

*Transformation of property relations* is a material direction of economic transformation in countries with transition economies.

Various economic schools have different definitions of property and its essence.

Ideologist of petty-bourgeois socialism P.-J. Proudhon (1809-1865) defined the given category as "Property is a theft." His idea was not accepted in society, although it gave the world an important detail. If one member of society possesses a thing than another one is deprived of the opportunity to have it. Therefore, the basis of the property is *public relations*, not nature.

The classical theory determines *property* as relationships between people when the assignment (alienation) of the means of production and material goods, created with the help of them, during their production, distribution, exchange and consumption.

Here attention focuses on that the fact of belonging of material goods to a subject must be acknowledged not only by himself, but by other subjects as well, so there right of property occurs as a social relation.

Property as an economic category exists independently of human will and consciousness. Solon (594 BC) and Cleisthenes (509 BC) noted that the laws do not create a relationship of property; they consolidate relationships that actually formed in society. Therefore it is necessary to distinguish between *economic* and *legal* categories of property. As an economic category property expresses the relationship of assignment and alienation among people. As a legal category property is a subjective interpretation of objectively formed relations of assignment, the public demands to consolidate what has already formed in practice.

One of the first definitions of the property is given in the Code of Emperor Justinian (V c.), "Roman law", where the property is considered as a right of possession, using and disposal properties. The main thing is content of property is assignment.

*Assignment* is alienation of the object of property by a subject from other subjects, implementing along with the economic, violent and legal ways. We may

emphasize assignment through work, through treatment and as an act in the manufacturing process, the moment of production.

From property full form of appropriation and alienation should distinguished from possession, using and disposal.

*Possession* is an incomplete, partial assignment. The owner is a representative of means of production. It is personified representative of owner. Property is a functional property under conditions defined by owners. For example, rent, loan, which assume the urgency, service ability, refund, as well as the assignment of part of income.

*Use* is an actual use of things depending on its purpose. Use is a form of realization of the possession and property. If possession is a function of property, then use is a function of possession.

*Disposal* is adoption of a decision by an owner or other person about functioning of the subject of property based on the right of the entrepreneur to pass the property for use within the scope permitted by the owner.

In this regard, it is important to note that the entrepreneur in a market economy cannot be an owner, but must have the rights of the possession, use and disposal - a triad of powers of property.

Property relations is an *object and subject relations*, where the object are material conditions of production and life of human (means of production and labor force), as well as the results of production (material goods and services), and subjects are people, partnership, association, workers' association, representatives of the state, the workers of state apparatus.

The property is closely linked to *economic power*. Strictly speaking, *production management is a function of property*, one of its mandatory sides. As a rule, production is managed by one who is the owner of the means of production. Property is one of a key (though not single) element of economic power, its source.

According to the economic theory of rights of property the resource (the means of production or labor force) is a property by itself, and the beam or part of rights for using resource.

At the beginning of the theory of property rights were two well-known American economists - Ronald Coase and A. Alchian. In further development of this theory I. Barzel, G. Becker, D. North, N. S. Cheng, R. Posner and others took part. The full bundle of rights, called "the list of Honore" (in honor of English jurist A. M. Honore) consists of 11 items, which include:

- 1) the right of possession, i.e., the right of exclusive control over the physical goods;
- 2) the right of use, i.e., the use of beneficial properties of goods;
- 3) the right of control, i.e., a decision about who and how will supply use of benefits;
- 4) the right for income, i.e. for possession of results from the use of goods;

5) the right of the sovereign, i.e., the right to alienation, consumption, change and the destruction of welfare;

6) the right for security, i.e. for protection against expropriation of goods and harm from outdoor environment;

7) the right for transfer welfare to inheritance;

8) the right for perpetuity of possession of welfare;

9) the prohibition for using by manner that does harm to external environment;

10) the right for responsibility as penalty, i.e., the possibility of collecting welfare as payment for the debt;

11) the right for residual character, i.e., the right for existence of institutions guaranteeing restoration of disturbed authorities.

*Property rights* are understood as sanctioned (by state laws, traditions, customs, orders of the government, etc.); behavioral relationships between people that regularly arise because of the existence of welfare and related to their use.

*Property relations* in this theory are arisen from limitedness of resources: without any preconditions of rarity is meaningless to talk about property. Therefore, *property relations* are system of exclusive access to material and nonmaterial resources.

*Forms of property* are in constant development. Civilizations changed and property relations also changed. History of development of human society knows various forms of property. Among them the most important are *state* and *private properties*.

It is often argued that the basis of market relations may be private property, which is defined as the property of individuals. World experience attests that market economy, civilized market base on diversity of forms of property, since only in this way effective economy is possible.

*State property* covers those types of activities, which can function only as a general (as a single unit), thanks to which objectively formed state form of management of them and material basis (the media, social and industrial structure, ecological protection, basic science and high technology production, such as space exploration and etc.).

State form of property arises in case of necessity of state aid to private enterprises facing bankruptcy. This happens through the nationalization of virtually unprofitable enterprises, their readjustment with the help of government funds and subsequent re-privatization.

World practice shows that state property can be effective, as it has certain advantages over other types of property, caused by its *functions*: the ability to carry out macro regulation, to form a strategy of economic development of society in general, to optimize the structure of the national economy using criterion of achievement of the highest efficiency, ultimately oriented to human.

At the same time, regardless economic and social structure, in most cases state property functions with less efficiency than other forms. On the one hand, this is connected with development of state property in fields where market opportunities are limited and reduced motivation to work. On the other - efficiency

of state property can be reduced in fields with normally functioning market because of the loss of depersonalized owner and loss of market orientation by a producer.

The predominance of state form of property leads to appearance of *state monopoly*, which is pernicious to the development of state economy, for consumer, for population and extremely beneficial for producer.

Thus, we can talk about elimination of state property, but its monopoly position. State property in the form of a national, republican and municipal always plays a significant role in the national economy.

In western economic theory and practice conception firmly established that *private property* means any non-state property. There is certain logic in this sense. The state acts as the representative of the whole society, and the other subjects of property only represent a part of society, and therefore it is lawfully to consider them as the owners of their private property.

The objects of private property include:

1) *households* as economic units engaged in production of goods and services for their own demands;

2) *legal private enterprises* operating in accordance with the law. These are companies of all sizes: from individual, handicraft to large;

3) *private property* or *personal savings used in any way* - from renting apartments to money transactions between individuals;

4) *illegal private enterprises* in the shadow economy. This includes all activities in the field of production of goods and services that individuals perform without special permission of authorities.

The private sector develops spontaneously, without any instructions from the center, which indicates the vitality of private property. The main conditions of development of private sector are:

- complete freedom of establishment, enterprise;
- legal guarantees for fulfilling private contractual obligations;
- necessity for absolute security of private property;
- stimulation of private investment with credit policy;
- respect for the private sector.

Many economists around the world recognize that private property now acts as not only in the individual (labor and non-labor), but also in other forms: collective, group, stock.

*Cooperative* is a collective form of property, which has not lost individualism, which is exhibited in connection of income with the individual investment (share). And it is its more powerful motivating potential.

Variety of collective form of property is *stock property*, which is the collective and according to manner of appearance, functioning, and after economic forms of implementation.

With a certain part of conditionality there two basic models of stock property can be emphasized:

1. *Anglo-Saxon model*: 20-30 % of shares are immobile, keep permanently in the hands of few owners who create controlling stock of shares; 70-80% of the shares is mobile, easily passes from hand to hand, and becomes object of trade in stock market;

2. *Continental model*: permanent shareholders possess 70-80% of shares, and 20-30 % comes to the market and are considered by investors as the object of temporary placement of funds.

In the economic literature, in addition to the basic forms of property, other *forms of production* are marked out, such as property of public organizations, associations, partnerships, churches, etc., family property. A special place is taken by *intellectual form of property*, which represents the appropriation of knowledge, exchange of scientific information, culture, arts, inventions, which makes possible so-called brain drain.

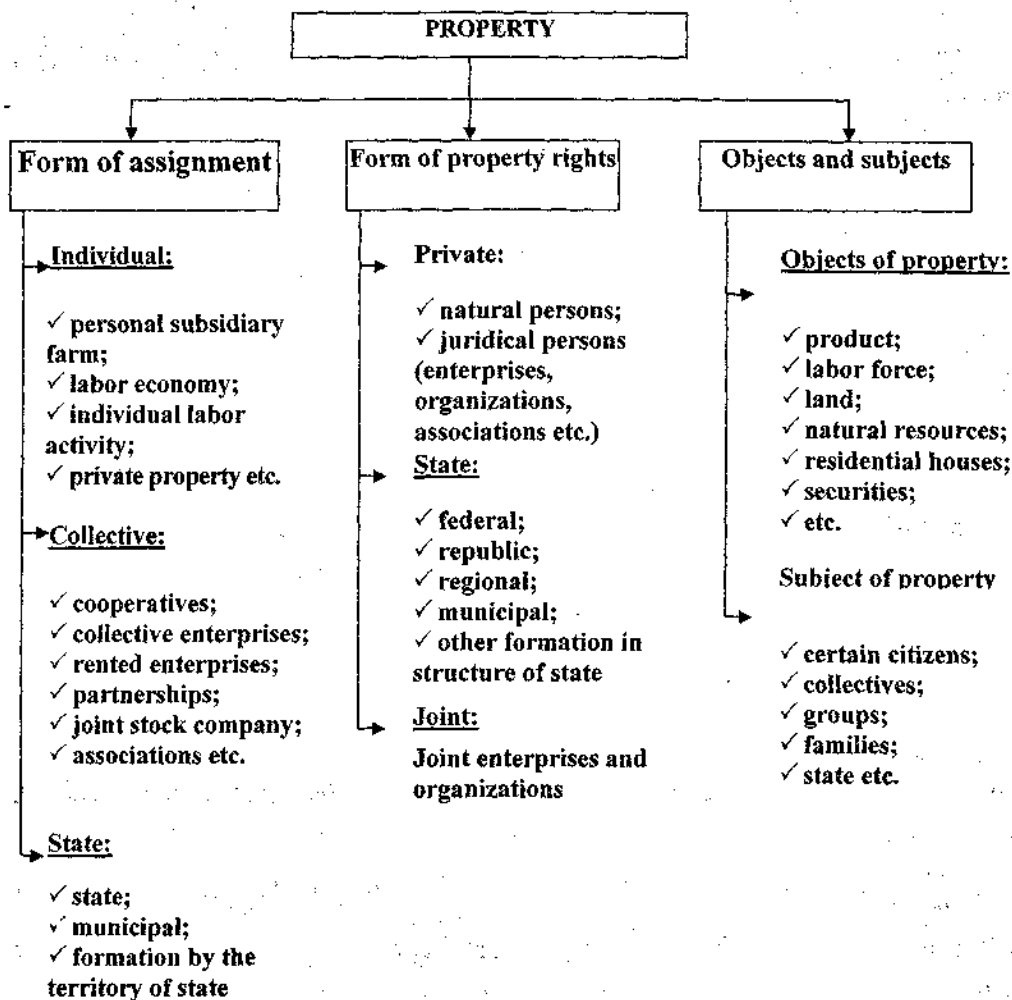


Fig. 2.6. Classification of property forms on basis of various criteria



The development of property forms at the present stage is characterized by *process of internationalization of property*, as a result of which arise joint, mixed enterprises, as well as multinational corporations. All this give reason to say about the existence of a system of forms of property (fig. 2.6).

None of the forms of property can be perfect and universal. Each form of property has its own spheres of the most effective application.

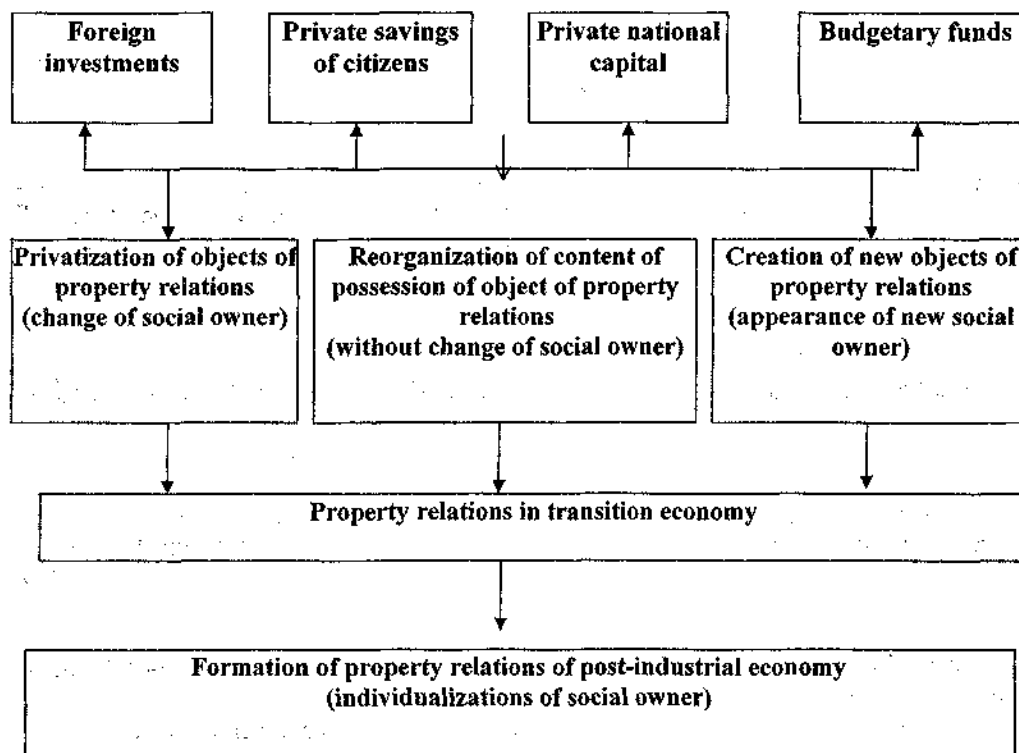
State property functions successfully in the areas with limited capabilities of market stimulation. Stock and co-operative forms of property are reasonable in cases where concentration of means is required. Private property is used where great concentration is not required, where necessary funds for economic activity can be made and accumulated individually.

*Property* is one of the most complex phenomena in social life, comprehension of which human has been making for more than one millennium. An enormous number of papers are dedicated to property. It is studied from various methodological, theoretical, ideological positions; however, up to now there is still not only unified theory, but even standard method to analysis of property, shared by majority of scientists. At best, in individual aspects of problem composed conceptions are developed, such as, for example, the theory of property rights. But the private nature of this conception is so obvious that it is nearly impossible to replace an integral theory with it.

None in any section of economics is such dispersion of opinions, as in respect of property, which is justified by the complexity and importance of the problem. For centuries, physicists have argued about what is light - a particle or a wave, until they agreed on dualistic nature of light. Realistically the same can be said about property, it has a dualistic (as minimum) nature and should be researched in view of this duality. Property has merged in itself ideal and real (in particular, the property right as a sign and property as a set of fully material institutions), property and social relations of people, which are formed as ideal and real. It is extremely difficult to separate all the components from each other, research individually and then unite into a well-composed, strictly structured system of knowledge about property. To fulfill this, it is required to draw strict boundaries where these boundaries do not existing real life. Especially property is an open system, it is associated with the production and consumption, and in general with the whole system of management, in broad sense it is organization of human life activity.

Boom of theoretical interest to the problem of property always coincides with large transformations occurring in practical activity of people. This situation is especially significant for countries with reforming economies, such as Uzbekistan and Russia. At the present stage actuality of the problem of property increases under the influence of globalization process, leading to deep qualitative transformation of national economies and world economy in whole.

In general, property relations in economy of post-Soviet period can be represented by the following diagram (fig. 2.7).



**Fig. 2.7. Formation of property relations in transition economy<sup>14</sup>**

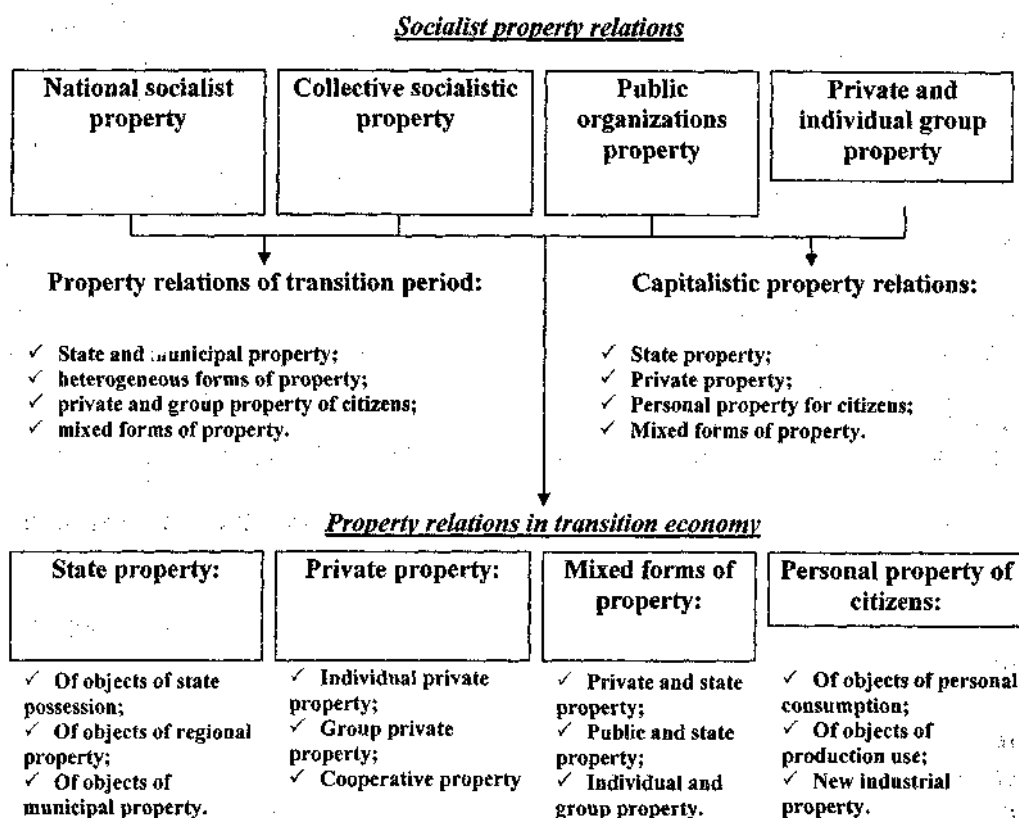
Different points of view on property largely theoretically reflect the various specific forms of being property, the study which leads to the study of nature as the unity of variety. From the point of view of economic content of being property are the appropriation goods in social-defined form arising as a result of whole totality (system) of economic relations.

The economic content of the property relations is determined by property rights and has the following structure: possession (acquisition), the nature of connection (economic power); use (full economic management) order; assignment; income.

Analyzing this structure of the relations and forms of property it is necessary, first of all, to consider how the transformation of these relations occurred in the economy of post-soviet period (fig. 2.8).

It is necessary to as far as possible define more clearly significant features in the transformation of property relations, happened before XIX century in Russia:

<sup>14</sup>We consider "social owner" category as a real owner in specific legal form: society, state, public organization, body of local self-government, business entity, group of citizens, person.



**Fig. 2.8. Structure of relations and forms of property in transition economy**

1) the most significant transformation affected land relations, feudal land property began getting transformed into a bourgeois land property, feudal class - into a class of capital land owners; authority of former landlords over the peasant land has shrunk dramatically, it gave capability for intensive development of the bourgeoisie;

2) in the industry influence of the autocratic government decreased, the bourgeoisie got more freedom in possession of their property, simultaneously working class began getting released from many of the pre-capitalist forms of oppression. These changes of relations had evolutionary (after the revolution) nature.

Almost immediately after Bolsheviks took power in Russia the transformation of production relations began by the transformation of capitalist private property into socialistic. Let us to focus on main directions of the property transformation:

1) on basis of land nationalization liquidation of landlord farming was carried out, formed labor peasant and petty-bourgeois (kulak) property. The situation

cannot be interpreted as before the socialist revolution, these two types of property didn't exist, and they operated on the basis of private property of land. After socialist revolution, during which all land was declared as state property, these types of property began operating in new conditions. In addition, on basis of model land owner farms state enterprises began getting created—state farms;

2) by the nationalization of the State Bank, private commercial banks and other credit institutions nationalized currency system in the country were nationalized. After this, circulation of securities was stopped. In the financial sector monopoly of state property was established (in later years, especially in the period of industrialization and the Great Patriotic War, the system allowed exceedingly <http://slovari.yandex.ru/exceedingly/en-ru/LingvoUniversal/> - **lingvo**/concentrate resources of society for the achievement of main goals, however, later this concentration created significant complexity in the development of the national economy);

3) the nationalization of large-scale industry began, in some cases before the nationalization, workers' control and sequestration (prohibition for owner to dispose of the property at his discretion) took place.

By implementing these measures, the government carried out the transformation of property in the country, which entailed transformation of production relations. It is important to emphasize that in the peaceful period of revolution buyback of private capitalist property took place, which was desirable in cases when real opportunity for sabotage by the former owners of enterprises was absent. This buyback allowed transform property with minimal loss for the production process.

A special place in the economic and legal analysis of the property belongs to the last two decades of the XX century. This period is not only of extremely tense, intense economic and legal activities, legal search and failures, but also of significant efficient lawmaking. These years, in our view, for a long time will be the object of careful analysis, the subject of historical comparisons, and legal discussions, because they contain answers to the question of which way Russia went, how all aspects of its life was reforming and received more or less adequate legal basis and juridical basis.

At the heart of all were the problems of property, entrepreneurship, a smooth transition to the market and here as primary arisen some questions about:

- denationalization of the property;
- privatization of state property;
- organization of new forms, types and mechanisms of human activity and relations;
- terms of gaining material welfare, money, wealth, loans on legitimate, legal grounds for deliberate legal regulation.

System transformation, associated with the radical change of economic system, the content of which is the transition from the administrative and command economy to market economy, includes as the major components of transformation of property as the main core of economic reforms, as well as

simultaneous and interrelated process of transformation of the main subjects of economic relations.

Transition of the administrative and command economy to railings of market economy provide a whole set of related measures for the transforming economic system as a whole, the formation of its new structural elements, adequate subjects of social and economic relations and mechanisms of functioning of the economy. This predetermine, first of all, the rejection from total government control of all reproductive processes, formatting free subjects of economic relations, free, however, not in the sense of transition to a market of free competition. According to the opinion of S. P. Frank, the state has the right and duty "to establish government control of economic life, at the same time, not socializing it"<sup>15</sup>.

Thus, the transformation of property and establishment of new organizational and economic forms are two sides of the same process. Apparently attempts to determine what is primary and what is secondary were not successful. The transformation of property relations causes creation of new organizational and economic forms, which, in turn, cause further changes of subjects and types of property, as well as the mechanism and form of its implementation.

The main directions of changes in property relations are formed under impact of the global economic and social processes, unfolding in the terms of internationalization of reproduction and the real globalization of the economy. It predetermines the main directions of property changes in accordance with global trends, which, however, does not exclude a certain specificity of their occurrence and the appearance of the original atypical forms associated with historical, cultural and social and psychological characteristics, traditions and experience of Uzbekistan and Russia. Some of the most important trends of the transformation of property relations are presented in table 2.2.

To the fundamental global trends in the evolution of property relations there should be attributed the formation of various forms of property as the basis for the functioning of a modern market economy. It is not just about increasing the number of owners and new forms of property, but also about complication of relations between them, their close interlacing based on competition and interaction, integration and, ultimately, we can talk about the symbiosis of property relations at different structural levels of economy.

**Table 2.2**

**Modern trends of transformation of property relations**

<b>General trend in a market economy</b>	<b>Specifics of transition economy</b>
From personification of private property to its associated forms	Simultaneity of the processes of personification and depersonification
Depersonification (to an anonymous agent of economic relations)	Economy of transition period is the economy of natural persons

<sup>15</sup>S.P. Frank. Property and socialism // Russian philosophy of property (XVIII-XX centuries). - St. Ptb.: JV «Ganza», 1993. - p. 326.

Blurriness, vagueness of the "owner" concept (the majority of shares are owned by investment and pension funds, insurance companies, etc.)	Portion of these owners among Russian shareholders is still very low
Complication of procedures of realization property because of the appearance of professional manager between subject and object	Managers of state enterprises become their proprietors (owners)
Change of the subject of property, which increasingly becomes the corporation, joint stock company (JSC)	In accordance with the law: stock property as the right of legal person
Consolidation of different forms of property in some modern forms of organization: associated and network organization	Occurs in conditions of: a) the lack of specification of property rights; b) the state registration of some associate forms of property (associations, financial and industrial groups, corporations, etc.)

The peculiarity of property transformation in modern conditions is that in a short period there simultaneously are performed all the processes characterizing the transformation of property in broad sense. First of all, this is a system transformation from the direction of the command system, based on monopoly of state property to market, based on polymorphism of property at fundamental role of private property.

Secondly - processes, reflecting global trend of transformation of property relations, as well as historical and social and economic specifics of the economies of Uzbekistan and Russia: splitting of property rights and the transfer of partial authorization to other persons, democratization of property relations; trend to symbiosis of relations and forms of property at various levels of the national economy. Thirdly - changes of property relations, associated with the rapid process of conversing economic organizations, caused by both system reforms and further adaptation to changing market conditions. Fourthly, it is necessary to analyze the "property" as an institutional foundation of life activity of society.

Institutional analysis of theories of property can be divided into two groups. The first group of theories considers appearance of property rights without taking into account impact of political and social institutions existing in society. It is possible to agree with the statement that using such approach the state plays the role of "the state behind the scenes" and does not participate in making decision. The second group of theories, by contrast, considers state factor as central in the creation of one of another system of property rights.

In modern economic literature when considering the property researchers often distinguish three levels: social and economic, institutional, and legal. This division is not quite correct, since, first, legal level organically is part of institutional; secondly, the existing ratings and comments of named levels have



slightly eclectic nature, not combining them into a single concept of formation and functioning of the forms and methods of appropriation.

Today it has become obvious that many of the economic problems in transition economy specified with imperfection of the institutional foundations of society. Any break in the institutional space means that some social relationships have no stable, predictable and generally accepted standards of behavior, and are regulated by individual decisions. These solutions often generate acts of violence, because people tend to act in such situations which are not regulated by the generally accepted rules and do not have the traditional solutions. Moreover, "voids" in the institutional space are fraught with prevalence of another behavior model that runs counter to the principles of the market economy.

So, relationships and rights of property in transition economy differ from "normal" market economies of the developed countries.

1. Relations and the rights of property have transitional nature. Transitivity of property relations means, in particular, their greater mobility, variability. If we take institutions of private and public forms of property as two extreme poles, then movements "forward" and "back" on this line take place repeatedly in a transition economy and has different directions in different sectors of the economy. How to evaluate the transformation of state-bureaucratic enterprise into a closed joint stock company: a regress from public property to a semi-private or as a progressive transition from a private-bureaucratic property to collective? In other words, transitional nature of property relations means its fundamental substantive nonidentity to "normal" forms of property. Thus, in the transitive economy state or stock property will only superficially coincide with the same form in a stable economic system.

2. Substantially different content is caused by the fact that the nature of assignment and alienation (combination of employees with the means of production) and disposal in the economy are in the process of transformation, moving from the bureaucratic transfer into government ownership and administrative planning to new relationships.

3. Property rights in conditions of transitive economy poorly specified or not specified at all. The latter is typical for economic, institutional and for legal specifications. In other words, in conditions of crisis and transformation arisen situation in which not only from a formal and legal, but a substantial and economic points of view, as well as in the organizational and institutional level, none of the subjects of relations does not know what kind of owner rights and on what he has, for what, what kind of, and to whom incurs liability, who else has any rights to his property etc.

4. The genesis of new relationships and rights of property in transitive economy occurs in conditions of conservation of significant inertness in economic, institutional and legal spheres. In the domestic economy property relations doesn't form in vacuum, but on basis of the transformation of former system of property relations, based on a high degree of transfer into government ownership, bureaucratic alienation of a worker from the means of production, administrative and command model of directions etc. Main "bundle" of property rights in this system was divided among various levels of the bureaucratic hierarchy and owners

of the "shadow economy". All these features of the past do not disappear all of a sudden and have a significant influence on the content of property relations in the economy, the structure of their forms, the distribution of property rights and the nature of its subjects.

5. The objective necessity of certain qualitative changes in the content, structure of forms and property rights means necessity of not only "improvements", "correction", "reforms" etc., but also the destruction of the essence of a former system of property relations - bureaucratic alienation of a worker from the means of production and the product of labor. We are not talking about the destruction of plants, farms, shops and stadiums, but a qualitative change of economic relations and their institutional and legal forms. This destruction of former system can go in two different ways: privatization, i.e. the replacement of state and bureaucratic model of alienation of worker from property to private-capitalistic property, or democratic reforms, called to overcome old forms of alienation, not creating new ones.

6. The availability of qualitative, fundamental changes in respects of property and non-specification of its right causes significantly greater, than in a stable economy, role of institutional, political and other volitional factors in the dynamics of property in transitive economy and the typicality of break (rather than unity) of forms and contents of property. The latter, for example, is typical for state property, which is in domestic conditions, often turns out private property of a group of officials.

7. It is necessary to change the relations between formal institutes embodied in laws and other regulations and informal institutions represented with stereotype of thought and behavior, which has direct influence on the private relations. At the beginning of XX century German sociologist M. Weber in this regard, rightly said: "Where certain psychological factors serves as obstacle, the development of economic and rational life behavior encounters serious internal resistance."<sup>16</sup>

There is no doubt there is a certain truth in this, because Russian culture knew too few episodes of free development of the market (three or four pre-revolutionary decade) to accommodate at enough volume standards of market behavior.

But in this regard it is necessary to note the following. Over the last 15 years in this direction really revolutionary changes took place. The whole generation grew up, which has a completely new perception of standards, set of values, which does not consider business ethics barrier to the successful conduction of business.

In addition, the interaction of formal and informal institutes achieves maximum efficiency in the case when the specific nature of the national culture is taking into account.

Effective institutions arise in a society that has comprehensive stimuli for the creation and consolidation of effective property rights. Therefore, the completeness of human existence economically provided by property as an institution of the free

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<sup>16</sup>D. Port Institutions, institutional changes and functioning of economy - M., 1997. - p. 172.

individual choice, and connected with it through responsibility that runs through all areas and levels of the economy.

*Transient state of economy* is a temporary state and its completion is the formation of a new social and economic system of post-industrial society.

How will property relations transform and develop in this new society? The issue is complex and there is no a single answer. It is just possible to construct a common model of this process. But such model is very flexible and changeable, as undergoes the influence not only of economic facts, but also the change in political life of a society, its ideology, mental behavior of its members, etc.

Now when the basic task of building market is nearly completed, the enormous energy that was previously directed to the creation of a global market system can be used for other purposes. Only from this fact alone a variety of civilizational changes follow: new religions will appear, works of art will reach level unknown before; fantastic scientific discoveries will be made and, in addition, there will be completely new social and political institutions.

Today not only capitalism or socialism, not only energy, food, population, capital, raw materials or work are put on map, but also the role of the market in our lives and the future of civilization itself put on map.

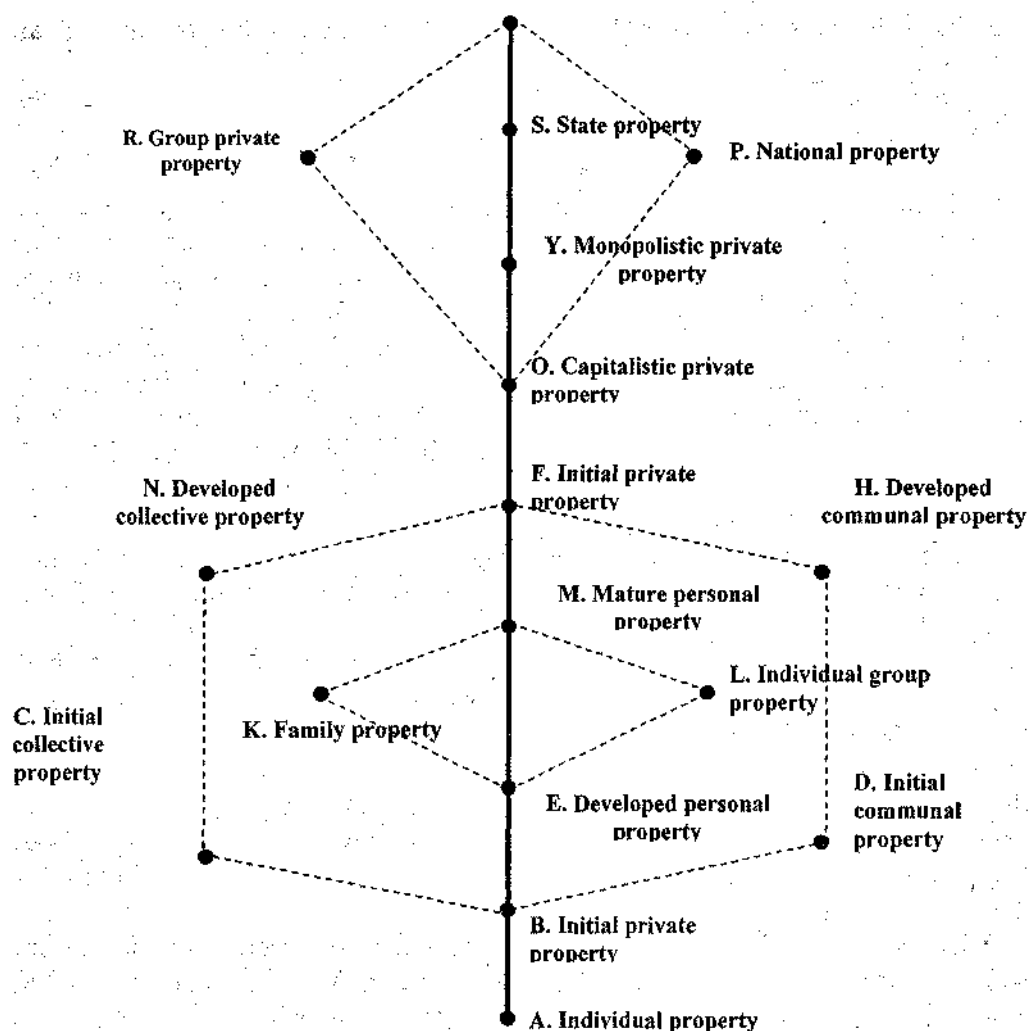
Today, economic theory all over the world as well as the economy itself is under the severest crisis. Having tried to reach the level of a certain generalized science, it appeared to be unable not only predict the development of the world economy, but even to explain the results of the trend of its life activities. Neither the involvement of mathematics, nor attempt to simplify human demanded to the level of physiological life support did not give effective results. In general, both the doctrine of economic non-intervention (clear market) and total state control of the national economy are appeared to be groundless.

On the basis of foreground tasks in economic construction of the current world purpose-defining economic law that expresses the main contents of the system development can be formulated as follows: the main goal of economic development is a steady increase of the volume and quality of public wealth to ensure the implementation of the "public welfare."

Such way of formulating of the economic law of goal-setting of system let us to consolidate as single unit stimulating balance in the structure of realization of the national public interest and motivating basis of moral content of the "public welfare".

As a base of economic interests of social objects of postindustrial society is individual person - human. Therefore, the alignment of the interaction of economic interests, the achievement of their equilibrium must be performed primary regarding property of specific (individual) person.

In its development individual property passed through a complex and multifaceted way. Conditionally, it is reflected in fig. 2.9. The actual movement or growth of "Individual property tree" is much more difficult.



**Fig. 2.9. Tree of development of individual property relations**

First, it is under extremely active political influence; secondly, it is historical; and thirdly, it is gender, and fourthly, it is metamorphosical and dialectical; fifthly, it is connected with natural and climatic conditions and geographical place of residence of the individual, sixthly, it is spiritually and ideologically; seventhly, stately, i.e., it depends on the organizational structure of country of residence.

However, there a legitimate question occurs: what is the essential difference between the new individual property and personal and private properties? It seems that the answer to this question is necessary to unite with the structure and trends of development of property relations of individual person in the conditions of post-industrial civilization.

The main resource in the new conditions of social and economic development of society becomes the information. The information is based on

other basic institutions, but, above all, on the knowledge, which are entirely dependent on education and science. At the same time, the process of education and research activities are directly related to the individual abilities of an individual. Unification is impossible. Consequently, information capital is individual. And if it is individual, the property of it is individual as well.

Another aspect of the problem is that the information is changeable, pragmatic and multivariate in its interpretation and use. Therefore, information has imprint of social influence, as scientific achievements and educational process, also ones, having public essence, cannot have the character of a purely private category. On this basis, it can be concluded that individual property is wider and more multifaceted than private property and namely individual and not particular person with particular surname, name and family name, living address and etc. Although bearer of informative volume is specific person. However, even in this position, he is a member of the public association, i.e., the individual and his informative base is public in nature.

You should also separate the individual property from personal. After all, individual property has a production and non-production nature, while personal property is strictly focused on the non-production facilities, because of which build relationship of personal property.

Thus, in post-industrial society, the dominant form of property will be individual.

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### **Control questions**

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1. Describe the essence of "property" definition.
2. Try to formulate your own definition of "economic system".
3. How does the formalized model of economic system look? Name the properties of economic system? Give definition of elements of economic system.
4. What is the role of entrepreneurship, business, commerce, management and marketing in the development of economic systems?
5. Describe the essence of categories of "welfare", "commodity", "demands." Describe types of needs. What significance do they have for economic system?
6. Describe stages and elements of reproduction process, main economic conditions of conducting economic activity. What does the curve of production possibilities indicate?
7. Enumerate main types of economic systems and describe their peculiarities.
8. Give a description of the main entities of economic activity. Describe the essence of definitions of "economic interest", "motive", "stimulus".
9. Describe the essence of definition "economic institution".
10. What is the essence of Coase's ideas? Describe the essence of the "transaction costs" term.
11. Give a description of "property" category and the main stages of its evolution.

**PART II**  
**MICROECONOMICS. BASICS OF THE THEORY OF MARKET**  
**SYSTEM OF MANAGEMENT**

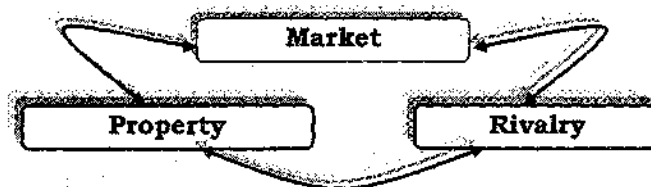
**CHAPTER 3**  
**MARKET SYSTEM AND BASIC CATEGORIES**

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**3.1. Market and market mechanism concept**

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Perception of the real world is possible through understanding of basic categories of science as well as categorical mechanism of economic theory illustrates, in full measure, the essence of economic system in common view, also shows its' link with the property category, which allows deeper examination of *the basis of market economy*. Because the existence of market is impossible without institute of property. For instance, the system of developed socialism with its notorious command and control system and management accountancy leveling<sup>17</sup> economic differences within parties of economic relations that brings to naught the stimulating role of rivalry. No market – no rivalry. Thus, basic categories of the theory of market economy are *market*, *property* and *rivalry* which reside in real interaction between them and this interaction is going to be the subject of our examination in this section.



**Fig. 3.1. Interdependence of categories of “market”,  
“property” and “rivalry”**

**Note:** property and rivalry are main terms of the existence and development of market.

The formation of market has a relevant character, i.e. it is an adequate answer to human need. Thus, understanding of market nature is closely related to understanding of the nature of market relationship subjects' behavior. So, what is the market and how market relationships transform into market management system? We can answer this question only after examination of basic categories of market system.

*Market* emerged in the period of decay of primitive society when an exchange between communities were building up and was in the form of barter which occurred in a certain place and certain time. With the development of crafts and

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<sup>17</sup> Leveling – a flattering, adduction of differences to same level.

towns, trade and market relation extends, markets gain its own special places – marketplaces. Such understanding of market has survived until present days as one of the meaning of the word.

With the development of social division of labor and commodity production the meaning of the word “market” acquires more complicated interpretation which reflects in the global economic literature. Thus, French mathematician *Antoine Augustin Cournot* (1801-1877) believed that by “market” we should mean not a marketplace but the whole area where there are free relations between buyers and sellers and prices can be easily leveled off. In such definition of market, its’ special characteristic is saved but it is not exhaust.

With further development of barter, appearance of money and money-commodity relations the possibility of disruption of purchase and sale in time and space emerges and the characteristic of market as a trading place no longer reflects the reality, because the new structure of public production forms – sphere of circulation. As a result, new interpretation of market *as an exchange* appears that is organized under laws of commodity production and currency circulation as a form of commodity-money exchange.

If we look on the market from the market subjects’ point of view there are new definitions of market emerges *as a community of buyers* (*Philip Kotler, 1931*) or any group of people which is entering in a close business relationships and cutting large-scale deal concerning any product (*William Stanley Jevons* (1835-1882), *Alfred Marshall* (1842-1924)).

It is clear that these definitions can’t give full and objective characterization to modern market which in last decades develops in the way of globalization of world economic intercourse and integration of economic systems of different countries.

**Market** as a concept in the life of modern people doesn’t need to be explained separately. In a point of fact this is the place where purchase and sell of products and services occurs. But in further understanding **market** is a **category** which includes the system of derived concepts requiring detailed comprehension and examination. Besides, in real life market is always in a state of constant development and undergoes changes related not only to laws of nature and economy but to subjective motive and actions of people. So, in economic theory market is being studied in different aspects and thus different definitions are here to be.

For instance, market is:

- a place where an exchange of products and services between buyers and sellers occurs;
- form of communications between buyers and sellers of products and services, real estate, security papers, currency;
- institutions and mechanisms (juridical, organizational etc.) which provide an exchange of goods;
- assembly of economic relations in the sphere of products and services exchange, whereby demand, supply and price are forming;



– assembly of social and economic relations in the sphere of exchange where with the realization of commodities is carried out and the character of contained labor is completely adopted.

Accepting the fairness of each given definitions we can conclude that the essence of market as a category unfolds in terms: *exchange, product, mechanism, demand, supply* and *price*. At that, as above stated, main conditions of market development are presence of *property* institute and *rivalry* freedom.

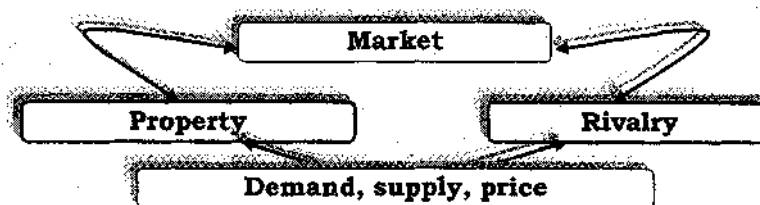


Fig. 3.2. The essence of market as a category

Necessity in market for exchange processes realization supposes presence of subject and object of market.

*Subjects of market* are *private persons* who represent households, *legal entities* (firms, organizations, enterprises) and *a state*.

*Objects of market* are everything a propos of which purchase and sales relations occur.

The essence of *market relations* leads to reimbursement of sellers' expenses (manufacturer and merchants) and to receipt of profit and also to satisfaction of solvent purchasers' demand on the basis of free mutual agreement, equivalence and competitiveness. These elements compose generic, essential lineaments of market.

*Material basis of market relations* is a movement of goods and money. But since market operates in a certain economic system and transforms in its' development into an independent system it is bound to cause specificity in forms of it's performance (different proportions of market relations in a whole economic system, different organization of market, different forms, methods and scales of market regulations etc.). Presence of specific lineaments of market (assortment of goods, organization of market, traditions etc.) allows us to talk about its' classification according to:

- *objects of exchange* – commodity markets, service markets, innovation markets, currency markets;
- *territorial coverage* – world, national, regional, local markets;
- *relation to country* – external and internal markets;
- *active legislation* – legal (official), illegal (black market), quasi-legal (grey market);
- *level of saturation* – balanced, tight, surplus markets;
- *mechanism of operation* – competitive markets, markets of monopolistic competition, oligopolistic markets, monopolistic markets.

The essence of market lies in its' general economic functions which express the main meaning of this category and reflect its' essence (fig. 3.2).

Among its' general functions are:

- **regulating function** suggests market influence on every sphere of economics, provides coordination of production and consumption in assortment structure, balance of demand and supplies' price, volume and structure, proportionality in production and exchange between regions, spheres of national economy;
- **stimulating function** consist in encouraging of manufacturers to produce new products with less expenses per standard unit and with maximal profit;
- **price forming function (or equivalent)** – this is an establishment of valuable equivalents for products exchange. At that, market compares individual labor costs for products production to public standard, i.e. compares expenses and results, determines value;
- **integrating function** consists in connection of production sphere (manufacturer), consumption sphere (consumers), agent-merchants, and their inclusion in a common process of active exchange of products and services;
- **intermediating function** provides meeting of independent manufacturer and consumer for the purpose of exchange. It is impossible to define how beneficial one or another economical or technological connection between participants of public production. Consumer has an opportunity to choose and adequate seller-supplier, and seller - and adequate buyer;

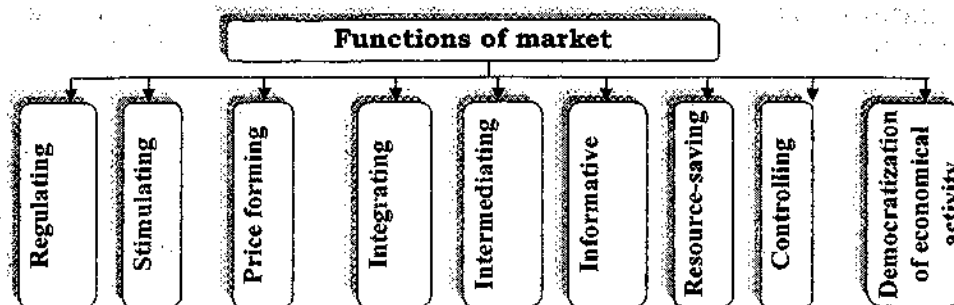


Fig. 3.3. General functions of market

– **informative function** gives to participants of market objective information about demand and supply of products and services on the market through constant changes in prices and credit interests. Modern market transforms to a giant computer collecting and processing a huge amount of information and giving summary data about situation on market and conditions of products and services realization;

– **resource-saving function** suggests reduction of marketing expenses in the sphere of consumption and proportionality of demand and size of salaries of a

certain manufacturer to a public standard while comparing expenses with results and exposing of a products' value;

- *controlling function* of market plays a role of the main controller of final results of production. How far is the correspondence of quantity and quality of goods and services to the needs of consumers is revealed by market;

- *function of democratization of economical activity* consists in release of public production from its' unviable elements which subsequently leads to differentiation of manufacturers-rivals.

**Market** – is not only a general economic category inherent to all stages of civilization development but it is at the same time a *complex socio-philosophical concept* which is not limited only by economical sphere but include historical, national, cultural, religion, psychological specificity of nation development.

In the literature of economics there are for significant historical *conditions of market emergence* highlighted:

- *social division of labor and specialization* as a consequence of highlighting and development of different kinds of activities. For instance, control of production and production itself (vertical division of labor), general production (for example: assembly of aggregates, computers etc.), auxiliary production (caring out of auxiliary operations – storage, transportation of details for aggregates etc.) – this is a horizontal division of labor. Specialization is an accomplishment of one type operations on one enterprise, for instance, assembly of engines or tailoring of kids' cloth only<sup>18</sup>.

- *economical apartness of manufacturers*, completely independent, autonomous in business decision making (what to produce, how to produce and who will buy produced goods) which is provided by a property institute;

- *resolution of transaction costs problem* – costs in the sphere of exchange related to transfer of ownership. They include expenses related to procurement of permits (licenses) for chosen business activity, to the search of information for negotiations, change in products' features, with a certain tax for racketeer (in case with Russia) etc. If these expenses are higher than estimated income then the market of such products will not be created;

- *self-sufficiency of manufacturer, free exchange of resources and free enterprise*. The less manufacturer is fettered the more market is developed. Free exchange allows free prices formation which can point guideposts for manufacturers at more efficient directions of their activities.

Market relations of exchange and the assembly of markets forming the economics of a country, region or world can't exist spontaneously. In modern conditions, as was above mentioned, economics is integrated along with other fields of human activity, in particular, with rights, psychology, geography, political science etc. As a result the mechanism of regulation of different subjects on

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<sup>18</sup> More detailed specialization and division of labor are studied in the discipline "Production". In economic theory, they are considered as the conditions of the expansion of market share. The deeper the division of labor and the higher the level of specialization, the more exchange operations performed in the market.

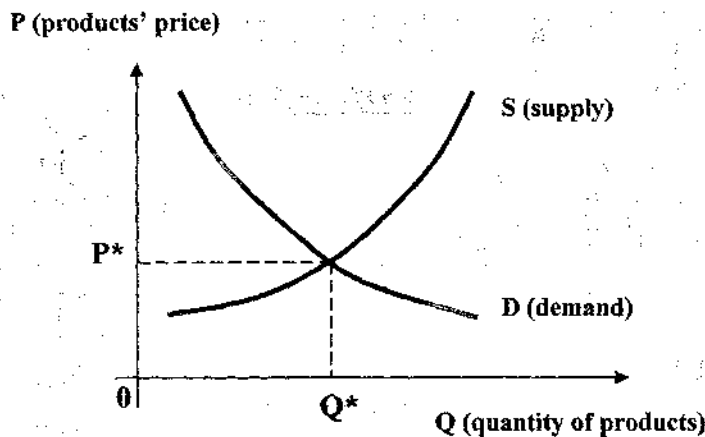
different levels was formed (global, country, regional, filed).

**Market mechanism** – it is the mechanism of interrelation and interaction of main elements of market:

- solvent demand ( $D$ );
- supply ( $S$ );
- balanced market price ( $P_c$ ).

The essence of market mechanism consist in formation of balanced market price on a free market under the influence of demand and supply, information of manufacturer about the product which needs to be produced: the fewer goods are on a market, the higher price they have. Comparison of price and expenses<sup>19</sup> of products production allows enterprises to determine how to produce a product and how the income from realization can compensate expenses for production and the size of the profit from the activity.

In 1890 A. Marshall showed in his book «The principles of economics» that the price is defined by simultaneous interaction of demand and supply and he illustrated it by a graph that was then called «the Marshalls' cross» (fig. 3.4).



**Fig 3.4. The Marshalls' cross**

On the fig. 3.4 the quantity of selling products ( $Q$ ) illustrated on a horizontal axis (absciss) and the price of the product ( $P$ ) – on a vertical axis (coordinate). The demand curve ( $D$ ) represents the quantity of products required in a certain period of time with each present price. The line of demand has a negative slope which reflects marginal principle, according to which the increase of products leads to the trend that buyers are inclined to pay less money for each last selling product. The line of supply ( $S$ ) demonstrates the increase in manufacturing costs while increasing the volume of production. In other words, the positive slope of the supply line ( $S$ ) reflects increasing marginal costs and the negative slope of the demand line ( $D$ ) – decreasing marginal value of product. Crossing of these two

<sup>19</sup> Costs – is the price of resources from which manufacturer produces the goods. The purpose of the manufacturer is to cover these costs and get more profit. This issue will be discussed in more detail in the following chapters.

curves with coordinates  $P^*$  and  $Q^*$  demonstrates *equilibrium point* at which buyers and sellers are ready to make a deal. Equilibrium price ( $P^*$ ) and balanced volume of production ( $Q^*$ ) are determined *simultaneously* by interaction of demand and supply.

With a slender exaggeration we can claim that the *course of microeconomics* is nothing more than detailed consideration of the Marshalls' cross analysis in different market situations.

From the microeconomic point of view market mechanism can be presented as an interaction of three main groups of economic agents presented in blocks: «consumption», «production» and «factors» on fig. 3.5.

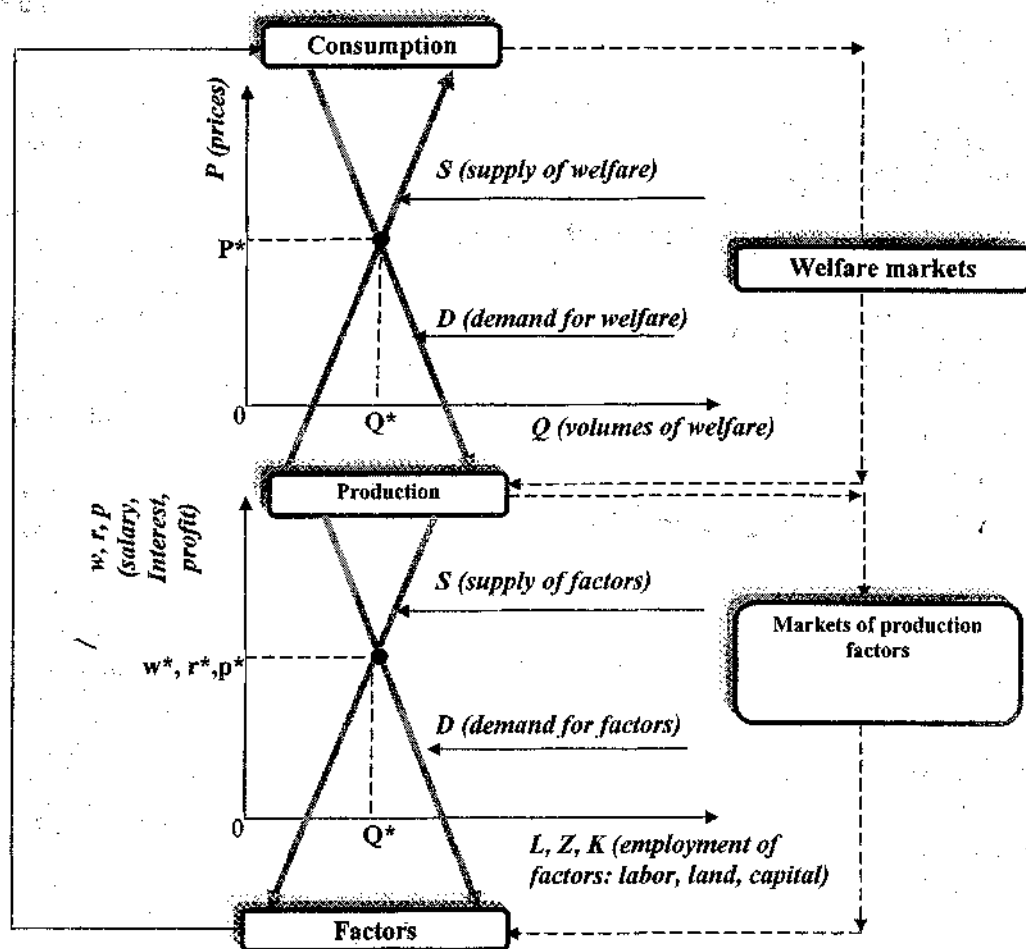


Fig. 3.5. Microeconomic scheme of demand and supply interaction

Consumers and manufacturers meet each other on the welfare markets where price levels and volumes of production are determined, first of all, as an interaction of demand and supply per each product. Manufacturers and owners of production factors meet each other on the markets of production factors (labor, capital, land etc.) where employment of each markets and incomes are determined by demand

and supply per each factor, i.e. by *market conjuncture*.

*Market conjuncture* is an economic situation forming on the market at each given moment under the influence of certain economic conditions whereby process of realization of products and services is implemented.

The specificity of market mechanism lies in the fact that each of its element is closely linked to the price which serves as the main instrument that influence demand and supply.

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### **3.2. Individual and market demand. Demand factors and demand law.**

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*Demand*, in modern economical literature, is a desire of consumer to buy a product for an acceptable price and in a certain period of time. It is important to distinguish «demand» from «*volume of demand*».

*Volume of demand* – is an amount of products which will be bought for an acceptable price and in a certain period of time.

The demand on a market acts as consumers' activity and reflects human needs. So, we shall understand demand as a presented necessity on a market. But not all necessities, only those, that can be satisfied and ensured by money, i.e. solvent necessity.

The need of one person ensured by money and obligatory brought to the market and always oriented on purchasing of a certain product or service characterize the individual demand or demand on micro level.

It is necessary to distinguish individual demand from *aggregated market demand* which represents the sum of individual demands on a market.

Demand is very mobile, changeable, because many social, economical and even technological factors have an impact on its' volume and dynamics. For instance, demand for products can increase as a consequence of advertising usage, change in fashion and tastes, preferences in environment, availability of goods, size of incomes, utility of commodities, prices for interchangeable commodities, number of population.

In connection with this we can distinguish *exogenous* and *endogenous* demand.

*Exogenous demand* – is a demand which can be changed by government interference or by an implementation of any forces from out the free market system.

*Endogenous demand* or *domestic demand* forms inside a society by the factors existing in this society.

Numbers of commodities purchased by people always depend on prices for goods. Between market price of a product and their number in demand there is always a certain interrelation.

High price of a product limits the demand for it, decrease in price for this product leads to the increase of demand for it. This interconnection between price and number of purchased product can be illustrated on a graph.

Let's assume that for 5 dollar price per unit of product 10 units will be bought by consumers, for a 4 dollar price – 11 units, 3 dollar – 12 units, 2 dollar – 15 units and for 1 dollar price – 20 units will be bought.

If prices per unit of product will be put on a vertical axis and the number of products  $Q$  in demand will be put on a horizontal axis we will have the following graph (fig. 3.6). This interrelation between market price of a product and money terms of demand is called the graph of demand or the demand curve  $D$  (demand).

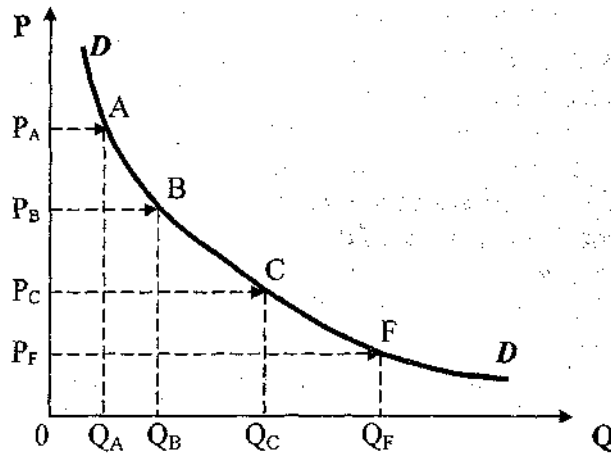


Fig. 3.6. Demand curve – DD curve

The demand curve illustrates what number of products buyers are ready to buy for different prices at a time. DD curve has a negative slope. This is conditioned by a law of decreasing demand.

The law of demand says: if a price of any product increases (of other conditions of market don't change) then demand for this product will decline.

This law was first formulated by a French mathematician A. O. Cournot in his work «Research of mathematical principles of wealth theory». According to his formulation of law the demand for products is one of the components of price function, generally decreasing one. Such situation is quite reasonable and doesn't contradict the market. The Cournot's law of decreasing demand in a formalized form is presented below:

$$D = f(P),$$

Where  $f(P) > 0$ ;  $D$  – demand;  $f$  – function;  $P$  – price.

This law represents the following dependence:

- Prices have a trend to decrease;
- At that, the number of products in demand increases;
- Increase in number of products in demand occurs in a less degree than decrease in prices.

The law of decreasing demand under the influence of different factors acts as a trend. The desire of a consumer to buy a product depends not only on how much



money he/she can spend but also on how much he/she needs this product, i.e. on the utility of this product.

Demand is a function of all factors.

$$D = F(P, I, Z, W, P_{sub}, P_{com}, N, B),$$

where  $I$  – income;  $Z$  – tastes;  $W$  – expectations;  $P_{sub}$  – prices for products-substitutes (alternate products);  $P_{com}$  – price for complementary products (implicative);  $N$  – numbers of buyers;  $B$  – other factors.

**Function of demand** – is a function that determines size of a demand according to factors which influences it.

So, **demand** – is a variable quantity. At that, it is important to distinguish the change in the **size of demand** or in the volume of demand and the change in the **pattern of demand**. The size of demand changes when only the price of a product is variable. The pattern of demand changes when factors which previously had constant quantities change. Changes in the volume of demand can be illustrated on a graph as a «movement» up or down on a demand curve. Changes in the pattern of demand can be illustrated on a graph as a «movement» of the demand curve, to the right or to the left. (fig. 3.7).

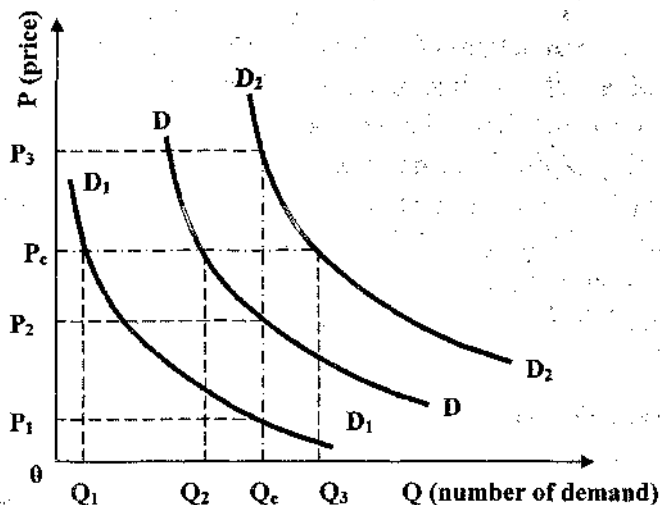


Fig. 3.7. Curves of changes in demand pattern

Such situation is possible, for instance, if the income of population has changed. If it has increased, more demand will correspond to each product price, a shift of the demand curve to the right will occur from position  $D$  to position  $D_2$ . And on the contrary, decrease of income will lead to the shift of the demand curve to the left to position  $D_2$ . The shift of the demand line leads to the change in a volume of demand at some constant price  $P$ , and to the same volume of demand in shear of the demand line different costs of demand correspond ( $P_1, P_2, P_3$ ).

Changes in tastes and preferences are also influence on the demand curve position. If the thirst for smoking is rising than the demand line will shift to the

right. If the number of healthy living followers increase than the line of demand for cigarettes will shift to the left.

Change in price for interlocking products influences on the position of demand curve. There are two types of interlocking products: *substitute products* and *complementary goods*. They can be distinguished by how a change in price of one product «shifts» a demand for interrelated product.

Let's consider two products: *X* and *Y*. If *X* and *Y* are substitute products then when the price for a product *Y* increases and the price for a product *X* doesn't change the demand for a product *X* will increase. In this case the demand line for a product *X* will shift to the right. If the price for a product *Y* decreases then the demand line of a product *X* will shift to the left pointing at the decrease in demand for *X*. As examples for substitute products can be butter and margarine.

For complementary goods reversed situation is typical: decrease in the price of a product *Y* leads to increase in the demand for product *X*. As «classical» examples for complementary products are automobiles and fuel. And on the contrary, decrease in the price for fuel leads to increase of the demand for automobiles.

Changes in expectations for future prices play an important role in determination of a demand line position. If an increase in prices for salt is expected, then we can assume that the demand line will shift to the right. If a decrease in prices is expected, then the demand line will shift to the left.

Increase in population (on retention of permanent income per capita) will shift the demand curve to the right for all products because it leads to increase in number of buyers on a market. And on the contrary, decrease in population will shift the demand line to the left due to decrease in the number of buyers on a market.

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### 3.3. Supply factors and law of supply

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*Supply* is determined by western economists as a desire to sell a product.

*Size of supply* – is an amount of products which sellers are ready to sell to a buyer for a certain price in a certain place and a certain time.

*Supply* – is products which are situated on a market or can be delivered there. It is important to distinguish material (according to assortment) and monetary (sum of products in terms of money, prices) form of product supply.

Volume of supply of each manufacturer changes according to price. If the price is low then sellers will offer few products saving a part of it in a warehouse. If the price is high then they will offer a lot of products to a market. If the price increases greatly and becomes too high then manufacturers will try to increase the supply of products and sell even spoiled units.

At the level of a firm (enterprise) there is a talk about individual supply (certain manufacturers on a certain market) and market supply (the sum of all sellers supply for each price of a product).

There is a certain interrelation forming on a market between market prices and number of products which manufacturers want to offer to buyers. This interdependence can be illustrated on a graph by a system of axes. Let horizontal axis ( $Q$ ) represents product delivered on a market and vertical axis represents movement of price ( $P$ ). For situation when for a 5 dollar price per product the supply is 18 units, for a 4 dollar price – 16 units, 3 dollar price – 12 units, 2 dollar price – 7 units and for a 1 dollar price – none units, we will get a relevant graph of supply  $S$  (supply) (fig. 3.8).

**Supply curve** illustrates what amount of products manufacturers are ready to sell for different prices in different periods of time.

On a graph the supply curve represents gently bended rising curve. It illustrates interdependence between market prices and number of products which manufacturers are ready to produce and sell. A.O. Cournot named this interdependence as a law of supply change and described it mathematically as a formula:

$$S = f(P),$$

Where  $S$  – is supply;  $P$  – is price.

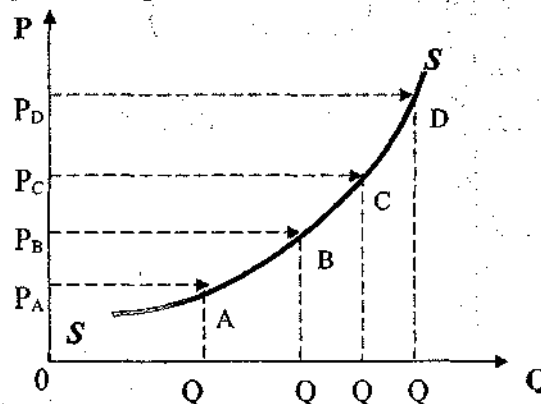


Fig. 3.8. Supply curve SS

**The law of supply change:** volume of products supply increases as the price rises and decreases as the price goes down.

Growing influence is imposed on a supply curve by a technological progress. It allows decreasing of production expenses and changing products supply. The form of products supply curve is specified generally by a technology of production, availability of resources that are used in its' production. If the mobility of production and using resources is high then the supply curve will have more flat form, i.e. slight change in prices means significant rise in supply. When increase in production requires big resource and labor spending then the curve will have more sharp form.

Supply is the function of all factors which determine its' changing:

$$S = f(P, P_m, K, T, N, B),$$

Where  $P$  – resource prices;  $K$  – character of applied technology;  $T$  – grants taxes;  $N$  – number of sellers;  $B$  – other factors.

Therefore function of supply determines supply according to different factors that have an influence on it.

It is necessary to distinguish the change in character of supply and the change in volume of supply. Volume of supply changes when only price of a product changes. The change in the character of supply occurs when other factors change that were previously accepted as constant. (fig. 3.9).

Let's assume that a new technology is being used which allows to produce more products with the same expenses.

Then the supply curve  $S$  shifts to the right to the position  $S_1$ . The shift will mean that at every price manufacturer offers more products. Thus, at price  $P - Q_2Q_1$ , and at price  $P_2 - Q_3Q_2$ .

If taxes are raising so does the expenses of consumption, the supply curve shifts to the position  $S_2$ . The shift will mean that at every price manufacturer offers fewer products. For instance, at price for a product  $P_1$  – the amount of product will be  $Q_4$  and at price of a product  $P_2$  – only  $Q_1$ .

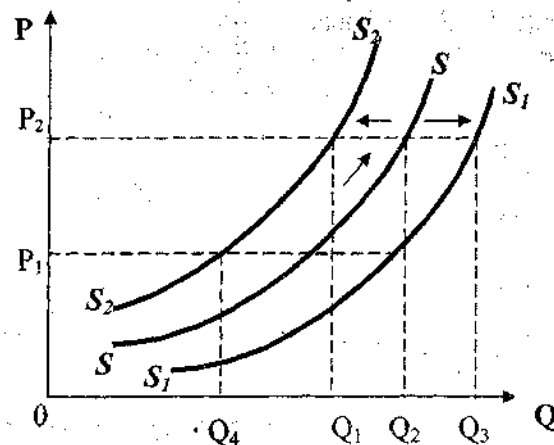


Fig. 3.9. Curves of supply character changing

*Time factor* plays a significant role in understanding of supply function. Usually there are 3 market periods distinguished: shortest, short-time period, long time period.

### 3.4. Elasticity of demand and supply

While analyzing demand and supply it is deficiently to know their absolute changes, which occurs under the influence of supply and demand factors. It is more convenient to use comparative figures. For such purpose there is a term «elasticity» has been added in economics that means in mathematics ratio of the relative increment of a function towards the relative gain of independent variable.

Term «*elasticity*» was added in economical literature by Alfred Marshall in

1885 and his ideas were developed by John Hicks, Paul Anthony Samuelson and others. Elasticity characterizes the degree of sensitiveness of demand and supply towards different factors.

Different products differ from each other in order of demand change under the influence of different factors. The degree of demands' reaction on these factors is amenable to a quantitative measurement by a coefficient of demand elasticity. The term elasticity of demand reveals the adaptation process of market to the change of general factors which determine the demand (prices for presented products, prices for other products, income of consumers etc.).

**Elasticity of demand concerning the price** (direct elasticity) shows relative change of volume of demand for the goods under the influence of change of its price for 1 %.

The coefficient of elasticity of demand at the price is determined as the relation of relative change of volume of demand to relative change of the price:

$$E_p^D = \frac{\Delta Q/Q}{\Delta P/P}$$

Where  $E_p^D$  – is a coefficient of elasticity of demand concerning the price;  $\Delta Q/Q$  – relative change of volume of demand;  $\Delta P/P$  – relative change of price.

The coefficient of elasticity of demand at the price can be more than zero, less than zero or equal to zero, but, as a rule, is less than zero since with the increase in the price the demand volume is usual decreases (*the demand law*).

To avoid *negative* numbers, a sign of minus or the module are often added.

$$E_p^D = \frac{\Delta Q/Q}{\Delta P/P} \text{ или } E_p^D = \left| \frac{\Delta Q/Q}{\Delta P/P} \right|$$

Elasticity of demand concerning the price at different goods can differ considerably. For example, demand for articles of prime necessity is not elastic as they are necessary for life and despite an advance in price it is impossible to refuse their consumption. Luxury goods, on the contrary, have higher elasticity to price change.

Comparison of relative changes of the price and volume of demand allows giving the demand characteristic (fig. 3.10).

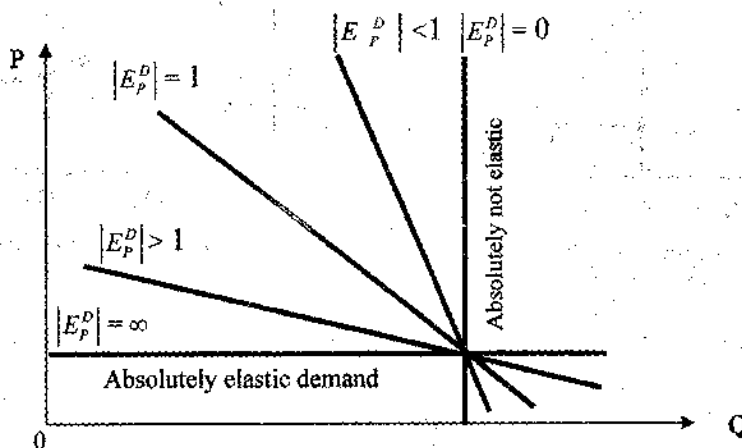


Fig. 3.10. Curves of demand with different elasticity

1) If the price changes in a less degree than volume of demand, then the demand is *elastic*:  $|E_p^D| > 1$ .

2) If the price changes in a greater degree than volume of demand, then the demand is *not elastic (rigid)*:  $|E_p^D| < 1$ .

3) If the change of the price doesn't cause any change in the volume of demand, then the demand *absolutely not elastic*:  $|E_p^D| = 0$ .

4) If infinitesimal change of the price causes infinitely big change of volume of demand then the demand - it is *absolutely elastic*:  $|E_p^D| = \infty$ .

5) If the change of the price for 1 % causes change in volume of demand for 1 % then the demand has *single elasticity*:  $|E_p^D| = 1$ .

There is also a distinction between *point* and *arc* elasticity.

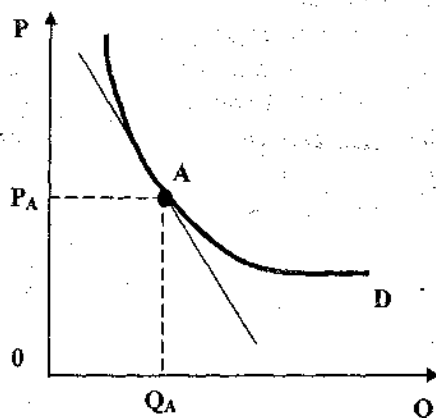
**Point elasticity** of demand concerning the price shows relative change of volume of demand under the influence of infinitesimal change of the price. It is determined as:

$$E_p^D = \frac{dQ/Q}{dP/P}$$

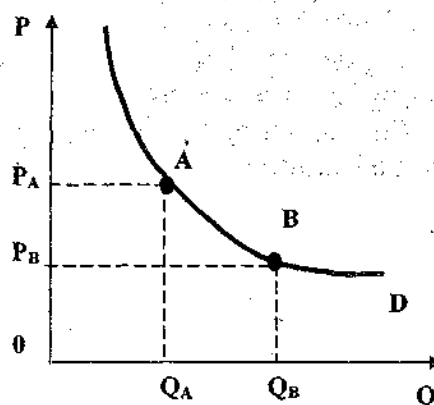
Between point elasticity and an slope of the tangent conducted through the researched point of the demand curve  $A (P_A, Q_A)$ , there is an inversely proportional dependence (fig. 3.11a).

$$|E_p^D| = \frac{dQ/Q}{dP/P} = \frac{dQ}{dP} = \frac{P_A}{Q_A} = \frac{1}{k} \times \frac{P_A}{Q_A},$$

Where  $k$  – is the angular coefficient of a tangent, which is equal to a tangent of angle, formed by a tangent with horizontal axis.



a) point elasticity



b) arc elasticity

Fig. 3.11. Point and arc elasticity

Thus, value of point elasticity is in inverse proportion to angular coefficient of a tangent. As in a reality infinitesimal change of the price is difficult to see and the price changes more essentially then a concept of arc elasticity is used (fig. 3.11b).

Let's consider a change of volume of demand, determined by points  $A, B$  on arch  $D$ . Complexities of measurement of elasticity coefficient consist in that at the analysis of the same site of a demand curve, at increase or reduction price it is possible to receive various values of arc elasticity of demand at the price.

So, at the increase of price from  $P_B$  to  $P_A$  value of elasticity coefficient is equal to:

$$E_P^D = \frac{Q_A - Q_B}{Q_B} \div \frac{P_A - P_B}{P_B}$$

At the decrease of price from  $P_A$  to  $P_B$  value of elasticity coefficient is equal to:

$$E_P^D = \frac{Q_B - Q_A}{Q_A} \div \frac{P_B - P_A}{P_A}$$

For this question solution average values of price and volume of demand are used:

$$E_P^D = \frac{Q_B - Q_A}{(Q_B + Q_A)/2} \div \frac{P_B - P_A}{(P_B + P_A)/2}$$

**Arc elasticity** is an average elasticity on a certain site of a demand curve.

Research of arc elasticity allows to draw a conclusion on approximate value of elasticity coefficient and the less is the distance between extreme points of a piece of demand and the less its concavity, the more exact the result will be.

If the demand curve is set by a linear function then on all extent of a demand curve the value  $|E_P^D|$  changes from 0 to  $\infty$  (fig. 3.12).

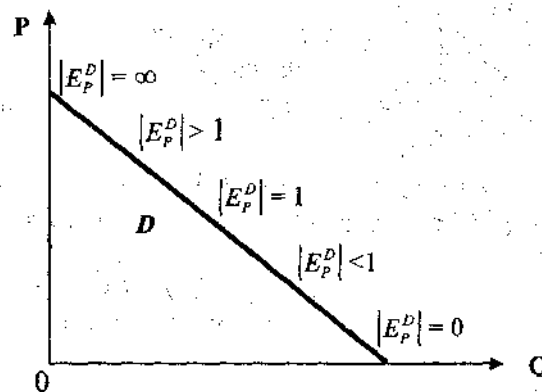


Fig. 3.12. Values of demand elasticity at the price line to demand curve

In the left top corner of the graph each change of the demand volume is considerable (in a percentage ratio) since the base, the one with comparison is performed, is rather low. Price change - is a small variable (in a percentage ratio) since the base, the one with comparison is performed is rather high. Therefore, in the left top corner  $|E_P^D| \rightarrow 0$ . In the right bottom corner, arguing similarly, we receive that  $|E_P^D| \rightarrow \infty$ . To a similar conclusion it is possible to come, using the formula:



$$|E_P^D| = \frac{1}{k} \times \frac{P_A}{Q_A}$$

As the demand curve is set by a linear function, the slope of a demand curve in its any point is identical. Value of coefficient of elasticity will be determined by the relation  $\frac{P_A}{Q_A}$ .

In the left top corner  $\frac{P_A}{Q_A} \rightarrow \infty$ , consequently  $E_P^D \rightarrow \infty$ .

In the right bottom corner  $\frac{P_A}{Q_A} \rightarrow 0$ , consequently  $E_P^D \rightarrow 0$ .

Elasticity of demand at the price is influenced by following factors:

1. *Presence of substitutes.* The more substitutes, the more elastic is demand;
2. *Degree of necessity of the given product for the consumer.* If a product is an article of prime necessity the demand for it is less elastic. If a product is a luxury product the demand for it is more elastic;
3. *The size of the income.* The increase of income reduces elasticity of demand for a product concerning the price;
4. *Time Factor.* Demand is more elastic in the long-term period, than in the short-term. It occurs because consumers need time for searching of replacement for the given expensive product by another (especially, force of a habit originally acts);
5. *Saturation Degree.* The more is degree of saturation of consumers with a product the less is elasticity of demand for it.

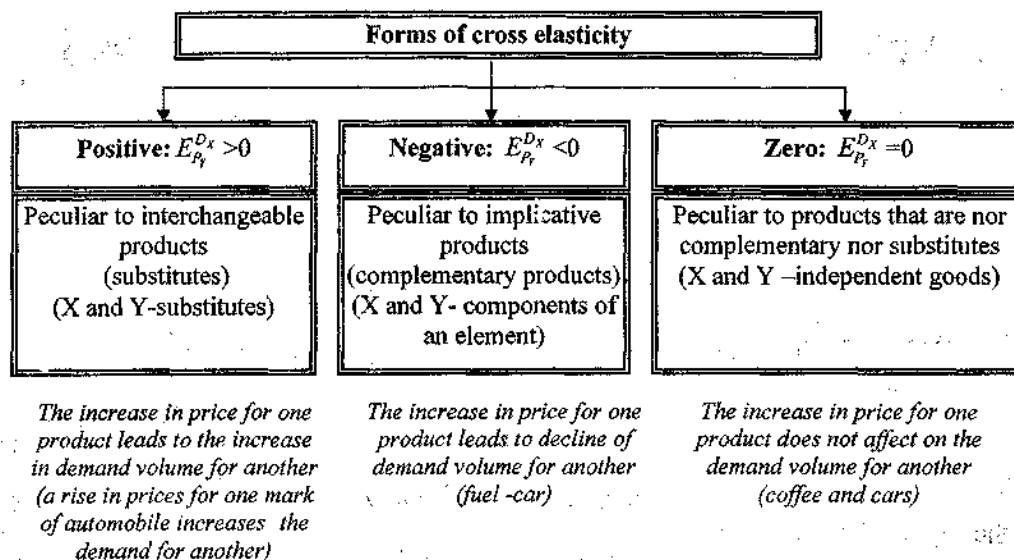
As the demand volume depends not only on price of the given product, but also on prices of other goods, for its characteristic cross elasticity of demand concerning the price is used, measuring sensitivity of demand for one product at change of the price of another.

*Cross elasticity of demand concerning the price* shows relative change of the demand volume for a product X under the influence of change of a product price Y on 1 %.

*The coefficient of cross elasticity of demand at the price* is determined as the relation of relative change of demand volume for a product X to a relative change of a products price Y.

$$E_{P_Y}^{D_X} = \frac{\Delta Q_X / Q_X}{\Delta P_Y / P_Y}$$

Where  $E_{P_Y}^{D_X}$  – is the coefficient of cross elasticity of demand at the price;  $\Delta Q_X / Q_X$  – relative change of demand volume for a product X;  $\Delta P_Y / P_Y$  – relative change of a product price Y. In the economic theory various forms of cross elasticity are highlighted (fig. 3.13).



**Fig. 3.13. Forms of cross elasticity**

Reaction of demand volume to the change of incomes of buyers is characterized by elasticity of demand concerning the income.

**Elasticity of demand concerning the income** shows relative change of demand volume under the influence of income change on 1 %.

The coefficient of demand elasticity on the income is determined as the relation of relative change of demand volume towards the relative change of the income:

$$E_I^D = \frac{\Delta Q/Q}{\Delta I/P},$$

Where  $E_I^D$  – is the coefficient of demand elasticity concerning the income;  $\Delta Q/Q$  – relative change of demand volume;  $\Delta I/P$  – relative change of income.

If  $E_I^D < 0$  then a product is "lowest", bad quality, the income increase leads to decline in demand volume for the given product. The consumer becoming richer considers possible and necessary to replace it with other better product. If  $E_I^D > 0$  then a product is "normal", the increase of income leads to the increase in demand volume at the given product. Among normal products it is possible to allocate two groups:

1. If,  $0 < E_I^D < 1$ , then it is essential product (bread, salt, matches), demand volume for the product grows growth more slowly than the income growth and has a saturation limit.

2. If  $E_I^D > 1$ , then it is "a luxury" subject, the demand volume for the product grows faster than the growth of income and has no saturation limit.

It is necessary to notice that the same products, depending on income level can be related either to luxury goods, or to articles of prime necessity.

Elasticity of demand concerning the income is used at consumer goods basket calculation, determination of structure of people consumption with various income levels, calculations of degree of consumption change of one or another product at change of income level etc.

Degree of the supply volume depending on price change characterizes elasticity of supply concerning the price.

*Elasticity of supply concerning the price* shows relative change of supply volume of a product under the influence of change of its price for 1 %.

The coefficient of supply elasticity at the price is determined as the relation of relative change of supply volume towards the relative change of the price

$$E_p^s = \frac{\Delta Q/Q}{\Delta P/P}$$

Where  $E_p^s$  – is the coefficient of supply elasticity concerning the price;  $\Delta Q/Q$  – relative change of supply volume;  $\Delta P/P$  – relative change of price.

Elasticity of supply concerning the price always has a positive sign since the price and supply volume are connected by a direct dependence.

Comparison of relative changes of the price and supply volume allows giving the supply characteristic:

1) If the price changes to a lesser degree, than supply volume then the supply is *elastic*:  $E_p^s > 1$ ;

2) If the price changes in a greater degree, than supply volume, then the supply is *not elastic*:  $E_p^s < 1$ ;

3) If the change of the price does not cause any change in supply volume then the supply is *absolutely not elastic*:  $E_p^s = 0$ ;

4) If infinitesimal change of the price causes infinitely big change in supply volume then the supply is *absolutely elastic*:  $E_p^s = \infty$ ;

5) If the change of the price for 1 % causes change in supply volume on 1 % then the supply has *single elasticity*:  $E_p^s = 1$ .

Many factors have an impact on the supply elasticity concerning the price. Elasticity of supply changes under the influence of technical progress, change of a qualitative and quantitative composition of used resources and etc.

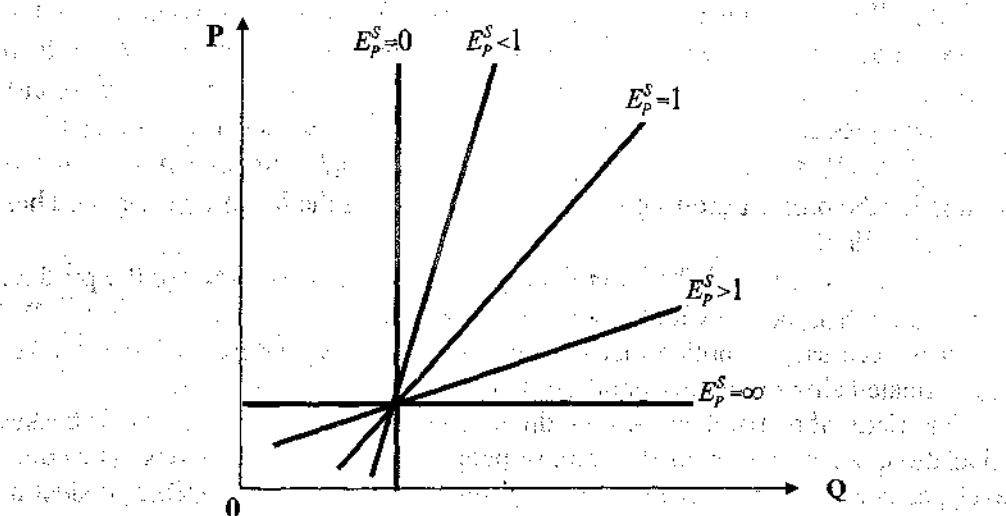


Fig. 3.14. Curves of supply with different elasticity

One of the major factors influencing the supply elasticity at the price is time. The matter is that while changing in demand for products, firms cannot instantly change the volume of output. In this connection *three market periods* are distinguished:

- 1) The shortest (instant, very short): all factors of production are constant; the quantity of firms in industry does not change;
- 2) Short-term (short): some factors of production are changeable, but at least one constant; the quantity of firms in industry does not change;
- 3) Long-term (long): all factors of production are changeable; the quantity of firms in industry changes.

In the conditions of the *shortest market period* (fig. 3.15) increase in demand leads to the increase in price, but is not reflected in supply size. Shift of a demand curve from position  $D_1$  to  $D_2$  increases equilibrium price from  $P_1$  to  $P_2$ , at invariable volume of output.

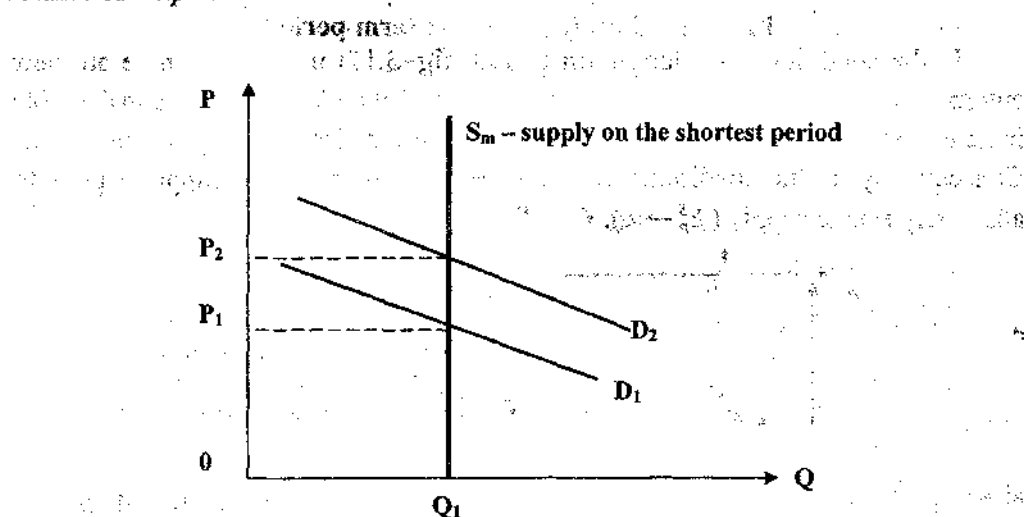
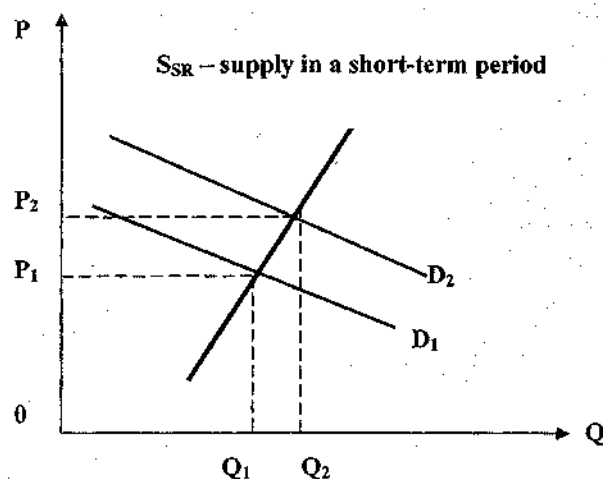


Fig. 3.15. Supply in the shortest period

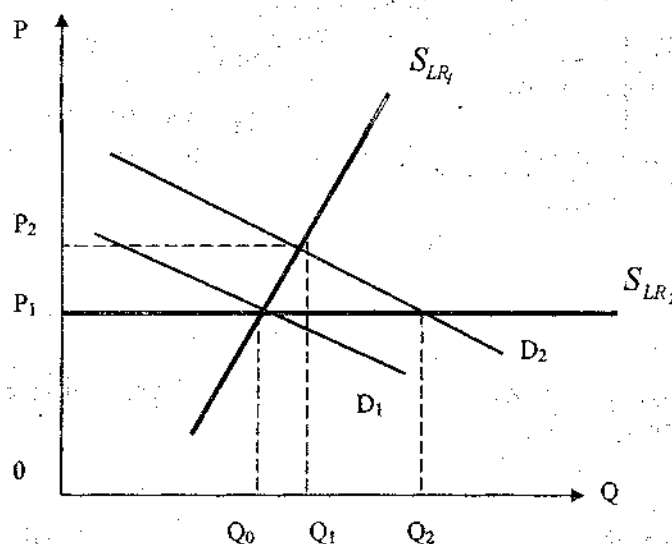
Consequently, in the conditions of the shortest period product supply is absolutely not elastic ( $E_p^s = 0$ ).

In the conditions of the short-term period (fig. 3.16) the quantity of enterprises in industry does not change, but manufacturers use available capacities more intensive, so, the supply curve becomes slightly inclined. The increase of demand (shift of a demands curve from position  $D_1$  to  $D_2$  leads not only to growth of the price from  $P_1$  to  $P_2$ , but also to increase in volume of output from  $Q_1$  to  $Q_2$ . Consequently, in the conditions of the short-term period the product supply is more elastic ( $E_p^s > 0$ ).



**Fig. 3.16. Supply in a short-term period**

In the conditions of a long-term period (fig. 3.17) in industry there are new enterprises, new capacities appear. Increase in demand leads to a considerable increase of output volume at stable price or insignificant change of the price. Consequently, in the conditions of a long-term period products supply aspires to absolutely elastic supply ( $E_p^S \rightarrow \infty$ ).



**Fig.3.17. Supply in a long-term period**

It is necessary to notice that the given researches of supply dependence from time factor are true only at accomplishment of competitive market conditions when barriers of the entrance into an industry and an exit from it are absent or insignificant.

Concepts of elasticity of supply and demand have a huge practical value. For example, the knowledge of elasticity is necessary for marketing services of firms for construction of price strategy. At state level elasticity, for example, allows to estimate efficiency of a tax policy. The basic question here is - who really pays the tax - a seller or a buyer.

Let's assume that in the market of any products there is balance  $E_1$  and the state enters the manufacturer's goods-wise tax. In this case, the supply curve shifts upwards on the tax size  $T$  that is equal to the length of the piece  $P_2P_A$  (from position  $S_1$  to  $S_2$ ). As a result the new balance -  $E_2$  will be established (fig. 3.18).

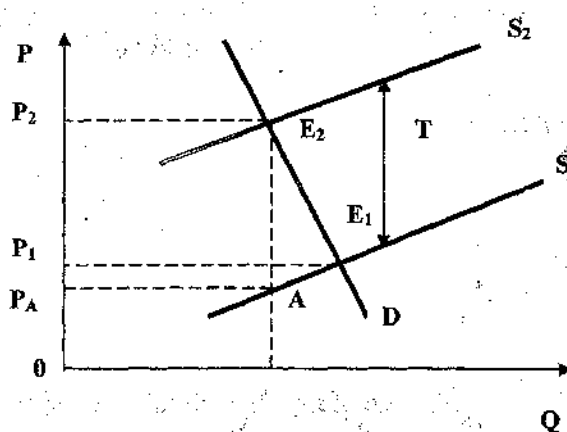


Fig. 3.18. Distribution of the tax burden  $|E_p^D| > E_p^S$

At that, if the absolute value of demand elasticity coefficient at the price is less than the value of supply elasticity coefficient at the price then the most part of tax burden lays down on the consumer. The part of the manufacturers tax, constitutes piece  $P_1P_A$  that is less than a share paid by a buyer.

If absolute value of the demand elasticity coefficient at the price is more than value of the supply elasticity coefficient at the price the major part of tax burden lays on manufacturer. If the absolute value of the demand elasticity coefficient at the price is equal to the value of the supply elasticity coefficient at the price then the tax burden lays on the seller and the buyer in equal shares.

If the absolute value of the demand elasticity coefficient at the price is more than the value of the supply elasticity coefficient at the price then the major part of tax burden lays on manufacturer (fig. 3.19).

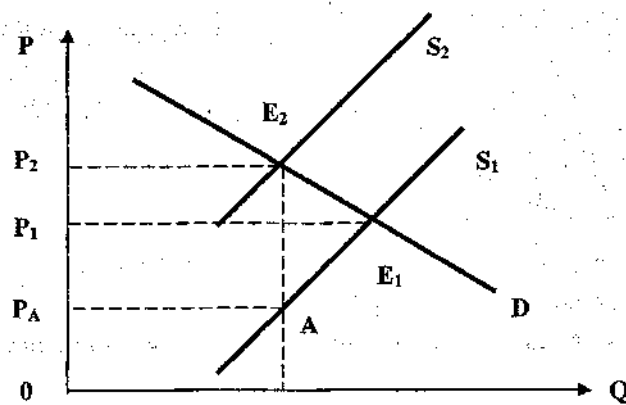


Fig. 3.19. Distribution of the tax burden  $|E_p^D| > E_p^S$

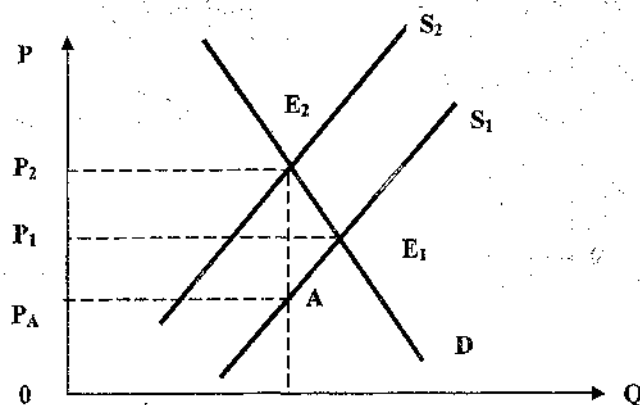


Fig. 3.20. Distribution of the tax burden  $|E_p^D| = E_p^S$

If the absolute value of the demand elasticity coefficient at the price is equal to the value of the supply elasticity coefficient at the price then the tax burden lays on the seller and the buyer in equal shares (fig. 3.20).

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### 3.5. Supply and demand equilibrium. Equilibrium price. The role of price in economy.

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**Balance** - is a situation on a market when the supply and demand coincide or are equivalent, at acceptable for a consumer and a manufacturer price.

There is a market balance occurs as a result of supply and demand interaction. To find out, how it happens, it is necessary to combine demand curve and supply curve on one graph (fig. 3.21).



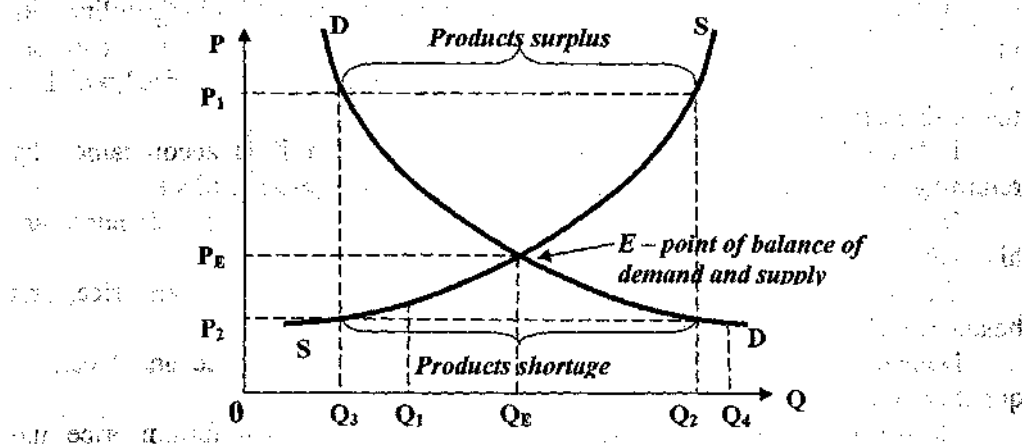


Fig.3.21. Graph of equilibrium on the market

The given graph expresses simultaneous behavior of supply and demand of commodity item and shows, at what point two lines will be crossed ( $\tau.E$ ). In this point balance is reached. Co-ordinates of point  $E$  are equilibrium price  $P_E$  and balanced volume  $Q_E$ . Point  $E$  characterizes equality  $Q_E = Q_S = Q_D$ , where  $Q_S$  - supply volume;  $Q_D$  - demand volume.

The balance point shows that supply and demand here, being opposite market forces, are counterbalanced. Equilibrium price means that products are produced according to requirements of buyers. Such balance is expression of peak efficiency of market economy because in a balanced state market is balanced. Neither the seller, nor at the buyer does not have internal motives to its infringement. On the contrary, at any other price which is distinct from the price of balance, the market is not balanced; both buyers and sellers aspire to change a situation on the market.

Thus, **equilibrium price** is the price which counterbalances supply and demand as a result of action of concrete forces.

If the real price is more than balanced one ( $P_1$ ) then at such price the demand volume  $Q_1$  will be less than supply volume  $Q_2$ . In this case manufacturers will prefer to reduce the price, than to continue the output in the volume essentially exceeding the demand volume. Surplus of the supply ( $Q_1 Q_2$ ) will put lowering pressure upon the price.

If the real price on a market is below the balanced one ( $P_2$ ) then the demand volume on the graph is equal  $Q_4$ , and the product will become scarce. Separate buyers will prefer to pay heavier price. As a result excess of demand ( $Q_4 Q_2$ ) will put pressure upon the price.

This process will proceed until it is established at balanced level  $R_e$  at which supply and demand volume are equal.

For the first formulation of general economic balance we are obliged to Leon Walras (1874) who unlike Marks' average price categories (the production price) tried to abstract from public system of production and leant against utility as an initial category.

A. Marshall has made an attempt to connect the theory of limiting utility with the theory of supply and demand and the theory of production costs. He possesses superiority in research of categories "demand price" and "supply price" which is the further development of the theory of labor cost.

Balance is called as steady if the deviation from it is accompanied by returning to an initial condition. Otherwise unstable balance takes place.

In the modern economic theory four rules of supply and demand are highlighted:

The increase of demand causes the growth of both equilibrium price, and balanced quantity of products;

Demand reduction leads to the decline of equilibrium price and balanced quantity of products;

Growth of the products supply involves reduction of equilibrium price and increase of balanced quantity of products;

Supply reducing leads to the increase of equilibrium price and reduction of balanced quantity of products.

Using these rules, it is possible to find a balanced point in case of any changes in demand and supply.

It is important to underline that the balance price is established in competitive market conditions. However it is impossible to meet all conditions of competition. The mechanism of market balance of prices is a mechanism of approach to perfection which is never reached completely. And still in practice, according to *the law of supply and demand balance* the price of any goods is formed. All goods markets are close to competitive balance if there are no elements of exclusive intervention in a market mechanism, changing model of competitive balance.

On an establishment of market balance essential influence renders time which is considered in *web-shaped model* of market balance. It is the elementary dynamic model which shows supply and demand interaction at transition from one time period to another.

The supply volume reacts to demand price change with delay that causes price fluctuations. It is supposed that the demand volume is guided by commodity price of the current period, and the supply volume of the current period is guided by the price of the previous period since manufacturers recognize that the price will remain in a following period.

Several variants are distinguished: fading, amplifying and uniform fluctuations of a price.

Let's stop on consideration of each variant in detail.

1. **Fading fluctuations of a price** (fig. 3.22). Consumers react to a price change stronger than manufacturers (a demand curve is more flat, than supply curve). Let's consider how in this case balance is established.

The following period we will mark as  $t_1$ . Manufacturers offer products in volume  $Q_1$  at the price  $P_1$  that more than balanced parameters of the market. The arisen excess will lead to decline in the price from  $P_1$  to  $P_2$  ( $P_2 < P_1$ ). Manufacturers make decision to reduce output in a following period to level  $Q_2$ .

The next period we will mark as  $t_2$ . Manufacturers offer products in volume

$Q_2$  at a price  $P_2$  that is less than balanced parameters of the market. The cycle repeats.

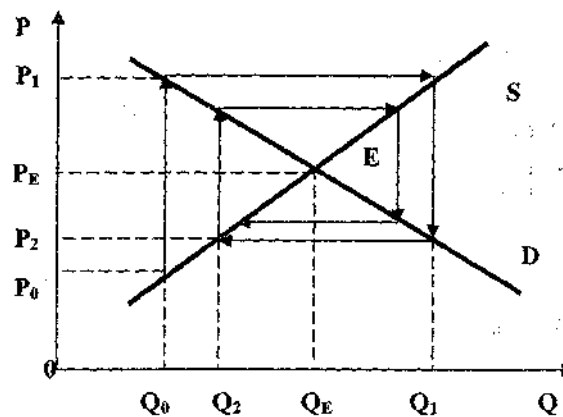


Fig. 3.22. Web-shaped model: fading fluctuations of a price

Price fluctuations in time decrease, the price comes nearer to equilibrium price. There are fading fluctuations happens.

Consequently, gradually *a balance is automatically established* on a market.

**Amplifying fluctuations of a price** (fig. 3.23). Manufacturers react to a price change stronger than consumers (supply curve is more flat, than demand curve). Price fluctuations in time increase, the price leaves from the equilibrium price. Consequently, the balance does not happen on a market.

The web-shaped model is based on an assumption that economic agents do not study on their mistakes. Therefore, situations with amplifying fluctuations do not happen in practice.

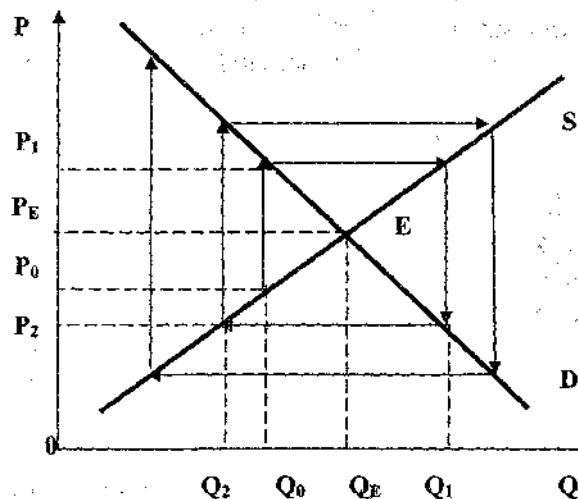


Fig. 3.23. Web-shaped model: amplifying fluctuations of a price

2. *Uniform fluctuations of a price* (fig. 3.24). Consumers and manufacturers equally react to a price change (in this case supply curve and demand curve have equal absolute value of an angle of slope).

3.

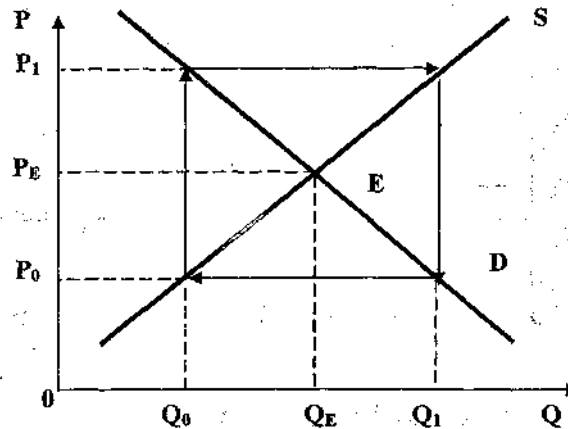


Fig. 3.24. Web-shaped model: equal fluctuations of a price

Price fluctuations in time are identical, price fluctuates in a certain interval from an equilibrium price: without coming nearer and without leaving from it. Hence, balance on a market does not happen.

The web-shaped model has shown that the balance is not always established on a market. Other case of absence of a balance is a so-called marginal balance.

The existence of a balance on a market is possible if one or more non-negative prices at which supply and demand volumes are equal and non-negative are available. Let's consider two situations when lines of supply and demand have no common points, and balance exists (fig. 3.25).

On fig. 3.25a the situation when the volume of demand is less than the volume of supply at every price is illustrated. That means it is a free (non-economical) value i.e. it can be distributed free of charge. For instance, the amount of atmospheric air is so big that our necessities are satisfied at zero-price i.e. for free.

Consequently, balance can be at zero-price if at this price the volume of supply overcomes the volume of demand.

On fig. 3.25b the situation when the price of demand is less than supply price at any volume of market is presented. The demand price means a maximal price which a buyer agrees to pay for a certain volume of the offered goods. The supply price is a minimal price at which sellers are ready to sell a certain quantity of the products. It means that it is «not made values». The sum of money which consumers are ready to pay for the given products is insufficient to compensate expenses for its production and realization. Then the production is technologically possible, but is economically inexpedient. For example, it is possible to make a car from gold, but it will be extremely difficult to sell, or to make the keyboard with

diamond keys and etc. Hence, balance will exist in this case at zero volume of output if the supply price is more the than the demand price.

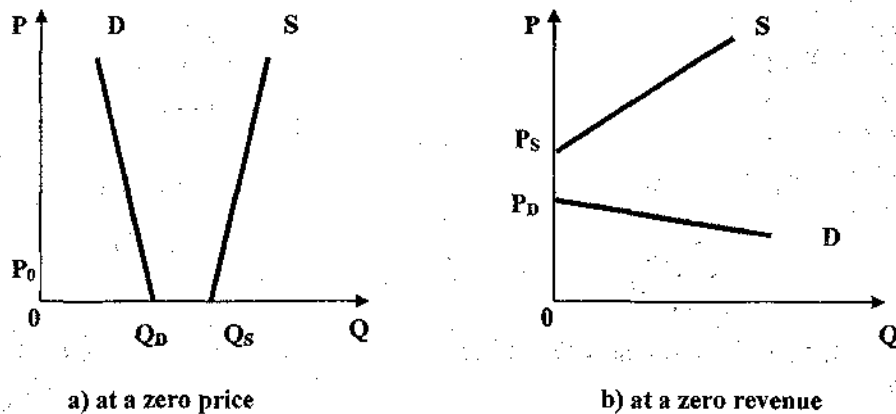


Fig. 3.25. Marginal balance

Usually balance is unique. But there are possible situations with several positions of balance. For example, an individual supply curve on a labor market is usually presented as bent counter-clockwise curve. In this case the supply line changes slope "sign" at a rise in prices, the demand line has "normal" view - characteristic negative slope. It leads to existence of two positions of balance: one at a low salary, another - at high (fig. 3.26).

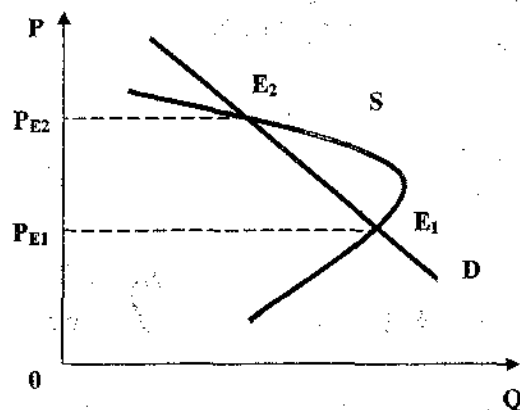


Fig. 3.26. The two positions of balance

The supply curve has a positive slope at rather low level of salary. In other words, the increase of a salary stimulates the increase in the supply of work, but till certain moment. Then workers prefer free time to income increase, the work supply is reduced.

Also we can observe some positions of balance when supply and demand lines have a common segment (fig. 3.27a and b).

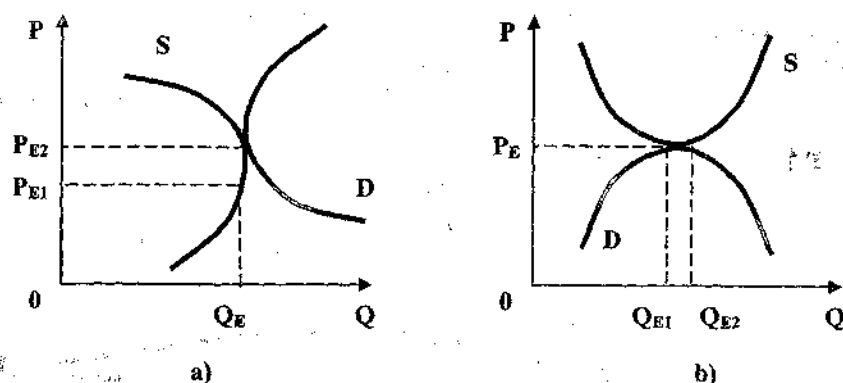


Fig.3.27. Many positions of balance

On fig. 3.27 a market is in balance position at volume  $Q_E$ , thus there can be any price in an interval from  $P_{E1}$  to  $P_{E2}$ . Change of the price in this range does not cause a change in volume of demand at consumers, and changes of supply volume at manufacturers. On fig. 3.26b the market is in balance position at price  $P_E$ , thus there can be any volume in an interval from  $Q_{E1}$  to  $Q_{E2}$ .

Change of quantity of saleable production in this interval does not cause a change of the demand price and the supply price.

**Monopolistic intervention** is an intervention in a market mechanism of competitive balance of separate persons, manufacturers, trade unions, various associations and the state which are capable to change the balance price.

**Administrative intervention** in the supply and demand mechanism even with good intentions (for example, for the purpose of justice achievement in distribution of incomes or decisions of other social purpose), as a rule, is inefficiently. This purpose can be achieved with success by implementation of taxes, without the price formation mechanism.

**The taxation** can influence the price balance mechanism, elasticity condition, volume of products output, level of society incomes and distribution of these incomes between manufacturers and consumers, products imposed with the tax. It is possible to illustrate on a graph the influence of products taxation on a price of its market balance (fig. 3.28).

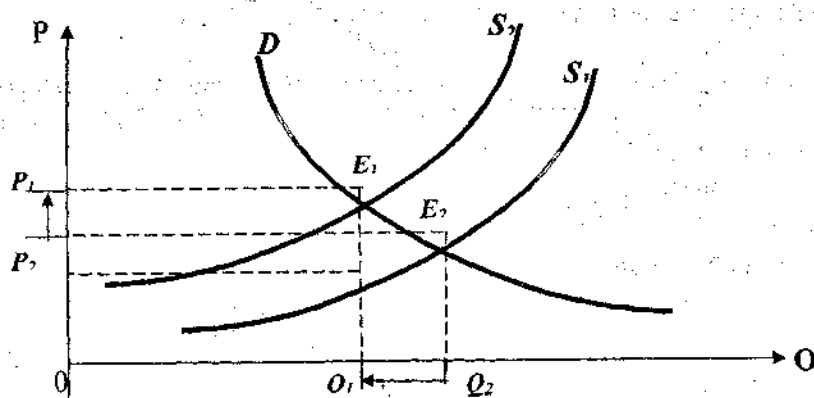
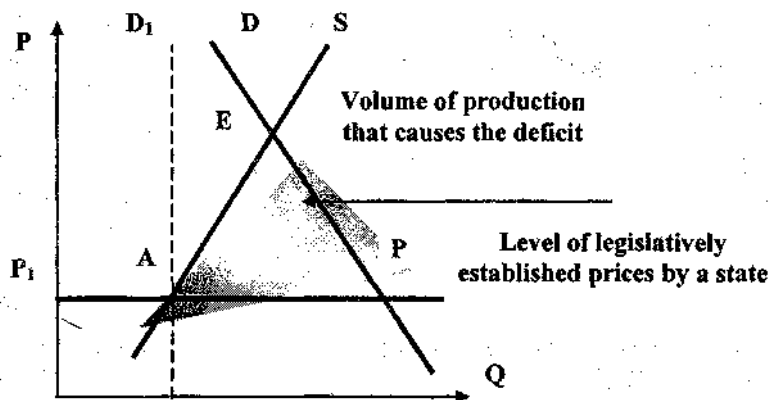


Fig. 3.28. Influence of taxation on a market balance

The taxation has caused a rise in price, paid by a consumer, and has simultaneously reduced the price received by the manufacturer of products imposed with tax. As a result of tax implementation the supply curve has moved on new level  $S_2$  crossing the demand curve  $D$ , and has formed a new point of market price balance ( $E_1$ ). The taxation didn't prevent the action of a market price forming mechanism, but it has led to two results: a rise in price and decrease in volume of products from  $Q_2$  to  $Q_1$ . Arrows on relevant axes show, how and how much, the price and quantity of products has changed owing to the tax implementation. If the demand line was not elastic and flat in comparison with the supply curve then the tax would lay mainly on the consumers' shoulders. Thus, the tax influences the price and volume of products and leads to an establishment of market balance in a new point.

Another example of a state intervention in economy and its market mechanism - a price establishment in a legislative order (fig. 3.29).

The mechanism and consequences of a compulsory establishment of price by a state looks as a fair distribution of incomes in favor of a poor population stratum. However from the point of view of the economic theory such distribution is absolutely irrational because it is not an effective mean for equalizations of incomes and for increases in production of missing products. To solve these tasks is easier and cheaper by means of a market mechanism of supply and demand objectively stimulating proportions of distribution which is necessary for a society through the price of balance.



**Fig. 3.29. Intervention of a state in a market mechanism through the price formation**

On fig. 3.29 the level of established price is shown by line  $AB$ . At the price  $P$  curves of demand  $D$  and supply  $S$  are not crossed. Consumers would purchase more goods, than it is offered. There is a deficit occurs. Apart from a legislative compulsory establishment of low price buyers probably would prefer to pay heavier price than to do without the given product. It causes possibility of occurrence of speculative prices on a shadow market in scarce economy. This system cannot remain for a long time (being a compulsory measure) as it does not



eliminate the main reason of deficit - insufficient production of products that is necessary for a consumer because of a low state-set price cannot force a manufacturer not only to increase, but even to continue production of these goods. The rationing system will shift a curve to the line  $D_1$ , marked on a graph by a dotted line, but it will not change a situation on a market, the deficit will remain. If there was no established limit the price would rise to point  $E$  (*equilibrium, balance*) which would be inaccessible for many, but would serve as an impulse for expansion of production and filling of the market by the goods, for price reduction to the level in which supply and demand are counterbalanced.

So, the competition is that powerful force which by economic method forces all goods holders to produce, sell and buy the goods for a equilibrium price and to achieve balance on a market.

Conditions of balance forming on a market in the economic literature are researched as at micro-economics level, with reference to a separate economic unit in the separate market which characterizes partial balance (A.Marshall, D.Hicks), and at macro level, with reference to economic system in whole (model of general balance of L.Walras, V.Pareto, J. Fon Hajmana, V.Leontev).

*The price* is a basic element of a market mechanism and the major tool of analysis, planning, regulation of managing subjects' behavior in market economy. We already know that the price influences supply and demand. Hence, it determines behavior of buyers and sellers on a market. In market price in a potentiality display of sellers interests (costs refunding and profit reception), buyers interest (satisfaction of solvent requirement) and dealers-intermediaries interest (costs refunding on goods realization and reception of the trading profit) is laid.

The prices, carrying out a distribution function, establish proportions in an exchange, and not only in an exchange, but also in all economy (a proportion between production and consumption, various industries, spheres, economy regions). Carrying out stimulating function, the prices stimulate growth of social production efficiency, use of scientific and technical process, implementation of new and competitive goods in production and consumption. Registration function of the price promotes the control of expenditure of firm means and of its financial condition.

The pricing policy is the central part in national economy regulation. A state can perform the control of pricing process on a market by an establishment of borders or indicators of an admissible rise in prices. So there is «a floor price» and «the ceiling price».

«The floor price» is the established minimal price limiting its further decrease. For example, a prohibition on commodity trade below their cost value.

«The ceiling price» limits a rise in price. So, a state at social policy realization can establish ceiling prices for goods of prime necessity above which sellers have no rights to raise the prices.

*The price* in a foreign literature is a quantity of money for which the certain quantity of goods and services is on sale and bought.

The price on a market is defined as a result of an interaction of buyers and

sellers where they compare the supply and demand for goods and establish prices. As the price is established at level on which the goods supply is equal to the demand for it (the supply and demand are in balance) then market price usually is the equilibrium price.

In economic practice two basic approaches to an establishment of the prices have formed: *market* and *cost* (industrial). They differ, first of all, by factors influencing the formation of a price. At a market way defining factors are market condition, goods supply and demand. At a cost approach in a basis of a price establishment industrial expenses are put, first of all, labor, connected with goods creation.

In market pricing *the price* is a form of expression of goods value shown in the process of their exchange.

The classical economic theory recognizes that at the heart of a price the cost which size is defined by a labor expenses lies. Therefore price in its interpretation is a money term of the cost of a product and is defined first of all by costs on its production i.e. a payment for the used economic resources.

The Marginal concept suggests that at the heart of a cost (value) of a product its utility for the consumer lies, to be precise, the limiting utility. Charles Menger (1840-1921) has suggested, and E. Bem-Baverk has developed a statement that the interrelation of limiting utilities of the exchanged goods causes proportions of their exchange, i.e. the price.

A. Smith has formulated a so-called paradox of value according to which the advantage of water is huge, but value is insignificant, and at the same time the brilliant which has no practical value has the high price. This paradox is explained by that the value of water and brilliant is defined by their marginal utility. Because of there is a lot of water in the world its marginal utility is very small. And brilliants which are rather rare, marginal utility is extremely high.

The neoclassical theory in the name of its founder Alfred Marshall has offered the sight at the price and pricing. The Marshals' approach is a synthesis of classical and marginal approach to the price. Marshall proceeded from that the price is formed during the specific compromise between buyers and sellers as maximum acceptable from demand and supply. It highlights the demand price and supply price of goods which characterize two principles of pricing co-operating within themselves.

*The demand price* according to A.Marshall is the price at which each separate portion of products is capable to involve a buyer during a certain period of time. It is caused by a degree of products utility. Simultaneously it is a maximal price for which buyers agree to buy goods or service. Its market price cannot rise more than this maximum, as consumers do not have money for purchase.

*The supply price* is the price at which goods are delivered for sale on a competitive market, or it is an extremely minimal price at which manufacturers are ready to sell products or services. At the heart of this price the costs for products production lie. Market price cannot fall below a supply price while production and sale become unprofitable.

*The main goal of market managing system* is creation of conditions for realization of requirements and interests of a person as a highest substance. Presence and satisfaction of requirements and interests formed on their basis defines economy development.

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### Control questions

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1. What role do competition and property play in the market development?
2. Name the main stages of the evolution of scientific views of market development.
3. Reveal the essence of market as a category of economic science. What signs the markets are classified by? Name conditions for occurrence of market.
4. Describe the microeconomic scheme of the interaction of demand and supply.
5. Using the graph and curve of demand explain why is the curve called as "function of a buyer". What does inverse relation between the price of commodity unit and quantity of its purchases mean?
6. Explain the "function of the products supply". Why does the products supply curve have a positive slope unlike the demand curve with its negative one?
7. What does the concept "competitive balance of supply and demand" mean? In what case will the deficiency of goods be observed on the market? Owing to what the situations of products surplus can occur on the market?
8. When market prices are high it always causes dissatisfaction of buyers. Prove that, in spite of this, competitive market prices are capable to carry out a positive role, for example, elimination of deficit and products in the markets.
9. What shall be understood by the term of "change in demand"? Show it on the graph. What factors can cause the change in demand?
10. What factors can cause the change in supply of products on the market? Show it on the graph.
11. What is the practical importance of demand and supply elasticity?
12. How will the taxation of sales affect if demand for the goods is not elastic? And if the demand is elastic or has individual elasticity?

## CHAPTER 4

### THEORETICAL BASES TO STUDY BEHAVIOR OF CONSUMERS, HOUSEHOLDS AND FIRMS

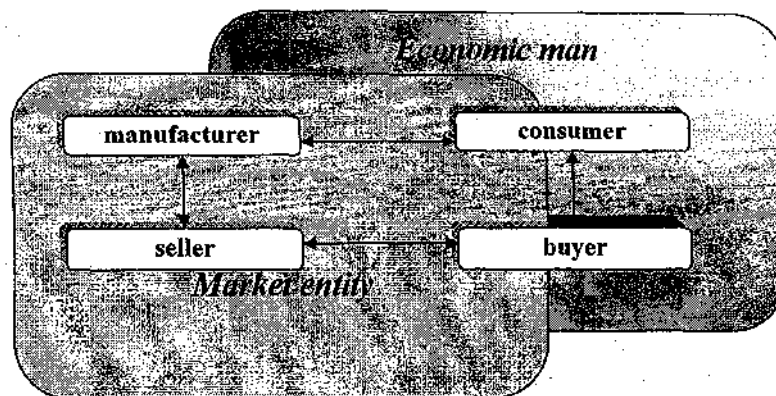
#### 4.1. Consumer behavior: utility and consumer choice, consumer equilibrium, consumer surplus

Manufacturer and consumer, seller and buyer are counteragents of market relationship. It is typical, that each of them pursues own purpose: with minimal expenses (funds, physical and intellectual efforts) maximize the profit. This is the main point of economic behavior of market entities.

*Economic behavior* is the way of economic activities of people, firms, groups, families, collectives, and etc. that forms under the influence of specific economic conditions.

*Economic man* is conventional idea, understanding of man as a rational thinking creature, which makes his plans and actions in order to reach maximal profit.

*Economic entity* is a person (physical – man, family, or legal – firm, government), realizing economic and business activity.



**Fig. 4.1. Fundamental conceptions, which characterize nature  
of behavior of entities of market economy**

All entities of market relations are economic entities. *The family* tries to stabilize its social and material condition, by rationalizing expenses and forming savings, with the purpose of investing them into education, construction of housing, bond papers. With this way family creates essential economic potential for national economy growth. *Firms*, are not only aggregated factors of manufacturing, but first of all the collective of people, that have their own economic goals, coordinating them with goals of firm - exaggeration and gathering of income, from which subsequently forms new level of salary and new level of economic growth. *Government*, as a guarantor of social justice, is also economic entity that uses economic instruments while formation the system of operative motive, with the purpose of attraction the savings of economic entity into national

economy. Herewith the orientation to consumer is key issue both for manufacturer and country.

Studying the regularity of behavior of economic market entity is necessary and appears to be the new level in exploration of micro economy basis.

**Consumer behavior** is the process of formation of consumers' demand for various goods and services, taking into account their income and personal preferences.

In the market the consumer is faced with a myriad of goods and services, of which he has to form its "consumer basket", i.e., a set of products for which it has a certain utility. This is the first rule of consumer behavior.

**Consumer basket** (or a vector of consumption) – is a set of goods and services selected by the buyer, and possessing a certain quality for the consumer.

The consumer has to allocate limited resources among unlimited needs in a rational way. To do this, he needs some kind of common ground for comparing the benefits. The utility adopted as the framework of such ground.

**Utility**, which is the purpose of consumption, is a feature of the economic benefits to meet needs, to bring pleasure, satisfaction from consumption.

The theory of consumer behavior is based on the assumption of rational behavior of the consumer.

**Rational consumer behavior** is behavior aimed at maximizing utility, provided that the available resources are limited and when comparing the prices of goods consumed.

In economic theory, the general and the marginal utility is distinguished.

**Total utility** (TU – total utility) is the sum of the individual parts of the utility of the boon. With the growth of benefits available to the consumer, total utility increases, but the pace of overall utility slows down (fig. 4.2).

Utility maximization is that the consumer with certain restrictions (income, prices) selects a set of goods and services, which equally fully satisfies needs, i.e., there is no demand, that is satisfied more or less than others.

Thus, the following rule of consumer behavior is to ensure that every last unit cash costs for the purchase of goods brought the same marginal utility.

The effect of purchases increment can be expressed in the symbols of the theory of marginal utility and the prices as follows:

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = \dots = \frac{MU_n}{P_n} = \text{marginal utility of money.}$$

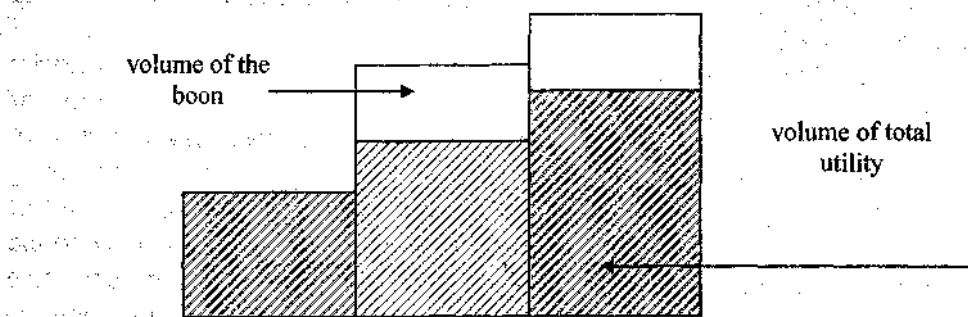


Fig. 4.2. Number of boon and overall utility

However, despite the fact that the total utility from purchasing goods increases, the pace of increase gradually slows down, goes on decreasing. In other words, as cash expenses increase for each additional purchase, the law of marginal utility diminishing of purchased goods activates, even if its price declines.

If the boon of satisfying the need for food would be divided into three parts, designate first part as 10 units, then when you add the second part, its utility increases to 18, not 20. Because the intensity of meeting needs decreases (10 units are already consumed and the feeling of hunger is not so sharp). After adding the third part, utility increases up to 24 units etc. Adding subsequent parts will eventually lead to the achievement of certain peak (TV), after which the total value of benefit will decrease. Graphically it can be represented as a curve (fig. 4.3).

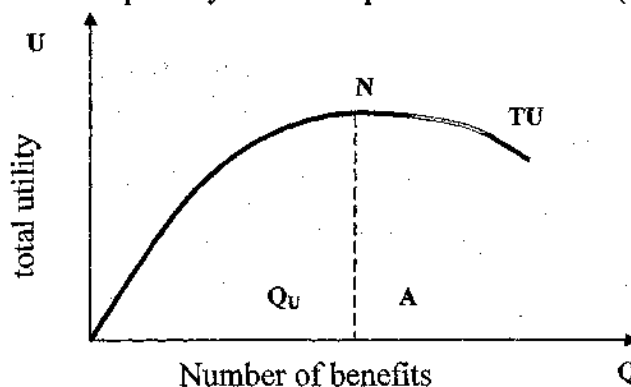


Fig. 4.3. Total utility curve graph

**Marginal utility (MU)** is the last part of the utility of the benefits available to the consumer.

For example, the consumer had three parts of boon, then the estimate consumer utility of each part of the benefit will be as following - from consumption of first part person will get 10 units of utility, from the consumption of the second - 8 units, from third - 6 units. Marginal utility is equal to 6 units. The utility of the latter part depends on the utility of the previous parts. If we assume that the goods manufactured by division into infinitesimal values, we can describe this phenomenon by the diagram (fig. 4.4).

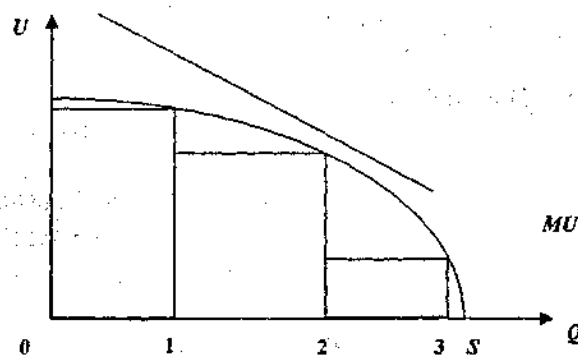


Fig. 4.4. Diagram of the curve of marginal utility

Curve of marginal utility (S) indicates that the utility of consumed one after another piece of boon gradually decreases as far as the degree of requirements satisfaction increases. Beyond the X-axis (Q) utility becomes negative.

The fall of marginal utility as consumer purchases additional units of a particular product is known as the law of diminishing marginal utility. *This is the first law of Gossen.*

So, the meaning of the first law of Gossen is that the marginal utility of each additional unit of boon received at the moment is less, than utility of previous unit. The estimation of utility is done by entity.

On current conditions while measurement of boon's utility marginalists are divided into **kardinalists** who defend the idea of the possibility of quantitative measurement of the absolute values of marginal utility, and **ordinsists** who deny the possibility and the need to measure the absolute values of marginal utility.

Kardinalists, trying to calculate the marginal utility, enter a nominal unit - *Util* (from the English. *Utility*), with help of which they measure the degree of satisfaction of needs. Total utility of any quantity of the good is determined by summing the marginal utility.

**Consumer choice** is the choice that maximizes the utility function of a rational consumer with limited resources (income).

At given prices and budget, consumer reaches maximized utility when the ratio of marginal utility to price (measured marginal utility) is the same for all consumed boons (*the second law of Gossen*).

Along with the general principles of rational consumer choice, there are features that are determined by the influence of his tastes and preferences. American economist X. Leibenstein identifies three typical cases of mutual influences.

1. **Accession to majority effect** (imitation). Consumer trying to keep up with the others buys one what others are buying. It depends on the opinions of other consumers, and this dependence is a direct.

2. **Snob effect**. In this case, the consumer is dominated by the desire to stand out from the crowd. Here, individual consumer depends on choice of others, but this is inverse relationship.

3. **Veblen effect**. In the name of Veblen (1857-1929) X. Leibenstein prestigious names or conspicuous consumption, vividly described in the "Theory of the Leisure Class" (1899), when goods or services are not used for their intended purpose, and to make a lasting impression on others.

Thus, the model of utility can be used to explain consumer behavior and predict its likely response to changes in prices.

Due to the fact that attempts to measure the utility via using the absolute scale didn't succeed, a number of scientists proposed to replace absolute scale to relative one and to describe the behavior of the consumer with the preferences (or ranking).

The largest contribution to the development of the theory of ordinalism: ordinal theory was made by Francis Ysidro Edgeworth, Vilfredo Pareto, an outstanding Soviet mathematician, statistician and economist Yevgeny Yevgeniyevich Slutskiy (1880-1948), British economist and mathematician

statistician Roy George Douglas Allen (1906-1983), British economist and Nobel Prize awardee John Richard Hicks (1904-1989) and Paul Anthony Samuelson. Below is a modified by authors version of this theory.

There are three stages of consumer choice from the perspective of a serial approach: analysis of consumer preferences, analysis of cash budgets of the consumer; consumer choice as a result of optimization.

Source tool for the analysis of consumer preferences in this theory are the indifference curves.

**Indifference curve** shows the various combinations of two economic boons, which have the same utility to the consumer. Indifference curves provide information about the preferences of consumers to product A or to product B. In other words, the indifference curves shows what the consumer wants to buy with certain cash income.

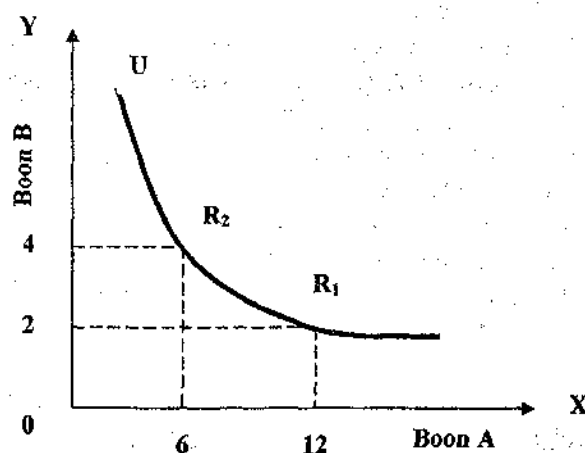
Consumer preference concerns all boons, but for simplicity we will consider only two boons (see tab. 4.1).

**Table 4.1**

**Table of indifference**

combinations	unit of product A	unit of product B
S	12	2
K	6	4
I	4	6
T	3	8

In combination S product A (apples) 12 pieces per week are consumed, and the product B (pears) only 2, in combination K respectively 4 and 6, etc. If these data are transferred in to diagram, indifference curve U will be obtained (fig. 4.5).



**Fig.4.5. Indifference curve U**



A set of indifference curves is called as a chart of indifference curves (fig. 4.6).

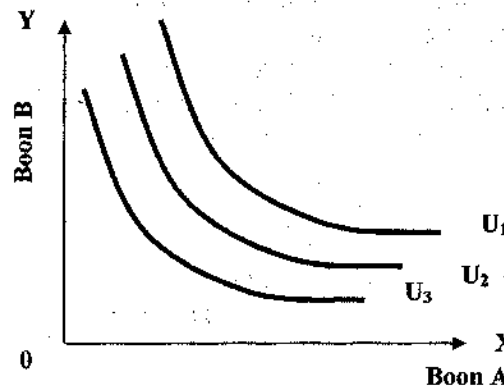


Fig. 4.6. Map of indifference curves

In the diagram, the righter and higher indifference curve is located, the greater satisfaction is represented by its combination of two boons. Indifference curves are continuous functions, not a set of discrete points; they have a negative slope, convex with respect to the origin, and never interfere with each other. Therefore, through any point there is only one indifference curve.

The Design and Analysis of indifference standard form based on the following assumptions or axioms:

1. *The axiom of rationality of the consumer as an economic entity.*
2. *The axiom of continuity.* All products can be continuously broken down into smaller and smaller units, so that the size of units in which goods are selling, doesn't hold back consumers;
3. *Axiom of choice.* Involves a person's ability to answer clearly the question - which of the suggested consumption sets A or B is more preferable for him. The obligatory is to choose one of three options: either set A is preferential to set B ( $A > B$ ), or set B is preferential to set A ( $A < B$ ), or sets A and B have the same utility for consumer ( $A = B$ );
4. *Axiom of transitivity.* According to this axiom for any three consumer baskets (sets) A, B and C, if the user prefers set A more than set B, and set B more than set C, then it is definitely that consumer prefers set A to set C, or  $A > B > C$ , to  $A > C$ . Similarly, if for consumer the consumer basket A has the same importance as consumer basket B and consumer basket C, then basket A and C are also equal by their utility for this consumer, or if  $A = B = C$  then  $A = C$ ;
5. *The axiom of instauration.* For any set A, there is always set B, which is more preferable for the consumer. This means that the consumer has no saturation threshold and he will always prefer to have a larger number of goods than small one. In this case, if the amount of at least one of the items in consumer basket increases, the level of his satisfaction will increase. Algebraic expression that indicates the proportion in which the consumer is willing to exchange one

commodity for another, is a kind of proportion where increment of goods  $B$  to increment of goods  $A$ , or  $MRS = B / \Delta A$ .

This proportion is negative because of the negative slope of standard indifference curve. At the infinitesimal little change of  $A$ , proportion approaches to slope of the indifference curve. So if you imagine dependence between quantity of  $A$ ,  $B$  and level of utility  $TU$  as a function of  $B = f(A)$ , then the marginal rate of substitution is equal to the derivative of this function:  $MRS = f'(A)$ .

**Area of substitution** – is a section of indifference curve, where effective substitution of one boon for another is possible. Let's consider the indifference curve  $RS$  (fig. 4.7).

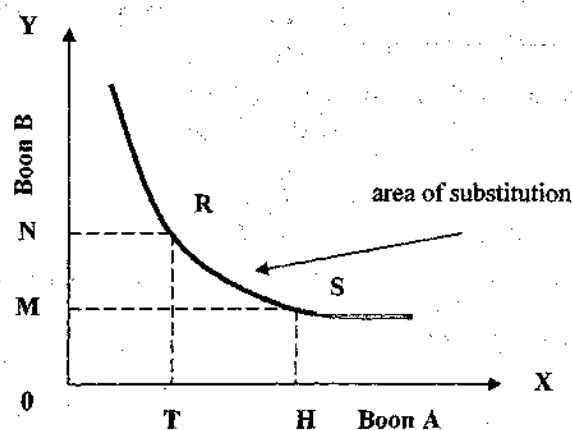


Fig. 4.7. Area of substitution

Indifference curves can identify consumer preferences. However, this does not take into account two important factors: the price of goods and income consumers. Indifference curves show a good opportunity to replace one instead another. However, they do not determine which set of goods the consumer considers to be the most profitable. This information gives us a budget constraint (line of prices, the direct line of expenses).

**The budget line** shows various combinations of two of the products that can be purchased at a fixed value of money income. For example, if product  $A$  costs 1.5 thousand USD and the product  $B$  costs 1.0 thousand USD, then the consumer would buy all combinations of products  $A$  and  $B$  shown in table. 4.2 for cash income, equal to 12 thousand USD. Note that in one of two extreme cases consumer could spend all of his income to buy 8 units of product  $A$  (apples) so wouldn't have any money to buy product  $B$  (pears). Or, abandon from 2 units of product  $A$ , thus saving three thousand USD, he could buy 6 units of the product  $B$  and 3 units of product  $B$  and etc.

Table 4.2

**Budget line of products A and B, available to buyer  
with an income of 12 thousand USD**

unit of product A (price 1.5 thousand USD)	unit of product B (price 1 thousand USD)	total expenditures (thousands of USDs)
8	0	12 (= 12 + 0)
6	3	12 (=9 + 3)
4	6	12 (=6 + 6)
2	9	12 (=3 + 9)
0	12	12(=0+ 12)

Mathematically, the budget constraint can be written as:

$$I = P_A Q_A + P_B Q_B$$

Or, in a more familiar form:

$$Q_B = \frac{I}{P_B} - \frac{P_A}{P_B} Q_A$$

where  $\frac{P_A}{P_B}$  - slope ratio of expenses line, which calculates slope of this line relative to abscissa (fig. 4.8).

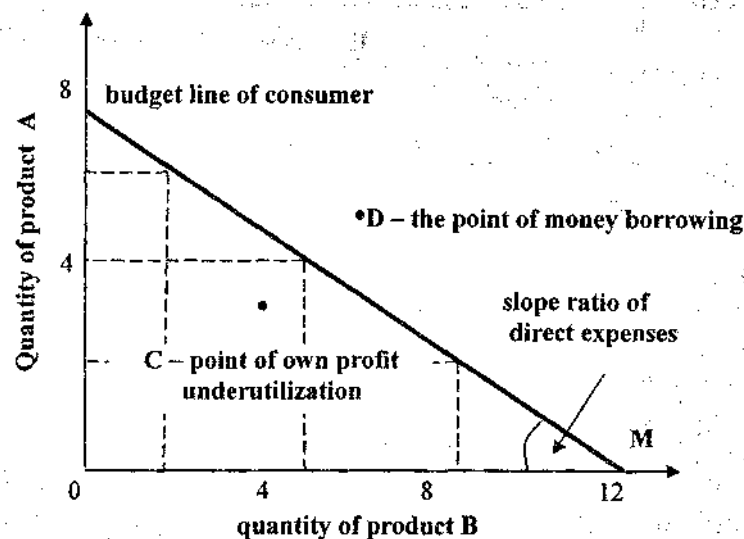
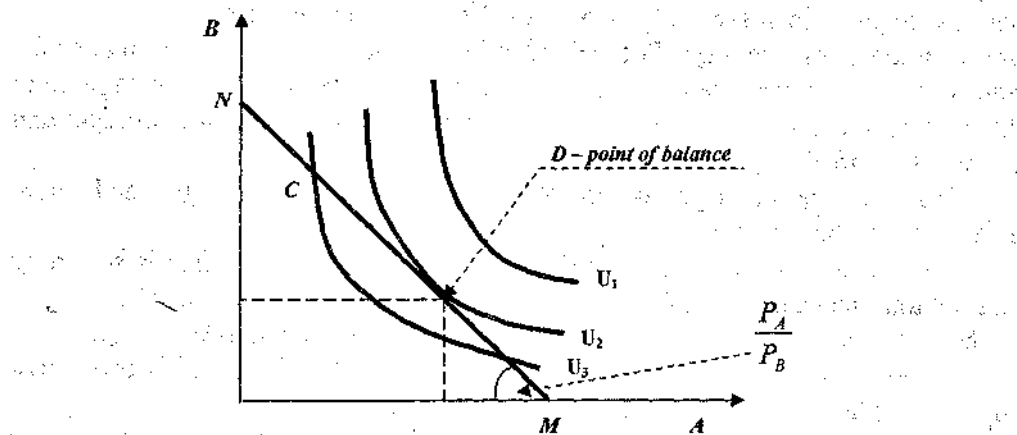


Fig. 4.8. Budget line of consumer

On fig. 4.8 budget line is described in a graphical way. The slope of budget line depends on balance of price for goods B ( $P_B$ ) to price for goods A ( $P_A$ ):

$$\frac{P_A}{P_B} = \frac{1,0 \text{ thousand USD}}{1,5 \text{ thousand USD}} = \frac{2}{3}$$

The point of crossing indifference curve with budget limitation means the condition of consumer balance. On fig. 4.9 several indifference curves are shown— $U_1, U_2, U_3$ . Curve  $U_1$  crosses budget line and in this regard is non-optimal decision for consumer.



**Fig. 4.9. Situation of consumer balance**

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goods. Further in search of more satisfaction of needs our consumer increases consumption of A goods and decreases the amount of B goods. As a result he moves to the point K, but the last movement appears to be unprofitable, as far as it decreases total use of 2 goods (the lower one of indifference curve). In this regards consumer again decreases A and increases B.

Such fluctuations lead him to a state of equilibrium, which is reached only in point D located on the highest part of the consumer's indifference curve. Of course, any point that is higher than K appeared to be more desirable, but the level of profit makes it impossible. Consumer equilibrium comes when he has no incitement to change the set of consumer goods. This means that in this state achieved the best possible result, i.e., the maximum utility of the greatest satisfaction of needs. At the equilibrium point the slope of the budget options is determined by the ratio of prices of goods will coincide with a slope of the indifference curve defined by the marginal rate of substitution. This means that algebraically the equilibrium condition of consumer can be written as:  $P_A/P_B = NRS_{AB}$ , as well as  $MRS = MU_A/MU_B$ , then  $MU_A/MU_B = P_A/P_B$  or  $MU_A/P_A = MU_B/P_B$ .

Thus, the equilibrium condition, derived by kardinalizm coincides with the ordinalistic condition of equilibrium.

Consumer equilibrium may change due to changes in prices. However, the effect of price rates into two separate effects: Effect of income and effect of substitution. The first is that with the fall of the price of goods at a constant nominal income, increases real income of the consumer that raises the possibility of this product consumption. The second effect is manifested in the fact that as the price of the goods decreases appear possible to replace them in the consumption to more expensive goods - substitutes. However, in the case of a normal product and a product of inferior quality, these effects may act differently.

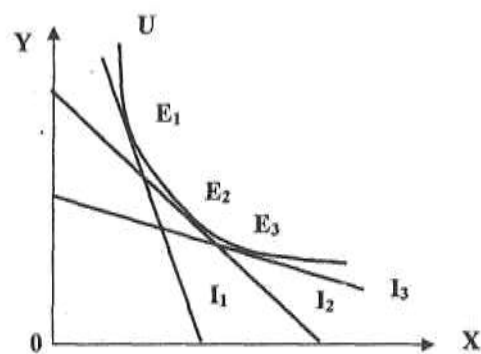
The final result depends on which effect will be stronger and more meaningful to the consumer.

Theoretically, we can imagine this case when the income effect is so strong that the total consumption of this product will be reduced as a result of falling of prices.

Described paradox is called Giffen's paradox (after the English economist XIX c.), and the goods to which it applies are called Giffen's goods.

Giffen's goods are commodity, which occupies a large place in the budget of poor consumers, the demand for which when other conditions are equal changes in the same direction as the price, because the income effect is greater than the substitution effect.

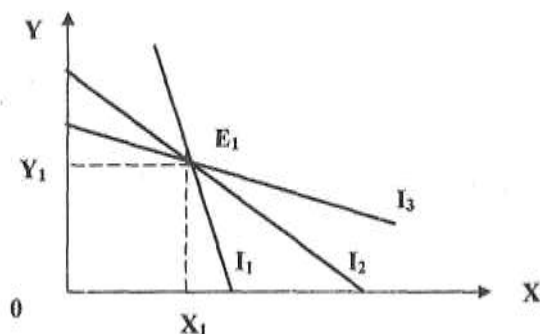
According to Hicks, the real income is the same for different income levels, providing the same level of satisfaction, i.e., allowing reaching the same indifference curve (fig. 4.10).



**Fig. 4.10. Real income (according to Hicks)**

Fig. 4.10 shows three budget lines corresponding to three different levels of income, herewith each budget line touches the indifference curve  $U$ , i.e. the same level of satisfaction is achieved - hence, the real income by Hicks is the same.

But according to Slutskiy, the real income is the same for different income levels, providing the same set of goods (fig. 4.11).



**Fig. 4.11. Real income (Slutskiy)**

Fig. 4.11 shows three budget lines corresponding to three different levels of income, with each level of income you can buy a set of goods  $X_1, Y_1$  - hence, the real income by Slutskiy is the same. Consumer behavior in the market characterizes consumer surplus.

The meaning of consumer surplus is as follows: the consumer pays for each unit of commodity the same price that is equal to the marginal utility of it, the least valuable unit for him. This means that for each predecessor to the last one, the consumer gets some income. Let's display surplus of consumer graphically (fig. 4.12).

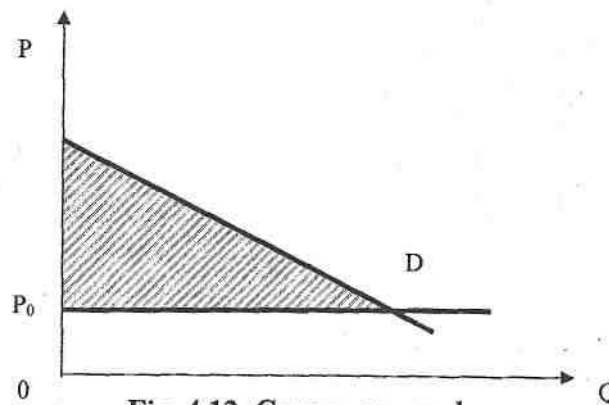


Fig. 4.12. Consumer surplus

The diagram of consumer surplus is area bounded by demand curve from above and price line from below. The lower the price, the greater the consumer surplus.

Thus, to determine the behavior of consumer on market it is possible to use the *theory of marginal utilities* and *method of indifference curves*.

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#### 4.2. Household: definition, functions, models

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**Households** - less studied economic entity in comparison to firms, both private and governmental. For a long time, hard economics bypassed the theory of household in study of various aspects of the market economy. At the present time, households take up much less space in the economic analysis than in real life.

Recently, the problem of the household increasingly attracts the attention of researchers, not only in regard with the transition to the market of several countries, but also due to the increased interest in these issues in the countries with the developed economies and free competition, their changing role in the new environment.

Modern studies of the household are based on a synthesis of different approaches, including the sociological, economic and institutional.

In any society - an ancient, primitive, developing and developed - *the family was central in production and distribution of goods and services*. It was especially important in the production, care of children and their education, food preparation, protection from disease and other risks, as a guarantor of its members' reputation.

In the XX century appeared whole science - *sociology of the family*, which studies became man and his nearest kindred environment. Now in study of family engaged: social anthropology, family law, social psychology of family, medicine and health sociology, demography and other disciplines.

The modern *concept of structural functionalism* suggests considering the family and household in the context of their function in society. Thus, T. Parsons considers that the main function of family is life support. According to him, the

same as economic system in the society supports the possibility of existence of all other systems (subsystems) in society, so householding allows family to exist physically<sup>20</sup>.

The social behavior of households, from an economic point of view, was studied in details by *the theory of exchange*, which is an important trend in sociology and at the same time is complex fusion of psychology, economics and sociology. The creator of this theory is an American sociologist and psychologist George Homans (1910) sets out its main provisions as following: "Social behavior is an exchange of value, both material and non-material, such as signs of approval and prestige. People, who give a lot to others, try to get a lot from them, and the people who get a lot of others are experiencing influence from their side, aimed at ensuring that they can get a lot from them. This process of influence tends to ensure equilibrium or balance between the exchanges. The thing that person gives can be a cost him... and what he gets - reward and his behavior changes in a less degree, if he gained profit, i.e. reward minus cost keeps the minimum value"<sup>21</sup>.

Households may form a social network, in which the behavior will have certain characteristics. In such networks relationships are often built on the principle of *equivalent reciprocity*, which suggests, that the relationship between the family members are not based on strict principles of a formal exchange. This principle does not require prescribe clear rules and obligations, and often does not involve the use of money.

*The new institutionalism* is a relatively recent onset in the direction of economic science, which examines the "home world" and the features of its functioning in comparison with the systems of other "worlds." French scientists L. Boltanski and L. Thevenot emit several "worlds" that are governed by different systems of values<sup>22</sup>.

In economic theory, two models of households in a market economy are best known today - the neo-classical and institutional.

*Neoclassical model of household* considers household and individual as identical concepts. This is a very narrow approach, because a household may consist of several actors (parents, children, etc.). In the framework of this model it is not examined relationship within the household, the purpose of its formation and etc., in this sense, the household the same as the firm is a "black box."

Currently gradually occurs expansion of object of economic theory study, inclusion of new aspects of the relations within the household, previously considered to be "non-economic", for example, demographic. Representatives of this approach are G. Becker, T. Schultz, who proposed a "new economic theory of the family" and etc.

In the West, the economy of the family as a separate line of research in economic theory was developed from the late 50's - early 60 's. of XX c., When G.

<sup>20</sup>Parsons T., Bales Ya. Family, Socialization and Interaction Process. - N. Y., 1955.

<sup>21</sup>qua. by book Antonov A. I. Micro-sociology of family: methodology of research of structural processes - M.: Hota Bene, 1998. - p. 67.

<sup>22</sup>Thevenot L. Organized complexity: conventions of coordination and structure of economic reformations // Economical sociology: new approaches to institutional and net analysis - M, 2002.



Becker and others tried to combine the determinants of fertility in terms of the theory of consumer behavior.

*The new economic theory* explains the nature and functioning of the economics of the family and household, patterns of their formation, Marital and reproductive behavior, internal relationship of its members, the role of these family members via bringing together all aspects of their operations in a single concept that is based on the universal approach.

Being a market unit, households exist under the laws of the market. All decisions made by the household dependent on price changes in the economic environment.

Household in this model is represented as *an entity, acting rationally*, which means the intelligent use of the conditions and means to achieve this goal by the household. Household - it is always "optimizing innovator", *it functions in the absence of uncertainty*, i.e. expected results of its operation either reliably known or not known precisely, but can be described by probability distributions.

*The neoclassical model of household* assumes that the household is able to process any set of information, clearly delineates the preferences and constraints, goals and means, possible effect of restrictions on preferences. Household is analyzed as strictly regulated and consistent set of preferences, and its behavior - like optimizing actions for maximizing of objective function (utility).

*The institutional model of household* attracts attention to the rules, regulations and thinking patterns that govern the behavior of the subject of a market economy in the real economic environment. We analyze the internal structure of the household, the motives of its formation, and the purposes of activity.

In the scientific literature, the most common is following definition of "household".

*Households* market economy is an economic unit consisting of one or more persons, which makes independent decisions, seek to maximize the satisfaction of their needs, owns a factor of production (mostly labor), provides the production and reproduction of "human capital."

*Household* - one of the three economic entities, along with businesses and government. Home improvement encompasses economic objects and processes where resident person, a family. Household is a owner of a factor of production (land, capital, labor). Household, except for families can be called and organizations that are engaged in the production (church, trade union, party).

The concept of the household as the *aggregated macroeconomic unit* that combines all consumers, employees, owners of large and small capital, land, capital goods, persons employed or engaged in social production.

*The main features of the household* are living together and arrangement of life, co- management of the economy, the possession of certain resources, autonomy in making economic decisions, and the pursuit of maximum satisfaction of needs.

The variety of households is due to differences in the number of its members, their age and gender characteristics, education, occupation, and many other factors.

Hence the need to organize households in accordance with a number of classifications, the most important of which are the following.

First, it is *territorial and regional affiliation capacity* (urban, rural, large cities, villages, etc.).

Second, the four main " public-population " characteristics, including *demographics* (number of family members, the presence of children; mono-rational, mixed, gender of household members, the degree of kinship, age characteristics, etc.), *the revenue* (the level and structure of income, number of dependents, type of consumption - focus on savings or current maximum satisfaction, spiritual, prestigious needs, etc.), *property* ( type of housing - apartment, house, villa, the availability of means of mechanization and automation of domestic work, etc.) and *economic* (employment in the household: entrepreneurship, employment in the state, a commercial entity, the number of able-bodied, individual labor activity, private farms, small businesses, etc.).

Thirdly - it's *social status* (employed, unemployed, retired, unemployed, education, economy, trade, office, etc.).

The fourth feature characterizing households, is the *criterion of power* (patriarchal, matriarchal, elitist), where there is no clear-cut heads of household and dominates situational distribution of power between the father and mother.

Finally, this is the last of this series feature, which categorizes households *by origin and portability to tradition* to individual and linear. Note also that the co-eminent Russian sociologist Pitirim Sorokin in 1920 distinguished individual and patriarchal families, and among the individual ones - "nationalized."

Households are divided into *singular* and *group* ones. Single or simple households are those which are formed by single individual or several families as well as those families with singles. Group formed households permanent or temporary groups of people to co-organize everything and their life in various hostels and boarding schools.

The most common division of household is simple (nuclear family), and hard - family. *Nuclear type* households consist of a married couple and children. Difficult structural family household includes other relatives also. Difficult-structural family type household can appear either on one of the life cycles household or be a form of the plug steady state.

What exactly is the role of households in the economic life of society, which functions it performs?

**Household** - a subject that generates income, allocate and reallocate them among its members, thereby providing the material conditions of reproduction, not only in the present but also for future generations.

Home improvement determines the nature of the use of income that is, converting them into various consumer boons - goods, services, accumulation. Issues such as the purchase of expensive things, the implementation of expensive forms of recreation and entertainment, and other activities associated with significant costs money, often solved the entire household as a whole. This makes the subject of household spending the implementation of individual and total household income.

Household - the main subject of the reproduction of labor resources. It performs this function indirectly, through the reproduction of the population, which explains the interest of economists and sociologists to demographic processes, which depend on the course of the prospects for labor.

Household - the most important of social subjects, on which depends fullness of self-realization of individuals in work. This role of the household is explained through the fact that it performs the function of the primary socialization of new generations, including their introduction to the work. Second, the household provides the material, social and psychological conditions that may contribute to or on the contrary, hinder work of its members. Or that the role of the household, ultimately, affects the performance of economic development.

Household is a key factor on which depends the economic and social consciousness of the population, its system of social values and needs.

Finally, the household influences the final performance of the economics. This role is related to the fact that in the process of consumption of the household consumer confirms the usefulness of the product, making the livelihoods of household important stimulator of the economy.

**Macroeconomic Role of households** is based on the fact that it is in a market economy the most important factor in the redistribution of income and, consequently, the formation of effective demand. Wages, income from business activities, other revenues are redistributed at the household level, in accordance with the number of its members, their socio-demographic characteristics, which in turn affect their consumption exactly in role of members of this farm. Foreign studies have shown how important the factor of family for personal consumption.

Household in a market economy is *an important source of capital accumulation* (in developed countries, more than half of the savings coming on the development of production are family originated), and therefore a source of economic progress.

In a market economy, the household is the main link of the formation and accumulation of human capital. Therefore, the system of its functions can be considered in three stages: formation, production and sale of human capital.

*On the first stage* performs creation of a material base in the implementation of the household the following: formation and use of its budget, housekeeping.

*On the second stage* of household performs the following functions: fertility, educational, recreational. At this stage the physical basis of human capital. Simultaneously it is carried the adaptation of this capital to the socio-economic life-system. For the production of human capital, the following factors are required: material resources, products and services, as well as the producers themselves - members of the family.

*In the third stage* different ways of business and employment implements the following functions: individual participation of household members in a market economy, the organization of the family business, their corporate forms of participation in a market economy, housekeeping, reception and distribution of income.

The functions of the household at all *stages of the formation and functioning of the human capital are related*. For example, a reduction in fertility reduces the labor potential of families and households, reduces the performance of their functions, and may adversely affect the educational function.

All functions have targeted focus on improving the welfare of the accumulation and recovery of costs associated with the creation of human capital and the development of entrepreneurial capacity. All of the above can be summarized as follows (fig 4.13).

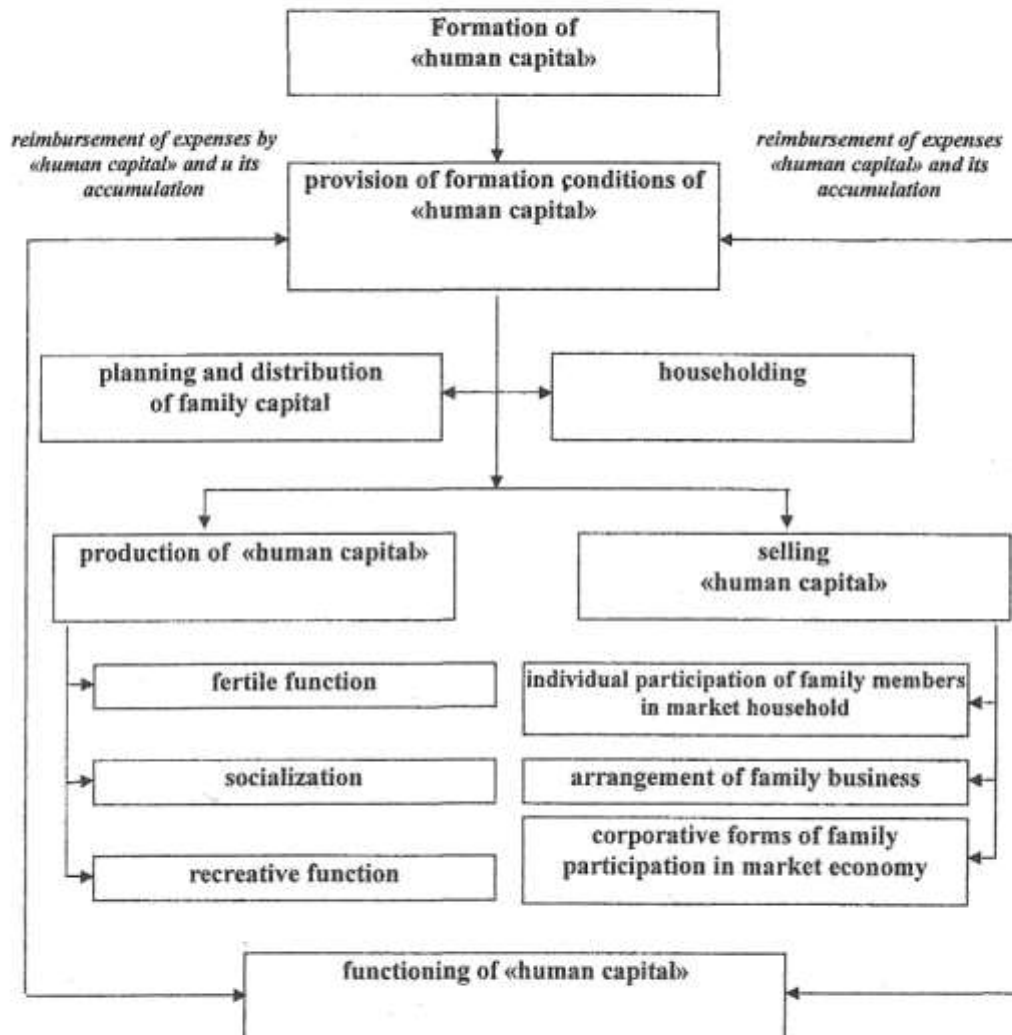


Fig. 4.13. Functions of the family on the formation and functioning of the "human capital"

*Householding* is a form of industrial activity of family. In the household are made services and products designed to meet their own needs. The systematic production of household for sale or the sale of services in the market is

characterized by a family, the self-employed and agricultural production - private farms with commodity focus.

Important function of the family are the organization of the family business, individual participation of family members, as well as corporate forms of family involvement in a market economy, etc.

Neoclassical theory explains the behavior of households and families, using a *universal approach*. The characteristic features of this approach are:

First, the market advocates universal form of human life, and not just economic;

Second, man in all his complexity and multi-dimensionality is reduced to economic consuming entity that seeks to maximize consumption in the context of limited resources;

Thirdly, all kinds of human behavior are transformed into actions of the rational individual, who have also possible, more information on the free consumer choice of action.

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### 4.3. Theories of firm

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The traditional theory explains the behavior of a firm desire to maximize profits. This theory is based on two assumptions:

- The owners are responsible for daily operational control and management of the affairs of the company;
- Their only desire is to maximize profits.

The theory proves the thesis about maximizing profit with equal marginal cost and marginal revenue  $MS - MR$ .

In practice, however, this theory faces a number of difficulties. First, firms do not use marginal analysis to estimate or predict their activities. The same difficulty estimates of future revenues and expenses perform. Finally, it is almost impossible to predict the action and reaction of other firms and to assess the impact of their activities.

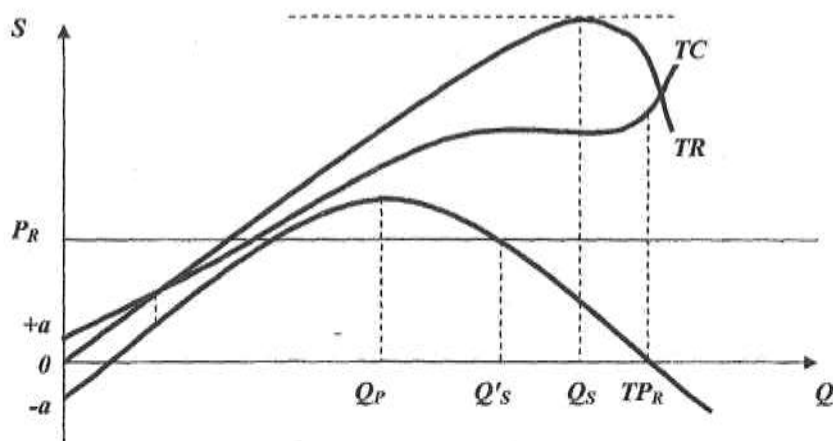
Let's consider the most important theory.

***Managerial Theory of the Firm : maximizing sales revenue.*** This concept is based on the following assumptions:

- Operational management is carried out not by owners but by professional managers;
- The purpose of management is to maximize sales and revenue.

The diagram in fig. 4.14 shows the extent of possible differences in the volumes of production of the company by maximizing profits and maximizing sales proceeds. In the latter case, the volume of production and sales increases until such time as the marginal revenue from the sale of  $Q_x$  unit would not become zero.





**Fig. 4.14. The extent of possible differences in the volumes of production while maximizing profits and trading revenue**

This means that total revenue is no longer able to increase and therefore, it reached maximum. If maximizing profit output is set at level  $Q_P$ , since this is where the greatest difference between the achieved total revenue and total cost, i.e. profit was the highest.

It is easy to see that for maximizing the profit of the company in sales is reduced compared with the option of maximizing profits. This situation usually causes discontent shareholders, managers who can set the minimum acceptable level of profit. If such a decline in profits limiter set at  $P_R$ , managers will increase the volume of sales as long as it does not threaten the profits fall below acceptable limits. New sales will be set at the level of  $Q'_S$ , corresponding to the point of intersection of the curve  $P_R$  and  $TP_R$  of cumulative profit.

Neoclassical economists argue that the owners and managers have a common goal - maximization of the firm's growth. Managers seek to do so in order to improve their personal status and salary. The owners seek to increase its assets, pursuing goals of personal enrichment. Managers always prefer growing company just a large firm. The centerpiece is a metric called the norm of retained earnings. All profit corporation is divided into two parts : one part is paid as a dividend on the shares, and the other is retained and forms the foundation of production. The ratio of retained earnings to a distributed forms the retained earnings rate or the rate of retention of profits.

Thus, the distribution of profits in two parts and the establishment of normal earnings retention is not a simple matter and fraught with difficulties and contradictions. In solving this problem usually the principles of "balanced growth" are supported.

Formally, the merger is different from absorption, although in practice is not always easy to distinguish one from the other.

**The merger** means the mutual agreement of two management companies to merge. The usual mechanism of merger is replacement of corporation's shares with the new shares a single sample. The name of the joint venture often includes the

name of the former firms. Merging commonly do not require special financing funds.

**Absorption** occurs when one company acquires another. Leaders of firm A makes direct offer to shareholders of Company B to redeem their controlling stake. The offer price is usually much higher than the market rate. For the operation of absorption buying company requires significant special fund to pay for a controlling stake. As a result, the absorbed company and the name ceased to exist as a separate legal entity.

Merger (absorption) has a few basic types: horizontal integration, vertical integration and conglomeration.

**Horizontal integration** is used when combined firms producing the same type of products or performing the same stage of a process. Horizontal integration can be described as intra- concentration and centralization of production.

**Vertical integration** takes place while combining the companies that perform the different stages of a single process. In fact - this is inter-industry concentration and centralization of production.

**Conglomerate** appears as a result of merger of companies whose processes are not connected. Conglomerates are formed either by diversifying production, either by purchasing "on occasion" foreign firms.

**Behavioral Theory of the Firm: The theory of multiple targets.** The above theory suggests that the firm has only one goal (profit, sales volume growth), which is maximized. Other theories are behavioral - based on the premise that the firm has many purposes. This assumption is based on the interpretation of the corporation as a complex system in which the hierarchy of control subjects corresponds to the hierarchy of interests and goals. This set includes interests:

- Workers seeking higher wages and staff, good working conditions, safety, meaningful work, further training and professional development, etc.;
- Managers, aspiring to power, raise their social status, career, income growth;
- Shareholders who wish to receive high dividends;
- The top management of the company, which seeks to improve the economic performance of the company, to increase the prestige of the firm.

That the firm could exist as a single entity, to be sustainable and viable entity, senior management must be able to coordinate these private interests and common strategic interests of the company as such. On the ability of the administration to put out the differences of interests, most painless way to resolve their conflicts, to maintain a stable social situation in the team depends on the prosperity of the company.

There are many options for private behavioral theories that offer recipes harmonization of private and public interests in the corporation. Much attention is given to behavioral theories of the influence of external environment in which the company exists and functions. One of the theorists of behaviorism - I. Ansoff, noted in 1984 that there are over 2000 different models of strategic behavior of firms, allowing it to adapt quickly to the changing ambient world. But none of the existing theories may claim the full explanation for the problem, each has its own

weaknesses and internal contradictions. However, in each of the theory is contained rational analysis to help understand the actions of modern companies in the market, predict their future behavior, assess the consequences.

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#### 4.4. Production costs and profit of firm

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Under the "production" in the modern economic science can be understood any activity of members of the public on the use of natural resources. Natural resources also include human resources. The purpose of industrial activity is to create the necessary individual member of society and society of tangible and intangible benefits. However, it should take into account the significant differences between the activities of workers in different spheres of production. One thing is to work at an engineering plant in production of personal computers, the other is designing them, and the third thing is sale of them. For the most part under the "**theory of production**" it is understood the theory of transformation processes or transformation of resources in the various types of products and services.

As far as the manufacturing process has expenses (costs) and the results, it is natural the fact of formulation the question of the production function. Since the production function describes the relationship between costs and results, it inevitably would be in contact with the efficiency of the function and its arguments. More effective is recognizes the technological production method that provides more products for a given resource or, conversely, requires fewer resources for a given product volume. This is essential for society as a whole and for each economic agent.

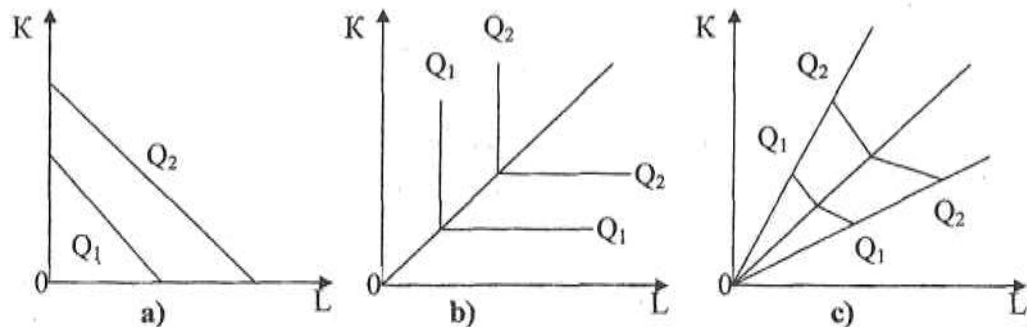
The products should be recognized as a stream, i.e. measured in a certain unit time. As far as creation of each type of product has a lot of historical modes of production, it is rightfully to claim that in coordinate system of production factors would be a lot of points that reflect appropriate number of factors needed for this technological mode of production, i.e., providing a given issue. Typically these points are curved shaped lines and called "*isoquants*". Different combinations of factors of production have different volumes. Therefore, on the graph of production function we see a *family of isoquants*. The gap between the isoquants in the coordinate system characterizes the differences in the volumes of production.

Changes in the ratio between used factors of production is reflected via movement of factors along each isoquant. One factor is replaced by another for creation a certain amount of product. This is called "*substitution*", and the slope of the isoquant is the "*marginal rate of substitution*." It is clear that the isoquant can have a variety of forms: direct line (perfect substitutability, and the constant rate of substitution) two pieces joined together at right angles, and several segments joined at obtuse angles, etc.

Production time can be classified as an instant, medium (short) and long periods, which were discussed in the consideration of the theory of supply and



demand. Recall that with the expansion of production capacity there is an effect of scale. The following options of scale effect are possible (fig 4.15).

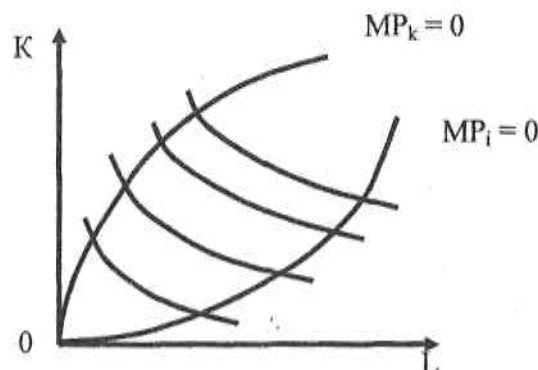


**Fig. 4.15. Effect of scale: a - decreasing returns from scale, b - constant returns from scale, and c - increasing returns from scale**

Firstly, by increasing factors in several times output also increases for the same amount. It will be a constant return to scale. Economies of scale may be increasing if the volume of production increases. If  $n = 1$ , then the function is called "homogeneous" and  $n$  is an indicator of homogeneity. If this condition is not satisfied, then the function is unhomogeneous. For  $n = 1$  the scale effect is constant and is known as "linear homogeneous." Thus, when  $n < 1$  appears decreasing effect of scale, and when  $n > 1$  return from scale increases. Constant return from scale is usually the case in a technologically simple industries.

Negative effect of scale is in complex industries mostly, such as high-tech technology. The views expressed above are relatively simple situations allow, if necessary, to consider at classes the options of scale in relation to the instantaneous, medium and long-term periods.

Let us turn to one more important point. The entrepreneur is not interested in the entire length of the isoquant, but only that portion in which the marginal products of each of the resources remain positive, or at least not decreasing. All points on the isoquant, reflecting zero marginal products, form the boundaries of the effective area of isoquant (fig. 4.16).



**Fig. 4.16. The family of isoquants with a dedicated effective area**

*Economic costs* is payment to suppliers, carried out by the company, or the income of resources provider, as well as internal costs to ensure that resources would be used by this company and it is for a specific version of the production.

First of all internal and external costs allocated.

*External costs* related to the fact that the firm pays employees in their work, the fuel, components, i.e. all that it does not produce by itself for creation of this product. Depending on the specialization the value of external costs for production of the same product ranges. Thus, on assembling factories proportion of external costs are more.

*Internal costs*: the owner of own company or store does not pay himself salary, does not receive the rent for the building, where the shop is. If he puts money in the trade, he does not get those interests that he could have in case of putting it in the bank. But the owner of this company is getting so-called "*normal profit*". Otherwise he would not pursue the case. *Profit received by them ("normal one") is an element of cost*. It is decided to allocate more pure or economic profit, which is equal to total revenue, net of external and internal costs, including a normal profit. In contrast, economic profit, the book profit is total revenue minus the external costs.

Practice has shown that the value depends on the cost of production. In this regard, there is a division of costs on the dependent and independent from the quantity of production.

*Permanent costs* don't depend on the volume of production. They are determined with the fact that cost of company's equipment must be paid even if the plant shuts. Permanent costs include payment on bonds, rental payments, some deductions for depreciation of buildings and facilities, insurance premiums, some of which are mandatory, as well as senior managerial staff salaries and specialists of the company, payment for security and etc.

Unlike permanent, *variable costs* are directly dependent on the amount of production. They consist of the costs for raw materials, energy and wages to the workers, transportation and etc.

The amount of fixed and variable costs make up *total costs*. For production management it is important to know the magnitude of costs per unit of output. In this regard, the *average cost* is calculated by dividing the amount of costs for the number of units produced by the company.

In the same way are calculated *average permanent* and *variable costs*.

Since the purpose of the functioning of the firm is to maximize profit, the subject performs the calculations the volume of production, which, in turn, necessitates the use of the category of marginal costs.

*The marginal cost* is the cost to produce each additional unit of output relative to the actual or estimated total production.

It is necessary to distinguish between short-term and long-term periods in economic analysis. In economic terms, the essence of the difference between them lies in the possibility of changing the production capacity. Within a short period, it is impossible to put into operation new production facilities, but may increase the extent of their use. Within the long-term period, you can expand the production

capacity. Of course, these time periods are different for different industries. The division into two periods is of great importance in determining the strategy and tactics of the firm's profit maximization.

Costs affect the firm's behavior in the short and long-term periods.

Fig. 4.17 demonstrates the cost curve and the possibility of operation of the firm. Since on making decision of firm the most important are the characteristics per unit of product, let's consider the data on the average values of the various costs. Fixed costs per unit of output, i.e., specific fixed costs, with the increasing of output fall as their absolute value is unchanged. In practice, the amount can undergo minor changes. So, with the increase in production may increase security costs due to increased risk of theft.

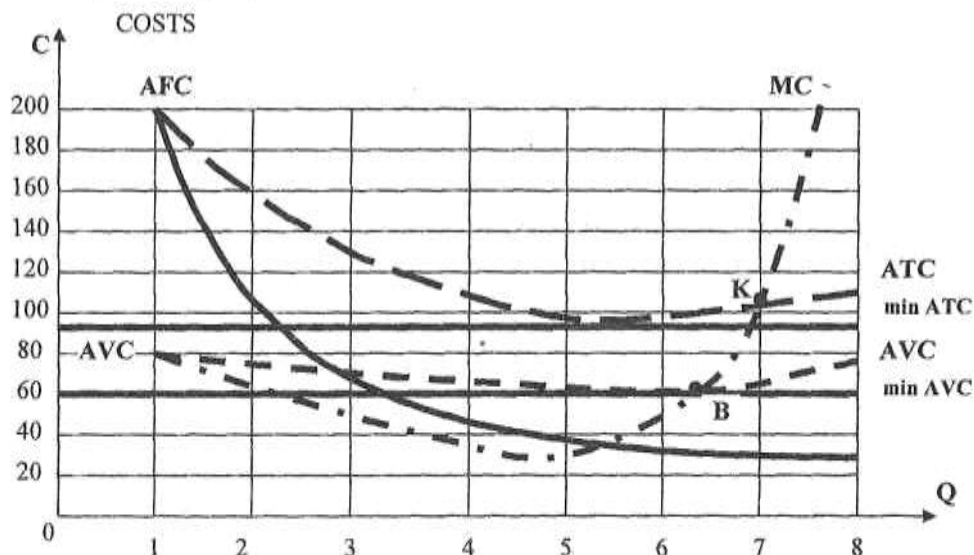


Fig. 4.17. Cost curves and functioning capacity of the company

More complicated is dependence of variable costs as a function of output growth. In the first phase *AVC* curve shows the decrease of the specific variable costs : effect of scale, increasing the volume of production. But then the unit variable costs start to rise: on a scale effect takes over operation of the law of diminishing returns. For example, on machine-building enterprise the work with three full shifts can reduce the impact of equipment as well as output in the third shift eliminates the possibility of preventive maintenance, which will inevitably result in downtime of machinery and equipment. As for the total cost curve (*ATC*), it falls faster than each of its components (*AFC* and *AVC*), which is quite natural.

The activities of the company are the following crucial moments. As long as the marginal cost (*MC*) is less than the average cost (*ATC*), is a decrease in average costs, which will continue as long as the last increase in the marginal cost would be less than all the previous ones.

At the point K where the curves MS and ATS intersect, takes place minimum of the average cost (ATC). To the right of point specific total costs begin to rise. It follows that the point to the market price is equal to average total cost.

This point is called the "break-even point", i.e. critical volume production. If the market price below the company will begin to leave the industry (or this production.) Continue to work at this point it is possible, if the transition to production of other products associated with greater risk analysis of prospects or leads to the conclusion in the shortest possible time, increase product prices due to increased demand and the deterioration of the competition.

Much worse situation of the company, if it was at the point B, where the selling price is equal to a specific variable cost (AVC). In this case, the sale of products does not allow recovering all the costs of its production. Management of the firm is left with no choice but to stop the production of these products. Not excluded the option of hammering the company.

Consider how the strategy should be based in the firm long-term durable period. Because in the long-term production capacity and change it appropriately - number of employees, it can be concluded that all of the costs in the long-term period, act as variables (fig. 4.18). Expanding the company will change total costs. As in the short term, they will first decrease due to economies of scale.

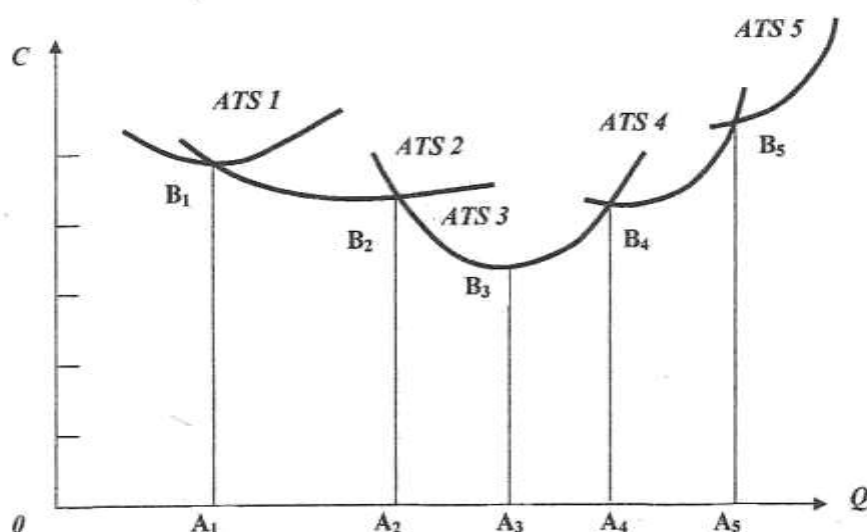


Fig.4.18. The curve of the long-term average total cost of the company (five different capacities)

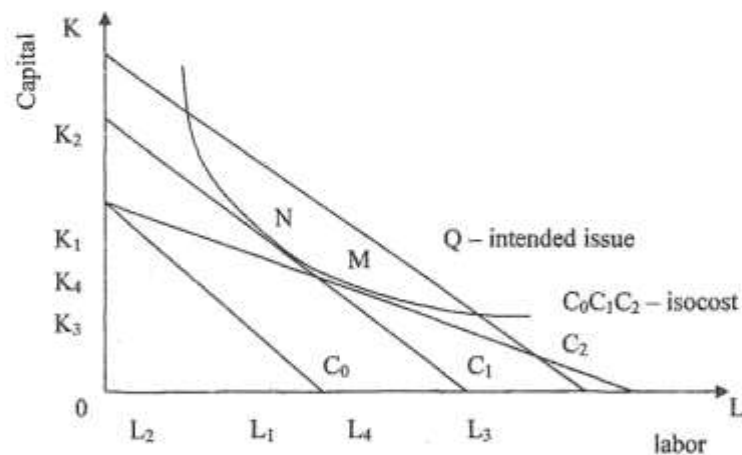
Then, when the effect of scale of production will be wasted, they will reach the minimum. You will then begin the process of increasing total costs. On pic. 4.18 ordinates  $A_1 - B_1$ ,  $A_2 - B_2$  and subsequent ones express values of total costs while building the capacity of the firm. It is easy to see that they are minimal in the third embodiment, and then begin to increase. The actual dynamics of total costs while increasing production capacity will be expressed by curve  $B_1B_2B_3B_4B_5$ , which forms broken line, each element of which corresponds a certain stage of

increasing capacity of the firm. However, this curve is the curve of firm selection. The situation on the market changed new decision should be made: increase or decrease power.

On the long-term stage, if production capacity increased, each firm faces the problem of new balance of production factors. The essence of the problem is to provide a predetermined amount of the production *at minimal costs*.

To study this process, we assume that there are only two factors of production: capital  $K$  and labor  $L$ . It is easy to understand that the price of labor, which is determined in competitive markets is equal to the wage rate  $w$ . The price of capital is equal to the rent for equipment  $r$ . For ease of study, let's assume that all equipments (capital) is not acquired by the company and leased by, for example leasing system, and that the prices of capital and labor within this period remain constant.

Production costs can be represented as a so-called "isocosts". It is understood all the possible combinations of labor and capital, which have the same total cost, or what is the same, a combination of factors of production equal to the total costs. Total costs are determined by the formula:  $TC = wL + rK$ . This equation can be expressed isocosts (fig. 4.19).



**Fig. 4.19. Number of products in the function of the minimum cost of production**

The company can not elect isocost  $C_0$ , as there is such a combination of factors that would ensure the output  $Q$  when their value is equal to  $C_0$ . The specified output can be provided at a cost equal to  $C_2$ , where the cost of labor and capital are respectively  $L_2$  and  $K_2$  or  $L_3$  and  $K_3$ . But in this case the cost will not be minimized, which does not meet the goal. A much more effective solution would be at the point N, as this set of factors of production will minimize production costs. What has been said above is true, provided that the prices of the factors of production are unchanged. In practice this does not happen. Assume that the price of the capital increase. Then the angle of isocost equal  $w / r$ , decreases, and the curve  $C_1$  becomes flatter.

Minimization of costs in this case will take place at M with values  $L_4$  and  $K_4$ . Due to increased prices of equity capital firm replaces labor.

The marginal rate of technical substitution - this is the amount by which through the use of an additional unit of labor can be reduced capital expenditures at constant volume production. Rate of technical substitution is indicated by MPTS. In economic theory, it is proved that it is equal to the slope of the isoquant with the opposite sign. Then

$$MPTS = \Delta K / \Delta L = MPL / MPK.$$

By simple transformations, we obtain:

$$MPL / w = MPK / r,$$

MP - where the marginal product of capital or labor.

From the last equation it follows that at the least cost for each additional ruble spent on production factors, gives an equal number of products. It follows that under the above conditions, the firm can choose between the factors of production and buy the cheaper factor, which corresponds to a particular structure of production factors.

To assess the level of business practices to maximize the profits of major importance is the dynamics of costs in the middle period. In today's technological advances greatly exacerbated competition, taking on new forms, ever faster changing consumer needs and adequately plan for them - the need for the factors of production.

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#### 4.5. Corporation: essence, classification, models

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The centuries-old history of the development of the market economic system has led to the formation and increase the role of corporations in modern economic life.

Generally, the term "corporation" is used only in the economics, and there usually are considered separate types of corporations, such as TNCs (transnational corporations), FPG (financial and industrial groups). However, the term "corporation" is quite applicable to any design associations of people large enough scale.

The concept of the corporation historically developed and filled with new content. In feudal society, a corporation called the medieval craft guilds, merchant guilds, knightly orders. In modern Western countries under the corporation in civil law means a collection of individuals united for some activity and forming an independent entity activities. Corporation - is also a form of professional associations (lawyers, doctors, students).

The purpose of their association is to develop a coherent policy in the area of specialization and integration of production, the production volume of the same type of products, the section of markets, allocation of capital investments, cooperation in R & D and development of new products.



"The scope of activities and capture the same type of product markets associate the term "corporation" with a monopoly. In dictionary S.I. Ojegov term "corporation" is interpreted as "a form of monopolies"<sup>23</sup>.

Mediator and arbitrator in the corporate model of society is the state, which must be based on need of harmonizing the interests of all participating partners to guarantee the progressive development of society - not only a particular social group, providing favorable conditions for the development of the national economy and sustainable economic growth. The leading role is played by the institutions and mechanisms of social partnership.

Corporations may be at *different levels*, in particular:

- the corporation at the group of enterprises, which form a single structure;
- the corporation at the regional level;
- the corporation at the state level;
- the corporation, consisting of companies and organizations located in many countries around the world.

In broad terms, the following *types of corporations* exist:

- *Non-commercial* which doesn't have an aim for gaining profit (government, city, municipal, political, charitable, educational, religious and similar institutions);
- *Commercial Corporations* that are classified according to various criteria<sup>24</sup>.

Corporations can be either *public* or *private*. In private corporation most of the shares belong to the same owner, a family or a small group of shareholders. Among the corporations are *joint-stock companies*, *limited liability companies* and *additional liability*. Modern large corporations include or directly invest a number of plants located in the same country (*national corporations*) and in different countries (*multinational corporations*).

The current stage of market relations also led to the emergence of an active FPC or FPG (financial and industrial groups), the sphere of common interests which is not only the acquisition of resources and making a profit, but also the use of an advanced industries and technologies, the use of expensive machinery and equipment, attracting huge amounts of funds, bank capital and diversification of production. Thus, the FPG is the main representative of the market for goods and segments.

**Financial and Industrial Corporation (FPC)** - is integration associations that act as key players of modern corporate enterprise. FPC are different by forms of production integration, industry affiliation, range and scope of activities (from national to regional and international) and the degree of diversification.

Of course, the creation of the FPC are hidden various processes, including an attempt to register as an FSP for all kinds of benefits and privileges, and not at all effective meso-economic structuring.

<sup>23</sup> See for ex.: explanatory dictionary of life and grate Russian language V. Dal. - M., 1981. T. 11; monumental dictionary of Russian language XI-XVII cent. - 1880 r. T. VII.

<sup>24</sup> Civil law. Dictionary-guide. / Under reduction of Tihomirov M.U. - M., 1996. - p. 259.

**Virtual Corporation (VC)** is the latest economic phenomenon that is still in the early stages of development. VC - a system of stable electron- computer connections enterprises and organizations of production and non-production sphere, forming an extensive network around the company that created this network and materializing these relations as regular supplies and services, and in particular to the field of industrial cooperation.

Regional corporate development designed to raise the level of socio-economic development of the regions, in the fullest extent possible to unlock the creative potential of the social living of their people. At the same time, corporate development on the basis of the economy it is advisable to accompany the development and implementation of strategic programs for the spiritual and cultural development, which is concentrated in two main areas:

a) the establishment of a corporate culture of ethics in a parallel improvement of skills and training of employees of corporation ;

b) the establishment of corporations, cultural and educational centers (including material on the basis of clubs, cinemas, sports facilities), which would be put on a good level, the education of future generations, not only of the families of employees of corporation, but residents of nearby families.

The system of corporate management of a country has certain characteristics and distinctive features.

Currently, the researchers identified three main models that exist in countries with developed market economies: the English -American, Japanese and German.

**The American model of the corporation** created taking into account the market- oriented financial system, based on a developed capital market, the range of different financial instruments. Initially, a high level of industrial development corporations in many ways easier to raise additional capital. Industrial capital increased due to new share issues. Therefore, practically eliminated the need for long-term lending as a way to increase the capital of corporations.

**The Japanese model of corporation** (syudans) is a self - sufficient universal diversified economic complex, including in its structure financial institutions (banks, insurance companies, trust companies), trading firms and manufacturing companies that make up the full range of economic sectors. As consolidating core syudans since its inception after the Second World War till the present act of heavy and chemical industries.

The peculiarity of the **German model of corporations** is in close connection with the bank industry. On the basis of equity, finance, and business relationships are cross-sectorial integration of industrial concerns to financial institutions in the stable, horizontal industrial and financial union. Banks are involved not only in the financing of investment projects, but also in the management of enterprises. Therefore, creating centers of corporations in Germany are usually large banks.

The corporate model of economic development is widely used in developed countries, and especially in Austria, Sweden, Germany, Switzerland, the Netherlands, and Japan, where she was named **a corporate model of a mixed economics**.

Large industrial structures that have huge financial resources and significant opportunities to attract them, are today the most effective form of business



organization. Given that the processes of globalization bring to the fore the economic realities of the managerial aspects of corporatism, *meso-economic analysis of global governance tools* deserves special interest.

Everyone has heard the term "macroeconomics" and "microeconomics". But it is rare, even in the professional economic literature, the term "meso-economics."<sup>25</sup>

Meso-economics is a system of linkages of enterprises and organizations. It occupies an intermediate position between the macro - and microeconomics, linking them into a single process of interaction.

So, place and role of corporations in the economic life of society are caused by that the corporations are the most rational, and, therefore, a common form of organization and management of large business, the most important part of mezo-economic, performing resource maintenance management within both the national and global economy.

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### Control questions

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1. Reveal the essence of basic concepts that characterize the nature of the entities' behavior in market relations.
2. What is the essence of rational behavior of the consumer? What is the difference between the economic behavior and consumer behavior?
3. Enumerate the laws of consumer behavior, which are known to you. Can you give examples to support these laws? Show on the graph and explain the meaning of the curves of budget constraints and "indifference curves" of buyer.
4. Explain the nature of the definition of "consumer choice" in terms of indifference curve. Describe the schedule of budget constraints. Describe the impact of events on consumer choice of tastes and preferences of the consumer.
5. What is the essence of marginal utility? What does the first law of Gossen run? Reveal the essence of the category "consumer choice." What does the second law of Gossen run?
6. Compare kardinalists' and ordinalists' views of utility of benefits.
7. Give the definition of the "household" category. Reveal the essence of the views of the various economic schools per household.
8. What is the difference between household and family? What signs are households classified by? Reveal macroeconomic role of household. What are the economic functions of households?
9. Describe the basic theories, studying the behavior of firms in the market of perfect competition.
10. Explain the nature of corporation. Give the classification of corporations. What does meso-economic mean? What is the role of corporations in forming global economic system?

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<sup>25</sup>Exception is manual Economic theory (political economics). / Under V.I. Vidyapin's, G.P. Juravlyova's revision. - M.: Infra-M, 2006, where meso-economy is presented as a part of economic theory.

## CHAPTER 5 COMPETITION, MONOPOLY, SOCIETY

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### 5.1. Competition: definition and types. Efficiency of competitive markets.

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In the general sense of "competition" has long earned a place in the categorical apparatus of economic science, which indicates the level of elaboration of this category, whose founders are scientists and researchers are the U.S., Japan, Germany, Britain, Italy, Sweden, Denmark, Korea, Switzerland, Russia, Uzbekistan and etc.

**Competition** (from the Latin "soncurrere" - face) means the rivalry between the individual subjects of the market economy for the most favorable conditions of production and sale (purchase and sale) of goods.

In a market economy such a collision is unavoidable, since it is generated by the following objective conditions:

- the availability of many equitable market actors (firms and customers, producers and consumers);
- complete economic isolation of each of them;
- the dependence of market actors on the market conditions;
- confrontation with all other market entities for meeting the customer demand.

The competition is a complex phenomenon in the economy, as it is the essence of the conflict of interests of participants of market relations in the process of distribution and exchange. And as the system category the competition includes the concept of competitiveness of firms and households, producers and sellers, people and the country as a whole. More precisely strength of competition depends on the level of *competitiveness* of the market entities.

Comprehensive and systematic study of the existing views and interpretations of competitiveness have identified the following set of definitions of the categorical nature of competitiveness (see fig. 5.1):

- *The aggregate characteristic* that reflects the differences of a product from competing products<sup>26</sup>;
- *The product ability* or service to satisfy consumer, economic, marketing, and service needs of a particular market in a particular period of time<sup>27</sup> and withstand competition in comparison with other similar properties in this roar<sup>28</sup>;
- *The degree of actual* or potential to meet the specific needs compared with the same or better products and services presented in this market competitors<sup>29</sup>;

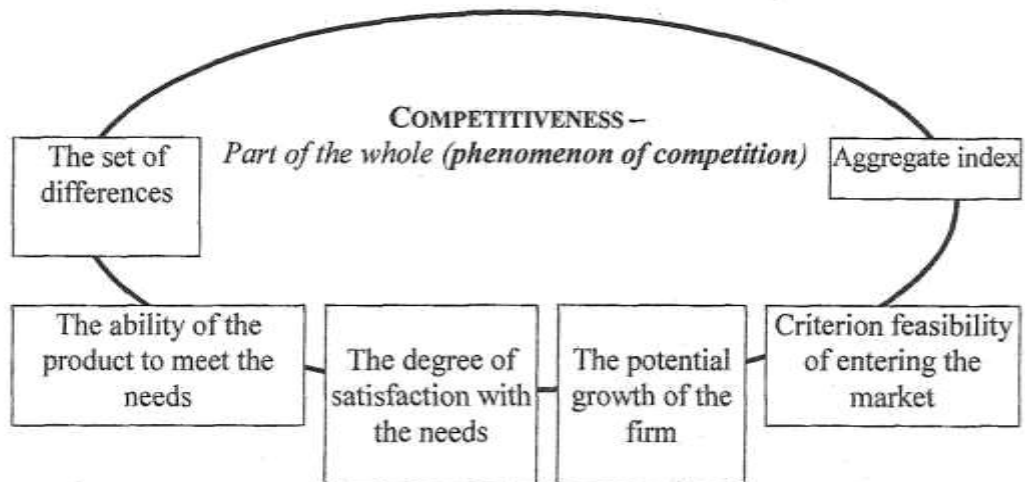
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<sup>26</sup> Alekseev A.A. Methodical approaches to assessment, forecasting and planning competitiveness. Author's research work on competition scientific degree – candidate of the economic sciences - Minsk, 2004.

<sup>27</sup> Alekseev A.A. Methodical approaches to assessment, forecasting and planning competitiveness. Author's research work on competition scientific degree – candidate of the economic sciences - Minsk, 2004.

<sup>28</sup> Large Dictionary of Economics. / Ed. Azriliyana A. - M.: Institute for New Economy, 2004. Fatkhutdinov RA Competitiveness: the economy, strategy, management. - Moscow: INFRA-M. 2000. - p. 10.

- *The potential possibilities* of companies in the current circumstances to design, produce and market products that are on price and non-price characteristics are more attractive to consumers than their competitors' products<sup>30</sup>;
- *The most important criterion* for the feasibility of entering firms in commodity markets<sup>31</sup>;



**Fig.5.1. Definitions of the essence of competitiveness, cited in the economic literature**

– *A set of economic indicators* that determine the position of a firm in the industry market (national and international). Among them - the quality, cost, forms and methods of trading, pricing, terms and conditions of supply and transportation, compliance, fashion and local market conditions, types and forms of payment from customers, the prestigious manufacturer and seller, prestige goods (trademark), the effectiveness of the advertising and etc. This complex may include product characteristics defined the sphere of production, and the factors that shape the overall economic conditions of production and marketing of products of the company<sup>32</sup>;

– *Part of the competition*<sup>33</sup>, where the competitiveness of products and the competitiveness of the manufacturer relate to each other as parts of the whole.<sup>34</sup>

**Competition** is the engine of economic progress. This is due to the fact that market competition leads to success if the owner cares not only about saving, but also the expansion of its production, which aims to improve the technique and

<sup>29</sup> Ibid.

<sup>30</sup> Greater economic encyclopedia. - Moscow: Penguin Books, 2007. - p. 297.

<sup>31</sup> Borisov A.B. Large Dictionary of Economics. - Moscow: World of Books, 2008. - p. 326.

<sup>32</sup> Gerchikova I.N. Management: A Textbook. - M. Banks and stock exchanges, UNITY, 1997. - p. 422-423; Enterprise Management: Reference Dictionary. - Moscow: Profizdat, 1990. - p. 257.

<sup>33</sup> Greater economic encyclopedia. - Moscow: EXMO, 2007. - p. 297.

<sup>34</sup> Gerchikova I.N. Management: A Textbook. - M. Banks and stock exchanges, UNITY, 1997. - p. 422-423.

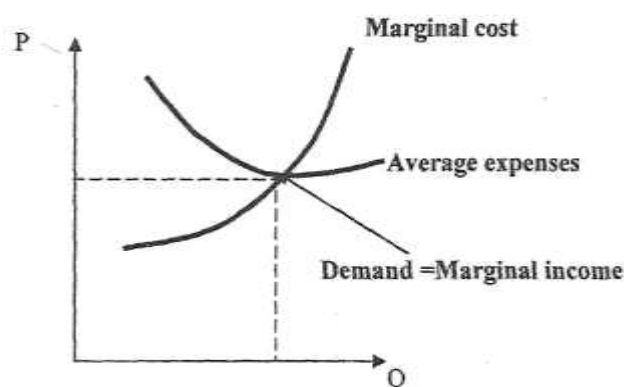
organization, improves the quality of products, reduce costs per unit of production, and thus has ability to reduce prices, the range of goods, trading and post-trading improves customer service. It contributes to the displacement of inefficient production enterprises, the rational use of resources; prevent the dictates of manufacturers in relation to the consumer. That is a positive role of competition in social development and efficiency of competitive markets.

Competition in terms of content is very contradictory. On the one hand, it expresses the desire for freedom, economic independence - is a manifestation of centrifugal forces. On the other side - desire to own the competition to protect themselves from the vicissitudes of the struggle, indicating that the centripetal tendencies of alliances, a kind of economic solidarity, to be guaranteed by the state, the laws of behavior in the market to protect the interests of national entrepreneurs from the competition of foreign capital, etc. Furthermore, the desire to win the competition is to establish a dominant position in the market, seize market power, to the formation of monopolies. Competition and monopoly - it's not two different mutual reflecting economic forces, and two sides of the same market interaction.

Depending on the strength of competition, the level of competition and the competitiveness of the subjects, the following types of competition: perfect and imperfect competition, the competition of buyers and sellers of competition, functional competition, price and non-price competition.

**Perfect competition** is a market model in which the price is determined by the free play of supply and demand in accordance with the laws of the market. Firms in their pricing to take into account the already existing level of prices.

Under perfect competition the demand curve of each individual competitive firm is perfectly elastic (fig. 5.2).



**Fig. 5.2. Perfect balance in the market (pure) competition**

Perfect competition is practically never encountered in real life. Its salient features:

– a very large number of firms. The main characteristic is the presence of a highly organized market an unlimited number of sellers, for example, a stock exchange or market for agricultural products;

– standardized products. Firms' competitors manufacture products of one kind. At a certain price the consumer sees no difference in which seller to buy the product;

– practically there is no control over the cost of production. Some firms have little watching the price of products. Each of the firms has such a small part of the total production volume of production, that the change of its release will have no appreciable effect on aggregate supply or price of the product;

– to the point where the price and marginal cost would balance;

– free entry into the industry. Firms have free entry and exit in the purely competitive markets. There's no serious obstacles (legal, technological, financial) that would prevent the emergence of new firms and marketing of their products in competitive markets. The delimiter in this case acts as a profit. The entrepreneur will produce up to the point where price and marginal cost would balance;

– equal access to information. All participants in the competitive market have equal access to information, i.e., have ideas of prices, production technologies, profits. Buyers are also aware of the prices and their changes.

The publication of the work "The Theory of Monopolistic Competition" (Edward Chamberlin, 1933) and "The Economics of Imperfect Competition" (Joan Robinson, 1933), which were investigated new market conditions, allowed to speak of imperfect competition. The latter assumes the functioning of the market of one or a few large firms producing the bulk of the particular product. It manifests itself in the form of monopoly (single seller) and monopsony (single buyer) when the subject of a separate market dominates and controls the market of the product. Determining if this is not the size of the enterprise, and its share of the total market.

*Imperfect competition* - a model of the market in which the buyer and seller can influence the price level. The firm in imperfect competition is characterized by a decreasing demand curve as dictated by the price. In the production of surplus must sell its products only on condition that its price will be much less. There are several models of imperfect competition: *monopoly (monopsony)*, *oligopoly (oligopsony)*, *monopolic competition*.

*Monopoly and monopsony* - these are extreme cases of imperfect competition. More often oligopoly meets (from the Greek. "Oligos" - a few, "field" - selling) - the bulk of goods is concentrated in a few large sellers and Oligopsony ( from the Greek. "Oligos " - are few and "opsony" - buying) the excess of sellers over buyers.

The opposite of pure competition, pure monopoly acts. The product is created only by (the Greek word "monopoly " means "one vendor") , the entry of new producers in the sector is excluded because of insurmountable barriers (patent monopoly , a monopoly on the sources of raw materials , transportation, distribution, credit, etc.). Thus, the manufacturer completes control over production and the market. However, pure monopoly in life is quite rare.

The structures of perfect competition and monopoly are rather relative and one-sided. The first driving mechanism of regulation of the economy to a market economy, the second - to the administrative- command methods. But in real life, these mechanisms are intertwined with each other interact. The real market structures are somewhere between these two extremes.

Like monopolies, monopolistic competition and oligopolists have some degree of control over the price of their products. But in contrast to the monopoly, they have to share the market with other manufacturers. Monopolistically competitive industry consists of a large number of small firms. Oligopolistic markets dominated by a few large firms.

The theory of monopolistic competition is based on three assumptions:

- a) product differentiation;
- b) large number of sellers;
- c) in free entry of firms and resources in the industry and leaving it.

Manufacturers strive to make their products different from others in order to attract buyers. Recent ready to pay a higher price for a product that is different from the others.

Monopolistic competition has common features with the perfection (pure) competition: both market structures characterized by a large number of firms, free entry and exit from the industry. The difference from pure competition is that the market is imperfect competition; firms are able to influence the price.

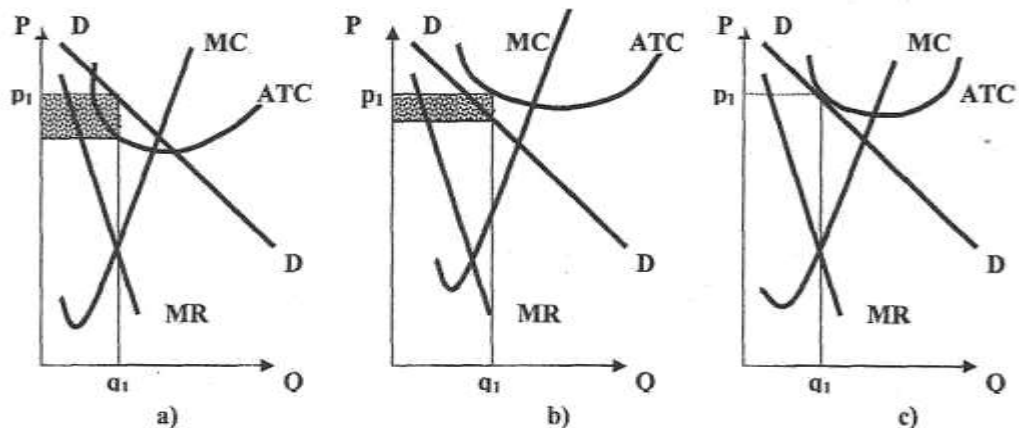
Further, *in contrast to perfect competition, monopolistic competition structure has to deal with differentiated products.*

From here there is an *element of monopoly*. Since none of the firms selling the exact same product, it has a certain power over the price. The demand curve slopes downwards such firms. At the same time, the presence on the market of similar nature substitutes limits the ability of firms to raise prices. In the market similar products consumers are very sensitive to their price.

Monopolistic competitive firm - one of the many producers of a differentiated product that is unable to exert any influence on other firms and prevent the emergence of new competitors in this market.

The equilibrium state is reached in the market monopolistically competitive firm in the short term with equity  $MC = MR$ , where MC- marginal costs; MR - marginal revenue. In this case, firm sells the goods at the highest price possible with a particular demand curve. If the price exceeds the average cost (AC), the company assigns economic profit. In the price falls below the average cost company suffers losses. If the price is equal to the average cost, the firm receives a normal profit (fig. 5.3 a, b, c).





**Fig. 5.3. Equilibrium for monopolistic competitor:**  
**DD** - the demand curve; **MS** - marginal costs; **Q** and **q** - amount of the product, **P** - price; **MR** - marginal revenue

As shown in fig. 5.3, the equilibrium state is reached by the company with equal marginal revenue and marginal cost.

In option a) is the maximization of profits in the production of  $q_1$  and price  $P_1$  size of profits represented by the shaded rectangle. The amount of profit depends on the ratio between the average costs of production of  $P$ .

Option b) is to minimize losses. These arise due to exceeding the average cost price. Minimizing the loss occurs with equity  $MR = MC$  at volume production  $q_1$ . Velichina loss corresponds to the shaded area of the rectangle.

Option c) is zero profit, as the price is equal to the average cost. The company uses a criterion  $MC = MR$  to maximize profits, minimize losses and assigning a zero profit. By following this criterion, the firm is in equilibrium in the monopolistically competitive market structure.

Achieving long-term equilibrium monopolistically competitive rental company assumes equality of prices and the long-term average costs.

While the price deviates from the long-term average costs, there is no balance. Assigning economic profit attracts new firms into the industry; the losses forced them to leave the industry. At zero economic profit, firms have no incentive to leave the industry or to enter into it.

In a market structure of monopolistic competition are set higher prices and reduced output compared to pure competition. The increase in the production of monopolistically competitive firms would allow them to lower production costs.

From these positions in monopolistically competitive industries are too many firms. If their number decreased each firm could increase production.

As a result, it would be possible to lower costs and prices. The larger the firm, the more varied products and services. Therefore, consumers have ample opportunities to meet the needs. The existence of a large number of firms helps consumers save time. Time save arises due to the lack of queues proximity of

companies that sell goods and services, speed of the transactions.

The model of monopolistic competition characterizes the role of advertising in the business world. The purpose of the latter is to increase the proportion of the company's total sales in the market and attract consumers to purchase a differentiated product of the firm. However, advertising increases the firm's cost and increases the cost of goods for consumers.

Economists and the public opinion regarding advertising are contradictory. On the one hand, advertising informs consumers about new products and their properties. It creates the need for the advertised product. On the other hand, in many cases, advertising is unfair. It is misleading to consumers. Through her company impose useless goods; tend to discount the moral products available to consumers.

In a market structure of pure competition measures the proportion of firms in the volume of production and sales of goods does not exceed 1%. Under monopolistic competition, the firm has from 1 to 10 % of sales in the market for a year. If the firm accounts for over 10 % of sales, it operates in an oligopoly structure. The threshold of the danger of monopolization meets 60-64 % of sales for one company.

**Oligopoly** - a market structure in which there are few sellers. Very significant barriers prevent the penetration of new firms into the industry. The market implemented as standardized and differentiated products.

Oligopolistic firms are characterized by the following features: a high level of concentration of capital and production capacity to influence the output and the price level in the industry. The relationships between oligopolistic firms are characterized as interdependence. Companies who know that their actions will affect competition in the industry, make decisions only after they figure out the nature of the reaction of opponents.

Oligopolistic firms use mostly non-price methods of competition. There is evidence that in many sectors of oligopoly rates remained stable for a long period of time.

Unlike other market structures, there is no universal theory of oligopoly. Instead oligopoly theory consists of a fairly large number of different models, each of which describes a special case, which occurs only under certain circumstances.

The founder of the theory of oligopolistic pricing is a French mathematician and economist *Augustin Cournot*. Considering the interaction of oligopolists, he showed that each firm prefers a number of products that maximizes its profits. However, he proceeded from the fact that the volume of goods sold in the competition remains the same. Cournot made two major findings:

- 1) for any industry there is a definite and stable balance between sales and cost of goods;

- 2) equilibrium price depends on the number of sellers.

In only one vendor there arises monopoly price. As the number of sellers is increasing equilibrium price falls until closer to the marginal cost. Thus Cournot model shows that the competitive equilibrium is reached in the greater than increases by more vendors.



Many economists argue that firms expect the reactions of their rivals through a change in prices or sales volumes. Cournot model, in which inaction allowed an opponent (volume of the sales are fixed), has been criticized.

A significant step forward in the theory of oligopolistic pricing has made American economist E. Chamberlin, putting forward the position of the interdependence of producers. When a small number of sellers and the product are standardized, oligopolists will avoid actions that would lead to a deterioration of the situation of all as a result of the response. The existence of the interdependence implied that the common interest of oligopolists is to set high prices. Chamberlin's conclusion was important for antitrust policy: the monopoly price can be established without a clear conspiracy. Necessity in formal relationship between the oligopolists is missing. In the literature, this is called the "doctrine of conscious parallelism" ("conscious parallel conduct"). Oligopoly act independently (no agreements not), but they do not compete with each other.

The next step in the development of the theory of oligopolistic pricing *theory was sloping demand curve*, developed by American economists R. Hall, C. Hitch, P. Sweezy. It explains why oligopolistic firms refuse to lower prices of private.

Suppose a firm price per unit of product  $P$ , and sales -  $q_1$  (Fig. 5.4).  $DEF$ -demand line for the products of the company that makes decision to raise the price of their goods. New price -  $P_3$ . Another option: the firm lowers the price to  $P_2$ . Suppose further that rivals follow the firm in pricing. In this case, the demand curve would  $JEH$  represented the firm, which coincides with the demand curve of its rivals.

In practice, however, if the firm raises the price, the rivals do not follow it and do not increase the price in order to increase their market share at the expense of the firm. If the firm lowers the price, rivals react to such a reduction, to prevent loss of market share. Thus, the final demand curve is composed of two segments -  $DE$  and  $EN$  with a fracture at point  $E$ . "Erase" segments  $JE$  and  $EF$  and get broken curve of demand in the industry  $DEH$  (see fig. 5.4).

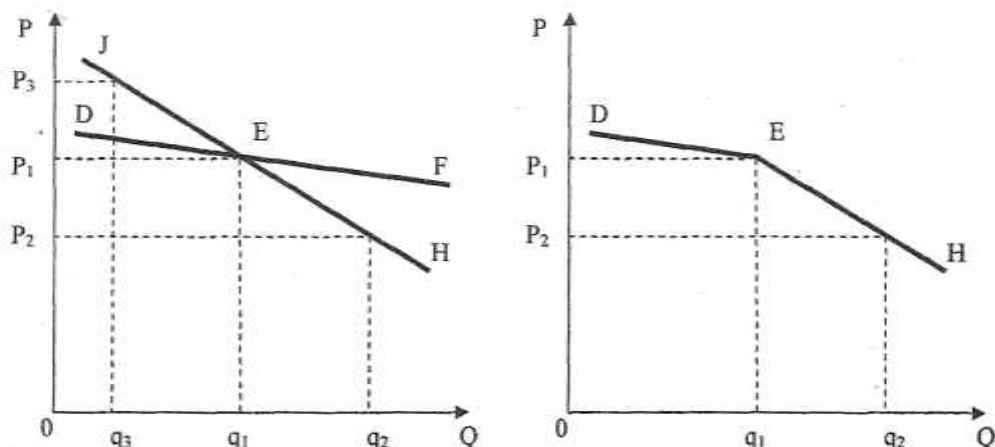


Fig. 5.4. Broken curve of demand

In high concentration of market pricing decisions are interdependent sellers. Oligopolistic firms based on the fact that the profits will be higher when the general policy is carried out than when each firm is pursuing its own interests. In oligopolistic industries there operates tendency towards collective action, bringing the price behavior of a pure monopoly.

**Price leadership.** Firms operating within an oligopolistic market structure, strive to create a system of relations that would coordinate behavior in the common interest. One form of such coordination is the so -called "price leadership." It consists in the fact that changes in reference prices are explained by a particular company, which is recognized by the other entire leader, following in the pricing policy for it. There are three types of price leadership: leadership dominant firms, collusion on leadership and barometric leadership.

**Leadership is the dominant firm** - the situation in the market where one company controls at least 50 % of production, while the remaining firms are too small to have an impact on prices by individual pricing decisions.

Collusion of leadership involves a collective leadership of several major companies in the industry, taking into account each other's interests. Price leaders must resolve the issue in this case, to declare any changes in prices, favorable only for them, or set a price level that will mitigate the contradictions between all firms operating in the industry.

**Barometric price leadership**, in contrast to the previous type of price leadership, is more amorphous and undefined structure. It often does not provide a high level of prices. There is often a change of leader. Behind him are not always followed because of his lack of opportunities to compel other participants to act together. Most barometric leaders exercise their functions "de jure". They announce the reference prices, but the actual prices charged by other firms differ from declared.

Another way to maintain "discipline" in the industry, when set or changed in price, is the use of pricing "*rules of thumb*". All firms use the same pricing formula:  $price = cost + profit$ .

The standard price is calculated by adding to the cost of profit sufficient to achieve a desired rate of return. As a result of using the same methods of pricing behavior of competitors becomes more predictable.

Collusion oligopolists may be issued in the form of a *cartel agreement*. The cartel controls the level of prices, production and distribution markets. Cartels are usually unstable. First, markets are distributed among the participants on the capital, on the force. Consequently, firms are interested in increasing the capital to demand a new distribution markets in accordance with changes in economic power. Second, firms with low production costs tend to violate the agreement, since at lower prices, they can earn high profits. Third, the cartel undermines outsiders, assigning lower prices for their products. Fourth, the cartel agreements in many countries considered unlawful.

Buyers may suffer from the same prices set by oligopolists. At the same time, users can assign different prices for a particular group of customers, thereby

improve the technology. Critics' oligopoly usually refers to the fact that since 1880 at least one third of major discoveries have been made by large corporations.

However, there is that they play a key role in organizing the mass production of new products. There is no consensus among economists in assessing the significance of an oligopoly for technological progress and the development of production.

The problem of monopoly and competition is always interested scientists and economists (see, for example, "A Treatise on Taxes and Duties" by W. Petty, "Principles of Political Economy" by A. Marshall "Capital" of K. Marx). However, at the beginning of the XX century the monopoly problem was the focus of economic research. In 1902 there was published a book by J.A. Hobson, "Imperialism", in 1910 issued a "Financial capital" by R. Hilferding.

In different countries and in different historical periods and in the economy there are various types of monopolies:

- *Natural monopoly* enjoyed by the owners and businesses that have at their disposal a rare and not easily reproducible production elements (rare metals, land, etc.);

- *An artificial monopoly* is concentrated in the hands of individual production and the market for any product. It has a casual, sustainable and universal form;

- *Random forms* originates from unexpectedly when there is the exceptional ability to produce and sell the goods under the best conditions of production and the temporary favorable supply and demand;

- *Sustainable monopoly* originates from the largest enterprises with the capture of markets at the end of the XX century. Known forms of stable monopolies, like pools, rings, cartels, syndicates and trusts. These monopolies arise in any one industry sector. However, the appearance in the same industry excess capital, unable to bring high returns, led to the formation of stable monopolies in various industries (combined trusts, corporations, and conglomerates);

- *Universal form of the monopoly* originated in the second half, External Expansion century, when most markets business associations jointly or by the state or become major buyers or sellers.

The emergence of monopolies was the result of the *concentration of production* (due to consolidation of production involves additional capital) and the *centralization of production* (the merger of small and medium-sized enterprises into a single large).

At different stages of economic development monopolies were created in various forms - the cartel, syndicate, trust or concern.

*Cartel* is a monopoly union, which is based on an agreement establishing an alliance for all parties output, prices, the share of each market, the distinction between markets and etc., while maintaining their economic independence.

*Syndicate* does not destroy the independence of joint ventures in the field of production, but, unlike the cartel provides a concentration of sales and purchase of raw materials for the parties to the agreement. Depriving the rights of participants

effecting price discrimination. There distinguished *personal, group and product discrimination*.

**Personal discrimination** - prices are assigned based on the level of income buyers. More rich can pay a higher price because their demand is inelastic. Seller secretly makes allowances for the buyer who can get away from it to a competitor.

**Group discrimination** - systematically reduced prices only in the market, which is served by a competitor ("kill rival"), the price includes transport costs the same, regardless of the customer location.

**Grocery discrimination** - differences in price greater than differences in costs under the pretext of product quality differences (books in hard and soft cover). Companies distribute physically homogeneous products under various brand names, assigning a higher price for well-known brand names ("forced to pay for the label").

The theory of oligopolistic pricing shows why firms avoid price competition in the struggle for markets. Raising the price, the manufacturer loses market share in favor of the opponent, reducing the price, it is counteractions, and again nothing to gain. Therefore oligopolist uses methods that rivals cannot reproduce lead quickly and completely. The share of firms in the market is largely determined by non-price competition. This involves improving the quality of the goods, their differentiation, the use of advertising, improving after-sales service, the provision of loans. Competition model is complicated, and its methods are becoming more diverse.

Doubts about the usefulness of the competition for the development of production, there were already at the end of the XIX century as the bourgeois economists and the Marxists. This, of course, was not the destruction of competition, and of its limitation. The American economist John Clark believed that some departure from the purely competitive firm is not harmful in the long term, as commonly supposed. Under the conditions of STR productive forces on a purely market basis cannot develop. Galbraith wrote that the nature of the use of time and capital in current production, specialization of enterprises, the needs of large organizations and the problems in the functioning of the market in terms of advanced technology - all this determines the need for planning.

The large scale of modern production with large capital investments, advanced technology and complex organization - all of this requires the firm to control prices, reliability of supply and marketing.

*The market mechanism within certain limits is replaced by a vertical integration, contracting, development work on the orders, financial security transactions and many others.*

In many relations, an oligopoly has the same advantages and disadvantages as a monopoly. Economies of scale make it possible to minimize costs when the industry consists of a few manufacturers.

Some economists argue that, compared with the more competitive markets oligopoly facilitates the introduction of new technology, thereby stimulating economic growth.

Innovation requires massive investments and considerable research staff. Negative feature of oligopoly is that it often uses market power to restrict competition and raise prices. Assigning high profits weakens the incentive to

directly to fight the market, syndicate causes more stress in their efforts to ensure that outdo each other in terms of production.

**Trust** is a form of monopoly, in which all uniting firms lose their commercial and production ca-own right and are subject to common control. Since union members become shareholders of the trust, they have the opportunity to sell their shares. And trust is often a struggle for the possession of a controlling interest, i.e., "control" over the trust.

**Concern** is a form of monopolies, characterized by unity of ownership of companies of various industries and the monitoring of their activities. As concerns the main form of struggle is the fight for the possession of a majority of the shares and control of the most profitable businesses for spheres of influence in certain industries. So that competition in the trusts and concerns quite similar.

The means of competition is diversification, combining production. **The diversification** corresponds to the penetration of a particular industry monopoly in other sectors of production and the displacement of their competitors.

The emergence of monopolies due to the emergence of the economic benefits that they receive as a result of fixing monopolistically high prices for their products exclusively low prices for purchased their products (e.g., raw materials, etc.).

**Monopoly price** is a special kind of market price, which is set at a level above or below the competition in order to gain monopoly profit in the form of monopoly profits. This form of income is the economic realization of the rule of monopoly in the market, a sort of "tribute" to which they are imposing public and other entrepreneurs.

**Price war** has a definite place in the competition. The gist of it is clear. When you create an opportunity and a need, the monopoly tries to "beat" their opponents by cheap goods.

**Non-price competition** is changing the market mechanism regulating the relationship of prices and costs. If the market is dominated by price set by an oligopoly, the price cannot make traffic around the former value of the goods. The value of the cost varies according to the level of the fixed price of the products, depending on the intensity of competition increases or reduces the costs of oligopoly to increase the quality of the goods, the contents of the network of customer service, advertising and other costs of manufacturing and marketing of products of monopolies and oligopolies are changing faster and have a more flexible than the market price.

**Duopoly** is a market structure where two firms operate in the market, the interaction between which determines the volume of production in the industry and the market price. The stability of equilibrium in such a market is achieved when the price is equal to marginal cost (i.e., the competitive equilibrium is reached). In a duopoly, firms compete by lowering the price and increasing the volume of production. This situation is described by **Bertrand equilibrium**.

**Shtakelberg equilibrium** describes the duopoly with the unequal distribution of the bargaining power between firms, so that one of them behaves as a leader, and the other pursuing a strategy of adaptation.

**Cournot equilibrium** is reached in the market when the duopoly in each firm, acting independently, chooses the optimal output, what to expect from its other

firm. Cournot equilibrium occurs as the point of intersection of the two firms to respond.

**Monopolistic competition** combines with the features of monopoly and perfect competition market. Grocery stores, grocery, gas stations, and many other retailers operating in a monopolistic competition. The essence of monopolistic competition is that each firm sells a product for which there are lots of close but imperfect substitutes. As a result, each firm has to deal with a decreasing demand curve for its products. Differentiation may be associated with the product (e.g., beers), or store location.

Since the entry into the market is free, as long as there is an opportunity to receive an economic benefit, firms producing similar products, will enter into the industry. The emergence of new firms in the industry leads to the fact that the demand curves of all firms will move to the left to the origin as long as the economic profit of each firm's industry is reduced to zero in the long run.

## 5.2. Imperfect competition and society

Every healthy society seeks to limit the monopolistic trends in the economy. Consider why a monopoly is being criticized and what the social costs to society from the *monopoly*.

1. We'll compare the monopoly with perfect competition.

Fig. 5.5 shows: the curve of demand for products firms of the monopolist, demand curve of the industry; marginal revenue curve monopoly, the marginal cost curve and the curve of average costs of monopoly. The intersection of the curves of marginal revenue and marginal cost determines the equilibrium point of the company - monopolist. This point corresponds to the equilibrium price and output  $P_M$  of the  $Q_M$  maximizing profits.

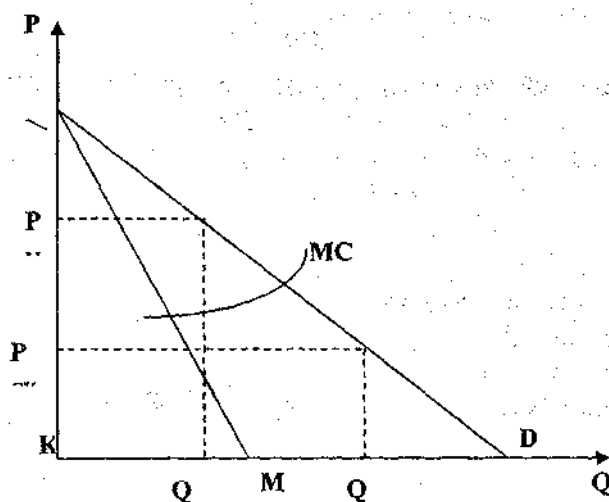


Fig. 5.5. Equilibrium in the condition of monopoly and in the condition of perfect competition

If you imagine that, other things being equal, companies that are part of the company monopoly, function as independent agents of the market (or, conversely, assume that all independent perfectly competitive firms in the industry have been merged into one company a monopoly), then the marginal cost curve monopoly and will become the industry cost curve, i.e., it will basically be the same with the industry supply curve. The point of intersection of the *MS* (it's - a supply curve) and the demand curve forms a point of equilibrium under conditions of perfect competition.

Comparing these results with those of a monopoly, it is easy to see that in a monopoly industry produces less output, but sells at a higher price. Artificially created shortage situation brings direct loss to the community and the net gain for the monopoly.

2. Dimensions of the straight losses to society are quite easy to determine, at least graphically.

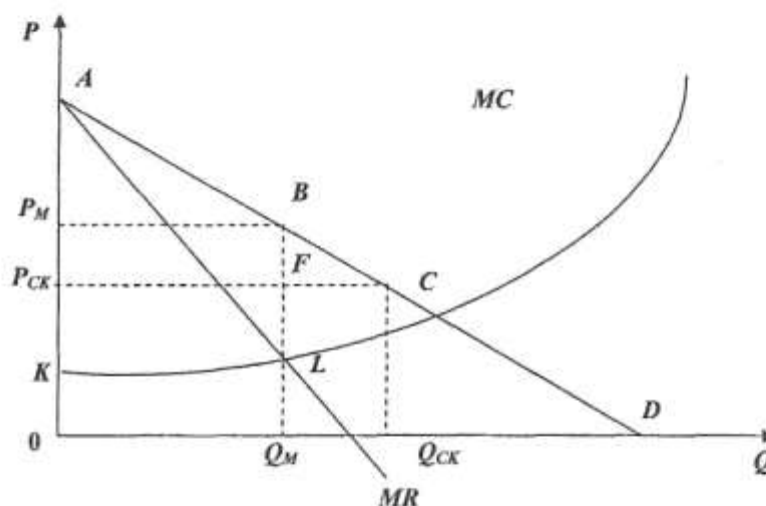


Fig. 5.6. The loss of social welfare in the monopoly

Fig. 5.6 clearly shows that the monopolization of the industry benefit the consumer is reduced. In perfect competition winning consumer represented  $P_{CK}AC$  area of a triangle, with a monopoly - a smaller area of the triangle  $P_MAB$ . Part of this loss will be the firm's profit - monopolist (the area of the rectangle  $P_MBFP_{CK}$ ). However, consumers have lost and the value equal to the area of the triangle  $BFC$ . In this case, the consumer does not constitute loss of monopoly profits. This is a net loss of society.

Similarly net loss of society is traced in the result of the reduction of winning producer. Latter is changed from the square area  $P_{CK}CK$  to  $KP_MBL$ . The area  $LFC$  represents a net loss.

The net loss of consumers and producers is in the net loss of social welfare due to the monopolization of production.



3. From the mentioned above it follows that the monopoly leads to a redistribution of real income of the society, increasing the economic and social differentiation.

4. During the analysis of the monopoly it has been shown that a monopoly is not achieved allocative efficiency, since  $P > MC$ . This means that the market does not allocate resources in accordance with the real needs of consumers. From the point of view of society, the monopoly underperforms and offers a non-optimal structure of goods and services.

5. In the monopolies are not observed as production efficiency, since  $P > LRAC_{min}$  (long-term average costs of monopoly). Because of the lack of competitors firm does not seek to technical innovations that will improve the performance and reduce the long-term average production costs to a minimum.

Not surprisingly, in view of the negative effects of economic monopolization society tends to counteract monopolistic tendencies and restore the competitive structure of the market. As a rule, governments adopt the antitrust laws that prevent the formation of monopolies, disaggregating existing monopoly to encourage free intersectorial flow of capital.

In some cases, the state allows the company to maintain the position of a monopolist, but puts it operates under strict supervision and regulation, most often refers to the so - called natural monopolies.

Costs to society *in terms of monopolistic competition* are as follows:

1. The Company is useless to spend limited resources on creating rare meaningless differences in the products of the same type. Thus, for example, aspirin, aspirin remains, although in some of its patented and advertised brand consumer has to pay more than doubled. Consumers do not really need, say, and 50 different varieties of soap or toothpaste, which are essentially the same. As a result, consumers pay and excessive product differentiation and advertising. Advertising costs are sometimes up to 50 or more percent of the selling price of the product;

2. Differentiation and advertising seek to influence the tastes and preferences of consumers, change them, cause new needs, so it turns out that people exist to serve the needs of the company, and not the company serves the people. Society has lost its original target's orientation - the development of production to meet the needs of the people. As pointed out by J.K. Galbraith's book "The Affluent Society" (1958), the purpose and the means to achieve it is reversed;

3. The information contained in the advertisement, at least, is minimal and insufficient and often and deliberately deceptive;

4. Advertise your product is required for the firm that does not want to lose in the competition. Firms are forced to spend huge amounts of money wasted: These costs do not increase the demand for their product in the market, but their absence would lead to the loss of space on the market. Promotional war is a war with the zero result, there are no winners;

5. Advertising costs are so high that they can become a barrier to entry into the industry and thereby reduce the intensity of competition;



6. Advertising becomes a kind of tax on society. At 15 minutes of news on television have up to 20 minutes of advertising. Buying a newspaper or magazine, the consumer along with 50 pages of interest to the text and forced to pay for 75 pages of advertisements.

However, it would be unfair to see only the negative side of monopolistic competition. Thus, the same product differentiation and advertising is not as clear-cut bad. Their supporters point out that:

1) product differentiation helps to better meet the needs of people in all their diversity;

2) continuous improvement of the product leads to higher standards of living;

3) product differentiation is developing in the direction of improving the quality and efficiency of production;

4) advertising provides valuable information about the consumer as a product of its price, the method of use, etc.;

5) differentiation and advertising to stimulate competition and give an impetus to the development of the whole market system.

Comparison of the two opposing views on the role of advertising and product differentiation shows once again that, in economic theory there are no absolute truths and true for all occasions answers.

Be that as it may, the monopolistic competition is very similar in many ways to perfect competition, almost never occur in real life. Monopolistic competition - is the most common type of market relations. He dominated in the catering, book publishing, production and sale of furniture, pharmaceuticals, etc. The number of firms in these sectors ranges from 500 to 10,000. Monopolistic tendencies in the model are expressed quite weak, but because it is believed that the government can practically regulate the market of such a structure.

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### **5.3. Competition policy: aims, objectives and methods**

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The Company aims to neutralize the negative impact of imperfection competition by applying different economic mechanisms, collectively constituting the competition policy of the state.

The aim of competition policy is to increase the efficiency of the economy as a whole, which is provided through the creation of favorable conditions for enterprises and *increasing of their interests in improving the economic efficiency of production.*

The denationalization will be the terms and conditions, particularly privatization, which is the legal basis of complete economic isolation ( independence ) of enterprises , that is, the company itself is the owner of the fruits of production ( production , income, profits). This radically changes the place of business in the economy as a whole, that is, its relationship with the state, on the one hand, and other enterprises on the other.

However, this condition by itself does not give the desired result without the proper interest of enterprises in improving the economic efficiency of their production; improve product quality and lower prices, which occurs only in a competitive environment. Not to give autonomy to enterprises, but to increase their number in the commodity market, *effective competition policy*, the operation of enterprises in a real competitive environment. And this is one of the main key government functions in a market economy.

The methodological basis for state regulation in a market economy based on known in economics of the two main theories of the balanced development of the market economy: the classical and Keynesian. It is known that the classical theory of the market economy is a self-regulating system without government, Keynesianism and justifies the need for government regulation in order to ensure a balanced development of the market economy. The system of government is based and of classical and the Keynesian theories.

Self-regulation of the market economy, according to the classical theory comes mainly from the conditions of perfect competition in product markets, and it is on this condition can be effectively functioning market mechanisms. On this basis, the transition to a market economy and its continued operation is accompanied by a state anti-monopoly policy. At the same time, equally important and necessary task of the first order is the practical implementation of the principles of private property of these provisions and formed the first state -level function in the system of state regulation.

Next, the operation of market mechanisms (in the first place , the law of value) objectively , by nature constantly leads to negative consequences, such as loss-making, bankruptcy enterprises' law with the existence of high-performance businesses. Exactly from here, and is followed by such socio- economic problems such as unemployment, polarization of incomes and living standards of the population.

Consequently, and in accordance with this time, the Keynesian theory and there is a function of the state of the second level in the system of state regulation - leveling the negative effects of market mechanisms. This function is achieved by solving problems for the redistribution of net material product.

This forms a two-level functional system of state regulation in a market economy.

The main objectives of ensuring the conditions for the effective functioning of market mechanisms in the economy are:

- The actual implementation of the principles of private property, to ensure full legal and economic independence of economic actors, which means, as you know, the independent decision of questions: what to produce, at what prices and to whom to sell manufactured goods, as well as the appropriation of earnings. In this task, the role of government regulation is to ensure that it is non-interference of government in the economic activity of the entity;

- To assist in the organization of commodity markets based on the principles of competition, which is done by adopting and monitoring compliance with

antitrust laws. This problem arises from the situation that the effective functioning of the market mechanism is only possible in competitive product markets.

Competition Policy in Transition (transient) economies is paid enough attention from the very beginning of the transition period to a market economy. If we trace how to develop this branch of legislation in Uzbekistan, even by one titles regulations can make certain conclusions. They reflect to the national priorities of each stage of the transition period, the relevance of these or other problems.

The first competition law, passed in 1992, was called - "On Restriction of Monopolistic Activity". Markets were then occupied, mostly by large enterprises, and that limits their ability to abuse its dominant position, completely ignoring the interests of the consumer, was the most important task at the moment. Later, privatization and downsizing, on the market many businesses and competition policy measures have led to the emergence of competition and modernization of production, the introduction of more advanced technologies - to the emergence of competitive enterprises. At that time (1996) adopted a new law which is called differently - "On competition and restriction of monopolistic activity on commodity markets", i.e., as the purpose of the law to the fore the competition, then already - the monopoly and limit its impact on the economy. In 1997 there was accepted another law - "On Natural Monopolies" appearance is again linked to the urgent need to establish a balance between the interests of consumers and economic structures, whose actions in the market are of general economic interest.

For the successful implementation of competition policy must be a proper understanding of its nature, content and in particular the place and role of competition policy actors that is aimed at anyone in competition policy. Initially, we should define the concepts of "monopolistic activity" and "monopoly".

The Law "On competition and restriction of monopolistic activity on commodity markets" (Article 3) is the concept of *"monopolistic activity - contrary to antitrust action or inaction of business entities, government bodies and public authorities in the field, aimed at preventing, restriction or elimination of competition"*.

The law has a separate second section on monopolistic activities. This section must be:

- Firstly, that the subjects of competition policy, along with a dominant position and other business entities, associations are legal entities (unions, associations), business partnerships and companies, as well as state governments and public authorities in the field. This is mainly the subjects of commodity markets, with market power;

- Secondly, the subject of competition policy is the behavior of the commodity markets with market power of the above entities;

- Thirdly, what actions the subjects of competition policy prohibited antitrust law. This deal to: *Article 5 of the "Abuse of a dominant position," Article 6 "The agreement (concerted actions) that restrict competition" Article 7 "The acts and actions of public authorities and public authorities on the ground" and Art. 8 "The prohibition of unfair competition."*

From this section of the Act and as such, it also follows that "monopoly" is an entity *engaged* in monopolistic activity.

Antitrust policy is based on the following principles:

– *The priority* of macroeconomic stabilization. Efforts to - aimed at systemic change, first of all, the price mechanism, necessarily accompanied by macroeconomic stabilization. Without overcoming the monetary and fiscal disproportionality does not have to rely on full competitive businesses. For its development must have a working regulator of the money supply and inflation minor. Business entities affected by inflation expectations do not adequately perceive the signals of the price mechanism. In turn, Rowan monopolized economy; generating price inelastic offer is non-monetary factor in the inflation process. Therefore, on the one hand, the overall financial stabilization is essential for the development of competition, on the other - monopolization of the economy and state regulation of natural monopolies are a necessary condition for overcoming the debt crisis and inefficient budget dating;

– *The openness of markets*. Authorities and market actors use a wide range of instruments in order to make it difficult to enter the market sellers or buyers, and thereby limit the supply of or demand for it. Government measures in the form of import restrictions, customs duties or monopoly on foreign trade proposal to limit the relevant product markets. Reducing the barriers to entry for new competitors to affect the competitive landscape in two ways: it contributes to limit the market power and enhance the competitive even on oligopolistic markets, facilitating linkages between the markets and the overflow of capital from inefficient industries in developing countries. Last causes cross-industry competition, the restriction which subsequently leads to imbalances at the macroeconomic level;

– *The consistency of antitrust, patent and customs policy*.

In carrying out the customs policy to antitrust issues can lead duties, which directly determines the degree of market openness. Customs duties are not limited market supply and do not directly affect the competitive market mechanism. They are compatible with it, but make a difference in the ratio of prices. Customs duties are dangerous to competition and price mechanism when converted into the barriers, which, thanks to the country's isolation from the world market creates the conditions for the creation or use of power over the market. In such cases, the removal of tariff barriers is a means of restrictions tendency to private monopolies;

– *The recognition of private property*. Free enterprise, which cannot exist without the recognition of private property, is a necessary prerequisite for the formation of competitive forms and methods of management of economic agents;

– *The freedom to conclude the contracts*. Without freedom of contract signing, allowing market actors exercise free choice of partners, to check each other's capabilities and only then enter into the contract, will not have competitive market mechanism;

– *The responsibility* for the results of economic activities. Responsibility for the results of operations is an essential institution of market mechanisms. For the establishment of competitive market mechanism is important that one who acts in

the market, was responsible for a different way of managing. The way to profit in a market economy is only through the equivalent results of operations, and poor results lead to bankruptcy. Responsibility for the results of operations helps to ensure that capital is disposed of with all diligence. This situation brings together the interests of antitrust policy and insolvency in respect of inefficient enterprises.

To the constitutional principles of competition policy to fully include the following principles:

1) principle of the recognition and protection of private, state, and municipal and other forms of property, without which there can be no freedom of pricing, nor the autonomy of enterprises or their economic responsibility, and hence competition;

2) supports the principle of competition, ensuring the preservation and strengthening the foundations of competitive market and its self-regulatory mechanism;

3) the principle of freedom of economic activity, considering the independence and autonomy of market agents in making economic decisions in a competitive environment;

4) the principle of non-economic activities, the direction of the universe at monopolization and unfair competition, which is an exception to the principle of freedom of economic activity;

5) the principle of the unity of economic space, which guarantees the free movement of goods and capital within the country and does not permit on their way any artificial barriers.

To achieve these objectives within the framework of competition policy in transition economies are solved two closely interrelated problems: Reformed and functional.

**Reformed problem (constitutive).** Antitrust activity in the reform task is aimed at finding solutions to problems related to the protection of the principles of fundamental and emerging competition in the course of systemic change at the level of political and economic activities of the state. Protections of the principles of competition accelerate the formation of the market mechanism and reduce the costs to society due to deviations from the antitrust priorities in the regulation of the transformation of the economy. Wish will be achieved if the landmark creation of the price mechanism, ensuring competition, and unlimited market power and thus capable of functioning effectively will be an important criterion for any political-economic measures of the state. This concluded not only solutions to reform the problem, but its significance is determined to achieve the transformation of the economic system, but also emphasizes the political aspect of the problem and the macroeconomic level.

In the performance of tasks provided antitrust reform orientation of reforms and macroeconomic created the preconditions for the development of a competitive environment for the formation of market forms of organization and competitive ways of managing subjects of the market.

**Functional (regulatory) problem.** Even the strict observance of the principles of competition during the state policy does not protect the economic system on the

presence of certain markets, the competitive environment which contains elements that limit the competitiveness of business entities and the freedom of the price mechanism. Therefore, in parallel with the task of reform within the framework of competition policy addressed functional task. The state has to solve the indicated task because the competition in real life cannot be perfect. For its existence is necessary for the possession of the adversarial market power. It can be acquired through the use of the competitive advantages of the method of management. Sometimes the power of the market is won by limiting competition and subsequently used to fix the problem. In such cases, the result is distorted or the functioning of the market mechanism is limited by its ability to efficient allocation of resources. There is the need to protect competition in order to preserve the functional ability of the market mechanism. Just search for solutions to the problems associated with the protection of competition and the prevention of its limitations, is aimed functional task of antitrust. It is associated with the regulation of the balance of forces of competition and monopoly at the microeconomic level. In this case, one of the ways to solve it is to encourage carriers of Tell market power to such a course of action which can only be done in unrestricted competition. Therefore, the choice of options to address the problem of functional state should give preference to a tool that works on the same market competition.

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### **Control questions**

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1. How is the market structure determined? Why is it important to know the structure of the market? What criteria can be proposed for the evaluation of market structure?
2. What criteria of market structure are necessary and sufficient for classifying the market of perfect competition?
3. What are the pricing methods formed in the market in the conditions of perfect competition? How do they relate to the concept of "fair price"? Is the price, formed in the conditions of perfect competition, fair?
4. Why can not monopolist set any price and produce any quantity of goods he wants?
5. What pricing methods can be considered as the most "effective" from the monopolist's point of view?
6. Is the monopoly "evil" or "good" for society? Who gains and loses as a result of monopoly?
7. Does monopoly always lead to the X - inefficiency? In what cases does monopoly promote technical progress?
8. Why is the price competition not effective in markets with product differentiation? How can one increase the value of price competition in such conditions?

9. Is monopolistic competition characterized by restriction of competition? In what case, can we talk about the prevalence of competition, and in what - about the prevalence of monopolies in the study of monopolistic competition?

10. How is the state control over the competition realized?

11. How is the anti-trust legislation in the countries of transition economies developed?

12. State the order of the State register of associations of enterprises - monopolists.

13. What are the specifics of competition policy in transition economy?

14. What are the priorities of modern competition policy?



## CHAPTER 6

### MARKETS OF PRODUCTIONS FACTORS

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#### *6.1. Labor market and employment problems*

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**Labor market** is a system of competitive communications between participants of the market (businessmen, workers and the state) concerning hiring, use of worker in social production.

The subject of purchase and sale on labor market is the right to use labor; a bargaining subject is a certain type of abilities of the person and duration of its application. It also characterizes the relations in the employment sphere concerning an exchange of functioning abilities of the worker for a money equivalent of vital funds, i.e. for a salary.

Usually in economic literature the concepts of "**labor market**" and "**market of labor force**" is used as identical. In strictly scientific explanation labor and labor force are not identical as concepts but are interconnected. The **labor force** considers potential abilities of the person to work, and the **labor** is an expedient human activity (or functional ability of the person to work). Work can't be carried out without ability to work, and the last is realized in the course of labor activity.

"**Human resources**" in economic theory is identified with a work resource which is the most important factor of production. The labor force offered by its owners in the market, is considered as human resources if it is a matter of their interdependence and interchangeability with other types of resources (the earth, the capital, business) and their competitive use in the market of factors of production.

**Human capital**, created as a result of investments and the certain stock of physical health of a person, knowledge, skills, abilities, motivations, which is used in this or that sphere of application of work and brings income both to the owner of labor, and the employer.

**Entities of labor market** are people possessing ability to work and offering to use it on one side, and **employers of labor** from another side. However, such characteristic is incomplete and inexact. The subjects of the market are not only hired workers and employers, but also the institutes providing their interrelation and interaction. First of all it is the state which is both an employer, and the body defining "rules of the game" in the market. From the point of view of institutional approach, it is necessary to add labor unions, the unions of employers, both state, and the private organizations to number of subjects of the analyzed market as they are acting as intermediaries on a labor market.

According to definition of the International Labor Organization (ILO) that is followed by many foreign labor unions and specialists in work adhere, the labor market is a sphere where businessmen and workers carry on negotiations (collective or individual) concerning a salary and working conditions. This definition has institutional character, i.e. is guided by the labor relations and mechanisms of establishment of the price of a work.



The labor market has a number of specific features; a labor market treats not only the exchange sphere work (purchase and sale), but also the sphere of reproduction of labor potential (market mechanisms of education, vocational training, etc.) and the sphere of use of work (market mechanisms of human resource management on production).

People who act as carriers of labor and are allocated with such human qualities, as psychophysiological, social, cultural, religious, political, etc. are making elements of a labor market. These features have essential impact on interests, motivation, and labor activity of people that is reflected in a condition of a labor market.

Labor differs from all other types of production resources as it's a form of activity of the person, realization of his vital purposes and interests. For this reason the price of labor represents not simply a price version for a resource but the price of a standard of living, social prestige, wellbeing of the worker and his family.

Functions of a labor market are defined by a role of labor in society when labor acts as the most important source of the income and welfare. From the economic point of view, labor is the major production resource. According to it the main functions of a labor market are allocated.

*Social function* considers providing sufficient level of the income and welfare of people, normal level of reproduction of abilities of workers.

*Economic function* of a labor market is the rational involvement, placement, regulation of labor that allows marking out placing and selective functions especially.

*Placing function* represents the placement of labor proceeding and according to demand. This function assumes that the organization and functioning of a labor market have to serve rational placement of labor on the separate enterprises, branches and regions. Formation of such network of placement is a basis of regulation of a labor market at all levels of management. The better labor market system methods of achievement of main objectives of management, the more noticeable the manifestation of placing functions. It means that efficiency of economy depends on how optimum the functioning process of the system of a labor market is organized. Generally, this function is significant at regional and macro regional levels.

*Selective function* covers a labor choice proceeding from supply and demand, and, also, from vocational characteristics of labor. This function is most significantly shown at a microeconomic level.

The labor market carries out also a *stimulating function* promoting expansion of the competition between its participants to increase the interest in highly effective work, professional development and profession changes.

The classification of labor markets is carried out on the basis of a various criteria.

*By criterion of the spatial sphere of labor market* republican, regional, city, rural labor markets are distinguished. At the level of the interstate social and labor relations the international labor market, labor markets of interstate regions (European, Latin American, Central Asian, and CIS countries) are marked out.

*By criterion of temporary parameters* perspective, expected and current labor markets are allocated.

*On elasticity degree* – flexible and rigid labor markets are shown.

In the total number of the population two large groups are marked out: the people capable and incapable to work on hiring.

Today in the developed countries 90-95% of all employees are of wage labor. The western researchers conditionally divide all people working on hiring for two main groups:

1) traditional (regular, stable, constant, long) labor for which involves continuous employment within full working week (about 40 h is characteristic.);

2) flexible (irregular, unstable, peripheral) labor. Nowadays in the developed countries the increase of flexible labor is a long-term steady tendency, an important indicator of change of structure of wage labor.

*By criterion of a ratio of supply and demand of labor* – equilibrium (balanced), scarce (demand exceeds the offer) and superfluous (the offer exceeds demand) labor markets are marked out. These types of a labor market can be related to the regional, professional, integrated labor market.

*By criterion of staging* the forming market, the market of a transition period, mature (or developed) a labor markets are marked out.

*By criterion of a social group* the markets of mainly physical work (workers), mainly brainwork (employees), mainly creative activity (intellectuals), and country work are distinguished. In frames of the specified social groups' qualification labor markets are allocated. So, it is possible to distinguish the highly skilled, qualified, low-skill and unskilled groups of workers. Segmentation of labor markets has dynamic and inconsistent character.

Thus, as a labor market is understood the general subsystem of market economy in which interact, employers (owners of means of production) from one side, with hired workers from another. As a result of this relationship the volume, the structure, supply and demand ratio of labor is formed.

The compound components of a labor market are: *demand for work; work offer; labor price; labor cost; competition.*

The labor market strives for balance at which cumulative demand for each category of labor coincides with the offer existing on it. This balance also depends on conditions of the markets of other factors: earth, raw materials, equipment, technologies, and consumer goods. Another important point is the existence of the competitive environment in the labor market when at the established balance of supply and demand there are no essential tendencies to increase or reduce distinctions in compensation acts also.

The feature of labor markets and, in particular, of labor supply is that the employee defines by himself the time he would like to work and time for an alternative kind of activity and rest. Duration of contracts on hiring in any sector of economy is defined by the level of payment provided for the worker.

The dilemma "work - leisure" in relation to a labor market got the name "a substitution effect and an income effect" which can be shown on diagram with a distinctive slope hollow to a rising labor supply curve (fig.6.1).

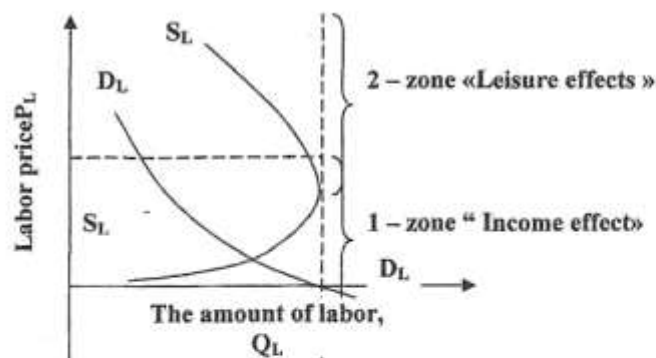


Fig. 6.1. Labor markets. The supply of labor on the "Leisure effect" "Income effect" based on substitution principle

The characteristic slope of labor supply curve shows that the raising salary stimulates the employee to work only till a certain moment.

During this period leisure and free time are sacrificed to interests of high earnings. After reaching high financial position and welfare the worker will suspend the further offer of the work and will refuse additional employment even with a proceeding growth of a salary. For this worker "income effect" is not more priority and forwarding as leisure time is sacrificed for the sake of alternative to work. "Income effect" is replaced with "effect of leisure".

As a whole the offer of labor on labor market is formed under the influence of a set of the following conditions:

- total number of the population;
- number of active able-bodied population;
- quantity of fulfilled time in a year;
- qualitative parameters of work, its qualification, productivity, specialization.

The general labor productivity level depends on cooperation of the capital, resources, technologies, perfect methods of production. The general level of compensation depends on them also, however it raises and when the offer of work is limited in comparison with other factors of production and the fixed labor demand.

In the *competitive markets of labor* the labor price, i.e. a salary, is established as competitive balance of supply and demand on various categories of workers differentiated by types of works, by existence and absence of the labor unions influencing supply and demand of work and achieving increase of its payment for busy part of workers. The salary acts as one of the major and the most mass form of the income in any economy. In system of market prices the salary is especially important category because it reaches about  $\frac{3}{4}$  of a national income of the developed countries. Regulation of many processes in economy is connected with salary movement. For example, one of indicators of a rate of inflation is the gap between nominal and the real wage acts. The nominal salary is the sum of monetary payments, and real is defined in accordance with price level on goods and the services bought at each this moment on a sum of money of a salary.

In most cases *distinction in salary* depend on workers' professionalism and types of works they perform. Distinctions in compensation are defined by quality of carried-out functions, and the fact that work can be pleasant or unpleasant, difficult or simpler is also taken into account. Highly skilled work is rewarded by higher salary first, because such work makes more powerful contribution to get profit. Secondly, the high salary of the qualified experts compensates last expenses of time, means and efforts to education and vocational training.

Essential distinctions in a salary can take place in the absence of the competition between especially professional groups of workers, for example, between steelmakers and doctors, dancers and mathematics, drivers of trucks and tutors of child care facilities etc. It is almost impossible for the representative of each of similar categories of workers to pass from one group to another; therefore, the competition between these groups does not arise.

The competitive environment arises whether in each professional group, or in groups of interchangeable professions and specialties.

The special group includes the people possessing talent or unique abilities: musicians, scientists, grand masters, statesmen, etc. The payment for exclusiveness of their natural talents includes the element of an economic rent as payment of their work.

As a whole, in conditions of a competitive environment on labor markets, salary level for each professional group is established under the influence of mutually counterbalanced supply and demand on labor. But the real situation often differs from ideal conditions of completely competitive labor market. On the one hand, it happens because of the policy of employers in the field of hiring of workers and establishment of a salary by it, and from the other hand because of exclusive tendencies in the field of the work offer and its payment generated by actions, for example, some labor unions. As a result, the market balance can be broken by increase of a salary and increase in unemployment, or by increase in employment and nominally growing inflation that really decreases the salary.

The economic conditions of reasonable growth of the real wage are provided with high specific weight of natural resources on unit of employees in case if these resources are used rationally and effectively that results in improvement of methods of production at the expense of growth of the capital and improvement of technologies acts that promotes increase of efficiency of work and its productivity. In these conditions on a competitive labor market the wage level raises, displacing up a point of balance of supply and demand of labor.

Violations of balance of supply and demand often happen owing to exclusive influence of the labor unions demanding: first, to raise a salary, often without other economic conditions; secondly, to accelerate replacement of work with the capital without other economic conditions that causes relative decrease in demand for labor; thirdly, to take the measures limiting the offer of work in the relevant branch.

The salary joins costs of production and causes increase of the commodity prices of the products; consequently the decrease in demand of consumers can appear. Increase of the commodity prices can also cause decrease in savings and capital accumulation. But unemployment growth can appear as the most essential and undesirable consequence.

Labor supply, labor demand and their elasticity are changed under the influence of a number of factors (tab. 6.1).

**Table 6.1**

**Factors of change of supply and demand of labor**

Factors	Labor demand	Labor supply
General	a) salary level; b) labor productivity; c) demand for the goods made by this type of work; d) age of an employee; e) replacement of labor with other factor of production; f) number of employers; g) production expansion at the separate enterprises	a) number of skilled employees; b) working conditions (status, prestige, social security); c) salary and working condition level on alternative workplaces; d) living standard of an employee; e) change of a demographic situation in the country
Determinants of elasticity	a) elasticity of the goods made by this labor; b) ease of replacement of labor by other factor of production; c) elasticity of supply of supplementing factors; d) elasticity of supply of replacing factors; e) share of costs for a salary in joint costs of production; f) time factor	a) the expenditures connected with change of labor; b) activity of labor unions; c) state regulation on a labor market; d) time factor

So, *labor market* is such an economic environment or space where a certain volume of employment and salary level resulted by the competition between economic agents via the mechanism of supply and demand are established.

*Salary* in modern economic science is the price paid for use of work of the hired worker. Depending on the methods of an assessment of labor expenditures in economic practice the particular amount of time is established (monthly, week, hourly, annual), price-work (for quantity of the made goods), accord and other types of compensation.

The *nominal* and the *real* wage are usually distinguished. The nominal salary is understood as the sum of money which is received by the worker for the work. The real wage is a mass of goods consumption and services which can be got on the received money. The first indicator characterizes level of earnings, the income, the second - a consumption level and welfare of the worker.

D. Ricardo emphasized that "the natural price of work" which is necessary for workers had an opportunity to continue his clan without increase or reduction of its number, underlies a salary level which is defined by two factors: the first is a supply and demand on the working hands, the second is the price of goods on which the salary is spent.



The neoclassical theory claims that the general level of a salary can be defined by crossing of curves of supply and demand. The increase in demand for work raises salary level, and growth of the offer reduces this level. It is thus extremely important to remember that supply and demand in these markets are formed under the influence of the markets of consumer goods and services. Therefore, demand for work acts as derivative demand, and the offer of work depends finally on the offer of the consumer benefits. For the analysis of a labor market the production theory is necessary to remember.

The limited profitability of work equals to the limit income of firm increased by a limit product work:

$$MRP_L = MR \times MP_L$$

Where  $MRP_L$  is the limit of profitability of the work;  $MR$  – is the limit of income;  $MP_L$  – is the limit of product of work.

In the conditions of the perfect competition the limit income is equal:  $MR = P$ . If the firm maximizes profit, it employs workers until limit profitability of work is not equal to a salary (to  $MRP_L = to W$ ) i.e. until the limit income from use of a factor (work) does not be equal to the expenses connected with its purchase (i.e. a salary). Having substituted instead of  $MRP_L$  a salary of  $W$  and instead of  $MR$  – the price  $P$ , we receive:

$$W = P \times MP; MP = W/P,$$

where  $W$  – is a nominal salary;  $P$  – is release price;  $W/P$  – is the real wage.

Thus, a condition of maximizing profit is equality of a limit product of work to the real wage. We removed that

$$MR \times MP_L = W.$$

The labor market can be characterized by a monopsony (oligopsony). In this case the party of the offer is presented by a great number of workers, and the party of demand only (or several) firm employer. Salary rates in this case in big degree depend on decisions of this monopsony firm.

Work of a certain specialty, profession takes place various stages of life cycle: from origin before fading, dying off. At a stage of origin and expansion of scope of this profession demand for it grows, then decreases. Duration of each stage is defined by life cycle of technological process and the equipment, caused emergence of this profession. And at all similarity of development of economy and the social sphere of the leading countries the politics of employment in any of them led to formation of different market models of work.

This variety can be reduced to two main types; external, or it's called professional and domestic market of work (tab. 6.2).

Table 6.2.

**The distinction of models of internal and external labor markets**

Signs	Domestic market	Foreign market of labor
The system of the production relationship	Movement of personnel in the enterprise or across when the worker moves on the new workplace similar on carried-out functions and kind of work	Mobility of labor firm between firms and the enterprises. The existence of professions at workers which can be used by

	former or down, to higher positions or categories. Professions and qualifications of workers have the specific character caused by work in this enterprise	different firms or the enterprises
Professional education model	Preparation of workers by the professions specific to this firm. Holding workers at the enterprise, the firm can be guided in these conditions by longer period of professional preparation and professional development of workers, putting in these actions considerable means (system "continuous education")	Orientation to the finished professional preparation to which the diploma or the certificate on education at the worker testify. The main form of professional preparation – apprenticeship system
The organization of labor unions	Trade-union organizations are created and function in the company	The organization of Labor Unions is built on branch and professional signs
The results in the sphere of employment	Less subject to unemployment as at reduction in production of workers or move on other workplaces, or reduce duration of working hours, keeping personnel at the enterprise.	More it is fraught with unemployment because of structure of relations of production

The western experts consider that the professional labor market meets requirements of cyclic development of production, but the internal deals with structural changes in economy. Thus, in practice division of a labor market into two types is very conditional division as the general tendencies of development of production pull together these models.

The difference between the minimum (redundant) price of labor and market price makes *an economic rent on a labor market*.

In the conditions of the perfect competition the existence of an economic rent is incentive for inflow of new workers to a branch. Therefore, in competitive branch the supply curve in the long-term period becomes absolutely flexible and the economic rent disappears. However, when new workers do not possess the qualification of old workers, the economic rent can remain a long time. It is characteristic for the branches attracting unique human resources. The platform stars, the known film actors, the well-known athletes receive very high fees. Their abilities are unique and therefore the proposal of such workers is very limited, it is absolutely not flexible. As a result, the increase in demand is expressed in growth of the price of work, in increase in a salary.

The reform of system of compensation provides independence to the

enterprises at a choice of the principles of remuneration of the workers stimulating them to high efficiency of work. It is expedient to make use of experience of the foreign businessmen in designing of domestic systems of a salary who are widely applying the following *systems of compensation*:

- guaranteeing minimum wage (tariff rate) even if the established labor productivity level was not achievement by the worker;
- changing salary ranging from minimum to maximum in the proportions depending on the reached labor productivity level;
- system of participation of workers in profits and creation of working property.

In recent years many foreign firms apply successfully various systems of participation of workers in profits and creations of working property to strengthen their motivation. The participation of workers in profits happens in the form of contributions to "funds of workers" shares of profit of the current year to use of a preferential tax mode. The creation of working property is carried out by means of an investment of the accumulated from salary money in production on favorable terms.

Speaking about a salary, it is necessary to consider concept of the income of the individual as the salary often acts as the main source of the income of a family.

*The income* is a quantity of the benefits received for the certain period of time (month, year); that is all that has come irrespective of a form and a receipt source.

The income of the individual (his family) can consist of the following parts: salary; enterprise income; income from property (dividends, percent, rent,); state payments (child allowances, pensions, grants, free services of education, health care, etc.); income from personal subsidiary farm; other (prizes in a lottery, inheritance). The structure of the income of individuals varies if to take into account their professional activity, age and relationship status.

*Employment* is the activity of citizens connected with satisfaction of personal and public needs, not contradicting the legislation (for example, to the Act of the Russian Federation "About population employment in the Russian Federation") and bringing the income for the labor (salary). Employment can be full and incomplete. Quite recently 90-92% of able-bodied population was considered as a full almost "universal" employment. In market conditions a full employment recognizes existence of natural unemployment at the level of society, what means work in the regulated forms at the level of firm, i.e. the normal duration of the working day, week, and year. The part-time employment most often have the hidden character, assumes that the occupied workers' duration of working hours is reducing practice.

According to classification the IOL, *in structure of labor economically active and inactive population is marked out*.

Economically active population is a set of people, potentially capable to participate in production of material benefits, rendering services and creation of consumer costs. In the structure of economically active population both busy and jobless citizens are included.

The sphere of unemployment is wider than the concept of jobless population in number of the people who do not have work for various reasons; not looking for it or not being ready to start it soon. For example, Russian statistics to distinct the unoccupied and jobless is carried out according to the number of official



recognition of the status of the unemployed and grant payment to the persons who have addressed in public service of employment.

Dynamics of employment is influenced by the following factors:

- demographic (number of the population, specific weight of economically active population, demographic structure, volumes and directions of migratory streams);
- climatic (nature of climate, degree of an occupancy of the territory, remoteness from industrial areas);
- economic (the volume and structure of production, the dynamics of macro - and microeconomic indicators, structural shifts, level of investment activity, extent of the competition and monopolism, a rate of inflation, etc.);
- social (level and quality of life, motivation to work, extent of development of trade-union movement and social partnership, extent of intervention of the state and social processes);
- organizational (level of the organization of work, production and management, organization of work of labor exchange, employment service);
- legal (the laws regulating business activity, bankruptcy of the enterprises, population shift, terms of employment and dismissals, a work and rest mode).

There is a variety of approaches (concepts) to employment regulation in the modern economic theory.

The basis of *neoclassical approach* is the postulates of the classical theory of A. Smith. Neoclassics (P. Samuelson, M. Feldstein, and R. Hall) adhere to it generally, and in the 1980th it was supported also by supporters of the concept of economy of the offer (D. Gilder, A. Laffer, etc.). Adherents of this concept believe that the labor markets, as well as all other markets, are capable to automatic self-regulation and remains steady and equilibrium in the long-term period in the conditions of a full employment. Therefore, the government has to pursue a non-interference policy in the self-adjusted mechanism of a labor market.

Speaking seriously about salary change in strict accordance with supply and demand fluctuations, especially about lack of unemployment is hardly possible, that is why the supporters of this concept refer to certain imperfections of the market which result in discrepancy of their theory with life. To those factors are referred influences of labor unions, establishment by the state of the minimum rates of a salary, absence of information etc.

*Keynesian approach* differs from classical approach in two fundamental ideas: first, there is more than one level of the real income and employment; secondly, the equilibrium employment rate is defined not by the competition on a labor market (as it does not exist) and level of the income, which, in turn, depends on cumulative demand for goods and services.

The concept considers a labor market as the phenomenon of a constant and fundamental misbalance. In Keynesian model (J. M. Keynes, later R. Gordon, etc.) in particular, the price of labor recognizes that is rigidly fixed and practically does not change (especially towards reduction). This element of model is not proved yet; it undertakes as the unconditional fact. Key parameters of employment are an employment and unemployment rate and demand for work, real wage level are

established not on a labor market, but are defined by the extent of effective demand in the market of consumer and investment goods and services. On a labor market only the level of a salary depending on a size of the offer of work is formed. However, the offer of work does not play the leading role in formation of the actual employment, and characterizes only its greatest possible level at this size of a salary. The state, influencing cumulative demand towards its increase, promotes increase in demand at work that conducts increase in employment and decrease in unemployment.

As well as supporters of Keynesian approach, representatives of *a school of monetarists* (M. Friedman, E. Felis, etc.) proceed from rigid structure of the prices of labor and, moreover, from the precondition of their unidirectional, upward movement. They prove that the market economy represents self-adjusting system, the price mechanism, which defines a rational employment rate itself. At such a system the intervention of the state leads to failure of the mechanism of regulation of the market, and monetary impact on cumulative demand from the state finally will lead to untwisting of an inflationary spiral.

The employment deviations from the natural level can be only short-term. If the employment rate is more than equilibrium it leads to acceleration of inflation; if it is less, acceleration of deflation happens. The policy of stabilization of employment has to be directed on a fight against unemployment rate with possible deviations from its natural norm, with fluctuations of outputs and the number of the employees. Equilibration monetarists suggest using monetary policy levers generally for a labor market.

The representatives of *institutional and sociological approach* (T. Veblen, J. Dunlop, J. Galbraith, and L. Ullmann) refer to situation, that problems in the field of employment can be solved by means of any institutional reforms. The withdrawal from concentration of attention only on the macroeconomic analysis is natural for this approach and attempt to explain discrepancies available on a labor market with features of social, professional, branch, gender and age, ethnic and other differences in structure of labor and levels of a salary corresponding to them that is carried out are natural for a labor market.

*The concept of flexible market* (R. Bouilhet, G. Standing) gained its distribution in the late seventies when in the most developed countries of the West was happening an economic restructuring. As the basis of this approach there has been taken the provision on necessity of deregulation of labor market; transition to more flexible, functionally individualized and non-standard forms of employment (part-time, shorter workday or week, short-term contracts, outwork). As a whole the concept of a flexible labor market assumes formation of diverse forms of relationship of businessmen and workers and is directed on rationalization of cumulative expenses, increase of profitability and maintenance of dynamism of a labor market.

As a result of reforming of economics of the Republic of Uzbekistan the gain of employment is provided mainly by enterprise structures, represented by small business, and the bulk of the working population is the share of non-state sector.

The influence of demographic factor on a labor market of Uzbekistan is connected, first of all, with change of number of economically active population, namely, the population of the able-bodied age forming about 95,0% of all

manpower and the population are more senior than able-bodied age which in the conditions of decrease in a standard of living began to put the considerable pressure upon a labor market.

Therefore, in realization of own model of creation of market economy in the republic one of the major priorities is employment of able-bodied population, prevention of mass forms of unemployment and on this basis increase of the income and a standard of living of families.

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## 6.2. Capital market. Interest rate. Investments

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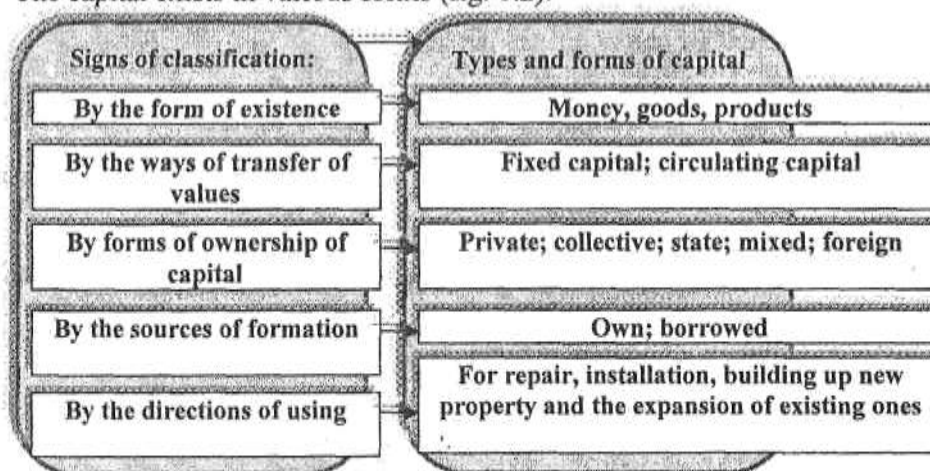
*Capital* (from lat. capitalis – main) – is one of the most important categories of economic science, an obligatory element of the market economy, a necessary factor and a production resource, the main object of the market of the capital.

The capital has many values and can be treated as:

- certain stock of material benefits ("physical capital");
- sum of money or "financial capital";
- something that includes not only material subjects (means of production), but also non-material elements, such as knowledge, education, qualification, the human abilities used in production of goods and services ("the human capital");
- the element of wealth which brings to his owner the regular income throughout a long time ("the discounted flow of the income");
- the sum of the rights to dispose of some values, giving to their owners the income without an investment of the corresponding work ("the legal capital").

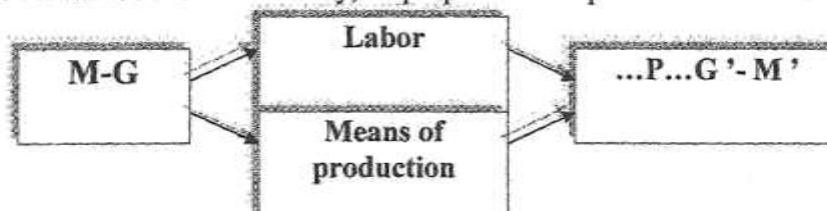
All these views are uniform in one: *the capital* is any resource of economy created for the purpose of production of bigger quantity of the economic benefits and capable to bring the income.

The capital exists in various forms (fig. 6.2).



**Fig. 6.2. Types and forms of capital**

**Circulation of capital** is such movement of the capital at which, passing three various stages (the advanced cost, a surplus value, driving) and three functional forms (productive, monetary and commodity), it comes back to that form with which began the movement. The formula of a circulation of the capital fully reflects the content of business activity, its purpose and implementation conditions.



The movement of the capital is not limited by one circulation. They follow one by one and form a capital turnover.

**Capital turnover** is the circulation considered not as separate act and as periodically repeating process; it begins with the moment of advancing of the capital in a monetary form and comes to end with a monetary form of the capital, but with a gain.

Adam Smith carried out distinctions between two forms of the production capital. In his opinion, fixed capital is what makes profit, remaining thus property of the one who owns it (the equipment, the car, a construction). Working capital is the benefit which makes profit too, but ceases to be property of his owner. So, the working cattle are fixed capital, but if it is sold in the market, it turns into working capital.

From the point of view of A. Marshall, the capital is subdivided into the consumer capital and the auxiliary capital, the spare or mobile capital.

Concerning the businessman the spare capital is the available benefits expressing a certain monetary cost, which can be used for any purposes. Concerning individuals Marshall divides the capital on consumer and auxiliary.

**Consumer capital** consists of goods of such form which is capable to satisfy requirements directly, i.e. from the goods providing existence of workers, such as food, clothes, housing etc.

**Auxiliary capital**, in Marshall's point of view is called so because it assists the work appendix in production. Here tools, cars, factories, the railroads etc., and also any raw materials enter.

As measure of consumption of fixed capital the wear which monetary value are the depreciation charges representing part of cost of fixed capital, postponed for a ready-made product in each production cycle acts.

**Physical depreciation** of fixed capital is a loss of its consumption cost.

**Obsolescence** is a loss of cost by two reasons:

1. creation similar, but cheaper means of labor;
2. release of more productive means of labor at the same price.

The account of physical and obsolescence has a great importance for depreciation setting standards.

**Norm of depreciation** is the relation of the annual sum of depreciation

charges to the average annual cost of the fixed production capital, expressed as a percentage.

Both the main and reverse the capitals are characterized by a certain mobility and liquidity.

*Mobility of the capital* is its ability to pass just seeing use to another depending on demand movement. Mobility is resisted by capital specialization – absolute or relative.

*Liquidity of the capital* is its ability to be immediately exchanged for money: the exchange of the capital for money in the market or its depreciation, i.e. partial or full reproduction of its cost in the made product can take place.

Historical forms of existence of the capital were: *trade capital* (in the form of the merchant capital), historically the most ancient free form of the capital; *usurious* (later loan capital) and *industrial*.

*Trade capital* appears as a result of isolation of function of realization of goods and services. The trade capital functions in the address sphere, without it the continuity of production would be impossible as the circulation of the capital comes to an end only when the goods are sold and the businessman gains income. Conditions of reproduction cause of isolation of a monetary form the *industrial capital* and its transformation into the independent loan capital. At the heart of transformation of the monetary capital into special goods capital lies the property office on the capital from using by it, i.e. when it belongs to one, and is used by other businessman. The loan capital after a certain term comes back to the owner, bringing in the income in the form of percent. The loan capital has a special form of movement. It does not accept neither productive, nor a commodity form. Movement of the loan capital happens in the form of the commercial and bank credit. Development of the credit gave an impetus to trade in securities, stockjobbing, and security market formation.

Due to the ambiguity of treatment of the category "capital" there is also a problem of definition of concept "*capital market*".

In economic literature two possible options of treatment of this concept are allocated:

1) if to understand the physical capital as the capital (machines, buildings, stocks etc. in their cost measurement), the market of the capital is a part of the market of factors of production along with a labor market and lands;

2) if to understand as the market of finance the monetary capital as the capital, the market of the capital acts as a component of the market of the loan capitals.

*Market of loan capital* is subdivided into the monetary market and the capital market. *Monetary market* is connected with short-term bank operations for up to one year. *Capital market* serves medium-term and long-term operations of banks. It, in turn, shares on the *mortgage market* (operations with mortgage sheets) and *financial market* (operations with securities). Entities of the financial market are not only banks and their clients (as in the mortgage market), but also stock exchange, and as object of operations act not only securities of business owners, but also the state institutes.

*Tools of the market of the capital* include:



– the treasury bonds intended for financing of long-term policy of the federal government;

– securities of public institutions which are emitted on the basis of the special permission of the government for financing of various types of social programs through a financial system;

– the municipal bonds issued by local authorities;

– stocks and the bonds of corporations emitted by private firms. In the market of the loan capitals are formed supply and demand of the monetary capital.

The capital market as a structural link of the market of factors of production is the typical market. In the principles of its organization and in the mechanism of its functioning, establishment of balance is available much in common with similar processes on a labor market. Namely:

– the volume of demand for the physical capital has derivative character in relation to demand for end products and depends on the sizes of the last;

– maximizing profit is reached in a point of equality of a limit monetary product (*MRP*) and limit expenses of a material resource (the physical capital) – *MRC*, i.e. by optimization by firm of demand for the capital the rule  $MRP = MRC$  works with *MRC*.

*Demand for the capital* in the market of factors is a demand of firms for the physical capital allowing them to realize the investment projects, and in a form of presentation is a demand for investment funds. Demand for the capital is expressed in the form of demand for financial means for acquisition of necessary business assets.

*Supply of the capital* arises generally from households, and also the enterprises and the state. The households owning the capital in the form of enclosed money provide the capital using to business in the form of appliances and gain income in the form of percent on invested funds.

As the physical capital can be got in property of firms or be provided to them in temporary use, it is necessary to distinguish a payment for a stream of services of the capital (use price) and the price of capital assets (the purchase and sale price).

The cost of use of services of the capital represents a rent (rolling) assessment of the capital. It can act as the market quotation or the sum paid by firm to the owner of the capital for rent of part of this capital.

*The price of an asset* represents the price for which the unit of the capital can be sold or bought at any time.

In the market of the capital it can develop both the perfect competition, and a monopsony, both monopoly, and mutual monopoly (duopoly), i.e. all main types of market structures. The monopsony and oligopsony takes place at many enterprises processing agricultural production. The local milk plant acts in relation to collective farms and farmers as a monopolist as others overworking the enterprise nearby are not present, and at long transportation milk turns sour. The market absolute power of such monopolist – processors serves as the important reason of a difficult situation of the domestic agricultural enterprises. The last owing to

monopsony structure of the market are compelled to be reconciled with purchase prices imposed to them.

The monopolistically (oligopolis) type of the market is very widespread on the markets of material resources. "Gazprom", RAO "UES of Russia", "Transneft" and other huge enterprises are suppliers of the resources serving for other firms as working capital. Monopolists have opportunity to impose to the consumers inflated prices of delivered resources. At a high level of monopolization typical for CIS countries a situation when as the supplier of these or those material resources one acts, and the buyer – other monopolist, at all is not a rarity.

So, *as suppliers of the capital act households and consumers are represented by firms*. Interaction of suppliers and consumers is carried out through an extensive network of financial intermediaries: commercial banks, investment funds, broker offices etc. Their function is accumulation of small savings of house farms in the huge sums of financial means and their placement among consumers of the capital. The form of granting the capital can be different – or direct, in the form of distribution of actions of new releases among followers, or loan, in the form of purchase of bonds of corporations and granting direct loans to firms. The major role in this process is played by percent paid on provided means.

In economic literature the percent interpretation in narrow (as payments for the granted loan) and in a broad sense (as income gained as a result of use of a factor of the capital) takes place.

The percent in the *modern economic theory* is most often considered as the capital price irrespective of, whether the industrialist in the form of the enterprise income or the owner of the loan capital receives it. Thus, the percent represents an income version along with profit. Percent is the part of the income which is gained by the owner of the capital within a year. If it is expressed as a percentage, such income is called as an interest rate. For example, you put in bank 100 thousand dollars under 15% per annum. Your income (or percent) will make 15 thousand dollars, and the percent rate in this case will be equal 15%.

According to *classics* of the economic theory, the profit and percent is such forms of a surplus value which hide unpaid work of workers; from here the conclusion about inevitability of expropriation of this unpaid work at capitalists – a conclusion which is beyond research of purely economic theory and the market relations follows. Originally classics differentiated understanding of the capital property and the function capital. The percent here is an income of the capital property, a payment to the capitalist that he is his owner. And the enterprise income – is the remuneration of the capital function appropriated by the capitalist in connection with his organizational activity on business. From this (broad) point of view interest draws not only the creditor (the loan capitalist), but also the businessman using in production the own capital as it in one person unites the capitalist owner and the functioning capitalist. The percent, thus, acts as a universal form of the income of the capital property.

Besides the above-named interpretation of essence of percent in economic literature a wide circulation received treatment of percent within the theory of pure productivity of the capital and psychological approach to concept of percent of the theory of limit usefulness

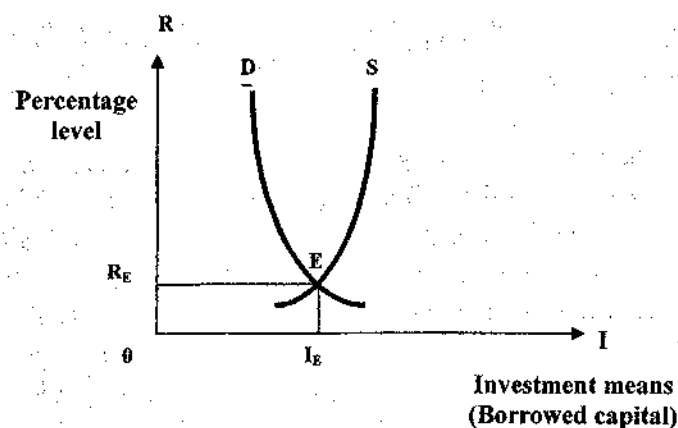
So, the American economist I. Fischer who has started the foundation theories of pure productivity of the capital claimed that the percent results from an exchange of the sum of the current benefits for a large sum of future benefits. As a result of productive use of the capital production efficiency that leads to expansion of release of the final product increases. This gain of release also is percent.

According to the opinion of *the theory of limited usefulness* supporters (going back to works of the Austrian economist E. Bem-Baverka) the percent springs up from psychological preference of time. The person is arranged so, that for him the value of the present (today's) benefits is always much higher, than the value of the similar benefits in the future. It is connected with possibility of satisfaction of momentary requirement or desire of the person, and also with obtaining the additional income as a result of the reasonable order available resources. This opportunity induces people to borrow money and to pay for it determined price in the form of percent. Thus, the percent is compensation for refusal of the current consumption. The relation of the sum of money which will be returned to a sum of money received in a loan forms a percent rate.

The theory of pure productivity of the capital describes events from demand for the capital. The businessman using the loan capital can pay percent, only if its application gave effect if in practice the pure productivity of the capital was shown. The theory of limited usefulness, in turn, describes events from the capital offer. For the person providing the capital in using to another, this transaction really looks as refusal of the current consumption, deserving compensation in the form of percent.

The modern economic theory treats *percent* as the price which people pay for receiving resources now, instead of waiting until they will earn money on which these resources can be bought. The accounting of a factor of time allows concluding that the time of the fixed deposit is longer; the income on this contribution in the form of the paid percent is higher. It is possible to determine percent size on the basis of the supply and demand theory. With increase in demand for the capital and reduction of the offer of the capital level of percent grows. Graphically it is represented in fig. 6.3.





**Fig. 6.3. Balance in the capital market**

The presented schedule allows us to understand category of percent as a peculiar equilibrium price ( $R_E$ ). Point E is a point of intersection of curves of demand for the capital (D) and the offer of the capital (S). There is a coincidence of limit profitability of the capital and limit expenses of the missed opportunities, demand for the loan capital and its offer coincides.

It is necessary to distinguish an average rate of percent which is defined for the long period of time and the market rate of percent developing daily and subject frequent fluctuations.

Some major factors that have impact to the size of percent and its fluctuation, most important of which treat:

- capital size;
- capital productivity;
- ratio between a supply and demand on the capital.

It is distinguished nominal rate and real rate of loan percent.

**The nominal rate** shows how the sum which the borrower returns to the creditor exceeds the size of the obtained credit.

**The real rate** is the rate of percent corrected on inflation, i.e. expressed in monetary units of constant purchasing power. Real rate defines making decisions on expediency (or in expediency) investments.

By various economic schools of an investment are characterized differently. According to the Austrian school "limit usefulness" *investments* are treated as an exchange of satisfaction of today's requirements for their satisfaction in the future.

In usual word usage as the term "investment" we understand the purchase of the individual or corporation of any property. Sometimes this term limits to purchase of securities at stock exchange.

More fruitful from the point of view of the intrinsic characteristic of investments is formation of a view of J. Keynes investments as on "the current addition to the cost of means of production as a result of a production activity of this period".

In the directory of the manager as the standardized term the investment is

considered as "set of the expenses realized in the form of long-term capital investments "for the purpose of obtaining the enterprise income or percent". Such definition represents attempt of connection of the "resource" and "expensive" approaches used earlier at the characteristic of the economic maintenance of capital investments.

Expensive approach is based on denial of the importance of a monetary form of a circulation of fixed capital, justification of advantages of a productive stage. Resource approach is based on a priority of the financial means intended for simple and expanded reproduction of fixed assets.

In the western economic literature an investment is considered as a set of the benefits, the values put in business activity for the purpose of maximizing effect (including social) in the long term.

*Investments* are called all types of the assets (means) put in economic activity for obtaining the income. This is their financial definition. According to the economic maintenance of an investment are expenses on creation, expansion and modernization of fixed capital, and also on the changes of working capital connected with it.

In economic literature gross and pure investments are distinguished. *Gross investments* represent total production of capital goods during the certain period of time, usually in a year. *Pure investments* are an annual increase in fixed capital. They are defined so:

$$\text{Gross investments} - \text{Depreciation} = \text{Pure investments}$$

On dynamics of investments it is possible to judge investment activity of firm. The structure of investments can be considered in the following directions:

- the production structure of investments is their distribution on branches;
- the reproduction structure of investments is a ratio between investments in new construction, in expansion of the operating enterprises or in their reconstruction and modernization;
- the technological structure of capital investments is a ratio of expenses for installation and construction works (passive part of investments) and on acquisition of the equipment, cars, the tool (active part);
- concentration of investments: the cost of incomplete construction in relation to the annual volume of investment, the there is less better.

Types of investments differ on a number of criteria among which the major are the capital investments directions, a realization form, risk size, duration of an investment cycle (fig. 6.4).

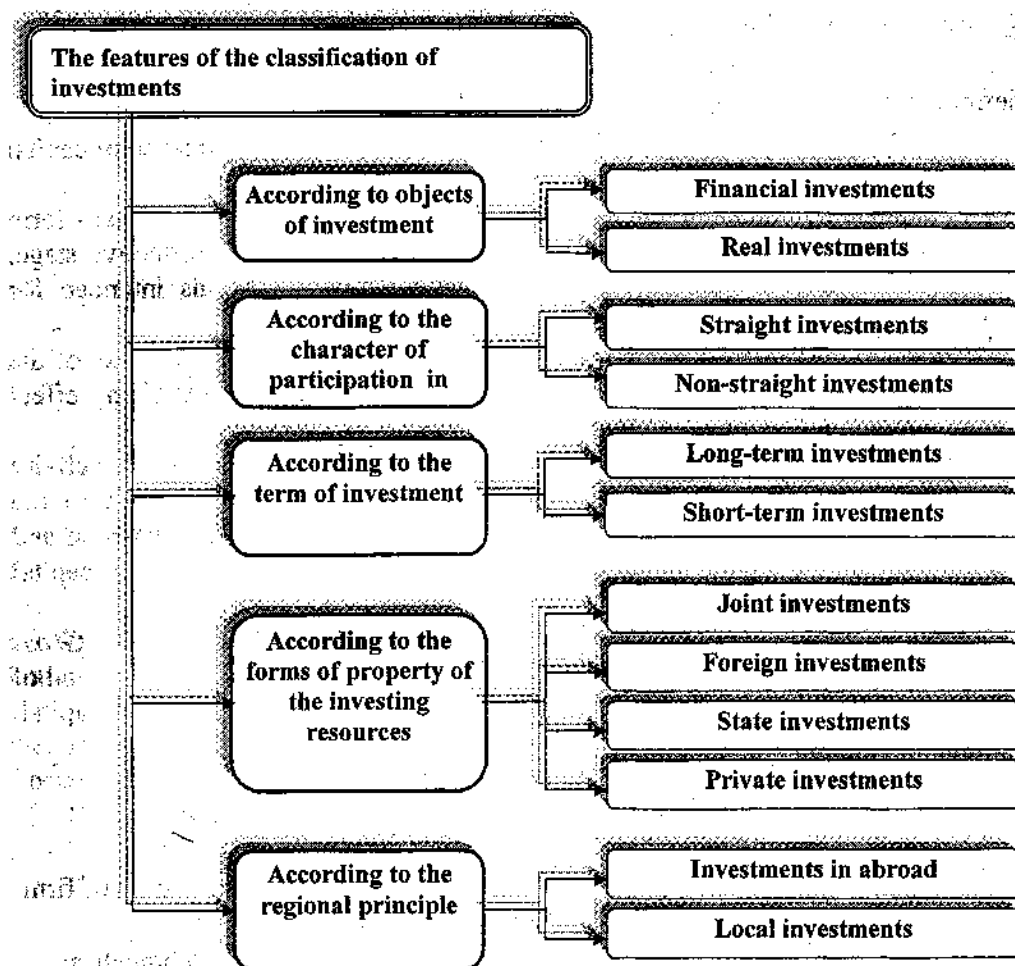


Fig. 6.4. Types of investments

At investment it is necessary to compare expenses and the income (benefits) arising at different times. Costs of implementation of the project stretch in time, and the income arises usually after implementation of expenses. Therefore speak about such concept, as the *cost of money in time*. It means that the ruble spent earlier, costs more, than the ruble spent later.

The technique for measurement of the current and future cost of money is called as discounting.

**Discounting** is a process, the return to charge of difficult percent. We find the current cost by division of future cost on  $(1 + \text{a percent rate})$  so many time, on how many years we do calculation:

$$PV = \frac{FV}{(1 + R)^N}$$

where  $PV$  – the current cost;  $FV$  – future cost;  $R$  – percent rate;  $N$  – number of years.

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Discounting is based on use of a rate of percent. In the financial analysis for a discount rate (a percent rate for discounting) take typical percent under which the firm can occupy financial means.

Let's consider on a concrete example as the discounted, initial cost of any capital goods (machine) is defined. Let's assume that the businessman, having bought the machine and using it within three years, intends to gain income of 6500 dollars, and this income is distributed: in the first year of operation – 1500 dollars, in the second – 3000 dollars, in the third – 2000 dollars. It is known that the interest rate is equal 8%. Then the discounted cost will make:

$$PV = (1500/(1 + 0,08)) + (3000/(1 + 0,08)^2) + (2000/(1 + 0,08)^3) = 5540,3 \text{ dollars.}$$

It means that the businessman has to pay 5540,3 dollars that in three years of its use to gain income of 6500 dollars for the machine.

Thus, discounting is a reduction to each other flows of the income (benefits) and expenses on the basis of a discount rate for the purpose of obtaining the current (today's) cost of future income.

Determination of the discounted cost has essential value for adoption of investment decisions by the businessman.

It is necessary to invest only when the expected income is higher, than the expenses connected with investments.

World experience shows that the economy conclusion from crisis is possible first of all on the basis of investments. Investment activity has to grow first of all at the operating enterprises, where ample opportunities both on increase in capital investments and on acceleration of their return and efficiency increase.

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### 6.3. Land market. Rent and types of rent

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Initially the land was the main means of production defining welfare of the people. Not casually the founder of classical English political economy V. Petti said that work is the father of wealth, and the land was his mother.

The concept "earth" treat not only actually geographical territories, but also all concluded in an earth subsoil (oil, ores, gas, coal and so forth), and also forest grounds, water resources, fish riches. Besides, the concept "earth" includes all biospheres in which human life passes and production process is carried out.

At different times the role and value of the earth as a whole of this concept played an unequal role. So, throughout many centuries the earth was the main supporter and its fertility was appreciated, first of all. In the conditions of industrial revolution and industrialization huge value got existence in the country of minerals access to which try to get and other states that was at the bottom of wars and capture of colonies.

In modern conditions it's not that easy to define value of the earth for the mankind.

On the one hand, the role of natural forces of the earth and dependence of the person on forces of nature repeatedly decreased. Scientific and technical revolution and new technologies led to creation of artificial fertility of the soil, and to emergence of synthetic materials, and to development of new types of the energy which is earlier inaccessible to the person.

On the other hand, many natural resources which were considered earlier inexhaustible appeared on the verge of disappearance. Everywhere on the globe there is no fresh drinking water. Explored reserves of oil can be exhausted in 40 years, coal – through 100 years. Disappear from a face of a planet of the wood, including the jungle responsible for a condition of atmospheric air. The whole animal species disappear. Natural reservoirs become soiled, fish resources perish. The production activity of the person pollutes not only water and air, but also the soil, which products become unusable.

Thus, the general deterioration of a condition of the ecosphere does the person to more vulnerable from forces of nature in this connection value of the earth (in the broadest sense) unprecedentedly increases. Value of access to minerals, and first of all, to energy carriers, such, as oil, gas grows also. Considerably value of the earth as habitats of the person and placement of the production object increases. In the certain cities, areas and even the countries concentration of the population, cars, industrial and administrative facilities exceeds all reasonable limits and the prices of the land plots constantly grow.

The relations concerning pricing and distribution of the income from use of the earth, its fossil resources and real estate are called "rent".

In narrower sense, "the economic rent" is meant as the price of the earth paid by the tenant to her owner for possibility of productive use of the earth and receiving arrived. The rent is part of this profit and is paid by its distribution in favor of the owner of land. The ownership of land with its natural resources and

real estate in the form of the constructed constructions gives the grounds for receiving pure, i.e. absolute, rents, and also the income in the form of a rent. Often the rent includes also a rent if the land plot is rented for economic use with the constructions constructed on it.

Originally land rent was so "dear" category that economists of the XVII-XVIII centuries (D. Nour, J. Locke, A. Turgot) even loan percent justified a land rent and removed by analogy to it. After this roles exchanged. Political economy XIX century (G. I. Carrie, etc.) for a justification of a land rent draws an analogy with loan percent. The problem of a land rent was investigated by various theoretical schools. Neoclassics often uses the terms "rent" and "rental" as synonyms.

In tab. 6.3 formation of a differential and absolute land rent is shown.

**Table 6.3**

**Formation of differential and absolute land rent**

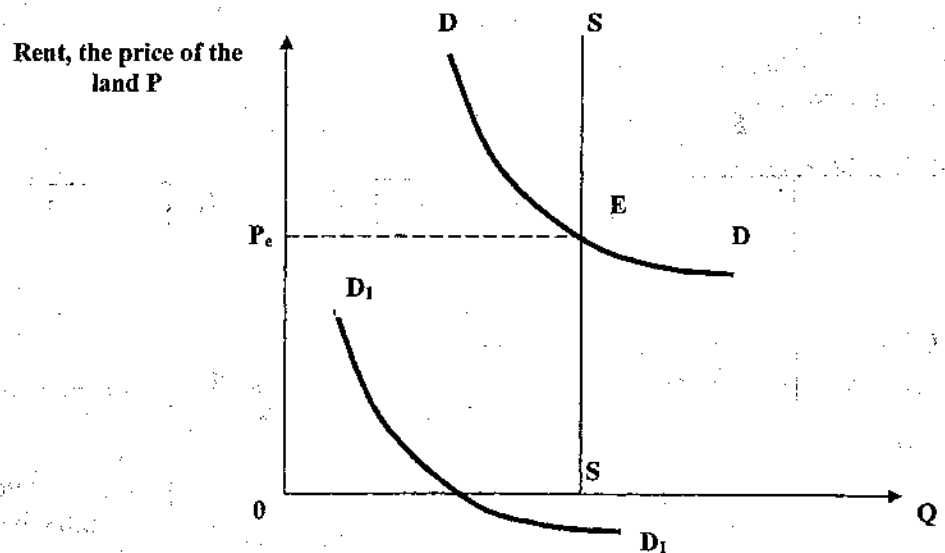
<b>The source of surplus income</b>	<b>What makes the receiving of surplus income short-term</b>	<b>What does receiving excess profit constant (when housekeeping on the land)</b>	<b>As a result, the superfluous the profit becomes a basis land rent</b>	<b>Quantitative expression of the land rents</b>
Individual labor productivity is higher than the industry average level	The Intra-branch competition	Monopoly on the earth as object of economy	The differential rent	The public price of production minus the individual price of production
The labor branch productivity is lower than social level	Intersectional competition	Monopoly of a private property for the land	The absolute rent	The public price minus the public price of the enterprise or m-P

In the markets of factors of production the earth, its resources and real estate are included in a commodity turn as the resources which do not have alternatives of replacement in many spheres of managing. Economic rent they bring because their offer in the markets not elastically or insufficiently elastically. If to represent a curve of the offer of the land on diagram, it will look like absolutely vertical line (fig. 6.5). It is possible to increase the land productivity, to improve its quality, it is possible to raise market level of a rent as payments for the land or to lower this level to a minimum, but the number of the cumulative offer of this factor in each

fixed time-point cannot be increased. The pure economic rent is defined by a ratio of supply and demand of the land in the markets.

In the conditions of rather inelastic offer of the land, its resources and real estate as production factors market demand acts as the most important condition of pricing.

For businessmen a demand for the land and the related factors of production has to coincide with the size of a received limit product in terms of money. The slope of a curve of demand means gradual decrease of the income; it is possible to counteract that improvement of methods of land use, application of progressive technologies and ways of use of similar factors of production.



**Fig. 6.5. Earth supply and demand: SS —non-flexible offer for the land, DD — a potential demand for the land;  $D_1D_1$  — demand for the land in conditions when the earth does not bring a rent; E — the equilibrium market price of the land which was established at the level of  $P_e$  according to supply and demand**

*The differential rent* is the rent received from more favorable grounds. It contains some positive difference of the income arising on more fertile, more favorably to the located lands, at less deep and more productive production of fossil resources, etc.



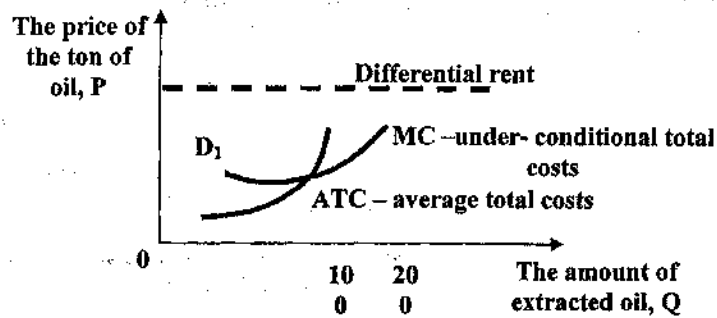


Fig. 6.6. a. Differential rent as a difference between the price of oil and expenses of its production from superficial layers

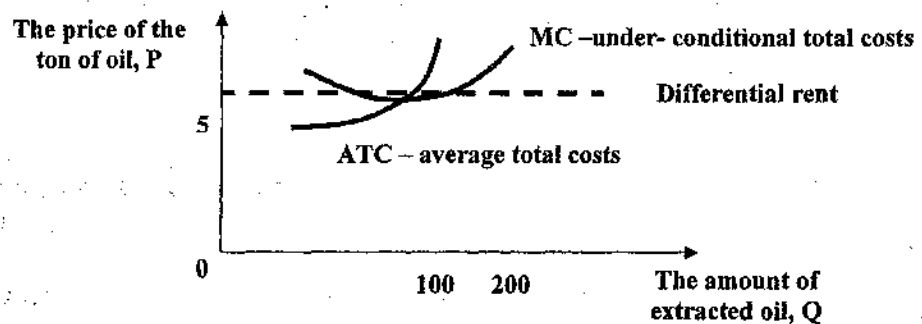


Fig. 6.6. b. Lack of a differential rent, as price on and expenses of its production in the conditions of deeper bedding of layers coincided

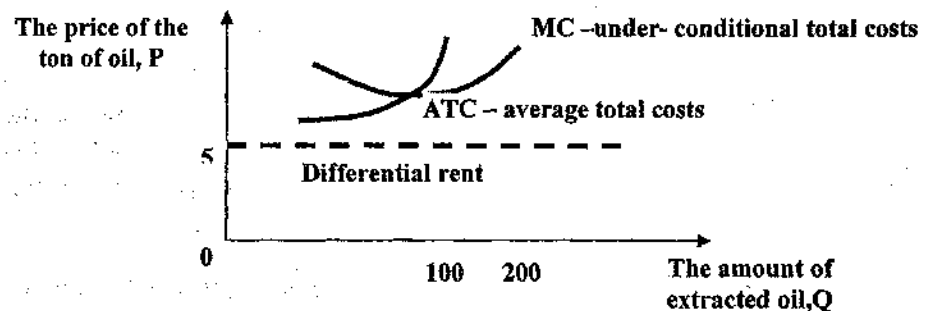


Fig. 6.6. c. Lack of a differential rent and unprofitability of production from very deep layers of a bedding of oil owing to what expenses of production are higher than the price for ton.

In fig. 6.6 a, b and c differential rent is shown by means of curve limit costs of production and average cumulative expenses for three oil-extracting companies. Feature is that the depth of oil layers of each company is various: case of emergence of a differential rent (fig. 6.6 a). Here bedding of oil layers the superficial.

At the fixed market price for 1 t of the extracted oil limit and average cumulative expenses of production will be the lowest. Therefore, only in this case the differential rent arising as a difference between market price of production and specified expenses of oil production takes place.

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### Control questions

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1. Give the definition to the categories "labor market", "labor", "employment". Reveal their essence and interrelation. Name the entities of labor market.

2. What features does the labor market in comparison with other markets have?

3. Name functions of labor market. Reveal their content.

4. What criteria are labor markets classified by? Describe the equilibrium nature on labor market. Describe internal and external models of labor market.

5. What kind of factors influence on the conjuncture of labor market?

6. Explain the essence of the "salary" category. How is it connected with profit of the businessman?

7. What factors influence on the dynamics of employment? What measures do the states accept to increase employment? Compare views of various schools.

8. How will labor demand of firm change, i.e. will it increase the number of workers if the income from marginal product of labor is equal to the price of unit of labor, i.e. salary of one worker?

9. In what economic conditions is an increase of demand for labor possible?

10. Characterize the "capital" category. Describe its types, forms, and circulation.

11. Describe the features of loan market. Enumerate its main tools.

12. What factors define supply and demand in the capital market? Compare different theoretical views of the capital market.

13. Explain the essence of interest, discounting, investments.

14. Explain the essence of "land" as a production factor. What is the essence of land rent?

15. Ownership of land and rent relations.

16. Types of rent and rent in the sphere of land use.

17. Features of revival of the relations of ownership of land in the Russian economy.

18. Under what conditions are differential and absolute rents formed? Describe the schedule of supply and demand of the land.

19. Do the markets of production factors influence the solution of questions on: What? How? And for whom is it made? Reason the answer.

## CHAPTER 7

### MARKET AND STATE

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#### 7.1. Necessity of state intervention in the economy (evolution of the views of scientists-theorists)

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In the antiquity the scientists (Plato, Aristotle and Cicero) considered the state as the form of human community or as environment, in which a human finds conditions of existence. And, according to Aristotle, the state is an environment of purely happy life, where it brings up the man in virtue, and that is the purpose of the state.

One is conclusive: *state is a product of economic and social development of society*. It arouse as a need of nation for activities of certain functions (including economic), ensuring its survival and development. The state does not represent at all a force imposed outside to the society. The state is recognition that the society has got confused in the insoluble contradiction with itself, has broken up on irreconcilable contrasts, and it is powerless to get rid from them. And in order that these contrasts, classes with inconsistent economic interests did not devour each other and society in fruitless struggle, there became necessary a force, apparently standing above the society became necessary the force, which would moderate collision, held it in the borders of a certain order. And this force is a state.

Today the state represents by itself a stem of existing public system, it concentrates authority, authorizes existence of all other non-government institutes. The state formulates principles and organizes the forms of public life, forming the basis of institutional hierarchy. The state caused a new form of public conditionality of man's behavior, separated general interest from private one.

There is a constant discussion about intervention of the state in economy and its role in this process.

Issues on a due role of state and private spheres of vital activity of a man were disputed per different centuries and on different continents. It is enough to recollect works by Confucius, "Book of instructive examples" by Ibn Khaldun, "Art khashastru" (translated as "Science of Policy" or "Science of useful achievements") by Kautilya (its other name Chanakya – IV century AC), "Sovereign" by Nicollo Machiavelli. Thus, Confucius asserted that power of the state was on three whales: well-being of the population, (defense) power of the state and trust to government. And if the state is weak, it, first of all, reduces support of the population, then expense to defense. But if the trust to the government is lost, a crash will be expected in the state.

For N. Machiavelli the strong state is not a successful society using violence or rigid control, and success can be achieved by using immoral methods, all means are good for rescue of the state. The immorality of state by Machiavelli, which we discuss today, can be caused by that the successful society can be various in different situations. One of the important conclusions of his theory of government control is that from the position of practice, a great deal is allowed to the

technologies of state authority which is not allowed simply to a man. And therefore the state authority should not forget about the objective (successful society), which it pursues. Noting this contradiction in behavior of the state, Paul Valery wrote that the strong state suppresses us, and in the weak one we perish.

The science about government of a state was created in east societies in XII-XIII centuries. Well-known treatises Lee Gou in China; series of treatises in the Arab-Islamic literature of XIII c.: "A Pearl on way, or politics of sovereigns", "Dodges and cunnings", "Misses and pleasures", "About subtlety in arranging affairs", "Establishing the sovereignty", "Politics", "Cunnings and dodges in war", "A reminder to a table companion of sovereign" etc.; treatises in Indo-Muslim literature "Laws of war and courage", "Canon of terrestrial authority", "Treasure of governors" and etc.

As the break between what the state can make and what the population waits from it, is more increased, the state begins to collapse gradually from within, depriving the citizens of most elementary conditions (stable (labile) existence: legality and safety, trust to the contracts and reliable means of circulation).

In age of *mercantilism* in Germany of the beginning of XVII<sup>th</sup> century, the science of state management was called "The science about police". The term "police" was treated as art of state management, and activity of the state was called "police activity".

*The theory of police state* was developed by H. Wolf (1679-1754). According to this theory, all activity of the state is defined by moral purposes of a man. The state has the right to use all necessary means, that its each member executed own duties and nobody would put private benefit above the public one. The state watches the growth of population did not outstrip the growth of means of livelihood. It cares for that the citizens aspired to goods, for this it supports operation of law which creates the natural order, most favorable to mankind. The government by giving complete freedom of a competition should remove barriers from a way.

As opposed to mercantilists, which emphasized a huge role of the state in economy, *physiocrats* proved the advantages of complete freedom of economic activity and allocated the state with three functions.

The first and major function of the state is to keep the natural order from sacrilegious and ignorant hands, which would want to encroach upon authority, and especially to store that underlies it, the property. The lawful order is in the right to the possession supplied and guaranteed by force of hereditary and sovereign authority above the people, which has incorporated in a society.

Education is the second function. "The General education is the first true social connection", - asserts Bodo. And F.Kenet urgently recommends education about existence of the natural order and ways of cognition it. Necessity of education physiocrats justify by that education distributed on all citizens, educated public opinion is the sole means to prevent the physiocratic despotism to degenerate in personal one.

The enterprises of public character are also specified by physiocrats among functions of the state. The good owner - proprietor should, first of all, to render

roads in his domain, because the good ways and channels are very useful to an establishment of communication between separate areas.

One of the key-notes of work of English economist William Petty "Political arithmetic" connecting it with principles of classical political economy is an idea of natural order and harmfulness of its infringements by state authority. Lack of state management, according to W.Petty, consists in that "too much that should be ruled only by nature, ancient customs and general agreement, is left under regulation of the law".

W.Petty sharply acted against a state regulation, if it "contradicts the laws of nature". He assigned to the state the important functions on maintenance of complete use of labor, and also on increase of its quality. According to his views on the role of the state in economy W.Petty in "The Treatise about taxes and duties" regulates only target charges of the state: "military charges, maintenance of management, charges on church, charges on schools and universities, on education, maintenance of children (orphans) and invalids, charges on roads, navigable rivers, water-pipes, bridges, ports, other subjects necessary for the benefit of everybody's usage".

The following step of development of notions about the role of state became a classical theory, which found its reflection in the work by Adam Smith "An Inquiry into the Nature and Causes of the Wealth of Nations", in which he asserted that free game of market forces (principle of laissez faire) creates the harmonious system. According to the classical approach, the state should provide safety of life of the man and his property, resolve disputes, i.e. to do what an individual either is not capable to execute independently, or does it inefficiently. The main thing is that basic economic freedom, namely freedom of choice of activity sphere, freedom of competition and freedom of trade should be guaranteed for all subjects of economic activity. Practical politics of the state, by A.Smith, is inspired with spirit of compromise that promoted much to its fast success.

The followers of A. Smith developed his individualistic ideas, which accepted various shades in the different countries. In France, where interests of government and population were constantly opposed and there was a fierce struggle between government and people, idea about non-interference of the state to the citizens' life, about restriction of circle of its activity were lead up to an extreme.

J.B.Say (1767-1832) wrote, that "the best management is that which is least active". In opinion of J.B.Say, the best of all financial plans is to spend probably less, and best of all taxes is the least one". Therefore, he vigorously acted against intervention of the state in all cases, when it goes in harm "to a natural course of things". The head of state does a lot of good already by that he does not do anything bad.

F.Bastiat (1801-1850) considered, that it is necessary to bring the budget down to zero that the state should not interfere with economic struggle, protect separate groups of the population: "This would mean to counteract freedom and to limit progress of nation". P. Leroy-Beaulieu, investigating tasks and functions of the state in the book "The Modern state and its functions" (1883), develops this idea and comes to the conclusion, that the state is unsuitable for performance of

economic functions. His arguments are: absence of the initiative and ingenuity in activity of state enterprises, threat to economic and political freedom, and the main thing is suppression of personal initiative, constraint of circle of private activity, fear of collectivism.

In Germany in comparison with France and England, the individualism found deeper substantiation in philosophy of E.Kant (1724-1804), who formulated the idea about Supreme value and as a conclusion from it – a self-value of human personality. “The man and any rational being in general, - he wrote in “Bases of metaphysics of customs”, - exists as a purpose in himself, but not as a means for any use by this or that will, but in all his actions, directed on him and on other rational beings as well, always must be considered as a purpose”. It is clear that this doctrine about autonomy of the human personality is incompatible to the state regulation and trusteeship, that the requirement to give the persons freedom of actions, which does not put damage to interests of other people, follows from it.

The subsequent stage in development of political economy is connected to a gradual withdrawal from views of A.Smith on the role of the state in economy.

The last of the representatives of English classical political economy J.S. Mill (1806-1873) understood that the system of free competition cannot ensure the decision of a number of economic problems concerning guarantee to the individual of the sufficient profit. In the book “Bases of political economy”, he analyzes an economic role of the state and assigns functions to it, without performance of which economic and social progress is impossible. The state should cover the expenses on creation of infrastructure, development of science etc. The large meaning J.S. Mill gave to state system of social maintenance and taxation.

The evolution of views of J.Sysmondi (1773-1842) is interesting, which from rabid supporter of state non-interference turned into his opponent. Having analyzed economic system of capitalism, he made a conclusion on that it is impossible to believe in beneficence of principle of “laissez faire” (principle of freedom of actions), that the government should be a defender of weak against strong, it should be a defender of the one who cannot be protected by his own forces.

According to the proclaimed principle, J.Sysmondi considers that the state should carry out four functions:

- 1) to impose public order, justice, maintenance of the rights of a person and property;

- 2) public works, due to which it is possible to use good roads, wide parkways, healthy water;

- 3) national education, due to what children receive education, and religious feeling is developed at the adults;

- 4) national protection ensuring participation in benefits, delivered by the public order.

The condition of economic science and national economy did not allow J.Sysmondi, despite of his hot protest against the system of free competition, to formulate and prove the concept alternative to the concept of A. Smith.

From the second half of the XIX century in Germany under influence of the doctrine about the state, under influence of philosophy, law and political economy

new ideas begin to develop in a science. The turn to the historical and limited sight on the state was made. *The concept of legal state* was most fully and systematically developed by J. Stein (1815-1890) within the framework of management doctrine. The subject of management doctrine, in narrow sense, is "internal government of the state". A part of J. Stein's doctrine on internal management is "the doctrine about management of national economy", which is devoted to the questions of maintenance by the state of conditions for creation of material boons of a person.

According to the concept of legal state, the Italian economist F. Nitti defines *the state as a natural form of social cooperation*. He believes that any development for the man is impossible without this initial and most important form of cooperation<sup>35</sup>.

The idea about original division of labor between the state and private enterprise in the sphere of economy was formulated to the beginning of XX<sup>th</sup> century. F. Nitti defines the character of this interaction as: the base of economy is private enterprise; state is original superstructure of economy. Thus, F. Nitti precisely determines the status of the state in economy. The economy will not receive additional stimulus without a state, but its activity is defined by the requirements of development of market economy. These conclusions F. Nitti could make due to the study and generalization of the statistical data of the state charges growth in various countries, including Russia, from 1871 to 1902.

*The modern theory of the state* is generally represented by two directions in economic theory: neoclassical and neo-Keynesian. The main ideologist of active intervention of the state in economy became well-known English economist J. M. Keynes. Keynesian politics assigned the purpose also as control and regulation of general demand that it would correspond to the general offer at maintenance of full or high employment of the population. The Keynes model provided stimulation of aggregate "effective" demand by "incentive" to investing private capital and also through state financing of public jobs and some redistribution through the budget of national income for benefit of the indigent.

Keynes' doctrine found the most complete embodiment in the USA in politics of the president F. D. Roosevelt, and showed good results there.

Speaking about Keynesianism, it is necessary to emphasize, that it means not only protection of public sector and state intervention in general, but represents the special concept of regulation of economy. First of all, it is the concept of indirect macroeconomic regulation. Its target priorities are employment and stability of economic growth, and tools are state budget and monetary and credit politics. Keynes and his followers proceed from basic premise that the only market mechanism is not capable to ensure stable economic growth and full employment, and for this reason the intervention of the state is required. They name the Keynesianism theory crisis, as it examines economy in the condition of depression.

The opponents of Keynesian school – supporters of neo-classical theory, proceed from a postulate about the tendency of capitalist economy to balance,

<sup>35</sup> Nitti F. The basic principles of financial science. M., 1904.- p.18

strength and stability. They assert that market and competition, flexibility of prices are the best mechanisms of establishing economic balance. On the boundary of 1970-80s Keynesian theory and policy based on it was subject to criticism from the monetarist viewpoint. They emphasized inflationary character of Keynesian recipes of deficit financing. Really, at this time raging of inflation becomes a paramount problem of western economy. Neo-conservatives blamed Keynesian policy in it. "Revolt" against Keynes was headed by American economist, Nobel winner Milton Friedman. He saw the alternative in freedom of competition and business. Especially sharply M. Friedman spoke against intervention of the state in monetary circulation. The ideas of Friedman received expression in "Reaganomics".

The supporters of neo-liberal concepts consider that it is necessary to give up Keynesian recipes of anti-cyclic regulation leading to sharp fluctuations of money supply and pass to strict regulation of money in circulation irrespective of conjuncture. Money supply should be increased only according to long-term rate of growth of national income. Speaking against growth of charges of state, they consider that the best thing the state can do is to reduce own incomes and charges and lower the taxes. According to the American experts, the state intervention in economic life results in fall of rates of growth approximately by 0,4 % per year.

But neo-Keynesianists still proceed that in capitalist economy there are steady reasons causing deviations from stable growth and optimum use of resources and the state is necessary for their updating.

Taking into account new conditions and criticism of the opponents, they bring in new aspects in comparison with Keynes.

Thus, the crisis of Keynesianism recovered neo-classical direction and resulted simultaneously in further development of Keynesianism itself. Distinction between them is in different answers to a question: who is capable faster, more effective and more cheaply to adapt economy for non-equilibrium situations - market or state?

The institutionalists pay paramount attention on the analysis of internal structure of economic agents - households, firms and state. Therefore it is no wonder that as opposed to traditional neo-classical approach modern neo-institutionalism proceeds from vital importance of formation not of proprietary rights as such, but as social norms and rules. In this connection the great importance had a consecutive differentiation of two different functions of the state: "protecting state" and "producing state" substantiated by J. Buchanan in "Borders of freedom" (1975).

The first function of the state is a result of the agreement of people; its performance serves as original guarantee of observance of constitutional contract by them. The maintenance of observance of rights in a society means a jump from anarchy to political organization.

The second function represents the state as a manufacturer of public benefits. It is realized on the basis of constitutional rights and freedoms as the original contract between the citizens concerning satisfaction of their joint needs in a number of goods and services. But here the basic danger is concealed. It is



regeneration of the state in totalitarian one. The neo-institutionalists offer the whole set of rules, which would interfere with the development of state in the direction of autocratic regime.

So, state regulation supplements, corrects market mechanism. As figuratively P. Samuelson writes, to manage the economy in absence of this or that, thing is just the same as to try to applaud by one hand.

However, speaking about state intervention in economy, we should raise the question about allowable limits of this intervention. It is extremely important. If the state, even guided by extremely good intentions, crosses this limit, there is a deformation of market mechanism. In this case sooner or later, it is necessary to speak about denationalization of economy. Though, it is necessary to note in economic theory there are different points of view concerning allowable borders of intervention of the state. The answer to this question will be various depending on the one who answers: Keynesianists or supporters of neo-classical theory. But, in any case it is necessary to keep in mind that economic regulators should be used cautiously, without weakening market stimulus, among them there is no an ideal, giving positive result in one sphere, would not give negative effect in another (similarly to treatment of the man by medicines).

*Modern understanding of the state*, in the widest sense, is a set of institutes having means of legal enforcement, which are used in the certain territory and concerning its population designated by the term of "society". The state carries out its activity by means of government, formed by it. The government is considered not only as a set of people filling managing positions in the state, but also as process of management, application of authority, and as the way, method and system of government in a society, and as the structure and organization of governmental bodies and their relations with managed ones. In oral and written speech all over the world the terms "state" and "government" are used as interchangeable.

The government consists of three separate branches of authority, each of which carries out its own function: the legislative authority carries out function of elaboration of laws; the executive authority (sometimes it is called as government) is responsible for realization of laws; the judicial authority watches over the correct interpretation and application of the legislation.

According to classification of governments, there distinguish parliamentary and presidential system of government. In the first case the representatives of executive authority are often the representatives of legislative authority. And though the prime minister can be the most powerful representative of executive authority, final and the most important decisions are collectively made by the group of ministers. In the second case the representatives of executive authority do not enter simultaneously into legislative bodies, and final decisions are made by the president.

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## 7.2. "Market Failures" and main functions of the state determining its behavior in the market economy

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*Functions of the state* are the main directions of its activity, expressing its essence and purpose in a society, including the mechanism of state influence on development of public processes. As the state is a historical category its functions vary during development of the very state – some of them die off, others arise, third get priority or, on the contrary, minor importance.

In a domestic scientific idea four main functions which are carried out by any State, are distinguished:

1) *economic function* – maintenance of normal functioning and development of economy by means of maintenance of competitive environment, protection of the property rights, organization of public jobs, maintenance of freedom of business, legality and law-and-order in economic sphere, regulation of the money circulation, control of foreign economic activities etc.;

2) *political function* - maintenance of state and public safety, suppression of resistance of contradictory social forces, protection of the sovereignty of the state from external encroachments, international terrorism and etc.;

3) *social function* - protection of the rights and freedom of all population, realization of measures on satisfaction of social needs of the people, maintenance of a necessary standard of living of the population, maintenance of necessary working conditions, its payment, services etc.;

4) *ideological function* - maintenance of the certain ideology, including, religious, national culture, science etc.

The intervention of the State in economic process was characteristic for all stages of development of the market. It is caused by that the market mechanism, though represents the well-organized mechanism capable to solve major economic tasks before a society, nevertheless does not work in a number of areas of economic activity. Such situations, at which the market mechanism cannot ensure an effective utilization of resources, it is accepted to designate "failures" (fiasco, inconsistency) of market.

There are usually allocated four types of inefficient situations showing the failures of the market:

1) *spillovers (externalities)* are the costs or benefits from the market transactions which have not received reflection in the prices (dams and irrigation channels);

2) *public benefits* - defense, protection of the public order, public administration, education, public health services etc.;

3) *monopolies*;

4) *imperfect (asymmetric) information*.

Sometimes inability to supply the necessary amount of money the circulation in market conditions is also referred to failures of the market. In all these cases the intervention of the state is required.

*The spillovers, externalities* are the costs or benefits from the market transactions which are not reflected in the prices.

They are called external, as concern not only economic agents participating in the given operation, but also third people. They arise in the issue of both manufacture and consumption of the goods and services.

The spillovers are divided into negative and positive. The negative effects are connected to costs, positive ones - to benefits for the third people. Thus, the spillovers show a difference between social costs (benefits) and private costs (benefits):

$$MSC = MPC + MEC,$$

where *MSC* is marginal social cost; *MPC* is marginal private cost; *MEC* marginal external cost.

Classical example of a negative effect: construction of a dam in the head river. In this case for people living in the downstream of the river the conditions of catching a fish are worsened.

The development of education gives a perfect example of achievement of positive spillovers. Every member of a society get profit from that the citizens get good education. Each of us, making a decision to be educated, hardly thinks about those benefits that will be received by a society in a whole. We correlate expenditures connected with getting of good education, and the benefits, which can be gotten from it. Therefore investments in human capital, as a rule, are lower than optimum ones for societies. The market balance *E* is established at a cross-point of marginal private benefits and marginal social costs:  $MPB = MSC$  (fig. 7.1).

On the diagram the curve of supply is equal to changes *MSC* - marginal public costs; a curve of demand  $D_1$  - dynamics *MPB*: marginal private benefits; a curve of demand  $D_2$  - *MSB* - marginal social benefits; *MEB* - marginal external benefits. As marginal social benefits are higher than marginal private ones on size of marginal external benefits, effective for a society balance would be reached at a cross-point of marginal social benefits and costs, i.e. at a point  $E_2$ . The efficiency increases in the area of a triangle  $AE_1E_2$ .

Thus, the negative spillovers (negative externality) arise in case when the activity of one economic agent causes costs of others.

The positive spillovers (positive externality) arise in case when the activity of one economic agent brings benefits to others.

The transformation of external effects in internal ones (internalization of externality) can be achieved by approximation of marginal private costs (and accordingly of benefits) to marginal social costs (benefits). A.Pigue offered to use corrective taxes and grants as a decision of the given problem.

**Corrective tax** is a tax to production of economic goods characterized by negative spillovers. It raises marginal private costs up to a level of marginal public ones.

**Corrective subsidy** is a subsidy to the manufacturers or consumers of economic goods characterized by positive spillovers. It allows approximate marginal private benefits to marginal public ones.

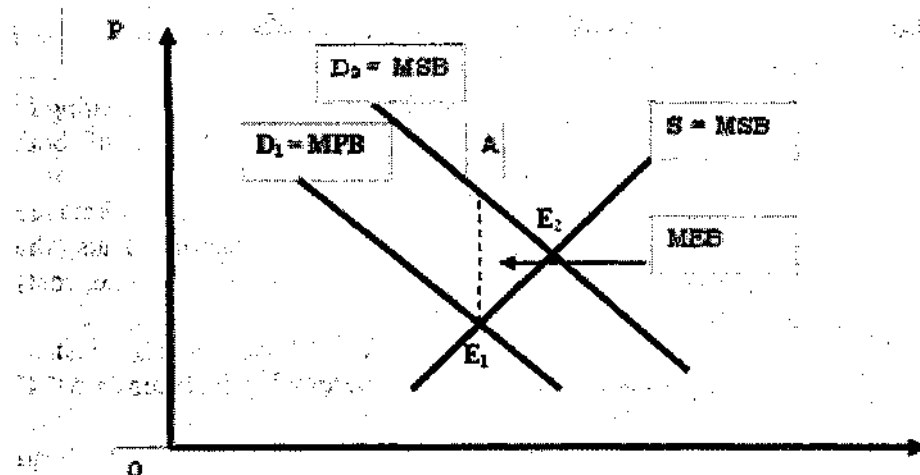


Fig. 7.1. Positive spillovers

The analysis of problem of social costs led R. Coase to the conclusion, which was named as the Coase theorem. Its essence is that if the property rights of all parties are thoroughly determined, and transaction costs are equal to zero, the final result (maximizing the value of manufacture) does not depend on changes in distribution of proprietary rights (if to distract from income effect).

The experimental researches showed that the Coase theorem is correct for the limited number of participants of the bargain (two to three). When the number of participants increases, the transaction costs are sharply increased and the precondition about their zero value ceases to be correct.

The state incurs the regulation of external for the market effects. The state regulation of spillovers connected with ecological aspect of manufacture is of great importance for modern economy. Focused on demand, within decades the market economy stimulated implication of growing natural resources in economic circulation that eventually, put modern society on the verge of survival. The deterioration of ecological situation resulted in that there appeared special state regulators to prevent negative social consequences of market competition.

There are three basic ways of reducing harmful emissions to the environment: establishment of norms or standards on emissions standards; introduction of charges for emissions; sale of temporary sanctions on emissions.

The standards on emissions standards are the limits of concentration of harmful substances in industrial wastes established by the law.

The greater flexibility has the payment for emissions. The payment for emissions is a payment raised from firm for each unit of emissions polluting an environment. Such system promotes the reduction of total amount of harmful emissions, and the experience of its application in Germany is the proof of it. However, there is no absolute certainty that the standards of pollution will not be violated under such system.

The last way of restriction by the state of negative externalities became the reason for establishment of the market of rights on causing external costs.

The state licenses for dump of waste products act as an object of purchase in the market on the basis of supply and demand on them. Pollutants who have bought such licenses, but reduced the harmful emissions for the period of their action, can sell the rest by the license in the market. And if they are completely released from dump of waste products, they can sell the license to the one who is not stacked in the allowable norms of emission.

On the given diagram (fig. 7.2) the offer of dump of waste products is represented by a vertical curve  $S$  and reflects marginal volume of allowable pollution established by the state (100 thousand tons). It meets an optimum level of pollution.

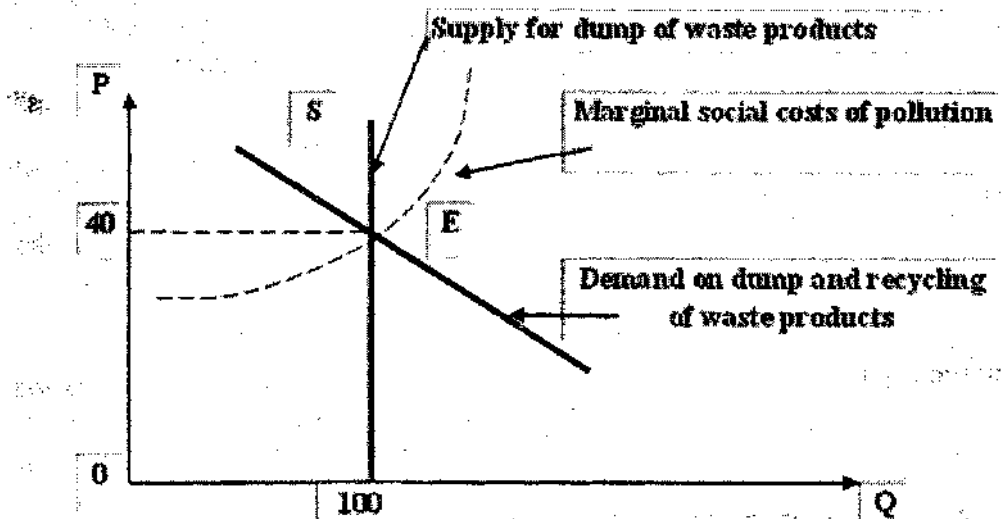


Fig.7.2. Balance in the market of the rights of pollution of natural environment

The licenses are let out for this volume. The equilibrium price of the licenses in the market is determined by crossing of curves of demand  $D$  and supply  $S$  at the point of  $E$  (i. e. 40 dollars for 1 ton of dump).

Let's consider the following function of the state: satisfaction of needs in the public goods or purely public goods.

*The purely public good* is such good which is consumed collectively by all citizens, irrespective whether the people pay for it or not.

The mechanism of market is aimed at satisfaction only of those needs which are expressed through demand. But there are needs which cannot be measured in money and transform into demand, the market will pass by such needs. The speech goes about the shared goods and services in consumption of which all members of the society participate. It is defense, protection of the public order, public administration, grid system etc.; these goods in the world economic science are called as public goods. Their feature is non-excludability from consumption; they are equally distributed to all consumers, often consumed collectively and nonselective in consumption. The last one means that the consumption of public

goods by one man does not reduce its availability to others. Such goods are not competitive, as marginal costs for the additional consumer are equal to zero.

It is interesting to note, that if the payment of the public goods was carried out according to marginal benefits from their use, the powerful stimulus for concealment of the true information and underestimation of real sizes of received benefits would appear. It is valid, as the consumers receive benefits from the public good irrespective of whether they pay for it or not, so there is a desire to do without superfluous payments, to receive this good for nothing. Such situation has received the name of fare dodger problem (free-rider problem).

The free-rider problem more often arises in large than in small groups of consumers, as in the latter it is more difficult to receive the necessary information on the situation of payers. As a result of existence of free-rider problem the production of pure public goods is lower the effective one. The market is not able to cope with this problem, it comes to fiasco. The state helps to correct "failures" of the market.

The granting to the population of public goods is a function of the state, and their financing is carried out through the central or local budget. Sometimes, it is difficult to distinguish the public goods from private ones. So, for example, the higher education has features of public goods, as the students consume its services collectively and equally, but it has also features of the private goods, as does not answer the principle non-excludability from consumption. Therefore, higher education system can develop on combination of market and state bases.

It is impossible to explain all directions of state regulation of economy by presence of public goods. There is one more specific group of the goods requiring for support of the state, it is so-called merit goods.

*Merit goods* are the goods demand of which from the side of private persons lags behind from the one "desirable by a society" and is stimulated by the state. *Demerits* are the goods and services consumption of which the state aspires to reduce. The "merit" concept is connected to interests of community of the people as a whole, which directly are not shown in individual preferences.

According to this concept the following situations in which the merit goods arise are allocated<sup>36</sup>:

– "*pathological case*", when the society aspires to protect people from a possibility of the negative decisions as a result of irrationality of their behaviour and ignorance or incorrect estimation of properties of the good. For example: school education, public libraries;

– "*weak will of Odysseus*", when the state is compelled to interfere with some individuals' incorrect decisions. It is a situation, when the man has not enough will to accept the correct decision, and he agrees on intervention of a third persons. For example: consumption of drugs, guarantee of old age;

– so-called situation of "*overcoming of irrational behavior of the poor*" and providing help to the indigent members of a society. For example: free-of-charge

<sup>36</sup> Musgrave R. A. Merit Goods. In: Eatwell J., Milgate, Newman P. The New Palgrave. - London-Basingtoke, 1987. - p. 452-453.

or preferential distribution of the material goods (transfers, vouchers, grants) by the state;

– a situation of maintenance “*of general needs*” inherent in society. For example: care of safety of historical places, respect for national holidays, and support of a fundamental science.

In market economy there is a tendency to monopolism, though it exists objectively, as it is caused by development of the very market, competition, and also by process of concentration of manufacture. The competition and monopoly are not various mutually exclusive economic forces, but two parties of the same market interaction. Aspiration to gain in competitive struggle leads to an establishment of a preponderant position in the market, formation of monopolies.

The maintenance of a competition in market economy expressing aspiration to freedom and economic independence becomes one of major functions of the state, for realization of which it uses the antimonopoly law.

*The antimonopoly law* is a law directed against accumulation by firms the monopoly power dangerous for societies.

The antimonopoly law can be understood in narrow and wide sense of a word. In the first case it is directed against pure monopolies and large oligopolies possessing superfluous monopoly power, and also on prevention of the “dishonest” actions breaking the standard norms of business dialogue. Wide treatment of the antimonopoly law is directed against all forms of accumulation of monopoly power (including small business), any forms of exclusive behaviour.

Carrying out anti-monopoly regulation, the government has to consider the following factors influencing formation of a competitive situation in national economy:

- price liberalization;
- financial destabilization and inflation, industrial recession and crisis phenomena accompanying it in industrial sphere, and also change of structure of manufacture;
- liberalization of foreign economic ties.

The price liberalization leads to axe of demand on production in natural expression that, in turn, causes recession of manufacture. Despite the price liberalization, in a number of cases the price control by the bodies of public authority is saved.

The essentially important moments in sphere of formation of competitive environment and development of business are:

- regulation of the property issues;
- assistance to development of business;
- regulation of activity of monopolists;
- legal protection of the industrial property, protection of the consumer rights and struggle against unfair competition.

The suppression of the asymmetric information in the market is also function of the modern state. It is explained by that information is a necessary condition for successful actions of manufacturers and consumers in the market. In reality the

consumers and the manufacturers have no complete information about the economic characteristics of one or another good determining their choice. As a rule, some of them know more than others, i. e. the speech is about asymmetric information.

The asymmetric information is typical for many situations in business. As a rule, the product seller knows about its quality more, than buyer does. Employees know about their skills and abilities better, than businessmen do. And the managers know their opportunities better, than proprietors of the enterprises.

The asymmetric information explains many institutional rules in a modern society. This concept allows understanding why the automobile companies, the companies producing home appliances, offer guarantees and services for new models; why firms and the workers conclude the contracts providing stimulus and premiums; why the corporations' shareholders need to observe the behaviour of the managers.

The asymmetric information results in an inconsistency of the market in regulation of distribution of resources. A consequence of the asymmetric information is an uncertainty of quality of the goods or "*the lemon (sour goods) market*".

The meaning of the asymmetric information about quality of a product for the first time was analyzed by G.Akerlof which investigated the market of second-hand automobiles. However, this analysis is applicable either to the markets of insurance, credit market or to the labor market.

Because of asymmetry of the information the bad-quality goods supersede the high-quality goods from the market.

The problem of the asymmetric information is solved by many ways. So, in the credit information sphere it can be its computerization. Though here there is a problem of a trade secret, however the efficiency of functioning of the credit markets is much more important.

The reputation is also a means of the decision of a problem of the "lemons" market. The buyers make purchases in shops with the appropriate reputation: go to the restaurant, address to the experts (electricians, foremen of home appliances etc.).

The following mechanism that allows overcoming the information asymmetry is *the market signals*. The concept of signals was developed by M. Spence who showed that in some markets the sellers submit to the buyers some kind of signals expressing the information on quality of the goods.

In the labour market such signals are qualification, a gender (the men receive higher salary, than women) and even color of a skin.

At hiring on job new employees know about quality of their work (as far as they are responsible, disciplined and qualified etc.) much more, than the firm acting as employer. The revealing of ability of the employee during a trial period for firm is always connected to unproductive expenditures. Therefore it is desirable to firm to receive the information describing quality of the potential worker, before hiring. This information composed of certain signals. For example, the appearance of the employee; clothes is a signal, but not the inexact one. Even the bad workers



sometimes put on well to get a job. The education is a strong signal in the labour market. The educational level of the individual can be measured by some parameters: by quantity of years of training, received degrees, reputation of university given a degree, average mark etc. The education is important signal of worker's efficiency, because it is easier to achieve a high level of education for more capable man.

Signals in the market of "lemons" are the guarantees and obligations. For example, let's take for analysis the markets of durable goods (TVs, refrigerators, cinema and photo-goods etc.). Many firms produce these goods, but some product brands are more trusted, than others. If the consumers cannot determine, which product brand is more reliable, so best of them cannot be sold at higher prices. The firms manufacturing high-quality, reliable production, are compelled to inform on it the consumers with the help of guarantees and obligations.

J. Stieglitz examined a problem of the asymmetric information from the point of view of less informed participants of the market on an example of the insurance companies. The given concept deviates from the standard representation that the market is adjusted by itself and everybody knows everything on it. Essence of the market briefly expressed by A. Smith: "Give me a thing that I need and I give you the one you need", today is not realized.

The state can smooth the asymmetry of the information by the quality control of the goods and services and distribution of information necessary to the consumers, interfering with distribution of advertising entering into error etc. The state is called to protect the poorly informed consumers from actions, about which they subsequently would regret. The modern state structures carry out general regulation of conditions of job, check and sort products of a meal, adjust appearance, safety of consumer goods and require supplying certain products with the appropriate labels. The large importance has the legislation in sphere of protection of the consumers' rights. There accepted serious sanctions against sale of the poor-quality goods, providing of false information about activity of firms etc. Because of the asymmetric information the private insurance companies can refuse to insure separate kinds of risk, and then the state is engaged in it.

Giving consumers the information on quality of the goods, about a degree of risk in investment and insurance spheres etc., the state creates public good (information) which all economic entities use free-of-charge.

So, the mitigation of failures of the market in many respects is connected to the further development of institutes in economy, change of a role and behaviour of the state in economy. The asymmetric information, priorities of the public good, the consequences of spillovers in most are determined by psychology of the people, level of their general culture, morality, ethics, standard of well-being of the people and environment of their vital activity in the whole, on which the modern strong state can render the serious influence. That is why it cannot be limited only by minimal functions.

If to address to real-life economy of the countries of the world, there will be new areas of economic life, where the limitation of the market is shown, that makes necessary wider participation of the state in economic processes. The set of such areas determines as much as possible allowable borders of intervention of the state in economy of development and allocation of the maximal functions of the state.

In the economic literature the necessity of performance by the state of three global functions is emphasized: efficiency, justice and stability.

**Efficiency.** The State using various economic tools is called to create such an economic "background" which would ensure effective functioning of manufacture. Particularly, there is a great value of an anti-monopoly activity of the State, maintenance of maximum favorable conditions for action of the market mechanism, activation of a competition. The modern state has become "built - in" in the market system of management. Maintenance of action of a competition is its major function.

**Justice.** Only one criterion of distribution of incomes is recognized by the market: it is a result of participation in a competition in the market of the goods and services, labor capitals. Therefore, the high incomes of those, who have succeeded in a competition and low one of those, who have failed - are fairly considered. The only market distribution does not guarantee at all the living-wage. The society has realized and has recognized that the distribution of the incomes, fair from the point of view of the market, is unfair in the universal plan during the certain time. Eventually, the State has undertaken the function of redistribution of the incomes through the taxes, and also maintenance of invalid, senile etc. Besides this, the market economy does not provide full employment of the population, the involuntary unemployment in it is inevitable (natural is the unemployment up to 6 %), therefore, regulation of the labor market, the material maintenance of the unemployed is also considered as the function of the State in market economy. The State also should take care about employed, guarantee a minimum level of consumption through the minimum wage.

**Stability.** The state is involved in macroeconomic function of support of economic stability, smoothing of the cyclic form of development of economy. It also follows anti-inflationary policy. Besides these global tasks, the state undertakes: maintenance of a legal basis and social climate favouring effective functioning of market economy; compensation of the negative sides of the market; support of small and medium business; realization of fiscal policy: withdrawal of a part of the business entities' income with the purpose of formation the state budget; maintenance of development of fundamental scientific researches; stimulation of development of such directions as scientific and technological progress, which require great investments, long terms payback and which are connected to the great risk. It also concerns of development of new branches with unclear prospects. The state also takes upon itself the solving of regional problems.

The main functions of the State can evidently be presented as the following scheme.

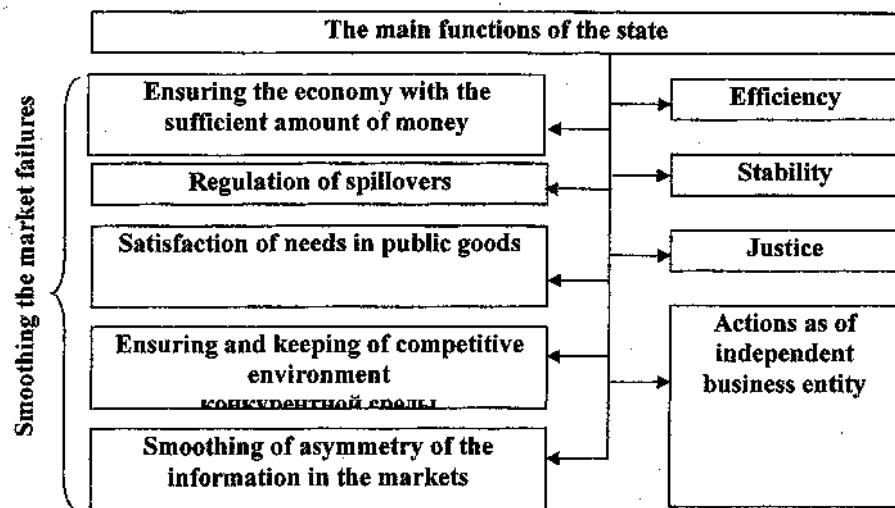


Fig. 7.3. The main functions of the state

Besides the participation of the State in economy as regulating force, it acts as an independent business entity, it is so-called *public sector*. Its share is various for different countries: traditionally it is minimal in the USA (specific weight of state production in the national income in middle of 1980s is 1-2 %), and its share in the countries of Western Europe is significant (specific weight of public sector in GDP of Austria is 26 %, France - 20 %, Sweden - 14 %, Italy - 12 %). In the USA 10-12 % of the enterprises are built by the State, about 6% of them are remained in its property, and others are passed to the private companies for maintenance. The basic difference in a position of the state sector of the USA and Western Europe is explained by scope of activity and force of big firms.

The main reasons of historical growth of state sector in economy: wars and national defense, infrastructural maintenance of macroeconomic processes, growth of the population, urbanization, problems of an environment and egalitarianism (equality).

In a world economic science the concept of state sector is not so connected to the state ownership, as with all set of the forms of participation of the state in manufacture, distribution, exchange and consumption. In such understanding this sector acts as a basis relying on which the state can carry out its functions. In sphere of distribution the specific weight of the state is very great. In manufacture the intervention of the state should be minimal; in an exchange it is practically equal to zero.

The state sector in more traditional for us understanding is, first of all, set of the state enterprises.

In last 30-40 years the new phenomenon has arisen: the formation of the mixed public-private enterprises and corporations. Often state is not the proprietor, but carries out the rigid control. This sector is named as the "third", i. e. it is neither private nor the state control.

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### **7.3. "State Failures" and modification of its functions in the changing world**

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Unfortunately, in modern market economy "failures" of the market can be complemented, and sometimes amplified by "failures" of the state.

*The failures (fiasco) of the state* are the cases, when the state is not capable to ensure effective distribution and use of public resources.

The failures of the state:

- limitation of the information necessary for making decision. The governmental decisions can be accepted often at absence of reliable statistics, account of which would allow accepting more correct decision. The presence of powerful groups with the special interests, lobbying and powerful bureaucratic apparatus leads to significant distortion of the necessary information;

- imperfection of political process, namely: rational ignorance, lobbyism, manipulation by votes owing to imperfection of the rules, logrolling, search for Rent-Seeking, political and economic cycle etc.;

- limitation of the control above bureaucracy and prompt growth of the state apparatus complicating this problem.

Despite of such precise structure of functions of the state, the question on functions of the state carries debatable character. Not entering in discussion, we shall pay attention to enrichment, development, specification and reassessment of functions of the state at the present stage of development of a society.

The entire world now experiences special period of turbulence (vortex-like development) and reconstruction, occurrence of the new little-known, but quite natural and important for development of planetary economy processes. There concerned:

- transformation of economic systems;
- globalization and economic safety;
- technological explosion and computerization;
- ecological safety and other processes.

These processes caused the following tendencies:

- essential reorientation of value indexes of development of a society from economic to noncommercial, of social indexes - accent on the human characteristics;

- increase of a role of intangible assets: the share of services is 35-37 %, of intellectual property is almost 50 %;

– science intensive sectors play a determining role in the modern world. Today, the planned backlog of this index of the Russian Federation from the advanced countries is almost of 30 times.

In these conditions the necessity of state intervention in the functioning of the markets has increased, that led to the occurrence in the West the *concept "of the secondary invention of the state"* – of the state that is more effective and more sympathetic (J. Stieglitz). In this case, by the opinion of the author, there are some modest improvements.

Therefore the changes of the state functions are necessary with a glance of those processes and tendencies, which characterize the modern changing world.

Considering the new tendencies and processes in world development, it is reasonable to allocate and range in a new way the following functions of the modern state:

1. Social function (that is on the 1<sup>st</sup> place because of the tendency of reorientation of value indexes from economic to social).

2. Maintenance of economic growth and high efficiency (new understanding of economic growth and efficiency on the basis of the revealed tendency of increase of tangible assets, science intensive sectors, innovations, science, education, formation of new economy).

3. Programming of reforms (transformation of economic systems) and control of its performance.

4. A function of a mitigation "of chronic illnesses of the market" (cyclicality, inflation, unemployment) and "of the market failures" stay in demand.

5. The function of activity of the state as the subject of the property relations and as the entrepreneur changes (in the cut down kind because of "incorrectly" carried out privatization).

6. Maintenance of regions development (according to new principles). In globalization it is possible to allocate two levels of functions: in world community and inside the country.

7. Coordination of interests at the international level so that the programs of the created global institutes (IMF, WTO etc.) reflected general interests of all countries. Therefore, there is necessity of participation in formation of global institutes, development of the international programs and establishment of the certain rules for them.

8. The realization of national interests in world economy is transformed to the function of maintenance of national economic safety.

9. The function of the state as guarantor of social stability, protection against a wave of violence, criminality, terror and corruption gets global scales.

Distinctive feature of optimum strategy of the state in modern conditions is that it does press the society, but more closely cooperates with it, delegating a part of its authorities to local governments and organizations of a civil society.

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#### 7.4. State behavior in the public choice theory

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The idea, that in political sphere people act the same as in economic one, pursuing their personal interests, underlies in the works of J. Buchanan. He received the Nobel Prize in 1986 for researches in the field of public choice theory. "The Politics, - he writes, - is a complex system of an exchange between the individuals, in which they collectively aspire to achieve the private purposes, as cannot realize them by a usual market exchange. There are no other interests, except the individual ones"<sup>37</sup>.

**Public choice theory** is a theory studying various ways and methods, by means of which the people use the government agencies in their own interests. Public choice theory is named sometimes as "new political economy", as it studies the political mechanism of formation of the macroeconomic decisions.

The supporters of the public choice theory consider the political market as an exchange, where politicians act as sellers, and voters - as buyers, who is partly manipulated by the sellers. The State is an arena of a competition of the people for the influence on decisions making, for the access to distribution of resources, for the places in a hierarchical ladder. However, *the state is the market of the special sort*. Its participants have unusual property rights: the voters can choose the representatives in the supreme bodies of the state, deputies - to adopt the laws, officials - to watch their execution. The voters and politicians are treated as the individuals exchanging votes and the pre-election promises.

Criticizing the state regulation, the representatives of public choice theory made the process of making governmental decisions as the object of the analysis, in the basis of which they put rationality of the individual in market economy. It means, that everyone - from the voters up to the president - first of all are guided by economic principle in their activity, i. e. compare marginal benefits and marginal costs (and, first of all, benefits and costs connected to decisions making):

$$MB > MC,$$

Where MB - marginal benefit;

MC - marginal cost.

There are other motives at those voters, whom interests are concentrated on the certain questions, as, for example, at the manufacturers of the concrete goods and services (sugar or headache products, carbon or petroleum). For them the changes of conditions of manufacture are very important: price control, construction of the new enterprises, volume of state purchases etc. They aspire to support constant communication with the representatives of authority, using for this letters, telegrams, mass media, organizing demonstrations and meetings, creating special offices and agencies to render pressure on legislator and officials (down to a payoff). All these ways of influence on the representatives of authority with the purpose of acceptance of favorable to the limited group of the voters'

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<sup>37</sup> J. Buchanan Constitutional Political Economy// Problems of Economics. 1994. - p. 108.

political decision are named lobbying (lobbying). One of the objects of study of public choice theory is economics of bureaucracy.

*Economics of bureaucracy*, according to public choice theory, is a system of organizations satisfying two criteria as a minimum: firstly, it does not produce the economic good which has value (cost) estimation, and, secondly, takes a part of the incomes from the sources which have been not connected to sale of results of its activity.

By realizing its own purposes and interests of the special groups, the bureaucrats aspire to acceptance of such decisions, which would open for them the access to independent use of various resources.

Development begun in 1974 by Anne O. Krueger of *the Theory of the Rent-Seeking* became the large achievement in public choice theory.

*Rent-Seeking* is an economic rent (or material benefits), received with the help of political process for the bill of both society as a whole, and separate persons achieving acceptance of the certain decisions.

The bureaucrats participating in political process aspire to carry out such decisions to get an economic rent at the expense of a society.

The basic spheres of the analysis of public choice theory are considered selective process, activity of the deputies, theory of bureaucracy, politics of regulation and constitutional economics.

Many consider a privatization as the condition of effective struggle with bureaucracy, the development "of a soft infrastructure" as its contents and the creation of *the constitutional economics* as ultimate goal. Concept of "the soft infrastructure" means increase of the economic rights of the man (strengthening of the property rights, honesty and responsibility for performance of the contracts, tolerance to dissidence, guarantee of the rights of minority etc.) and restriction of spheres of activity of the state.

The behavior of bureaucracy and the government has cyclic character and is subordinated to the certain laws.

Cycle of economic and political activity of government between votes is named as *political and economic cycle*, and it can be shown graphically (fig. 7.4).

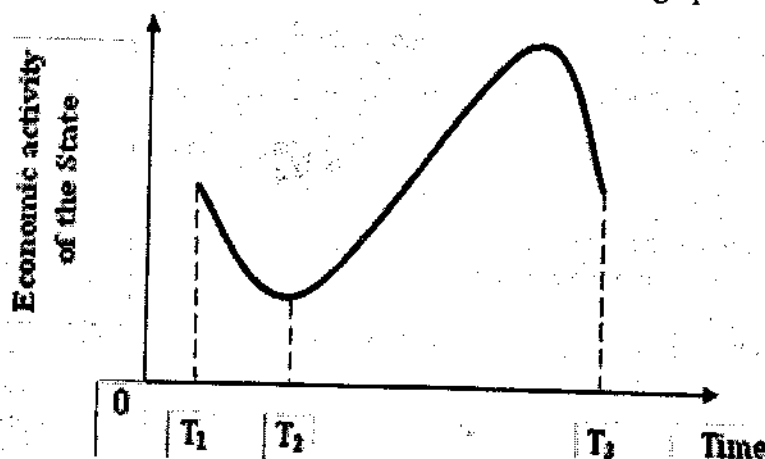


Fig. 7.4. A political and economic cycle

On an abscissa axis time is marked, on an axis of ordinates - activity of government. The piece  $T_1T_2$  reflects fall of popularity of a government, piece  $T_2T_3$  - escalating of activity connected to preparation for the forthcoming elections. It is expedient to note, that peak of the new activity should not be placed too far from forthcoming elections, otherwise voters will have time to forget about the period of the vigorous activity of government.

This cycle characterizes a sequence of the following processes in the activity of a government. After elections the new government carries out a number of measures directed to change the purposes or scales of the activity of the previous government. These measures carry especially radical character, if a party comes to authority which was in opposition before. There undertaken attempts on reduction government deficit, turning of the unpopular programs, reorganization of work of the state apparatus. Again, people who have come to authority try to execute even part of the pre-election promises. However, then the activity is reduced until the fall of popularity of new government does not reach a critical level. The activity of the government grows with approach of the following elections.

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### Control questions

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1. Give the modern definition to the category of "state". Develop its essence. Describe the evolution of views on the functions of state.
2. Develop the essence of modern understanding of the state. What is understood under "functions of the state"? Enumerate them and reveal their content.
3. Describe situations, in which the market appears insolvent. What does the term "failures of market" mean?
4. Give definition to the term "spillovers". Define negative and positive external effects. Give examples of externalities.
5. How are the spillovers transformed into internal effects? How do the spillovers influence marginal public costs? Show graphically.
6. What are the adjusting taxes and adjusting grants? What are they applied for?
7. What is the R. Coase theorem about? In what ways does the state limit the negative spillovers?
8. Determine the essence of the anti-monopoly law. Reveal the purposes of anti-monopoly regulation.
9. How does the asymmetry of information influence on the distribution of resources? What kind of market mechanisms allow to overcome the asymmetry of information?
10. Name the new functions of the State and reveal their essence.
11. What is the essence of public choice theory?



**PART III**  
**MACROECONOMICS. CONTEMPORARY PROBLEMS**  
**OF MARKET ECONOMY**

**CHAPTER 8**  
**BASIC CATEGORIES OF MACROECONOMICS**

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**8.1. Introduction: approaches, methods and models**

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*Macroeconomics* (from Greek *macros* – “large” and *oikos* – “economy”) is one of biggest part of economic science, which searches the large-scale facts and processes of economy, which relate to economics and hearth of country as a whole.

In the spotlight of *microeconomics* there are behavior of household and companies on goods market, and also the mechanism of making by them the economic decisions in existing conditions. Microeconomics studies about human’s participation in business activity and enter in economic relations because they have various needs, which demand own satisfactions. At modern conditions the satisfaction of these most needs and welfare of citizens are depending on market. By the reason it’s named as *market* economy, because of, each of us *depending on* market and *lives by force of market*.

As far as production of economic goods and their realization depend on prices, then the microeconomics includes researching the methods of market price setting and formatting the equilibrium prices, and also methods of effectiveness usage of limited resources. Microeconomics analyzes, how the scarce resources (household incomes, firms’ and government’s resources) are distributed between alternative targets and tries to find that type, by which the more effective usage of these resources can be obtained.

*Macroeconomics* is science on country’s economy as integration. It searches the cumulative, aggregated hearth of all economic system participants. For most people the macroeconomics is a fascinating matter, because it provides insight into important issues like inflation jobless, taxing and market interest rate, deficit of budget and all bets are off and many others. At the same time, the macroeconomics doesn’t offer ready-made formulas and prescriptions for solving real problems, with which people face every day. It doesn’t learn how to make money, to succeed in business and become rich man. The paradox is that among economists, even very famous, there are few very rich people. In any case the macroeconomics – is essential discipline and has practical importance for each of us – student and teacher, accountant of firm and finance minister, businessman and Central bank (CB) chief.

Even those problems, which are searched by macroeconomics, connected with functioning of economic system in tote. And our private interests, individual plans, and welfare of all and everybody depend on their solution. J.M.Keynes wrote: “Ideas of economists and politic philosophers have larger value than conventional wisdom even if they are right or wrong. The ideas rule the world in fact”.

Studying macroeconomics allows to form an economic thinking, develop analytical abilities, which help to see proper perspective of measures in state economy policy, orientate in rapid stream of economy better and predict result of today's own decisions truly.

The term "macroeconomics" was introduced not long ago, but macro-economic analysis had appeared at the same time with economic science. Per se, in "Economic table" of F. Quesnay submitted macroeconomic model of economy. There are elements of macro-economic analysis in English classic political economy. K. Marx used macroeconomic approach extensively in his own theory. Only neoclassics with their own methodological individualism tilted to microeconomic analysis. Purposeful, even M. Friedman, one of active opponent of Keynesian theory, the Head of modern monetarism, claimed that all nowadays economists are Keynesians.

There is no surmountable downfall between macro and micro-economics. This merit is also under J. Keynes. All his macroeconomic analysis is based on microeconomics – on *the law of supply and demand* and on *the theory of economic equilibrium*. But differences are substantial between tasks and instruments of analysis; it is necessary to see and understand them.

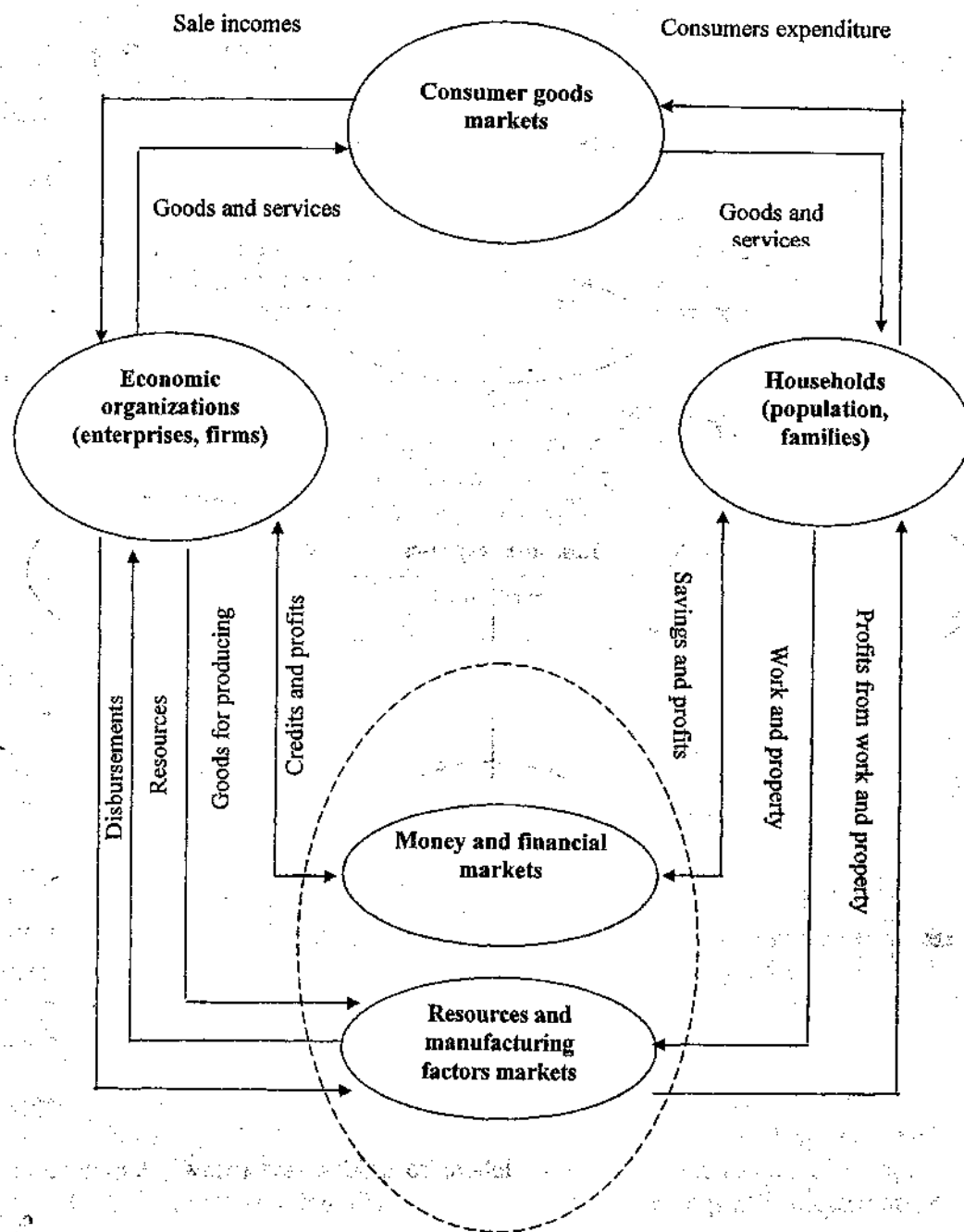
*In the course of macroeconomics* the objects of analysis are markets of specified goods, supply and demand by them, and also markets of resources connecting with consumer lines and services. Simplified diagram of goods and resources circuit between households and firms can be represented by model (fig.8.1).

*Macroeconomics* has other tasks. It researches overall-economic processes in tote, that is, conditions and results of activity on market of *all subjects* of economic relations. The state as a special subject is necessary for maintaining equilibrium among them. Therefore *the State is important economic agent* in macroeconomics, presence of which is supposed by microeconomics, but not in a key position (fig.8.2).

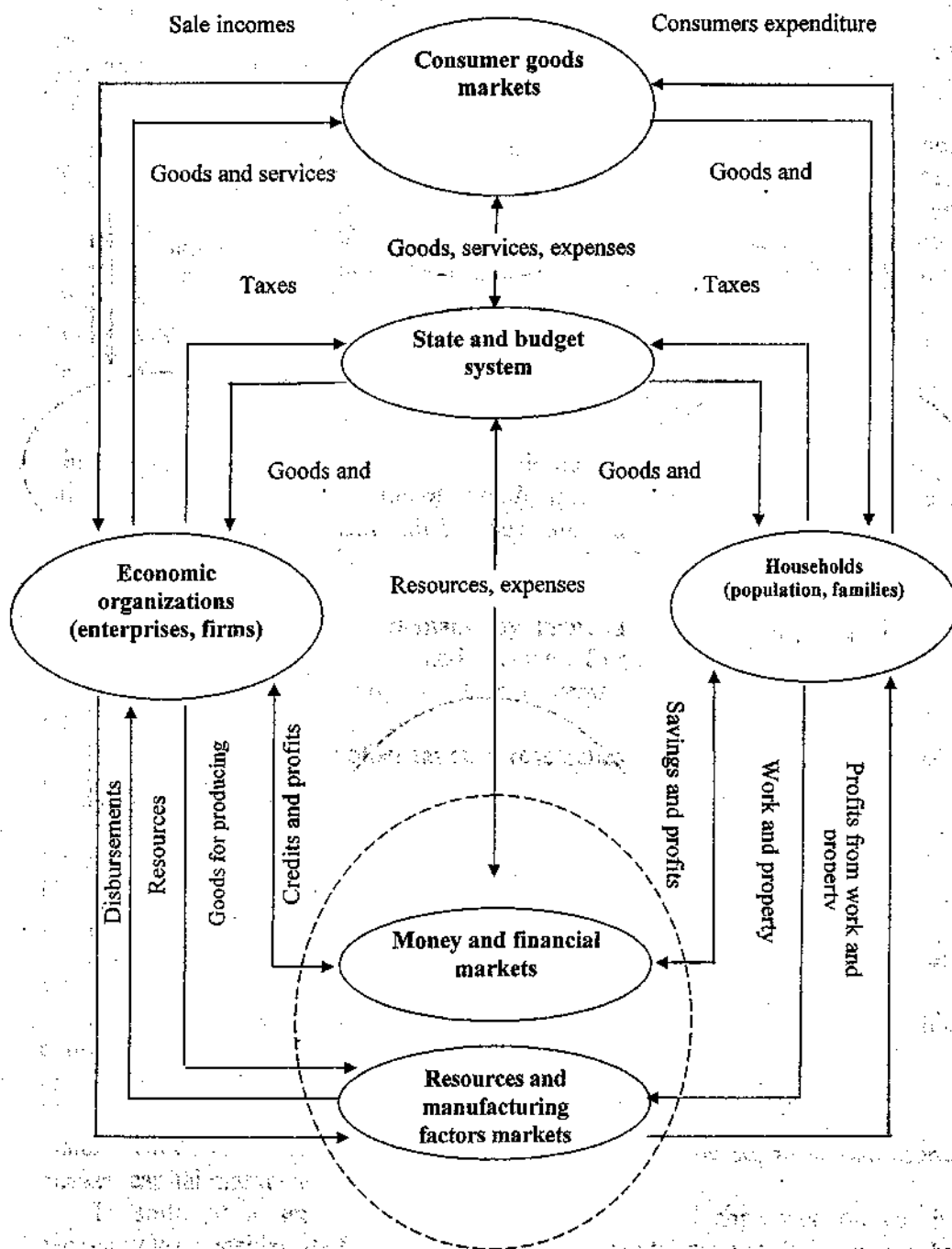
Firstly, microeconomics and macroeconomics are differed by aspects and search methodology of National economy.

Secondly, microeconomics searches the exchange hearth, in which commodity money is used, that is, money as a medium of exchange. Its result in that microeconomics search only real sector of National economy. Macroeconomics analysis proceeds from appearing credit money in country, bank system, which regulates by CB. Therefore, macroeconomic searches also money market, capital market and their interaction with real sector.

In spite of a separation of issues on micro-and macroeconomics, it's necessary to consider that both of these components are not independent but connect each other. The significant breaks between these two sciences had been on early appearance of macroeconomics and progressively fall-back. In fact, all modern macroeconomics conceptions have microeconomics foundation, that is, in the base of them there are the behavioral-macroeconomic models, results of which aggregating and then researching at micro level.



**Fig.8.1. Simplified microeconomic model of resources and economic welfares circuit**



**Fig. 8.2. Chart of economic agents interaction in National economy with State participation**

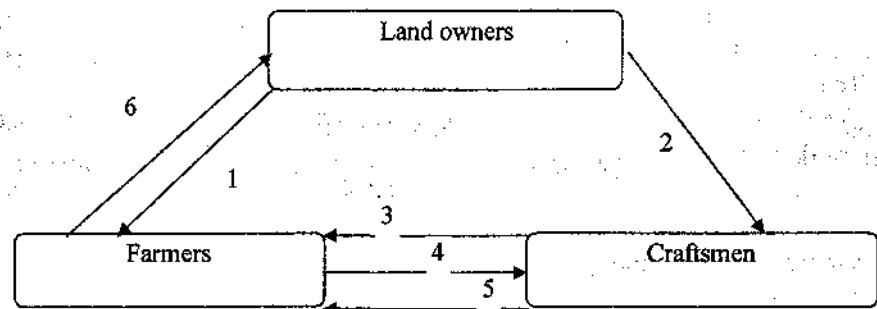
There are two circumstances in the base of dividing economy science into micro – and macroeconomics.

There are such problems in the center of macroeconomics:

- economic growth;
- general economic equilibrium and terms of getting it;
- macroeconomic instability, measuring and regulation methods of economic processes;
- measuring results of National economic activity and interconnect among them;
- optimization of external economic relations and state relations;
- analysis of economic cycles;
- effectiveness of state macroeconomics policy.

Macroeconomic theory explains appearance of general economic problems, development and solution of them. The *macroeconomic models* are the main method for it.

The first macroeconomic model is the “Quesnay table”. In 1758 the archiater of Louis XV the F. Quesnay described reproduction process of Gross National Product (GNP) by force of circuit of cash flow, like blood flow in human body. The “Quesnay table” has following image. (fig. 8.3).



**Fig. 8.3. Quesnay table**

Next macroeconomic model appeared in economic science only after more than 100 years. K. Marx in the 2<sup>nd</sup> Volume of “Capital” analyzed conditions of simple and enlarged reproduction of cumulative social product on duplex-sector model of National economy.

Further development of structural conditions analysis of economic reproduction – is the model of intersectional balance developed by W. Leontief in 30-s of XX century. W. Leontief was awarded Nobel Prize for developing method “input-output”, which was a base of model definition of intersectional balance, in 1973. Model of intersectional balance is extensively used in practical calculation of manufacturing and prices, and within analyze of intersectional connections and detecting structure of Gross National Product (GNP).

As the method of macroeconomics modeling is the main in macroeconomics, so all the problems are presented in model type. The basic models in macroeconomics are profit and product circuit models, equilibrium model of real market – “aggregate demand-aggregate supply”, the model of joint equilibrium of good and money markets “IS-LM”. These models consider in frame of short-term

macroeconomics equilibrium. In frame of non-equilibrium models consider all models of dynamics, that is, models of economic cycle of (Kaldor, Krafitt-Weise, Samuelson-Hicks, Tevez). All models of economic growth of (Domar, Harrod, Solow, Kaldor) are considered in frame of long-term models.

It is necessary to note, that macroeconomics model can be submitted not only by mathematic formula type. The models are formed by different types: mathematic description equation type, in equations, graphical image, description with table, verbal formulation. In subsequent chapters we'll have possibility to show it during analysis of macroeconomics regularities of market economy development.

The sample of macroeconomics dependence can be important relation between changing of scales of National production (by GDP level), limit of joblessness and inflation acting in developed market economy. In economic recession conditions, during GDP fall back, joblessness limit grows up, inflation's speed downs up. Dependence between money stock and prices level can serve as other example of macroeconomic dependence. Within other equal status increase of money supplies result in rise in prices, growing rate of inflation.

**Modeling** – it is description of economic processes or facts on formalized language with mathematic symbols and algorithms with purpose of detecting functional dependence between them.

There are different types of functions underlined in economy:

a) **behavioral**, characterizing conduct of economic agents, example, consumption function:

$$C = C_o + mpcY_d$$

Where  $C_o$  – is independent intake, not depending from profit level;  $Y_d$  – is existing profit;  $mpc$  – is behavioral coefficient which name as marginal propensity to consume and show changing of consuming capacity during changing capacity of existing profit per unit;

b) **technologic**, describing manufacturing technology, example, manufacturing function:

$$Y = F(K, L),$$

Where  $Y$  – is rate of cumulative output, which define by capital (K) reserve and labor (L) reserve, that is, number of main economic resources;

c) **institutional**, showing impact of institutional factors (parameters of state management) on macroeconomic values, example, taxes function:

$$T = T_o + tY,$$

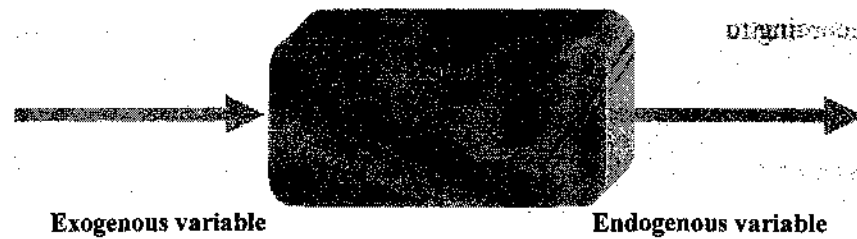
Where  $T$  – is value of tax in comes;  $T_o$  – is independent taxes (piece rate), not depend on profit level;  $t$  – is tax rate;  $Y$  – is level of aggregate profit (output);

d) **definitional**, reflecting definition of any macroeconomic value, example, function of aggregate demand which means sum of demands all macroeconomic agents and as follow:

$$AD = C + I + G + X_m$$

Where  $C$  – is household demands (consumers expenditure);  $I$  – is firms demand (investment expenditures);  $G$  – is state demand (state expenditures for

goods buying and services) and  $X_n$  – is demand of oversea sector (pure export).



**Fig. 8.4. Changing of endogenous variable under impact of exogenous**

All of these functions can be submitted as graphs and tables.

The models include two types of indicators: Exogenous and Endogenous.

**Exogenous variables** – are indicators, specified external and formatting out of model. Exogenous variables are autonomous (independent).

**Endogenous variables** – are indicators, formatting in the models.

The model allows to show how changing exogenous variables (external impulse) impact on endogenous changing.

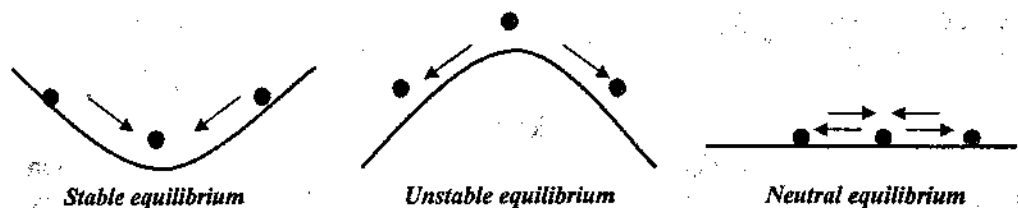
Macroeconomic indicators can be divided on *absolute* and *relative*.

**Absolute** indicators measured money (price) terms (excludes are indicators number of employed and unemployed, which measure as people).

**Relative** – is in percent or ratable values. Ratable indicators include followings, joblessness rate, deflator (general price level), inflation rate, economic growth rate, cost of money, tax rate etc.

Important point in macroeconomics is searching equilibrium conditions.

There are three types of equilibrium: *stable*, *unstable* and *neutral* (fig. 8.5).



**Fig. 8.5. Equilibrium types**

In macroeconomic models the *time factor* has important place. It subject to how this factor take into account, there are three types of macroeconomics models: *static*, *comparative static* and *dynamic* (also researches can make as in discrete as in continuous time).

**Static models** describe economic situation at defined time. Models of *comparative static* show result of passing the economic system from one

equilibrium condition in another, but not research how this passing realize. Mechanism of this passing process searches in *dynamic models*.

According to microeconomic approach, developed by classics and neoclassic, for market system is appropriate ability to *automatic self-regulation* during that providing *equilibrium in economy system by full usage of resources*. Last-one means that in such economy produces maximum possible value of goods and services directing on satisfying of social wants.

The mistake of neoclassics had been illustrated by J. Keynes on sample like salary, which should be stimulating implication in manufacture the free labor force.

At *separate enterprise level* (microeconomics level) the reduction of wages mean:

- a) cost reduction;
- b) improvement of enterprise competitiveness;
- c) increase of employment and manufacturing growth.

From point of view of *National economy in tote* (macroeconomic approach), reduction of wages become follows:

- a) reduction of taxes;
- b) falling of general buying power of population and state;
- c) decreasing of employment and producing.

As we see, from positions of microeconomics approach, the flexibility of salary, decreasing it up to level, which provides employment for all wanting who want to work and guide to full employment and grow manufacturing. Contrariwise, on macroeconomics level, the decreasing of salary gives opposite result – low employment and manufacturing. On this base – J. Keynes made conclusion, that usage only microeconomics analysis method, concentrating on salary and prices flexibility can lead to serious mistakes and wrong beliefs. It made him to concentrate attention during analysis of National economy as integral at *macroeconomics approach*, using for it *aggregated indicators*: aggregate demand and supply, total level of profit, national savings, investments and consumption, total quantity of money in economy and employment level and etc.

Up to middle of 1960-s almost all macroeconomics developed within the concepts formulated by J. Keynes and developed by his followers – J. Hicks, A. Hansen, P. Samuelson etc. But from beginning of 70-s consensus which predominated among economists regarding main postulates of Keynesian theory had been violated. Most significant demonstration of criticism Keynesian became “*monetaristic counter-revolution*”, which had been led by M. Friedman. After him with cutoff score views of J. Keynes and neo-Keynesian protruded other directions and schools of economy thinking.

Today the macroeconomics is still more discussable sphere of economic science. Together with it the academic disputes between representatives of different movements of macroeconomics analysis advantaged its active development and improvement. Beside this, during this development happened converging of micro-and macroeconomics approaches to economy analysis, had been a go to erase some sides between them. So, example, the central problem of



Keynesian theory is the problem of employment, solving of which obtain by stimulation of effective demand. Naturally, that this problem was traditionally considered macroeconomic, but in last works of west economists the employment level is determined not only on the base of aggregate demand but with taking into account individual decisions which are made by some employees and businessmen. Both of them balance benefit from work and disbursement from it. Goods market condition, peculiarity of labor market etc. are taking into account. During development of macroeconomics analysis appeared such directions as *new classic macroeconomics* using the concept of rational expectations and conception of native standards of joblessness, *new macroeconomics*, followers of which try to identify micro-and macroeconomics for micro Economic ground of mechanism lying in the base of interconnection between prices and joblessness changing, *new new-microeconomics*, explaining agreements about salary and prices from point of view microeconomics optimizing hearth.

All this explained that macroeconomics as a part of general economic theory uninterruptedly develops covering and including more new aspects of economy activity. In any case, in spite of converging two approaches in economic researches, peculiarity of macroeconomics analysis stipulates the using in macroeconomics indicators not met in microeconomics.

*The object* of search of macroeconomics is summary (combined, aggregated) indicators overall economy of country: national economy, Gross National Product (GNP) and Gross Domestic Product (GDP), national income, summarized private and state investment, total amount of cash circulated. At the same time macroeconomics searches and researches mean economic values all over the country (mean profits, mean salary, inflation rate, joblessness, employment, labor capacity, growth indicators, increase rate or decrease values, characterizing the economy of country).

*Macroeconomics indicators* – combined, colligated, averaged by economy in tote indicators, reflecting production volume and consumption, profits and expenditures, structures, effectiveness, standard of well-being, export and import, economic growth rate and etc.

*The subject* of macroeconomics theory is a conduct of economy, system of its internal connections, considered as integration.

Macroeconomics theory studies:

- economic conduct, ups and downs, inflation rates of unemployment;
- economic policy (changing currency rates and investments);
- economic factors (impact on interest rate, prices and budget).

*Macroeconomics is base of economic policy of state.*

*Economy policy* – is a complex system of measures realizing by state in economy. Content of deal, its purposes and resources determine of character of social order, internal and international conditions of country development.

Appearing of deal connect with state formatting. In epoch of slaveholding and feudalism, the deal usually limited by taxes collection, regulating of money circulation and land inversions. In the period of primary accumulation of capital for deal been specific mercantilism and protectionism, promoting to establish of

capitalistic manufactories and trade development and in according of rising manufacturing and capital the big role played a policy of free business.

For modern deal proper such features as strengthening of state participation, which actively invaded in process of reproduction, implement anti-crisis and anti-inflation measures, regulating of external economy activity. Forms and methods of state deal mostly depend on economy situation, combination of market economy with state regulating of reproduction process.

**Macroeconomics policy** – is long-term measures, directing on regulating economy of country in tote with purpose of providing its safe functioning.

**National economy** – is economic activity of economic individuals in state scope, directed on satisfaction of nation needs.

**Objectives** of state macroeconomic policy:

1. Economic growth – providing stable growth trend of national product;
2. Optimal employment – providing job for all, who wants and is able to work;
3. Prices stabilization – equal efficiency for all economic individuals, that is providing stable level of prices, excluding inflation;
4. Foreign-trade balance –foresees foreign-trade equilibrium, balance of export and import, stable exchange rate of national currency.

For implementing of these objectives there use following main **instruments of macroeconomic policy**:

1. Tax-budget policy supports using of taxes and state expenses with purpose of impact on economy;
2. Monetary policy implements by state via monetary, credit and bank system of the country;
3. Incomes policy is a wish of the state to contain inflation by directive methods, control of salary and prices or planning wage rise and prices;
4. External economy policy. Count and foreign-trade activity analysis of country and foreign-exchange markets management.

As appears from above the following **functions of macroeconomics**:

1) It doesn't just describe macroeconomics events and processes, but *detects regularities and dependences* between them, researches cause-and-effect relations in economy;

2) Knowledge of macroeconomic dependences and relations allows to evaluate existing in economy situation and show, what necessary to do for its improvement and first of all, what should to attempt statesmen, that is admit to *develop principles of deal*;

3) Knowledge of macroeconomics gives possibility to forecast developing processes in future, that is, *make predictions*, and forecast future economic problems.

In market economy, the state is out of its unnatural functions (satisfaction of full aggregate demand, directive planning and etc.). It busy issues without that the society impossible to subsist in modern conditions and private sector economy avoid.

Most economists unanimously in that the state is integral part of market economy.

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## 8.2. Indicators of the national economy functioning. National accounting.

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In economic theory for measuring of social product are used indicators, calculated on the base of National Accountancy System (NAS). The NAS is collection and processing data of condition and results functioning of National economy. Its indicators reflect structure of market economy, institutes and mechanisms of functioning. NAS using is necessary for fulfilling effectiveness macroeconomic state policy, economic forecasting, for international comparisons of national income.

**Resident** is economic entity staying in country more than one year and has economic interest.

**Non-resident** is economic entity, staying in country less than one year and does not have economic interest.

NAS – a statistic system corresponding the formalization theoretic conception of national accountancy and consists of logically consequence and integrated body of accountancy, tables and balance sheets, which reflect the manufacturing, distribution and usage of GNP and National income of country.

NAS is closed system in which all accounts of country can be collected in single matrix, reflecting all streams (goods, services, cash, and finance docs) in national economy.

All important indicators used in macroeconomic analysis are divided into three groups: streams, reserves (assets) and indicators of economic trends.

**Streams** reflect a pass of values by individuals to each other during process of economic activity, reserves – collecting and using worth by individuals. Streams are economic parameters the effects of which are measured in time unit as usually on one year calculation. The streams value are expenses on consumptions (C), savings (S), investments (I), public purchases (G), taxes (T), export (E), import (Z) and some other indicators.

**Reserves** characterize collected capital, national debt, property, national wealth and etc.

Property (assets) – is a legal source of unearned income. Property cover as real assets, example, real capital (K) so financial assets (stock, obligation), beside it, assign rights of property and intellectual property.

Portfolio of assets – is an aggregate of assets belonging to economic individual.

**Real money (desk) balances** – is a reserve of means of payment, which economic individual wants to keep as cash.

There is an interrelation between reserves and streams in economics: changing at one sizes as usually accompany with corresponding changing at others.

But within specific circumstances the reserves and streams indicators can change independently from each other.

*State of economic conjuncture* is reflected by following indicators: cost of money( $R$ ), norm of profitability of capital asset ( $i$ ), prices level( $P$ ), inflation rate ( $\pi$ ), joblessness level( $u$ ) and etc.

The central indicator, characterizing rate of social product and recognized in world economy practice is GNP.

**Gross National Product (GNP)** is market value intended for final consumption of goods and services, produced over one year period with factors of production belonging to the country. All resources, involved into national economy and all factors impacting on their usage, in result, reflect on results of social manufacturing and first of all – on GNP.

Double counting is excluded at calculating of GNP and only final product is taken into account, i.e. goods and services which are purchased for different forms of consumption. GNP can be evaluated by different methods: expenses, profits and production. Amount, gained in the result of calculation by different methods must be equal. It is connected with the fact that in the market economy expenses of one subjects of economy are at the same time profits of others.

GNP, evaluated *through profits*, consists of goods and services purchased by individuals, enterprises and Government. Here also included fixed investments and stock in trade. It is total cash value of all streams, consumed products by society:

$$GNP = C + I + G + X,$$

Where  $C$ – is consumption;  $I$ – is investments;  $G$ – is public goods purchases;  $X$ – is pure export.

**Consumption ( $C$ )** –includes exist consumption of all goods and services. In accordance with the features of statistic calculations there defined the goods of short-time usage (or one time), longtime usage and services. It is necessary to take into account that durable goods do not include expenses of the population on purchasing accommodation, they refer to investments.

**Investments ( $I$ )** –this is an amount of expenditure on purchasing buildings, equipment, raw material, energy and etc., and also expenditure of some citizens on purchasing accommodation. In GNP reflect gross funds, but if exclude capital allowances, so they become in net investments. Net investments show the existence of allocated capital on begins and end of year.

**Public purchases of goods and services ( $G$ )** include not only government's purchasing but local authority's too. Here include all expenses from armament up to construction of roads and accommodation, hospital equipment, boarding schools, schools. But GNP does not include the payment of interests by national debt and transferring payments.

Thus, consumption, investments and public purchases characterize expenses on purchasing goods and services in the country. But in the open economy the part of made goods are sold out of country according to export of goods. At the same time part of funds is spent on purchasing imported goods from overseas. The

difference between export and import is net export(X), amount of which is included in GNP.

Second way of evaluation GNP – is through profits. Profitable part summarize from population profit by labor activity (salary) and property profit (profit, interest, rent):

$$GNP = W + R + i + P,$$

Where *W* – is wages; *R* – is rent; *i* – is interest; *P* – is profit.

But in this case, there is necessary to take in to account that GNP consist of parts which are not as profit form: it is amortization and indirect taxes. The latter include general sales tax, excise, property levies, payments under a licensing agreement and custom duties.

Third way of GNP evaluation – is through production. Using this method helps to detect the input of each manufacturer in GNP establishing. In this case the added value cost is calculated that is each enterprise added to product price. The added value cost is calculated as difference between product sale proceeds and expenditures on material factors of production. Per se, in this case there determined newly - established cost to which amortization is added.

There is necessary to differentiate GNP and total output.

**Total output** means the cost of total goods and services produced in economy during definite period of time. Total output includes absolutely all goods, produced in economy, including, assign for producing goods and services. Latter compose intermediate consumption than final consumption. The GNP in contrast to total output cleaned from intermediate consumption. The level of total output provided in conditions of full employment is called a level of native output.

Inflation and deflation hinder calculation of GNP because of this indicator characterized moneyed, timed and quantitative condition of production. Primary data for GNP calculation are the sales volume, but latter depend on as quantity of sale goods so from level costs on them. GNP, calculated by existed costs calls GNP and corrected on costs changing or calculated by basic costs – is real GNP.

Macroeconomic theory uses different indices for numeration of real GNP.

Ratio between nominal and real GNP – is indicator, named as **GNP deflator**:

$$GNP\ Deflator = \frac{Nominal\ GNP}{Real\ GNP}$$

GNP deflator calculates intensity of inflation or of reverse process–deflation. If, value of price index is more than 1, so GNP deflation happened, if price index less than 1, so inflation happened.

GNP deflator takes into account costs of all goods and services produced in country. Deflator does not mention prices of imported goods. Deflator allows alteration bundle of products and services in according with changing of GNP composition.

**Price index**–is ratio of current year price to base year and multiply on 100%.

There are following main type differences of price indexes: consumer price index; whole sale price index; price index – implicit deflator of GNP; index of export and import prices.

Consumer price index is a price ratio of basket of goods in current year to its price in base year. It is the most used indicator of level price. At estimation of this index not all final goods and services are taken into account but those which form basket of goods purchased by regular household. Here the main provisions, set of nonfoods (clothing, footwear, everyday goods) and main services (medical, transport services, communication, rest, culture, personal hygiene) are included.

Price index, calculating for invariable set of goods named as *Laspayrace index*. It is calculated by formula:

$$I_L = \frac{\sum P_t \times Q_b}{\sum P_b \times Q_b}$$

Where  $I_L$  – is Laspayrace index;  $P_t$  – is current year price;  $P_b$  – is base year price;  $Q_b$  – is quantity of goods of base year.

This index includes prices of imported goods and does not include exchange of more expensive goods on more cheap goods; it means that happens underestimation of possible change of product structure.

Index, calculating for changing set, which is taking into account of possible mutual displacement of goods, named *Pashe index*. It calculates by formula:

$$I_P = \frac{\sum P_t \times Q_t}{\sum P_b \times Q_t}$$

GNP deflator is *Pashe index*. Sometimes this index is called as *producer price index*, where, quantity of goods and services produced within current year is used as a scale of prices. Wholesale price index – is a typical set of goods purchased by firms.

But Pashe index doesn't reflect decline in the standard of well-being. *Fisher's formula* eliminates lacks of both indexes:

$$I_F = \sqrt{I_L I_P}$$

There by, Fisher index is widely adopted within last years; correspond as center value from *Laspayrace* and *Pashe* indexes.

**Gross Domestic Product (GDP)** can serve as generalized indicator of results of national economy functioning. Per se, it is also a reflection of aggregate cost in society value product for final consumption. As GNP it can be calculated by the same three methods. The difference is that at calculation of GDP there taken into account the product produced on the territory of this country nonregistering overseas branches of certain firms, and GNP takes into account product produced by national capital situated out of country.

If deduct costs amount from GDP, made on territory of this country by using foreign capital and add costs amount produced out of country by using resources belong to citizens of this country, so we'll get GNP.

In fully closed economy GNP is always the same as GDP. In open economy the difference between them appear in consequence of difference level development of foreign firms on territory of country (branches, departments, Joint-ventures, usage of foreign personnel and etc.) and according participation of national resources in different forms of manufacturing activity at oversea, external loans. GNP will be more than GDP when the profits of owners of production factors used abroad more than profits of owners of foreign capital used in national economics.

Composed of GNP (same as GDP) there is a part which created not in this period but in previous: it reflects in the cost, transferred from production funds on created goods and services. It is amortization. If we'll deduct it from GNP, so we'll get net national product (NNP).

*Net national product* is GNP minus charge using-up of capital (amortization). The indicator of NNP has fundamental defect: it has defacement inside which it inputs into structure of market prices of the state. Without interference of state amount of market prices of all goods self-devotion lay out on factorial profits of households. But the state, imposing indirect taxes from one side and providing to firms the grants – from another side practically promote of overstatement of market costs in first case and understatement in second case.

Faithful but not the same as GDP indicator is National Gross Income (NGI). It's like "clone" of GDP but differently calculate external economic relations. The issue is that, there is difference between that in which country created and to which country national product belongs.

GDP answers on question, where product produced, but GNI – to which country it belongs. Accordingly, both indicators become connected, notably:

$$\text{GNI} = \text{GDP} + \text{Balance of primary incomes from abroad.}$$

Principal difference between GDP and GNI is in following: GDP measure the stream of final goods and services, but GNI – primary profits stream. Therefore, interrelations of GNI and GDP in specified level can classified as relations between "raw material" and "product" in technologic chain of NP.

From quantities side they differ on balance of primary profit, received from abroad, that is difference between profits of residents of that country, received from abroad and non-residents profits passed over to abroad. If the balance of primary profits from abroad is zero, so the GDP equal to GNI. In this case will be real identity in which complimentary diagonal will be single.

Hereby, *Gross National Income (GNI)* is correspond of primary profits amount received by residents of this country by their direct or indirect participation in GDP production of own and foreign countries.

Gross national income is equal to GDP and profits received from "otherworld", without appropriate them streams, paid to "otherworld" as salary for personnel (SP), profits from properties (PP) (interests, dividends, rent and etc.) and business profit (BP):

$$\text{GNI} = \text{GDP} \pm \text{DSP} \pm \text{DPP} \pm \text{DBP},$$

There is necessary to note, that on problem of national income within long period of development economic theory paid great attention by representatives of classic school economic thought. Even in 1664 one of founder of classic school economic thought English scientist W. Petty made balance of income and expenditure of population England, determined in that base the national income as income sum of total population, earned from work and owning of property (land, incomes and capital).

Other representatives of this direction of economic thought – A. Smith and D. Ricardo had given theoretical justification of idea unity as “national income” and “social product”. Determining cost of latter by amount of incomes of society, they for the first time put issue about necessity of exclusion from all goods value used on creating investment goods.

Conclusion about unity of social product and national income received in future a new theoretical justification in French economist’s works J-B. Say which constructed own system of arguments on detecting role of production factor – labor, land and capital in creating useful and cost of products and services. Concluded, that these factors are created as availability, so cost of each well-being, he interpreted cost of all products as amount of profit of three classes – workers, landowners and capitalists.

Nowadays this conception admitted by mass economists of all science schools and directions, excluding orthodox Marxists who continue to enforce on that cost of social product creates only alive work, which is during production activity add (pass) cost of utilized means of production on cost of total social product. In result, the latter includes not only started-up but passed cost, and exceed of national income under incomes of workers in material production determine by relations redistribution, based on economic compulsion (exploitation).

But in national economic accounting there more widely used the indicator of *disposable national income* which is a general value of incomes, received and passed to economic units in the result of redistribution processes. Within calculating of disposable national income there summarize:

- salary–bonuses for wage and salary earners pay out in money and natural forms;
- payments on social insurance, which are not depend on quantity and quality of labor and input by enterprises;
- indirect taxes for business and other state dues;
- grants – are “negative taxes”. They are not in market prices in which main statistic indicators are calculated, therefore they are deducted from aggregate incomes;
- benefits–transfer balances for households in money and native forms, which produce by administrative or private profitless organizations without any equivalents;
- international assistance–voluntary payments of one country to another and dues to international organizations. If get assistance more than us, so international assistance include with symbol “+”, if we assist more, so with symbol “-”;



– not distributed profit of corporations – pure profit with leave at corporations after deduct from produced added cost of charges on work payment, amortization, taxes, interests and dividends;

– incomes from properties–intakes to all sectors of economy as dividends, rents, interests;

– profits from individual activity – profits of small incorporative enterprises and dues on insurance (if allowances more than dues, so margins take into account with symbol “+”, if allowances less than dues, so with symbol “-”);

– profits from operations with external world– includes balance of these profits. National income level which provides in full employment conditions calls *the national income of full employment*.

Beside of profits from social economics part of population collect subsidiary earnings from state as pension, grants, money and natural payments. Sometimes assistance has some firms. All payments of state to private persons or firms, enlarging their abilities as consumers, are called transfer payments. Therefore, if to the rest of national income after repayment of taxes and outgoings add transfer payments, so general personal income will be received.

Personal income is assigning for usage of some private persons. But, first of all it is necessary to pay out all individual taxes. Rest part will be as profit which the human has a free hand.

Profit, which is left at the disposal of households that is profit after pay taxes means *disposable income of households*.

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### **8.3. Problem of reliability of macroeconomic indicators. Pure economic wellbeing.**

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GDP indicator gives ability to measure in money means of annual volume of output by the country, but GDP does not reflect the full economic well-being of nation.

Indicator of *pure economic wellbeing* is relatively new for our economic science. In world practice it used as addition to indicator of Gross National Income. National income doesn't give a satisfactory image of economic wellbeing. It caused by:

Firstly, almost at all countries systematic information about such types of activity as domestic nursing and children, and house improvement (repair of flat, footwear, facility and etc. for own expense) absences.

Secondly, evaluation of negative results of production functioning (abuse of environment, climate fluctuation, resource depletion), which entail decrease of society wellbeing absences.

Thirdly, GDP indicator does not take into account society wellbeing connecting with leisure: in environment of highly developed economy the level of incomes is enough for good rest and increasing of free time for much of part population that is equal increase of country wellbeing.

Fourthly, in the world, including in CIS countries, the difficulties of *trustworthiness calculation of macroeconomic indicators worsen by presence of shadow economy, scale of which nowadays is impossible to estimate exactly. It impacts on calculation of such indicators as rate of turnover of cash assets, turnover the fund in calculations.*

During estimation of pure economic wellbeing there is necessary to take into account the level of population life, determining as ratio of real needs of citizens and abilities of their satisfaction. Here is happen the estimation not only current money profits of population and real consumption, but presence of money savings, quantity and quality of saved homestead, accommodation, services, healthcare and education.

Also, it is necessary to consider population's exfoliation by income level for objective evaluation of economic wellbeing. Gross domestic product can't reflect it also. Here is place to use *Gini coefficient*. This coefficient shows character of distribution of all incomes amount of population among its separate groups. At equal distribution of incomes in society the Gini coefficient is zero. The higher social polarization by incomes level, the closer is the coefficient to one.

Absence of *trustworthiness information on making of any decision in macroeconomic regulating sphere guides to certain distortion planned ratio among costs increase, the credit rise in cost and outflow capital from real sector into speculation sphere*. It is extraordinarily important to mention consequences of money emission which became again traditionally to consider as quasi acceptable way of escape from crisis. The strict statistical regularity is kept in interrelation with money emission and economic growth:

- in the countries with emission less than 4% per year speed of average annual increase of GDP per head is 1,9%; with emission from 4 up to 15% increase was 1,8%;

- on emission from 15 upto 30% - increase 1,7%, on emission from 30 up to 100% economic growth was only 0,4% per year;

- more than 100% - economic growth was negative, that is decrease on average on 2,2 % per year.

It is necessary to note that concrete political situation, existing practice of taxation and state regulation impact greatly on economy condition. Difficulties in getting objective cost estimations are added by problems of accounting of output of products on the basis of quantities, caused by attempts of executives of separate enterprises to understate scales of product output, with the purpose of tax base reduction, and substantiation of insolvency reasons as well.

In result, in analysis sphere and prediction of macroeconomic indicators nowadays problems on calculation appeared:

- values of intermediate consumption and gross domestic product, including on distribution stage and final usage;

- financial indicators of organizations economy activity;

- dynamic of natural and cost parameters by separate spheres of real sector of economy.

Thereby, necessity to develop the system of calculation of macroeconomic indicators, which includes updating on unrecorded value of natural-cost and financial resources, appeared. Macroeconomic indicators are necessary for predicting of country economic development, making proper decisions. And though the difference indicators of national incomes not mention non-market and illegal deals, changing funds of leisure and goods quality, composition and distribution of aggregated output, and also ecological implications of production, though they are rather exact and useful indicators of country economic condition.

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#### **8.4. Theory of public benefit**

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The conception of public goods widely use in scientific literature, but no united, basically definition of public benefit.

In interpretation of P. Samuelsson, example, social is that good, which include in equal number in two or more individual functions of utility. Basing on research of W. Mandola, Italian economist of XIX, M. Blaug formulated another definition: "Specific nature of public profits include in that, their usage can be only joint and equal: the more have one household, the more, not less has any other"<sup>38</sup>.

Benefit – is everything, which can satisfy need of individual, exactly the thing, occurrence, labor product and etc., respond to interests, targets, people desire. Such understanding of benefits characterizing extended of its interpretation as embody utility, which can be not only work products, but also natural not only things, but occurrences, not only material anything but also spiritual and etc. In economic literature there are other approaches by benefit definition, first of all, as all of our desire things or things satisfaction of human needs. Public benefit and its specific features exist only in so far as this benefit does not belong to anybody.

Public benefits characterize by following features: non-rivalry in consumption; not exclude; not additive (indivisibility in consumption); uncertainty of final user; uncertainty of property rights.

The classic illustration of public benefit is *lighthouse*. It is easy to determine, after analyzing features, which it has. Enough to say that each ship oriented on light of lighthouse do not decrease possibilities of other ships. Nonrivalry in consumption is genetic feature of this benefit. Same situation is specific for feature non-excluding, because limit of seafarers in using light house impossible even technically. Taking into account, that light of lighthouse using jointly and equal (Blaug definition) and that it in same value enter in individual functions of utility of all seafarers (Samuelson's definition)<sup>39</sup>. Clearly also, that any addition ship passing within light visibility from lighthouse, not increase expenses on living. Zero maximum costs finally assure in that, there is public benefit. Note, though, that is only static picture.

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<sup>38</sup>Blaug M. Economic mind in retrospective. - M., 1994. - p. 549.

<sup>39</sup>Samuelson P.A. The Pure Theory of Public Expenditure and Taxation // Review of Public Economics and Statistics. 1954. - p. 388.

In economic theory many researchers separate benefits on existing (current) and future, direct and indirect, long-term and short-terms, material and non-material, economic and not economic (free), individual and collective, private and social. There is necessary to note, that classification of public benefits can be made subject to criteria of external effect (beside classification subject to ability of exclusion and level of usage these benefits), that most meaningful on characterizing economic relations arising regarding production and consumption of social meaningful services.

For beginning let consider separation of public benefits on pure and mixed.

*Pure are called those public benefits, which in high level have features of nonrivalry in consumption and not excluding.*

*Mixed are called those public benefits, for which even one of mentioned above features is presence in temperate level.*

*One more criteria classification of public benefits – is interesting level in them of state. In this case the benefits subdivide on following groups:*

1. *Not oriented for individual consumption and express necessity of sustainable development of whole society.*

2. *Oriented for individual consumption and having brightly marked of external effect.*

3. *Not oriented for individual consumption and expressed ability providing consumption of exist benefits specific level by whole society (group of people).*

4. *Oriented for individual consumption and express ability and necessity of providing consumption of this benefit on specified level by whole society (group of people).*

Also on classification use row characteristics, one of which is connect with specifications of territorial coverage. Territorial-regional organization formats society specific, which uses welfare. The borders of this community can mismatch with borders of society, financing and producing this benefit. With a view to differentiation borders of consumption and providing, allocate international, nation-wide (national) and local public benefits.

**International public benefits** *either available all citizens of planet (pollution with air abatement and widening of ozone hole international stability and etc.) or provide to citizens of special regions of Earth, some countries. Nowadays economists refer standards, reducing transaction expenditures, such as measures of length and weight, language, monetary system, results of fundamental scientific researches, international and regional stability to public benefits including international ones.*

The analysis of such unusual for traditional economic science benefits presents high difficulties. The separate attention thereupon honored question about that, who provides international public benefits (there is no international government, it substitute the row of intergovernmental and public organizations), as impacts on value of their providing absence of single government.

Last decade is marked as rapid development of integration in the framework of EU, when many social benefits are not national, but they become pan-European. In result, there improve and change functions of many institutes of EU, appear new mechanisms of making decisions including provide pan-European public benefits,

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solving problems by changing competence of national governments and institutes of community.

To **national public benefits** national defense, support of general law and order, activity of executive, legislative and judicial authorities and many others are belongs.

Under **local public benefits** understand any public goods and services; access to them has not whole population of country, only some geographic part (several regions, one region, city, district and etc.).

There are many variants of classification public benefits on the basis of different combinations of their characteristics. Subject to usage, public benefit can play different functional role in economics.

Let examine demand curves on public benefit  $G$  on sample of individuals  $A$  and  $B$  (fig.8.5).

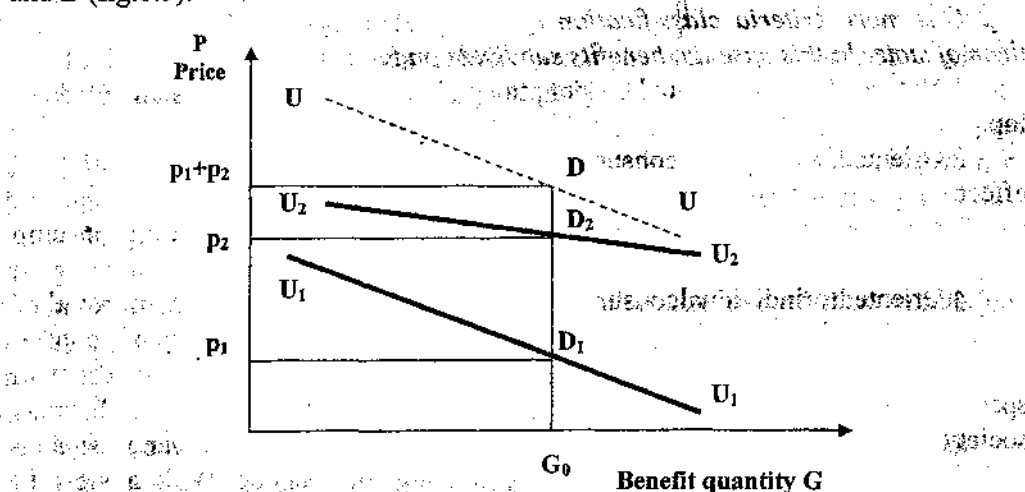


Fig. 8.5. Curve of demand on public benefit

Line  $U_1$  on this graph reflects individual demand of individual  $A$ , that is its readiness to participate in creation of public benefit  $G$ , and line  $U_2$  demands on individual  $B$ , also reflect its readiness in creation of public benefit. Now, let suggest, that public benefit implements by state in value  $G_0$ . On this on the strength feature of not exclude each of individual use this benefit at equal value  $G_0$ . On showed graph to this correspond point  $D_1$  for demand line of individual  $A$  ( $U_1$ ) and point  $D_2$  for demand line of individual  $B$  ( $U_2$ ).

Traced through points  $D_1$  and  $D_2$  straight lines, parallel axes  $G$ , may get in cross points with axe  $P$  results of their participation in creation of public benefit.

Let us consider demand curve of public benefit on a graph (fig. 8.6); it reflects dependence of quantity of receiving benefits  $G$  from price level  $P$ . There is a readiness of individual to consume public benefit reflected on graph; it finds reflection in price differentiation for its equal quantity.

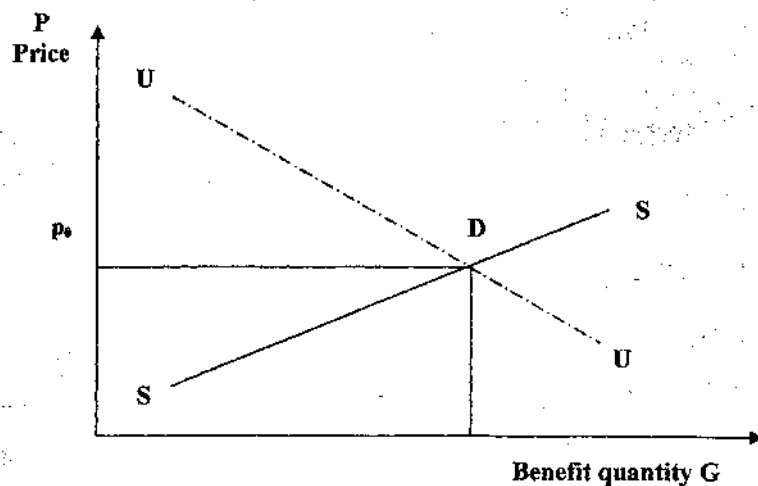


Fig. 8.6. Supply curve of public benefit

Demand curve shows from which other benefits we have to refuse for making one additional unit of public benefit. In other words, each point on the price axis ( $P$ ) represents by itself marginal costs or marginal norm of transformation. Let us also note that, on crossing of demand and supply curves in point  $D$  that is when aggregated demand is equal to supply of public benefit in amount of  $G_0$  and by price of  $p_0$ , the amount of marginal rate of substitution by all individuals is equal to marginal costs of production or marginal norm of transformation. As far as at point  $D$  marginal benefit from production of additional unit of public benefit is equal to marginal costs, so the level of output in value  $G_0$  is effective by Pareto.

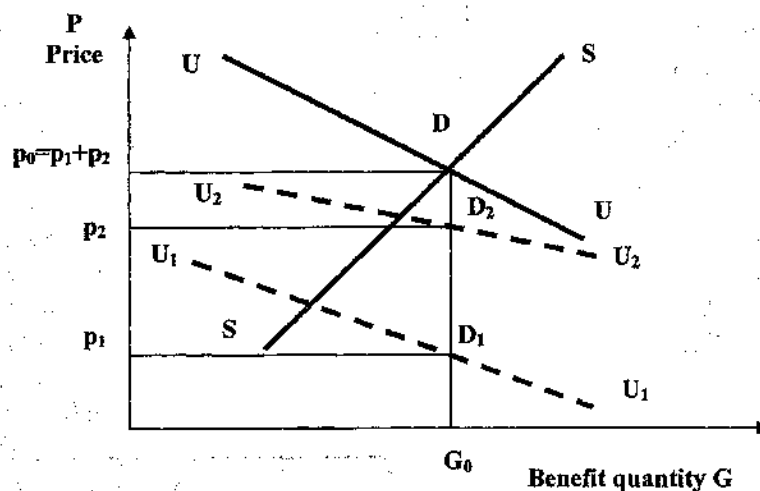
It is necessary to note, that decision on production public benefit with a glance of its reasonability is made by the state. At the same time, it is supposed that the state can establish different prices for different users of the same public benefit.

This assumption is justified by that the any public benefit can be made only for account of refusing from other benefits, therefore for each individual lost and purchased useful must provide positive balance, that is the cost of public benefit must differentiate in according with readiness of individual for participation in making of this benefit. Therefore the optimum, appearing in the point of crossing of demand and supply curves of public benefit, must be considered only as ideal model of equilibrium. For the first time this model had been suggested by E. Lindahl<sup>40</sup>, which was called Lindahl equilibrium.

Lindahl equilibrium is determined by supply curve  $S$  and demand curve  $U$  in cross point  $D$  (fig. 8.7).

<sup>40</sup>Lindahl E. "Positive Lösung, die Gerechtigkeit der Besteuerung": Eine Analyse der Steuerprinzipien auf Grundlage der Grenznutzentheorie, translated as: "Just taxation- a positive solution", 1919.





**Fig. 8.7. Equilibrium curve of Lindahl**

According to Lindahl equilibrium all of its participants use public benefit in equal amount of  $G_0$ , but by different prices: first individual pays cost  $p_1$ , and the second one  $p_2$ . These personalized costs provide Pareto – effective equilibrium, allow receiving various variants of resources distribution effective by Pareto, where in one variant better the condition of one individual, in other – others. There is no ability to choose the best preferable variant. Therefore it is not possible to satisfy needs of specific people in reality. Ineffective by Pareto variants can become the best for them; but these variants provide them receiving of public benefits.

It is necessary to note, that there are benefits, which are consumed exceptionally by the state, not included in any of individual functions of useful and not oriented for individual usage. Particularly, most products of fundamental sciences and arms production<sup>41</sup> are included to such public benefits. They directed on satisfaction of society needs, not having individual useful.

Here is quite suitable to pay attention on special case, when defense benefit, for example, some kinds of small arms (pistols, rifle, bullets and etc), are personal usage things. Such benefits are usual deducting goods, not having any concern to any group of public benefits and social benefits.

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### Control questions

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1. Compare the tasks of micro- and macroeconomics. What problems do these two spheres of economic theory solve? Analyze similarity and differences of subjects of macroeconomics and microeconomics.

<sup>41</sup>Grinberg R.S., Rubinstein A.Ya. Economic sociodynamics. **M.: ISE-PRESS, 2000. - p. 53.**

2. Describe macroeconomic scheme of circulation of money and benefits. How does it differ from microeconomic model?
3. Name the circumstances, which are in the base of economic theory division on micro- and macroeconomics?
4. Which problems are in the center of macroeconomics? Who was the author of first macroeconomic model? Describe its content.
5. What is the essence of macroeconomic modeling method? What kind of functions and indicators are used in macroeconomics?
6. What macroeconomic models take the time factor into account?
7. Reveal the essence of "macroeconomic policy" term.
8. How does the evolution of economic science affect macroeconomic subject?
9. What is the object of macroeconomics? What macroeconomic indicators do you know?
10. Give definition to the subject of macroeconomic theory. What does macroeconomics study?
11. What is the essence and necessity of macroeconomic policy of the state? What are its functions, aims and instruments?
12. What is the essence of national accounting system? What kind of indicators used in macroeconomic analysis do you know? Describe methods and procedures of their settlement.

## CHAPTER 9

### MACROECONOMIC INSTABILITY: BUSINESS-CYCLES, INFLATION, UNEMPLOYMENT

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#### 9.1. Macroeconomic instability and modern view of cyclicalities

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Stable development of the national economy during its transition to market relations requires addressing a range of issues. These are balanced economic development of the national economy, improvement of its structure, increasing of efficiency, ways to accelerate economic growth, achieving of stability. One of the main problems of macroeconomics at the present stage is to achieve and maintain macroeconomic equilibrium, recurrent deviations from which indicate the presence of "disease" in the system of the market economy. The most important manifestations of economic instability and "disease" of the market economy are cyclicalities, unemployment and inflation.

*Cyclicalities* as an economic regularity is not universally accepted by scientist economists. However, the study of social and economic development confirms the existence of this process and the cyclicalities as a problem is interesting for scientists, economists and policy makers.

*Cyclicalities* is a form of development of the national economy and of the global economy as a whole, the movement from a macroeconomic equilibrium in the economy-wide to the other. Therefore, cyclicalities can be considered as a way of self-regulation of market economy. Since the peculiarity of cyclicalities is the movement not by circle but by spiral, it is a form of progressive development.

The idea of cyclicalities as a fundamental principle of the world was in the world of science from the time of Ancient Greece and China (especially in the writings of the Chinese Taoists). If philosophers have been interested in the problem of cyclicalities throughout the many hundreds of years, economists paid attention to it relatively not long ago, at the beginning of the XIX century. Nature of the cycle is still one of the most controversial and under-investigated problems.

The idea of cyclicalities was initially rejected as contrary to the law J.B. Say (1767-1832), according to which the demand is always equal to the supply. In the works of A. Smith, D. Ricardo, J. St. Mill, A. Marshall a cycle was looked through only in passing, as a private and transient phenomenon, especially as the classics of political economy had not witnessed economic cycles. K. Marx was one of the first economists who began to pay close attention to this issue.

Over the years, production can grow more or less rapidly, and in some cases (for example, currently in Russia), the increase can be negative, which means a drop in production. Therefore the exact dynamics of the economy will reflect a wavy line, where each wave is characterized by a whole cycle of economic development.

Economists refer to this development with extremely common term - "economic fluctuations" and highlight trends:

- for a century ;
- cycles spanning several decades;
- normal economic cycles ;
- small cycles ;
- specific variations within individual sectors of economy (for example, agriculture );
- fluctuations in the specific individual events (for example, the dimensions of the stock ), etc.

There are several types of economic cycles, which are named waves. In the economic literature, they are usually named after the scientists who dedicated special researches to this problem. The best known cycles are N.D. Kondratyev's cycles (50-60 years) called long waves, S. Kuznets's cycles (18-25 years), K. Juglar's cycles (7-12 years), J. Kitchin's short cycles (2-4 years), Forrester's cycles (200 years), Toffler's cycles (1000-2000 years) - the development of civilizations.

The development of the theory of long waves began in 1887, when the English scientist K. Clark drew attention to the 54-year-gap between the crises of 1793 and 1847. He suggested that the gap is non-random. W. Jevons first attracted statistics to the analysis of long-wave fluctuations to explain the new phenomenon for the science. The original statistical processing of materials is found in the works of Dutch scientists Ya. Gederen and S. Wolf, when considering the technical process as a factor of cyclicity.

It should not go unspoken about the contribution of K. Marx to the development of cyclicity theory. He studied exclusively industrial cycles (10-12 years) called periodic cycles or crises of overproduction.

A special place in the development of the theory of cyclicity belongs to the Russian scientist Nikolai Kondratyev. His research covers development of the UK, France and the United States for a period of 100-150 years. He generalized material from the end of the XVIII century (1790), on such indicators as the average level of commodity prices, interest on capital, the nominal wage, turnover of foreign trade, production and consumption of coal, production of iron and lead, that is, in fact, he spent a multivariate analysis of the economic growth. As a result of research, he identified following large cycles:

- cycle I: from 1787 to 1814 - upward wave, from 1814 to 1851 - downward wave;
- cycle II: from 1844 to 1875 - upward wave, from 1870 to 1896 - downward wave;
- cycle III: from 1896 to 1920 - upward wave .

The highest scientific merit of N.D. Kondratyev is an attempt to construct a theoretical socio-economic system, which itself may generate long-term fluctuations.

Kondratyev's concept of long waves caused considerable controversy in Russia in the 30s. Proponents of the concept of "automatic collapse" of capitalism accused him of apologetics of capitalism, since according to his conception, under capitalism it was admitted the existence of mechanisms of self- motion and exit from the economic structural crises. Kondratyev was right.

The study of long waves in the XX century was practiced by such well-known

scientists as J. Schumpeter, E. Slutsky, S. Smith, C. Clark, W. Mitchell, P. Baccarat, D. Gordon, T. Kuchinsky. In Russia, these processes are currently being investigated by Yu. Yakovets, L. Klimenko, S. Menshikov, etc.

Modern periodization can be represented graphically (fig. 9.1).

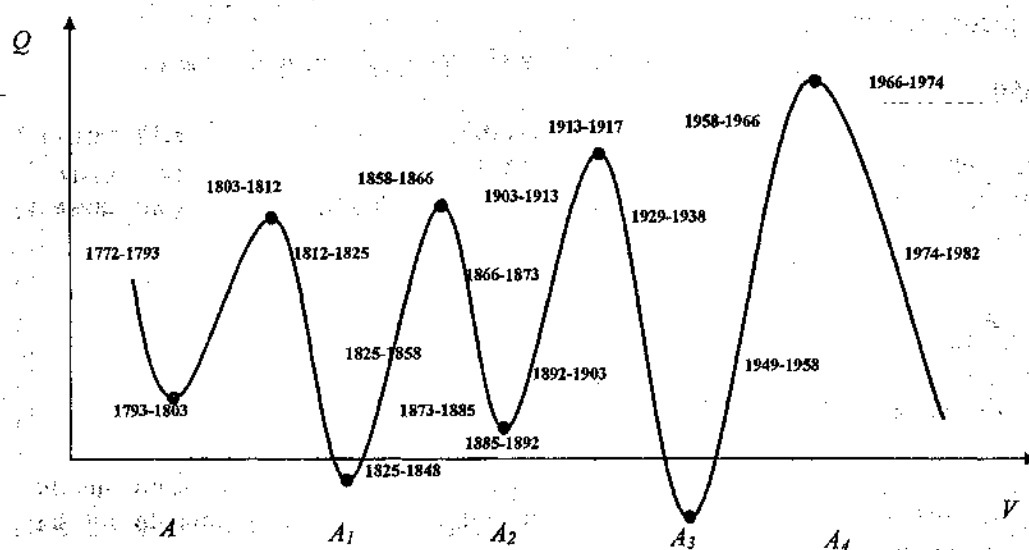


Fig. 9.1. Modern periodization of cyclicity

From the point of view of the structure of the economy, there are also distinguished agricultural and other sectoral crises that do not cover the entire economic system, but only a few sectors: agriculture, energy, heavy industry, etc. The structural crises can occur both as a relative underproduction, and relative overproduction, accompanied by a general industrial cycle or not coincide with it. The largest structural crisis occurred in 1973-1975, when the Organization of the Petroleum Exporting Countries (OPEC), by dramatically raising oil prices, exacerbated the economic crisis begun in 1974, into structural, energy and raw materials crisis.

*Agrarian crises* are typically due to a combination of natural factors, the failings in the organization of labor, technological backwardness, imperfections in systems of land use and land ownership, and so on. The agrarian crises are different in duration and counter-cyclicity.

Thus, the *economic cycle* (wave) - is a common feature of almost all areas of economic life and of all countries with market economies.

*Cycles* (waves) - are periodic fluctuations of economic or business activity.

The cycle is the interval of time in the development of the economy in which there occurs an increase in output of goods and services, and then decline, recession, depression, recovery, and finally, again its growth.

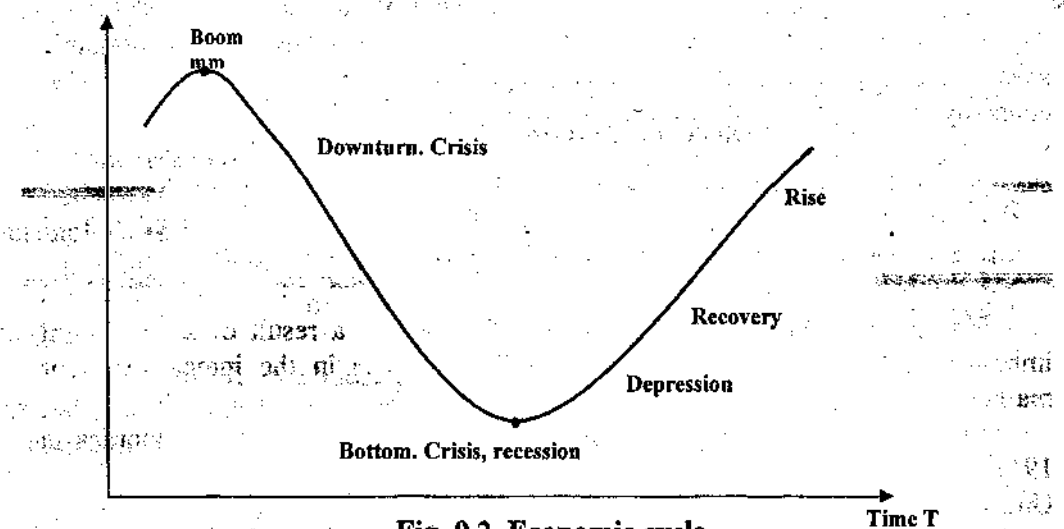
K. Marx distinguishes four phases of the cycle, sequentially alternating: crisis, depression, recovery and boom. Modern economic literature widely uses the terminology developed by the National Bureau of Economic Research, USA, under

which the cycle consists of the following four phases: peak (the peak, boom), compression (recession, downfall), bottom (depression), recovery (extension).

There are clearly observed two stages of development of the market economy: the rise and the crisis. Economic recovery begins with a revival of business activity in the form of new contracts, a reduction of unemployment, increasing of consumer demand, resulting in an increase in the production of goods and services, which gradually increases. The top of economic recovery in American literature is defined as a boom. The crisis of the market economic system is characterized by a sharp decline in production, which commences by a gradual narrowing, reduction of business activity (more rarely are bargains effected, the volume of business transactions, made both on credit and for cash, reduces). The crisis is different from the violation of balance between supply and demand for a particular product or in some sectors of the economy so that it emerges as a common overproduction followed by precipitation of prices, bankruptcy of banks and stoppage of manufacturing businesses, growth of loan interest and unemployment. The lowest point of fall is called bottom. This is a period of depression, which is characterized by stagnation of economy, weak demand for goods and services, significant underload of enterprises and mass unemployment. Negative occurrences in the cyclical development of the economy are also characterized by recession, a state of the economy, when the gross national product at steady reducing becomes less by two quarters, reflecting the decline in production or slowing of its development.

Until the middle of the XX century, during crises there occurred lowering of the general level of prices related to falling demand, the growth of unemployment. Currently monopoly sector of the economy with the support of the state is not only capable of maintaining the pre-crisis level of prices, but often promotes their growth. Such a drop in production while maintaining inflation is called stagflation.

Graphically, the cycle is shown in fig. 9.2 which describes the cycle of business activity.



To characterize the dynamics of the economic situation, the following economic parameters are used:

- *cyclical*, which increase in the recovery phase, and decrease in the decline phase (capacity utilization, the overall level of prices, monetary aggregates, etc.);
- *counter-cyclical*, which decrease in the recovery phase and increase during a recession (unemployment rate, finished goods inventory, the number of bankruptcies, etc.);
- *acyclic*, the dynamics of which does not coincide with the phases of the business cycle (volume of exports);
- *anticipating* (reach the maximum or minimum before coming to the peak or bottom, changes in stocks, money supply, etc.);
- *retarded* (reach the maximum or minimum after the passage of the extreme points of the cycle - the number of the unemployed, labor costs);
- *matching* (change in accordance with fluctuations in business activity - GNP, inflation, etc.).

The causes of cyclical development of certain economic theories are explained in different ways. The *theory of externalities* explains the economic cycle by external factors: the appearance of sunspots, leading to crop failure and the general economic downturn (W. Jevons, V. Vernadsky), wars, revolutions and other political upheavals, the development of new territories and the related population migration, fluctuations in world population; powerful breakthroughs in technology that enable to radically change the structure of social production. *The theories of internalities* consider the economic cycle as a product of internal factors: the ratio of optimism and pessimism in the economic activities of people (V. Pareto, A. Pigou); savings surplus and lack of investment (John Keynes), a contradiction between social production and private appropriation (Karl Marx), disruption of money supply and demand (J. Fischer, R. Hawtrey), over-accumulation of capital (M. Tugan-Baranovsky, G. Kassel, A. Shpithof), under-consumption and poverty of population (T. Malthus), etc. Such an abundance of views is explained by the complexity and importance of this economic process.

To sum up, we can express hope that with the development of economic science there will be found ways to manage cyclical phases in the free market economy.

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## **9.2. Unemployment: essence, types, measurement.**

### **Labor market and costs of unemployment**

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*Unemployment* is a forced joblessness, arising as a result of a permanent imbalance between demand and supply of labor both in the integrated labor market, and in different segments.

The term "unemployment" first appeared in the Encyclopaedia Britannica in 1911, and then was used in 1915 in the report of the Ministry of Labor in the United States. At present time, unemployment is present in all countries of the world in different volumes, forms and duration.

In economic theory, there are different approaches to explaining the necessity and possibility of the existence of unemployment.

One of the earliest explanations to unemployment was given by T. Malthus. He noted that unemployment is caused by demographic reasons, which results in that the growth rate of population exceeds the growth rate of production. This theory is criticized and presented as untenable, because it does not explain the occurrence of unemployment in highly-developed countries with low birth rates.

The neoclassical school is presented by the works of D. Gilder, A. Laffer, M. Feldstein, R. Hall, etc. It is based on the provisions of the classical theory of Adam Smith. From the neoclassical concept it results that unemployment is not possible if there is equilibrium in the labor market, because the price of labor responds flexibly to the needs of the labor market, increasing or decreasing depending on supply and demand. At present, the representatives of this school recognize the unemployment as a natural phenomenon fulfilling the task of circular movement of the unemployed part of able-bodied population.

The main ideas of the Keynesian school can be briefly summarized as follows:

- for a given level of investment and money wages, the economic system in any short-term period can be found in a state of stable equilibrium in underemployment, which means the possibility of the existence of involuntary unemployment;

- the basic parameters of employment (the actual level of employment and unemployment, labor demand and real wages) are determined by the size of the effective demand in goods and services market rather than being established in the labor market;

- in the heart of the mechanism of formation of employment there are occurrences of psychological nature: the propensity to consume, to save, incentives for investments, liquidity preferences;

- the main and determinative factor in the formation of employment is investments of optimal size. In this way all means are good, but especially effective in terms of employment prospects of employment expansion is organization of diverse public works, right up to the construction of pyramids, palaces, temples and even digging and backfilling of trenches;

- the wage policy must be flexible.

Representatives of the monetarist school investigated the relationship of unemployment with the dynamics of real wages and inflation.

Institutional sociological school offered its vision from the perspective of the institutional problems of creating employment services and other social institutions.

In recent years, the most popular are the concepts of "natural", "normal", "socially acceptable" level of unemployment, exploring the relationship of unemployment and inflation, monetary circulation, the equilibrium price of labor, supply and demand for labor. Development of a strategy and tactics of state regulation of employment, support for the unemployed is carried out with the application of the methods of economic-mathematical modeling and graphical



analysis (Marshallian cross, Phillips curves, Beveridge curve, etc.). In 1960 the natural rate of unemployment was considered 2% of the labor force, in the 1980s this level increased up to 6-7 %.

Taking stock of the achievements of foreign economic thought and practice of regulation of employment and unemployment, it should be emphasized that the measures recommended by them cannot be automatically transferred to the emerging labor market of economies in transition without consideration of production state, living standards of population and other factors.

As unemployed are considered able-bodied citizens who don't have work and earnings and are registered with employment agencies to find work, looking for work and ready to start working.

In accordance with Art. 3 of the Law of Uzbekistan " On Employment" as "able-bodied can be admitted *an unemployed* person at an age of over sixteen years before the acquisition of pension rights, which don't have work and earnings (labor income) that is registered in the local labor as a job-seeker, ready to work and to undergo training and retraining and professional development".

A decision on the recognition of a person as unemployed is taken by the local Labor Agency no later than the eleventh day from the date of its registration as a job-seeker.<sup>42</sup>

Modern forms of unemployment are:

1) *frictional unemployment* is associated with a professional, age-related, regional movement of workers. These wage and salary earners, who, after leaving the previous place of work, are in the process of moving to a new workplace. The distinguishing feature of this type of unemployment is voluntariness and low duration;

2) *structural unemployment* is a result of changes in technology, engineering and production structure, the structure of consumer demand, causing the discrepancy between the structure of employment and occupational structure of employees. This type of unemployment bears generally long-term nature and requires additional costs of society and individuals to retrain and change the residence;

3) *cyclical unemployment* is caused by the cyclical nature of the reproductive process in a market economy. It increases in times of crisis and declines in terms of economic recovery. Especially increases unemployment in the period of transition to the new technological production methods based on the overarching revolutionary shifts of the technique, technology, organization of production;

4) *seasonal unemployment* is conditional on seasonal fluctuations in the volume of production of certain industries: agriculture, construction, businesses, in which during a year there are sharp changes in the demand for labor. Scales seasonal unemployment can be anticipated and taken into account when signing contracts between an employer and an employee;

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<sup>42</sup> On employment. Law of the Republic of Uzbekistan (new edition). Approved by the Law of the Republic of Uzbekistan dated 01.05.1998, No. 616-I.

5) *regional unemployment* is the result of imbalances between supply and demand of labor in a given area. It is formed under the influence of uneven economic development of the territories, falls under influence of demographic, historical, cultural, and other specific factors.

Suggestions have been made on the formation into a special form of *conversion* and *economic* unemployment, which acquire particular significance due to the conversion of the military industrial complex and strengthening of market fluctuations in transition period.

For the duration of unemployment there can be identified stagnant and floating shapes. Duration of unemployment is measured by the time interval between the loss of workplace and employment in the new workplace.

The floating form of unemployment is characterized by the dismissal of workers by enterprises at their own request and at the initiative of administration. The reasons for dismissal are very diverse, and are objective and subjective. During the transition period, reasons for dismissal of employees at their own request become the financial condition of the company, its size (small, large), ownership (state, privatized, bought out by individuals). Coefficient of dismissal and the proportion of the dismissed due to a job cut are higher in privatized firms than in private or public enterprises.

Voluntary unemployment is due to the fact that some of the workers enter the labor market and become voluntarily unemployed for whatever reasons (in order to find a better job with better working conditions and salary, etc.).

Unemployment can be open and hidden, long-term and short-term. To long-term unemployment refer cyclical and structural, and to short-term - seasonal and frictional unemployment. There also repeated (periodic) and "stagnant" unemployment in the economy of a country, which take into account people desperate for finding jobs, and finally turned out of the number of the labor force.

Socio-economic effects of unemployment can be formulated as follows: there occurs devaluation, underutilization of human potential of society, the quality of life of the unemployed and their families becomes worse, pressure on the wages of employees by those competing in the labor market strengthens, social costs and those of an individual to restore or change occupational status and level of productive labor, appears a category of persons with deviant behavior who are prone to acts contrary to accepted social norms and values.

Among the factors affecting the dynamics of unemployment, the fundamental are:

1. *demographic factors* - the change in the share of economically active population as a result of changes in birth rate, mortality, population makeup according to sex and age, average life expectancy, directions and volumes of migration flows ;

2. *technical and economic factors* - the rate and direction of scientific and technical progress, conditioning the economy of manpower. The destruction of high-tech industries, business failures;

3. *economic factors* - the state of the national production, investment activity and financial credit system, the price level and inflation rate. According to the law

formulated by A. Ouken, there is a negative relationship between the unemployment rate and the volume of GNP, each "spike" in unemployment is associated with a reduction in real GNP.

The unemployment level  $UL$ , is defined by the following formula:

$$UL = \frac{N_u}{N} \cdot 100\%$$

where,  $N_u$  - unemployed population;  $N$  - workforce size.

In international practice, to calculate the economic losses of unemployment *Ouken's law* is used:

$$Pi = GNP_p - GNP_a,$$

Where  $GNP_p$ ,  $GNP_a$  - are potential and actual gross national product, respectively.

According to Ouken's law, the increase in the actual unemployment rate in excess of its natural level by 1% means a backlog of actual GNP from potential GNP by 2.5 %. Ouken's coefficient - 2.5:

$$GNP = GNP_a + \frac{GNP_a \times UL_a - UL \times 2,5}{100},$$

Where  $UL_a$  is actual and  $UL$  - is natural rate of unemployment.

The difference between the actual and the natural rate of unemployment characterizes the level of conjunctural unemployment.

There is a relationship of unemployment and inflation, first recorded in 1950 by A. Phillips, in the form of the curve (fig. 9.3).

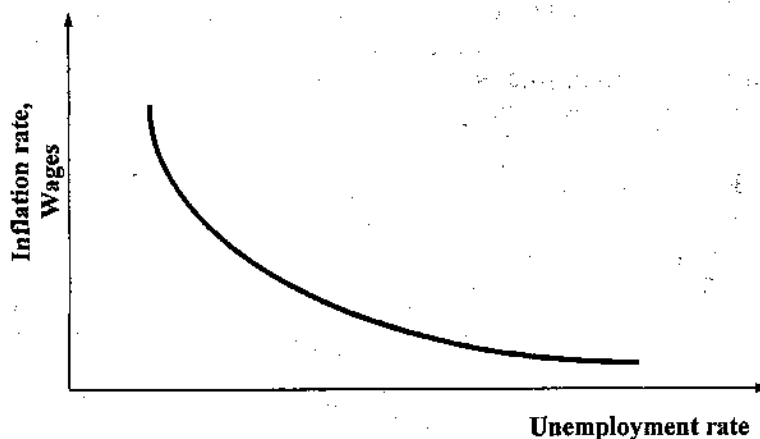


Fig. 9.3. A. Phillips Curve

The Phillips curve describes the inverse relationship between inflation and unemployment rate: the higher the rate of inflation, the lower the unemployment rate. State intervention may reduce the level of unemployment, expanding aggregate demand. Occurring tension in the labor market will contribute to the

growth of wages, prices, consequently, the deployment of inflation. In order to reduce inflation demand restrictive policy should be conducted, leading to the production curtailment, increase of unemployment. The increase of the latter becomes a fee of the society for the implementation of anti-inflation policy.

Modern Phillips curve, used in different countries at different times, is different from the considered one, firstly, in that the growth rate of nominal wages includes the expected rate of inflation. Secondly, it includes supply shocks. Thirdly, it takes into account the already perceived fact that the economy can go to the level of full employment (natural rate of unemployment) at any rate of inflation that, in the long run, inflation and unemployment do not correspond with each other.

**4. *organizational and economic factors*** - changes in the organizational and legal forms of enterprises that take place in the course of privatization of state property, corporatization of enterprises, structural adjustment, significantly affect unemployment, since they reinforce the processes of expulsion of workers from given production and attraction to other industries, in other areas, i.e. fluctuations in the labor market.

Methods of dealing with unemployment are defined by the concept that guides the government of certain country.

Modern Malthusians suggest maintaining stability in the labor market through public policy of birth control, which is widely used in developing countries.

A. Pigou and his followers believe that the root of evil is a high salary, and they suggest to: reduce wages; explain to trade unions that growth of wage is accompanied by rising of unemployment; employing workers by the state, who competing for low income, in particular, to encourage the development of social sphere.

Keynesian programs to combat unemployment suggest the use of public works (roads, hospitals, etc.), as well as a system of measures that could revive the market conditions, form an investment, and as a result, consumer demand, in particular, public order and decrease of the discount rate by increasing public spending.

Monetarists propose, at a time when unemployment and decline in production occur against the background of inflation, to remove the entire burden on the state budget, to cut inflation. Curbing inflation will improve currency unit, will generate a healthy market environment. Effective market cleanses itself from a backward production through mass bankruptcy; it will be replaced by promising businesses that will expand the production of new goods and help reduce unemployment. To do this, the monetarists propose to use an enhanced account rate of interest, which will be available to weak enterprises. The monetary programs have successfully been used by the government of Ronald Reagan and Margaret Thatcher.

Specific new ways out of the recession and unemployment are in need in transition economies.

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### 9.3. Inflation: essence, types, measurement.

#### Costs of inflation

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The term "*inflation*" (from the Latin "Inflatio" – blowing up) first began to be used in North America during the Civil War, 1861 - 1865 and signified the swelling process of fiduciary circulation. In the XIX century it was already used in the UK and in France. In the economic literature of the XX century it was widely adopted after the First World War.

*Inflation* is a process of the overflow of circulation channels by money supply beyond the needs of commodity turnover, which causes devaluation of the currency and a common long-term increase in commodity prices.

Some economists believe that the inflation process, understood just as depreciation of money, is of the same ancient origin as nominal monetary units (weight reduction, degradation of coins). It is known that in ancient Greece, starting from the tyrant Hippias (6th c. BC.), who had reduced by half the content of the coins, put into circulation defective money. So did Roman emperors. Thus, Septimius Severus (146-211) increased copper impurity in the silver coins up to 50-60 % of their weight, and his successors did more. The King of France Philip IV (1268-1314) was nicknamed as "forger" for the widespread use (usage or using) of issuance of defective coins, he issued 35 inflationary decrees. In Russia in the XVI-XVIII centuries the monetary stock - the metal content of the silver coins was repeatedly lowered. With the advent of paper money monetary and monetary inflation was replaced by paper money inflation.

Other authors argue that in terms of gold or silver circulation inflation is impossible, because money represents real wealth and not its symbol; the necessary amount of money is regulated by such a function as treasure. If there are more coins than it is needed for purchases, the remaining funds are deposited as a treasure. However, they do not depreciate. When filling the market with goods, coins are withdrawn from savings and are involved in commercial transactions. Depreciation of money in these conditions does not occur. It is known that in Russia in the XVIII century Akinfiy Demidov (Ural mine owner), having found deposits of silver ore, began to mint independently his own coins no different from the king's ones, and this didn't lead to negative consequences for the economy of the country. Silver is always silver, and even if coins are minted more than it is necessary for purchases, remaining of the money in hands is deposited as a treasure.

It's another matter with paper circulation. Here money is only a symbol, not real wealth. They cannot perform the function of the treasures. A much better way to maintain savings is buying a real estate or jewelry. Paper money to a small extent is accumulated as savings. Most of their increased stock in excess of money remains in circulation. The presence of this money in population increases aggregate demand, and it, in turn, puts pressure on the prices towards their increase.

Manifestation of inflation is the increase in prices, which arises due to the long disequilibrium in most markets in favor of the demand, i.e. it is an imbalance

between aggregate demand and aggregate supply. However, it should be known that the price increase may be due to the lack of balance between supply and demand in some markets and such rise in prices for some individual product market is not inflation. Inflation is manifested in the increase of the general level of prices in a country. Therefore, not every increase in prices is caused by inflation processes. Thus, an increase in prices, associated with seasonal fluctuations in market conditions cannot be considered inflationary. Natural disasters cannot be considered the cause of inflationary price increase. If an earthquake destroyed houses, a rise in the prices of construction materials is apparent, and it will stimulate a manufacturer of construction materials to increase the supply of its products, but with the saturation of the market prices will be dropping.

Thus, *inflation* is a complex multifactorial phenomenon which characterizes the disruption of the reproductive process, is the result of macroeconomic instability, of a certain imbalance between aggregate demand and aggregate supply and is inherent in an economy using paper money circulation.

Inflation indicators are designed to provide a quantitative assessment of inflationary processes.

Inflation in line with the monetarist theory of money must be measured by a surplus of money in circulation. In practice this is difficult to do, so the measurement of inflation comes to the theory of price increase, namely, to the definition of the main types of price indexes.

There are known Laspeyres price index (it is the consumer price index), the Paasche price index (producer price index), Fisher price index.

If the consumer price index takes into account only the cost of the consumer basket, in the economy as a whole, it is more correctly to judge on price movements by GNP price deflator, because it covers all types of goods - consumer and investment ones. However, to collect monthly data on GNP deflator is very difficult, so in the monthly statistics in many countries they prefer to use the consumer price index. In the long term, these figures draw closer.

To estimate the inflation the rate of inflation is also used. It is defined as the ratio of the difference between the price index of the current year and the previous year's price index (basic) to the price index for the previous year:

$$R = \frac{CPI_C - CPI_B}{CPI_B} \times 100$$

For a country where there are stable rates of inflation, in order to calculate the number of years required to double the price level, one can use the rule of the "value 70", according to which the number 70 should be divided by the annual rate of inflation.

As an indirect measure of inflation there are used data on the ratio of inventory to the amount of deposits of population (inventory reduction and increase in deposits show an increase in the degree of inflationary stress). Data on the excess of income over expenditures of the population as a percentage of revenue can also characterize the level of inflation. If revenues are growing faster

or even at the same rate with prices, it shows the danger of inflationary spiral.

Causes (sources) of inflation. The causes of inflation are extremely diverse. It is often difficult to determine exactly the causes of inflation in each certain case, as they will always exist in any combination:

- first of all, it should be mentioned about the central bank of issue of the country, as the disparity and the imbalance of government revenues and expenditures, reflected in the deficit of the state budget, leads to an increase in the money supply in circulation and, consequently, to an increase in prices;

- the militarization of the economy, because the growth of military spending - one of the main causes of chronic budget deficits and increasing public debt in many countries, to cover which paper money is emitted. In addition, the militarization of the economy strains the resources of society, civil industry begin to lag behind, the growth of consumer complex slows down, the growth of the money supply occurs without relevant commodity coverage;

- monopolization of society, as monopolies reducing competition, lead to a decrease in supply, thereby high monopoly prices are set and maintained. Not wanting to "spoil" their market by price cuts, monopolists, by limiting the influx of new manufacturers in the industry, support long-term mismatch of supply and demand;

- unreasonable tax policy also serves as an impetus for the growth of inflation. With increasing rates of old taxes and/or the introduction of new taxes there take place either reducing of supply due to unprofitability of production, which increases the pressure on the market of demand, or costs are taken into account in the formation of prices of manufactured goods, with the first and second choices leading to higher prices;

- an increase in world market prices for the so-called openness of the economy and its retraction into the world economy raises the risk of "imported" inflation. For example, in 1999 the decision of OPEC to limit oil production led to higher prices for imported oil, and then, the processing chain for many other products;

- one of the special causes of inflation in countries where public confidence in the government has repeatedly been undermined by numerous fiscal "money exchanges", "replacements of old banknotes for new ones", mandatory "bond loans" and placement of the state unsecured securities are adaptive inflation expectations. Inflation expectations are especially dangerous because they provide a self-sustaining inflation. For example, people living in conditions of constant expectations of the growth of general price level, are constantly looking forward to their further growth and make purchases without making savings. The population reserves future use goods, and the manufacturers, being afraid that the prices of raw materials, equipment and components will rise up and wanting to protect themselves suffer increased costs on the price of goods sold, repeatedly inflating the price of their products.

These are the main causes of inflation, but not the sole. There may be noted additional inflationary factors, such as the destruction of economic ties, distorted and weighted structure of the economy, irrational policy of "tied loans" and the

preservation of inefficient production. These reasons can be called internal. External factors include, in particular, the decline in revenue from foreign trade, the negative foreign trade balance and current account balance. Inflationary process enhances the fall in prices of products that make up an important export item of the country, as well as higher prices for imported products.

There are two types of inflation: *open* and *suppressed*. Open inflation is on markets with free prices. At inequality of price increase open inflation deforms, but does not eliminate the market mechanism. The economy continues to respond to market signals and adjusts itself in the direction of balance of different markets.

Open inflation can occur in various *forms*. They are: *demand inflation*, *cost-push inflation*, *structural inflation*.

Demand inflation can be simplified as follows. Aggregate demand exceeding current production capacities causes an increase in the price level. Inflation caused by this source begins with the rising prices of the final output, which gradually extends to the factors of production, while rise in the latter does not keep pace with rising prices for the former.

Of course, whatever the reasons may have been part of the initial rise in prices; it immediately abuts the boundary defined by the actual volume of the money supply. In other words, a rise in demand by itself causes not only inflation, as the threat of inflation. And it becomes a problem for institutions that regulate the money supply, i.e. in most cases - for the state (government and central bank).

If the state in order to prevent the impending recession reacts by increasing the money supply, then it follows from here that inflation will start:

- in the short term, such a policy causes the rise in prices and an increase in real output;
- in the long-term - only an increase in prices (inflation spiral).

If the state is holding back the growth of the money supply, then yet in the short term disinflation occurs, demand is shrinking and equilibrium is restored.

Cost-push inflation is described as follows.

For several reasons, begins the growth of production costs (per unit of product). The supply falls under the old prices, which drives up prices. The volumes of output and employment are reduced - a sign of lack of demand. Inflation caused by this source, from the growth of the prices of factors of production then spreads, through higher costs, to the final product. If under the conditions of cost-push inflation a policy of easing restrictions on the growth of the money supply is applied (in order to prevent the decline of production), then with high probability we can expect inflationary spiral, i.e. the same as demand inflation:

- in the short term, rise in prices and real output;
- in the long-term - only an increase in prices.

If conducted a policy of severe restrictions, production responds by recession, which for a certain period of time reduces inflation to nothing. However, owing to the nature of specific growth factors of costs, the duration of this "certain time" may be sufficient to increase transaction costs (so to speak) the use of these techniques to the politically and socially unacceptable level.



The structure of inflation is caused by inter-sectoral macroeconomic imbalances. Inconsistency of sectors leads to the fact that some of them can quickly saturate the market with goods. This leads to chronically unsatisfied demand for certain products, which drives up the price. Structural inflation is difficult to overcome, since struggling with it requires significant infusions of investment, the returns from which cannot be achieved in a short period of time. Usually a structural inflation is accompanied by a period of a country's pivotal transition to a new kind of technological progress, conversion of military production, etc.

At suppressed inflation the situation develops differently. The government, concerned about rising prices, enters into the struggle against this phenomenon. It sets the total administrative control over prices and incomes by freezing them at a certain level. The peculiarity of such an anti-inflationary policy is not only the determination of government measures. Their incorrectness is noteworthy. The government is not fighting with the deformations of the market, which led to the excess of aggregate demand over aggregate supply, but with the effects of these deformations - rising prices. Therefore, maintaining the causes of inflation, such government measures become futile.

In international practice, depending on the magnitude of price increase it is accepted to divide inflation into the following types:

- *normal* inflation - if inflation rate of 3-3.5 % per annum;
- *moderate* or *creeping* inflation - with the rate of inflation to 10% per annum;
- *galloping* inflation - if inflation rate of 20-200 % per annum;
- *hyperinflation* - with inflation rate of 50 % per month or more for more than six months. At such inflation the value of money falls so quickly that it does not perform its main functions, barter grows.

Inflation in a country is possible when there is excessive money emission, when the growth of the money supply outruns the commodity on a large scale and instantly. That is why the destructiveness of such inflation is enormous. This kind of inflation is emissive. It is provoked by a violation of the laws of money circulation by the central bank having a monopoly on the issuance of money.

From the point of view of the second criterion - the correlation of price increases by various commodity groups, i.e. by the degree of balance in their growth, the following types of inflation are specified: *balanced* and *unbalanced*.

At balanced inflation, prices of various commodities are unchanged relative to each other, and at unbalanced one the prices of various commodities are constantly changing in relation to each other, and in different proportions.

A balanced inflation is not dangerous for business. One has to only periodically raise prices of goods: if the raw materials become more expensive by 10 times, respectively, the price of the end product increases. The yield curve risk will be suffered only by those entrepreneurs who are the last ones in the chain of price increases.

In transition economies predominates unbalanced inflation. Growth of raw material prices outruns the rise in prices for finished products; the cost of the

component units exceeds the price of a complex device, etc.

*Unbalanced inflation* is a big problem for the economy. But even worse, when there is no forecast for the future. It is impossible to rationally choose the spheres of capital investment, to calculate and to compare the profitability of investment options. The real sector of the economy cannot develop in such circumstances, and the economic revival of the country is impossible.

From the point of view of the third criterion (foreseeability or predictability of inflation), they distinguish *expected* and *unexpected inflation*.

Expected inflation can be predicted and forecasted in advance, with a reasonable degree of reliability, the unexpected inflation takes place spontaneously, sporadically and cannot be forecasted.

Socio-economic effects of inflation. The first victims of inflation are consumers who have to suffer from the inevitable fall in living standards. The rise in prices leads to a decrease in the current real incomes. Under any system of compensation, additional payments are lagging behind rising prices. Real value of personal savings reduces. It is worst of all for those who keep savings in the form of cash. Each new round of inflation reduces the mass of commodities that could be purchased by a consumer for savings available to them. In a somewhat better position is the owner of the shares, to the least are affected are those who managed to put their savings in real estate and non-monetary values.

Production will suffer greatly from inflation as well. As it ramps up the business owners and employees will lose incentive to work. Inflation breaks the market mechanism of self-regulation. Manufacturers do not receive price signals and benefits of the movement of capital. Therefore, the economic balance between the branches cannot be carried out by the market. Under these conditions, the redistribution of investment should be concern of the state, which means the functioning not as a market economy, but as a command economy. Prices are set not by the market mechanism, but by directives that specify which the profit margin must be owned by an entrepreneur. Suppressed inflation leads to a natural and countervailing distribution, and therefore economic interest disappears.

Frozen prices make the capital investment unprofitable in those areas where production costs are high. Therefore, out of them rushes the rest of capital, which bares the industry and leads to shortages of goods, which becomes chronic. The population generates forced savings that do not express the growth in prosperity and, in fact, represent a pent-up demand. Shortages of goods and forced savings become a breeding ground for queues and the emergence of a black market that enriches criminal organizations and becomes inevitable accompaniment of suppressed inflation. The growth and well-being of society slows. After all, if there is no growth in supply, then the state treasury loses expected accumulation of tax revenues. If the supply does not increase, there is no basis for the growth of income and wages. Speculative deals in the black market only enrich the Mafia. The latter becomes the only real figure who receives the benefits of suppressed inflation.

Demand inflation usually occurs at full employment and full utilization of production capacity. In this case, the increase in demand for any commodity causes

production demand for resources and the subsequent increase in their prices. If some of the resources had not been involved previously, they could be involved in the production at existing prices. But the growth in demand at full capacity utilization and employment is not supported by the elastic expansion of supply, so prices are rising. The State, by increasing military spending and social programs in a period of full utilization of resources, will inevitably fall into the trap of inflation.

Entrepreneurs, by raising the demand for investment funds in the same situation, cause inflationary movement of the economy. And trade unions, pursuing growth of wages in the economy under the constraints associated with full employment, will receive the same result.

Cost inflation may cause an increase in prices of any of the factors of production: land, capital or labor. Production costs rise, and then they are transferred to the cost of production. The commodity appreciated in value is paid for by the buyer. If this commodity is a resource to the buyer for future production, costs will be rising for him too, which makes the entrepreneur to compensate for the loss of increased costs. There is a kind of inflationary transmission mechanism. Cost inflation in the country spreads like an epidemic.

There is another option when costs are rising, but in a saturated market an entrepreneur cannot block the increase in costs by increased price. In this case, the profit decreases. A part of the capital due to falling profitability will leave production and go into savings. Aggregate supply will decrease, which will inevitably lead to a general rise in prices.

In addition to the abovementioned socio-economic impacts there can be added:

- the redistribution of income and wealth;
- the under run in prices of public enterprises in respect of market prices;
- latent state confiscation of funds through taxes;
- accelerated materialization of funds;
- instability of economic information;
- falling of real interest;
- inverse proportionality of the rate of inflation and unemployment.

Inflation is a threat to economic development because of its aggressiveness, which is related to its self-reproduction. It begins to whip itself, increasing inflationary wave.

Inflation grows up rapidly spreading to all industries. This is because they are related to each other by mutual supplies. Therefore, a rise in supply leads to an increase in prices of manufactured products.

Inflation is a dangerous disease of the market economy, not only because it spreads quickly. It is very difficult to eliminate it, even when its causes are disappearing. This is due to the inertia of psychological attitude, which was formed earlier. Customers who survived of inflation make purchases for a long time "just in case". Adaptive inflation expectations constrain the country out of the clutches of inflation, as they cause speculative demand, and it raises the bar of commodity prices.

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#### 9.4. Anti-inflationary policy of government

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Overcoming inflation remains one of the main tasks of anti-crisis strategy.

It is important to note that the main way to fight inflation is to be a struggle with its underlying causes, while defeating inflation with full control over prices and profits without addressing its causes adversely affects the development of market relations.

Let's consider the anti-inflationary policy of the state and methods of dealing with inflation. The complexity of the situation is that the anti-inflation policy cannot be reduced only to indirect economic mechanisms. Obviously, the disruption of proportions in the economy can be gradually resolved with a structural policy of the government and even the direct administrative methods, in particular, cutting budget spending, rationalization of business investment, transition from the budget financing of productive investment to the use of funds of enterprises, attracting equity capital and breaking monopolistic structure of the economy, etc. All of this must be supplemented by measures that restrict the money supply, eliminate the budget deficit and stabilize the currency.

The evolution of the market outlook has formed three approaches of anti-inflationary policy: *Keynesian, Monetarist and Structuralist*.

J. Keynes believed that supply level can be raised by creating effective demand, which should be external catalyzing force for entrepreneurs, providing large private firms a significant government order. As a result, the multiplier effect is predicted, a large complex of enterprises is driven, the recession is reduced, and unemployment is declined. The supply, instigated by orders and cheap loans, will rise, leading to a fall in prices and a decrease in inflation. The negative feature of Keynesian receipt is deepening of the budget deficit, as the government orders to private business is additional government spending.

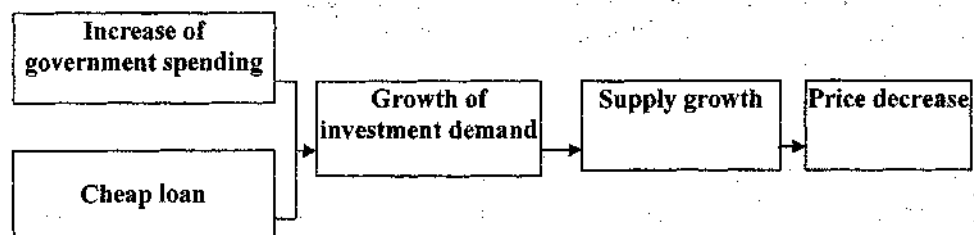


Fig. 9.4. Keynesian anti-inflation policy

In this case, the state budget deficit in any case should not be covered by additional emission of money, as it is the most destructive and instantly pervasive form of inflation. Keynes proposed a different way - to resort to government foreign borrowings, which will be repaid in the future, after curbing inflation (fig. 9.4).

But the recommendations Keynesians used in 1950-1960s in Germany and the United States and which gave positive results in the early 1970s have suddenly had an opposite effect. The reason for this was that the proposed Keynesian methods can indeed be effective only in conditions of strongly competitive forces. In 1970s there strengthened the monopolistic tendencies in many markets, the impact of the growth of aggregate effective demand on the expansion of production greatly weakened, increasing inflationary processes.

In practice, the failure of Keynesian programs became more and more apparent, as in many countries foreign debt started growing and it was not possible to increase it further.

Monetarists, led by M. Friedman drew attention to the fact that the Keynesian recipes do not give a crisis to run its cleaning function to the end - free for a certain period the economy from imbalances and restore the country's economic balance. Country early exited from the crisis, but kept further the old imbalances - afterwards they were supplemented by new ones, and the country was once again on the verge of crisis and inflation.

Monetarists have focused on anti-inflation unit associated with the increase in supply, which would not require additional investment. According to them, it is necessary to sell everything one can (resources, information, etc.) and to conduct all-out attack on the monopoly in the economy by encouraging small and medium businesses. If a country has a large public sector, it permits a reasonable privatization and liberalization of markets. Reducing the demand, according to Friedman, is also possible through confiscatory monetary reform and/or freezing the savings to reduce the pressure of demand in the consumer market. Reduction of aggregate consumer demand is also possible by reducing the budget deficit, primarily due to the release from excessive social programs, maintaining by grants and subsidies to inefficient production. Summary - stimulating aggregate supply and aggregate demand reduction. Monetarists propose to introduce an expensive loan that becomes unavailable for inefficient production, the strongest manufacturers entering the market, which are encouraged by a lower tax rate.

On the first and second stages there are used mechanisms that reduce aggregate demand, on the third stage - the mechanisms that stimulate the growth of the mass of commodities.

Despite the strong rigidity and radicalism (first, recession deepens, unemployment increases, society is oppressed with social instability, crime situation worsens, investment climate stagnates), the effect of monetarist prescriptions used in the United States (Reaganomics), the UK (Thatcherism) and other countries led to a prolonged and effective recovery.

Monetarist's economic views were the basis of a standard set of recommendations of the International Monetary Fund (IMF) to developing and post-socialist countries to stabilize their economies (the so-called orthodox stabilization measures). Experience has shown that without the intervention of non-monetarist tools of economic regulation (such as the fixing of the exchange rate, de-indexation of contracts, administrative restrictions of certain types of prices, incomes policy, etc.), the results of monetary policy will be low: a sharp economic downturn, high

unemployment, falling of the population's living standards.

All this was accompanied by the growth of critical views on orthodox monetarist concept among a number of scholars and practitioners, and prompted them to look for another economic concept alternative to monetarism, which would meet, firstly, realities of countries with economies in transition. This concept was structuralism, the largest of which were the centers of the United States (L. Taylor), Israel and Latin American countries. It should be noted that in 1997 to a negative assessment of monetary concept of macroeconomic regulation for developing and transition countries, almost joined the IMF, official position of which is now the need for strong government intervention in economies in transition.

Monetary programs are implemented in three stages (fig. 9.5).

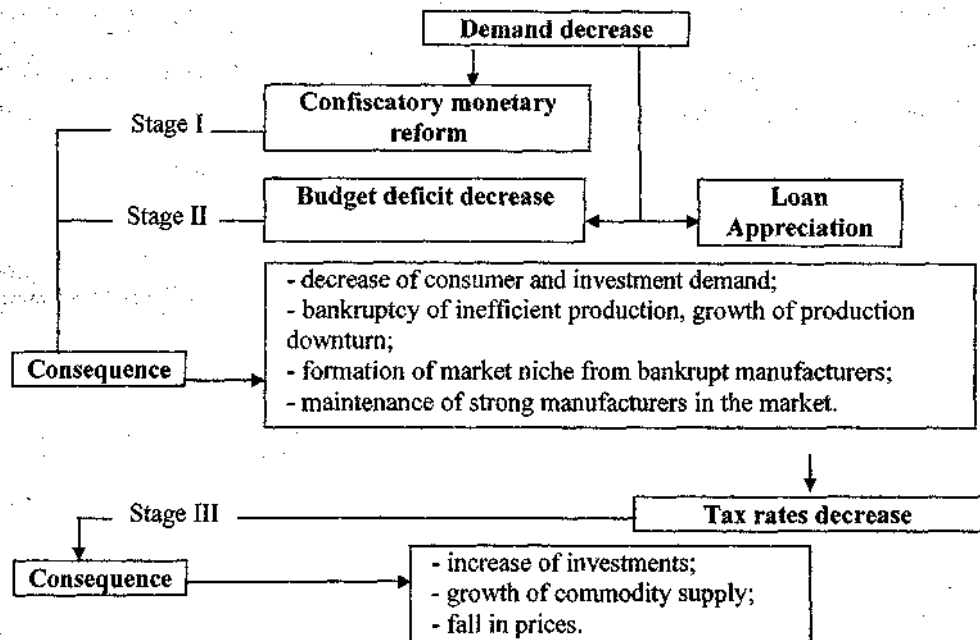


Fig. 9.5. Anti-inflationary monetary policy

A key element of the concept of structuralism is an assertion of "inertial inflation", not related to the expansion of the money supply. This phenomenon is caused by the inertia of long-term adaptation of the economy to a high level of inflation, in particular, the economic agents having high inflationary expectations. They drive a variety of coping mechanisms (such as indexing of contracts under the expected rate of inflation), which itself causes an increase in inflation, a situation of a vicious circle arises, which, as the practice of Latin American countries has shown, is almost impossible to break by the traditional methods without causing severe side effects, such as sharp decline in production.

As part of this concept, there was actually some integration of structural ideas with concepts of later Keynesians. This primarily relates to the concept of cost inflation, i.e. rising prices caused by not expanding the money supply, but by rising costs largely autonomous from it. It was also found possible an inflationary impact of the external

market on "open" economies of developing countries ("imported inflation").

This led structuralists to the idea of the fundamental failure of monetarist "stabilization" measures and the need for direct administrative limits of inflation. They had formed the appropriate tools (such as "heterodox shock" - the simultaneous freezing of the basic prices and incomes in order to bring down the level of inflation expectations, measures to combat inflation costs, etc.). In addition, according to the structuralists, the limitation requirements of the budget deficit, the issuance of loans, etc., are too strict and may be substantially mitigated. The practice of structuralists' anti-inflationary measures in Argentina and Brazil has proved the possibility of economic stabilization in the country without a significant decline in production while keeping inflation within acceptable limits.

However, in cases where there is a sharp weakening of control over the growth of the money supply, inflation is rampant.

So, the market economic system is not perfect, the considered the "diseases" of the market economy constrain the development of human society and do not contribute to rapid economic growth.

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### Control questions

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1. What macroeconomic problems, related to the stable development of the economy, are solved in the period of transition?
2. Reveal the essence of cyclicity as the form of development of national economy.
3. How did different schools interpret cyclicity? Name the types of cycles according to modern classification.
4. What parameters are used to characterize the dynamics of the economic situation?
5. How to explain the causes of cyclical development by the theories of externality and internality?
6. Give the description of unemployment as an economic phenomenon. What forms does unemployment acquire at different stages of economic cycle?
7. What factors does the dynamics of unemployment depend on? What does the Ouken's law state? Describe the Phillips' curve. What programs of struggling with unemployment do neo-classicists, Keynesians and monetarists offer?
8. Analyze the essence of the "inflation" category in accordance with the historical views of different schools of thought.
9. Enumerate the main methods of measuring inflation. Reveal their essence.
10. What are the causes of inflation? What are the types and forms of inflation?
11. What are the aims and tasks of anti-inflationary policy of the government? Compare Keynesian, monetary and structuralist directions of anti-inflationary policy.

## CHAPTER 10

### MACROECONOMIC EQUILIBRIUM: CONSUMPTION, SAVINGS, INVESTMENTS

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#### 10.1. *Equilibrium functioning of the national economy*

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The most important method for studying economy is the method of equilibrium analysis, which we mentioned in the study of microeconomics. This method is fully applicable in the analysis of categories of total national economic indicators, i.e., national income, investments, consumption, savings, employment, etc. It is important to note that there is a psychological tint in the terms of the theory of macroeconomic equilibrium such as "addiction", "preference", "expectation", "desire", etc. This is a reflection of the reality in which people live with their inherent passions and inclinations.

Macroeconomic equilibrium is the central problem of the national economy, and a key category of an economic theory and economic policy. It characterizes balance and proportionality of economic processes: production and consumption, supply and demand, production costs and results, logistical and financial flows. Equilibrium reflects the choice that suits everyone in the society.

At the microeconomic level, the problem of equilibrium considered in relation to an individual market. Then it was about a partial equilibrium, i.e., about equilibrium of individual market of goods and services, factors of production. However, in real life, the economy of every country is a totality of markets of individual goods, mixed with a complex system of interconnections. This is explained by the fact that all producers are also the consumers, and all products either directly or indirectly are connected with each other as components of the total commodity mass in the form of interrelated and intercomplemented products.

The equilibrium state of whole market system is called as *general equilibrium*, which is defined as the establishment of equality of demand and supply in all interrelated markets.

General equilibrium in contrast to the partial one achieved much more difficult and less seldom. In the market of final goods and services equilibrium means that producers maximize their profits, and consumers get maximum utility from purchased products. Equilibrium on the market of factors of production shows that all productive resources, coming in it, found their buyer and the marginal yield of owners of resources, which creates demand is equal to a marginal product of each resource that forms the proposal. Equilibrium in the money market characterizes the situation when the quantity of expected cash assets is equal to the quantity of money which population and entrepreneurs wish to own.

Thus, the general economic equilibrium characterizes the coincidence of plans of all buyers about purchase volumes with plans of sellers about sales volumes. The divergence between these plans provokes an imbalance in the national economy. There are *ideal* and *real* equilibrium in economy.



*Ideal* (theoretically desirable) equilibrium is achieved in the economic behavior of individuals at full optimum realization of their interests in all structural elements, sectors, spheres of the national economy.

In the real economy, there are various violations of these requirements. Cyclical and structural crises, inflation is moving economy out of equilibrium state. However, even in the conditions of these disproportions economic system can be brought into a dynamic equilibrium, which will reflect market realities with all their contradictions.

*Real* macroeconomic equilibrium is an equilibrium that established in economic system in the conditions of imperfect competition and external factors influencing the market.

For the representatives of the classics (D. Ricardo, A. Smith, and others) microeconomic analysis is typical. However, in their views and approaches quite clearly is traced clear idea about functioning of the market system of perfect competition as a whole. Thus, A. Smith expressed the idea that in conditions of free interaction of producers and consumers acts not a chaos, but an economic order of individuals pursuing interests of personal gain, which leads to the establishment of general equilibrium, advantageous for everyone.

The principal possibility of general equilibrium in the conditions of perfect competition in the mathematical form for the first time was proved by L. Walras. Expressing the model of general economic equilibrium with the system of equations, he proved that in an economic sphere, consisting of  $n$  interconnected markets there will be always equilibrium in the  $n$ -market, if there is an equilibrium in  $(n-1)$ -market.

The proof of this law is based on the fact that the sum of the transactions on all four macroeconomic markets for each subject of market transactions is equal to zero, because it balances its revenues in some markets with the expenses in other ones. According to Walras achieving the equilibrium implies not only the existence of the conditions of perfect competition, but also the immutability of all supply and demand factors, besides prices. Naturally, these preconditions in the real economy are not observed. Therefore, general equilibrium is not typical, but a fleeting moment, characterizing an ideal state of competitive economy. L. Walras's model was subjected to a critical analysis by many authors.

In the neoclassical version of modification of Walras model in macroeconomic aspect was carried out in three main directions. *Firstly*, it has been specified by W. Leontief in the form of a system of linear equations "input-output". *Secondly*, on its basis there was created a number of dynamic models of "input-output" for expanding economy. The most popular among them is the model of J. von Neumann. *Thirdly*, it has been improved in the static version by the representative of the monetarist direction D. Patinkin, who could resolve the basic contradiction of the theoretical model of Walras. The essence of the contradiction lies in the fact that the equilibrium in the money market, according to Walras's law, must be established automatically, increasing general level of prices in conditions of maintenance of the equilibrium parity of relative prices should not produce changes in the money market. But in reality, growth of the overall level of

prices due to, for example, increasing quantity of issued money requires growth of demand for money for maintenance equilibrium in the money market. D. Patinkin managed to resolve this contradiction by introducing an additional component in a model of the money market – real cash remains, which represent the value of cash reserves remaining in sellers' and buyers' hands.

A significant scientific contribution to the understanding of the process of movement towards to equilibrium made Keynesians. The main distinguishing feature of their theoretical approach is the focus on the imperfections of the labor market and the dependence of the value of demand for labor from the effective demand for welfares. Effective demand means such a volume of planned expenses for the purchase of finished goods and services, at which the joint equilibrium in the markets of welfares, money and securities is achieved. A steady state of Keynesian general economic equilibrium is characterized by a combination of equilibrium on three macroeconomic markets out of four ones with unemployment in the labor market. When reaching it the law of Walras is broken. Therefore, this condition is often called non-Walras general economic equilibrium.

There are two well-known graphic interpretations of macroeconomic equilibrium used in the economic literature: "*national income - total expenses*", which sometimes is called the "*Keynesian Cross*" and "*aggregate demand - aggregate supply*" or "*AD-AS*" model according to the initial letters of the words in English (they will be discussed below).

In macroeconomic analysis along with the concept of general equilibrium, the concept of equilibrium circulation received a wide application, which serves as the base for characteristics of equilibrium and non-equilibrium systems. The equilibrium of circulation in the private sector of the closed economy occurs in the case when actual costs planned by firms and households for purchase of finished goods and services created in the country, are equal to the actual volume of produced national income, i.e., satisfies the equality:

$$Y = C + I,$$

Where  $Y$  - a real national income;  $C$  - planned consumer expenses of households;  $I$  - private investments, planned by entrepreneurial sector of the country.

If the value of planned expenses is insufficient in comparison with the produced national income, then companies having difficulties with sales, accumulate finished products in warehouses, i.e., forced to carry out unplanned investments in inventory holdings. In contrast, when planned expenses exceed the amount of offered final goods and services in the market, depletion of inventory holdings of entrepreneurs occurs, which can be represented as a negative investment in this type of material values. Thus, the main difference of non-equilibrium economic systems from equilibrium ones consists in availability of unplanned investment in inventory holdings ( $IH$ ). In the formalized form this distinctive feature of non-equilibrium systems can be presented in the form of identity:

$$Y = C + I + IH,$$

Where  $(I + IH)$  – is a total volume of private investments.

The direction and degree of change of totality of indicators, which characterize the equilibrium economic development, form an economic conjuncture.

To characterize an economic conjuncture a number of economic indicators is used: GNP, unemployment rate, personal income, industrial production volume, price level, etc.

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### **10.2. The market of goods and services. Aggregate demand and aggregate supply.**

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By macroeconomic analysis four major aggregate markets are marked out: the market of goods and services, labor market, capital market, money market (national currency) and securities market. All of them are closely interconnected.

The market of goods and services is central part of the overall system of interrelated markets. The results of its functioning have an impact on the functioning of other markets, in many ways determine their condition and, consequently, the overall economic equilibrium. In turn, other markets also have a direct and a converse impact on the market of goods and services.

Thus, the labor market determines the total supply in the market for goods and services, and the aggregate demand for goods and services can have a decisive influence on the formation of the demand for labor in the short-term period.

Money market (national currency) and securities have an impact on the market of goods and services through the impact on aggregate demand. At the same time, the equilibrium in the market of goods and services is due to level of prices, sales volume, or the process of adaptation to a state of equilibrium affects the interest rate, the amount of money demand and the supply and demand for the securities market.

Price levels and sales volumes in the market for goods and services exert an opposite effect on the value of the exchange rate of the national currency, and export and import flows of capital. In turn, international financial markets in an open economy have an impact on the aggregate demand for goods and services.

*The market of goods and services* is a form of competitive economic connection between entities of a market about buying and selling of all welfares produced in the national economy over a certain period of time and intended for end-uses.

Since the entire amount of domestically produced welfares are measured with the indicates of GDP, calculated on the basis of a system of national accounts, the market of goods and services in the national economy can be defined as a form of competitive connection of market subjects about buying and selling domestically produced GDP. In this market aggregate demand determines demand; aggregate supply determines supply for goods and services.

The term "*aggregate demand*" means aggregate quantity of money, which different sectors of the economy are ready to spend over given period.

In economic theory, *aggregate demand (AD, aggregated demand)* are understood as planned by all macroeconomic subjects aggregate expenses for the purchase of all finished goods and services, produced in the domestic economy.

In accordance with the allocation of expenses between the individual sectors of the economy in its composition the following basic elements are distinguished:

- C-household consumption expenses;
- I-investment expenses of private sector;
- G-state procurement;
- Xn-net export.

As a result, aggregate demand as a whole can be represented as the sum of these elements of expenses:

$$AD = C + I + G + Xn.$$

Majority of aggregate demand (50 % NI) are expenses of society for goods and services for consumer purposes, i.e. an element of C, which for short called consumption. Investment expenses are demand of companies and households for investment goods (15-20 % of GDP). Government procurement of goods and services is government expenses on payments for services (education and health care, etc.) and maintenance of public officials - (national, regional, municipal) - 30 % of the national income of the country. Net export is the difference between export and import.

The total procurement (aggregate demand) depends on many factors. This is a general level of prices in the country, the level of real national income, the value of accumulated assets, the state policy in the field of taxation, income of the population, money, credit, and etc., determining the amount of taxes, interest rates, pensions, salaries of employees of state enterprises and organizations, the expectations of companies and households, exchange rates, etc.

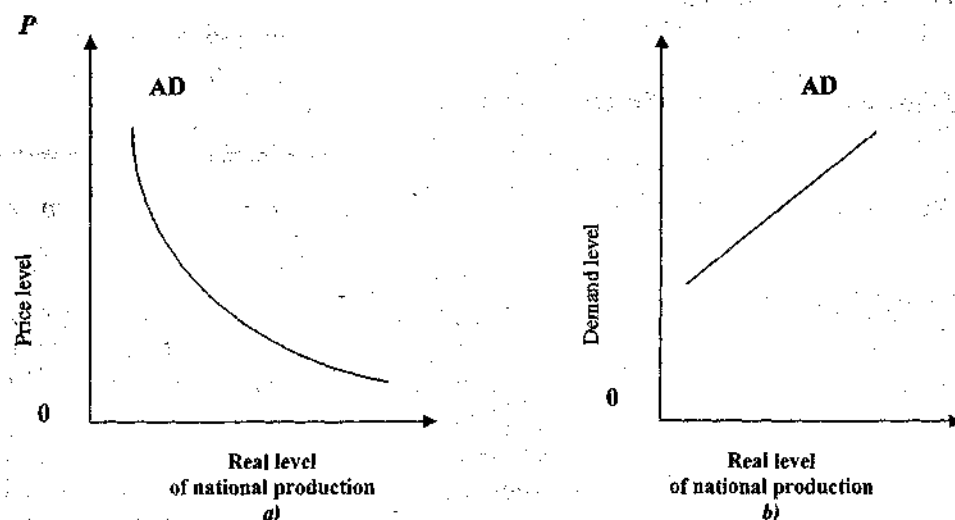
In the economic literature, there are two approaches to characterize a functional dependence of the aggregate demand from the main determining factor:

- as dependence of the total expenses of society from the level of the real national income;
- as dependence of the total expenses, planned by all business entities for the purchase of finished goods and services, and the general level of prices in the country. This dependence is called curve of aggregate demand (see fig. 10.1).

In modern economic theory, the greatest spreading obtained theoretical basis for decreasing dependence of indicator of aggregate demand from price level (fig. 10.1 a), which is based on the characteristics of three effects in the economy caused by changes in the general level of prices:

- the effect of the interest rate (increase of the price level causes demand growth for money - the interest rate growth- stimuli for investing and receiving credits for the purchase of cars, houses, apartments, etc. decrease);
- the effect of wealth or real class remains (increase of price level reduces real value of bank deposits, bonds, i.e., income from financial assets - consumers save on purchases in order to restore the previous level of wealth);

– the effect of import purchases (increase of price level - the growth of import of foreign goods and services and decrease of export of national products - decrease of net exports, component of aggregate demand).



**Fig. 10.1. Aggregate demand curve:**  
**a) – neo-keynesian model; b) – Keynesian model**

In economic theory *aggregate supply (AS, aggregated supply)* is the sum of all domestically produced finished goods and services which companies are willing to offer in the market for a certain period of time at each possible price level. In other words, it is a real volume of national production for different values of the price index for finished goods and services.

Aggregate demand can be represented as used national income and aggregate supply as produced national income. The dependence of the real volume of national production (product) from the level of prices is called *the aggregate supply curve*.

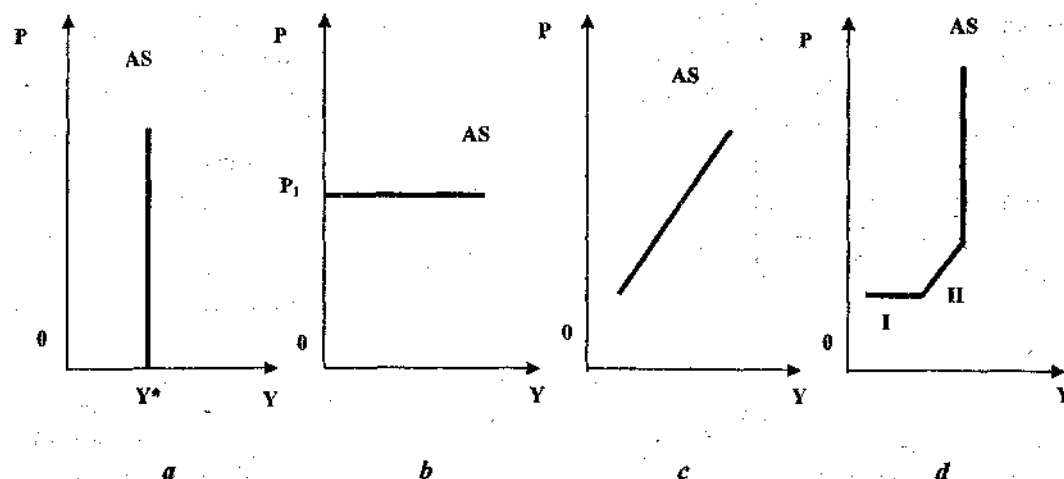
The nature of the influence of price level on the volume of national production and, therefore, type of the aggregate supply curve crucially depends on the length of the considered gap of time.

There are four types of aggregate supply curve (fig. 10.2):

- long-term aggregate supply curve;
- short-term curve while waiting for immutability of prices for resources;
- short-term curve in anticipation of price growth for resources;
- generalized aggregate supply curve.

In the first case, companies expect a proportional change in the prices for goods and resources; they lose stimuli for increase of production volumes with an increase of price level, because they assume that their costs will rise in the same

proportion as prices. Therefore, the aggregate supply curve in the long run is given by the vertical line (fig. 10.2 a).



**Fig. 10.2. Types of aggregate supply curves:**

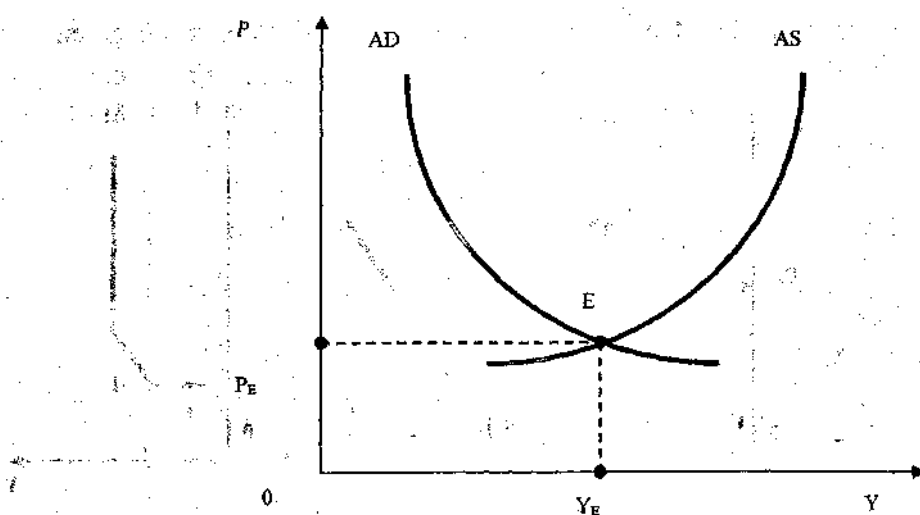
*a*—long-term; *b*—short-term curve while waiting for immutability of prices for resources; *c*—short-term curve in anticipation of price growth for resources; *d*—generalized; *P*—price level; *Y*—volume of national production;  $Y^*$ —potential volume of national production (full employment); *AS*—aggregate demand curve

In the second case, companies expect that if within a certain period prices for resources (and, therefore, production costs) will remain without changes, in response to an increase of aggregate demand; they will increase the real production volume by the current level of commodity prices. Then the aggregate supply curve in the short term becomes a horizontal line (fig. 10.2 b).

In the third case, companies rely on the fact that if the aggregate demand price for resources will increase, but at less degree than commodity prices, the aggregate supply curve in the short term will have a positive slope (fig. 10.2 c).

The fourth graph (fig. 10.2e) describes an aggregate demand curve, which combined all three above situations. This curve is non-linear, it consists of three segments: horizontal, ascending and vertical.

Functioning of economy in the short term while maintaining price stability is considered in the Keynesian theory, therefore a horizontal segment of the aggregate supply curve is called *Keynesian segment*. Functioning of economy in the long term while maintaining full employment in the economy is the subject of the study of classical economic theory. Correspondingly, the vertical part of the aggregate supply curve is called *a classic segment*.



**Fig. 10.3. Equilibrium of national economy:**  
 **$E$** —point of general economic equilibrium;  **$Y_E$** —equilibrium or real production volume (GDP);  **$P_E$** —equilibrium average price level

If we put the graph of aggregate demand curve on the graph aggregate supply curve, we will deduce the state of equilibrium of the national economy or the general economic equilibrium (fig. 10.3).

National production output ( $Y_E$ ) and the price level ( $P_E$ ) are set at a level at which buyers are willing to purchase what sellers are willing to sell. The volume of production and the price level, formulated by this way determine employment, unemployment and net export.

Before continuing the analysis of macroeconomic problems, it is necessary to warn that you cannot confuse macroeconomic curves  $AD$  and  $AS$  curves with microeconomic  $D$  and  $S$ . The latter represent the number of individual products and prices in the constancy of such variables as national income (or GDP) and the prices of other welfares. Curves  $AD$  and  $AS$  illustrate the determination of the aggregate output and the general price level while immutability of such parameters as money supply, fiscal policy and the stock of capital. The above two curves have an external similarity, but are intended to explain totally different phenomena.

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### **10.3. Consumption and savings in the scale of national economy**

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The central problem of macroeconomics for Keynesian theory is the factors that determine the level and dynamics of national income and its distribution. Representatives of Keynesianism consider these factors from the standpoint of selling in terms of formation of effective demand. In this regard, they are focusing efforts on study of the main components of aggregate demand, i.e., consumption

and savings, as well as factors on which the movement of these components of the overall demand.

**Consumption** is the amount of money assets, which is spent on purchasing material goods and services, used to satisfy material and spiritual needs of people.

The expenses structure of different groups of the population is different. The share of expenses on food is more for those who have the lowest incomes (50 to 100 %), the lowest - the rich (20 %).

In real life, there are no individuals or families who would spend their money in the same way; therefore in the economic theory so-called *qualitative model of behavior* is used, it is an averaged model of expenses of people with different levels of income, built on the basis of research of family budgets. These models are called *Engel's law*, after the German statistics Ernst Engel (1821-1896).

In the consumption, the following groups of expenses have priorities in terms of their desirability to the family: food, clothing, housing, transport, health, education and savings.

As incomes rise, food expenses in absolute value increase, but their share is reduced. It does not mean that the richer people eat more (after all, there are physiological limits), they just eat better (more meat, fish, and fruits), get goods of better quality. More or less permanent expenses on housing, clothing, rest, and entertainment grow faster than income growth, their share quickly increases. As incomes grow savings grow very rapidly too, which are considered the most luxurious goods in the West.

**Savings** is that part of income that is not consumed but accumulated, remains unused at the costs for the current production and consumer needs.

Saving as an economic process is associated with *investing*. To understand how the savings and investments determine the levels of domestic production and employment, J. Keynes introduced the concept of *the consumption function* (the ratio of consumption and income, and their movement) and *functions of savings* (ratio of savings and income and their movement).

According to Keynes theory, the factors that determine the function of consumption are following:

1) disposable income ( $Y_d = Y - T$ , where  $T$  is tax payments) is income after payment of all taxes, the paramount factor, which determines the structure of consumer expenses. In contrast to the classical school, which argued that high interest rates encourage savings at the expense of consumption, Keynes believed that interest rates do not play a significant role in determining the volume and structure of consumption;

2) the average propensity to consumption ( $APC = C/Y_d$ ) – is the ratio of consumption to income - decreases as income rises;

3) the marginal propensity to consumption ( $MPC = \Delta C / \Delta Y_d$ ) is the share of consumption in each additional unit of currency of disposable income. According to Keynesian theory, with increase of disposable income, expenses on consumption also increase. However, the share of increase of disposable income is not always fully utilized for consumption and, consequently, the MPC is in the range of between zero and one.



There are three additional bases of this limitation of marginal propensity to consume, which are:

- the consumption function is applicable to groups of population with low and middle income, for it is associated with them weighting of the distribution of additional income between consumption and saving. In higher-income groups its further growth automatically increase saving (Blacksmith's approach);

- consumption depends on income only in so far as it is widespread in the environment of habitation. Therefore, in the low-income groups there is the desire to provide level of life comparable to the standard-group, which automatically leads to the reduction of savings (Duisenberi's approach);

- as incomes grow saving increases faster than the consumption, and with a decrease of incomes savings shrinking even more rapidly (Modigliani approach).

The simplest consumption function is given by

$$C = C_0 + MPC \cdot YD,$$

Where C—consumption; YD—disposable income; the coefficient; C<sub>0</sub>—a kind of constant, characterizing the amount of consumption when disposable income is zero, and called autonomous consumption.

For a graphical representation of the consumption function, we introduce a straight line in an analysis, forming an angle of 45° to the axis X (see fig. 10.4)

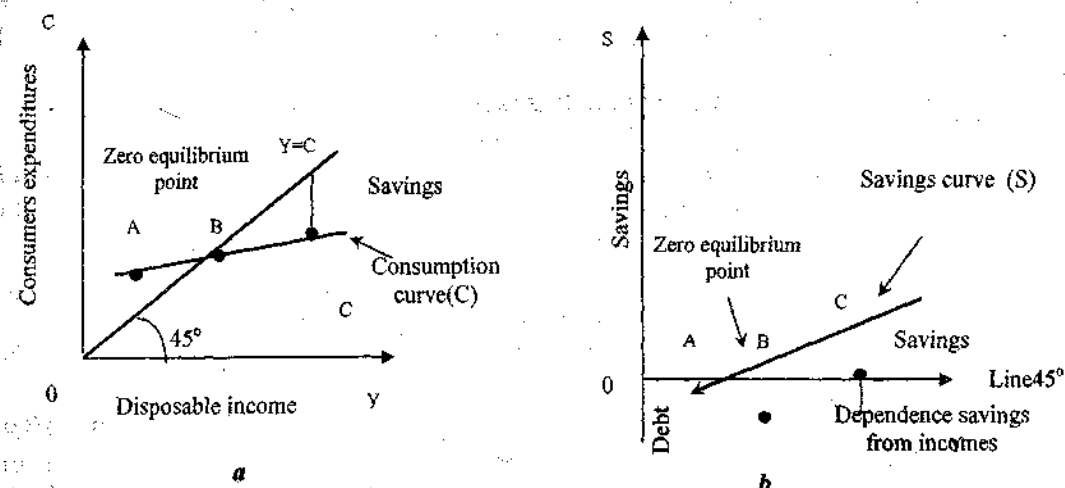


Fig. 10.4. Graphs of functions of consumptions and savings

The economic meaning of this line is the following: all income is spent on consumption without remainder, the average propensity to consumption is equal to one, the marginal propensity to consumption, which is reflected in the slope of a straight line to X axis, equal to average, and is also equal to one. In this case line 45° is a line of disposable income (if income and consumption is equal, i.e.,  $Y=C$ ). The angle of slope (rather, slope ratio) to x-axis characterizes the marginal propensity to consumption. Vertical segment of y-axis cut off by the graph of function of consumption, will correspond to autonomous consumption, which is produced with savings or debts by individual consumers and at the expense of

eating away their capital, depletion of reserves by the economy of the country as a whole (fig. 10.4 a).

The consumption function shows how much family spends on consumption from the total mass of its expenses.

Saving function is the derivative of the function of consumption. It shows the ratio of savings to income of families in their movement and is constructed by subtracting the function of consumption from function of disposable income. Then, if

$$C = C_0 + MPC \cdot Y_d,$$

$$\text{then } S = -C_0 + (1 - MPC) Y_d, \text{ or } S = -C_0 + MPC \cdot Y_d.$$

Where  $MPS = S/Y$  – marginal propensity to consumption, that additional portion of income that goes to savings instead of consumption. Since  $Y = C + S$ , then

$$MPC + MPS = 1.$$

Graphically function of saving is built by vertical subtracting of graph of the consumption function from the graph of disposable income, forming angle  $45^\circ$  with the y-axis.

At point *A*, consumption exceeds income, so saving – is negative indicator. At point *B* income is fully spent on current consumption, saving is equal to zero. If disposable income in the graph of consumption will match any of set of points that are to the right from point *B*, the part of the income will be saved, for example *C* (fig. 10.4 b).

The value of savings shows the distance from the line  $OY$  to the savings curve, this distance completely matches with the distance from the line  $45^\circ$  to the consumption curve on the graph of consumption. This interconnection between the graphs is due to interconnection of consumption and savings.

The average propensity to saving is share of disposable income, which households save up:

$$APS = S/Y_d$$

Where  $APS$  – average propensity to saving;  $S$  – the value of savings;  $Y_d$  – the value of disposable income.

Marginal propensity to saving is share of growth of savings in any change in disposable income:

$$MPS = S/Y_d$$

Where  $MPS$  – marginal propensity to saving;  $S$  – growth of savings;  $Y_d$  – increase of disposable income.

In the short term, as a current disposable income grows  $APC$  decreases, and  $APS$  increases, i.e., with increasing of family income share of consumption costs decreases and relatively increases the share of savings. However, in the long term, the average propensity to consumption is stabilized, since on the amount of consumer expenses affects not only the size of the current disposable income of family, but also the size of the overall life prosperity, as well as values of anticipated and permanent income.

Factors, determining dynamics of consumption and savings:

– households incomes;

- wealth accumulated in the household ;
- the level of prices;
- economic expectations;
- the value of consumer debt;
- the level of taxation.

The values of consumption and savings are relatively stable, in the condition that the state does not take special actions for their changes, including through the tax system. The stability of these values is associated to the fact that the decision of households to "consume" or "save" is affected by the respective traditions. In addition, factors, which are not related to income, are diverse, and changes in them are often mutual balanced.

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#### ***10.4. Investments. Theory of multiplier and accelerator. General characteristics of investments at macro – level.***

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*Investments* is the second important component of aggregate demand. To invest means buy some welfares for the profit, which we expect in future. Consequently, company invests buying machines, the same as the population invests buying shares. However, these two types of investment should be distinguished. Buying of shares is purely financial transaction, as buying of even new shares is just a movement of financial assets from hand to hand. Real investments which are accounted as a component value of the expenses in determining GNP will occur when the corporation, having received cash for the sale of shares, invests the money in new equipment.

*Investments* represent expenses for expanding and updating production due to the introduction of new technologies, materials and other instruments and objects of labor.

It should be noted that there is a certain gap between savings and investment, since, first, the savings are made by consumers, and investment – by producers, and second, the savings come to investors through the hands of middlemen (these are banks, finance companies, stock exchange), which, in lending follow their own goals. The role of investments in the development of macroeconomics is ambiguous:

– Firstly, fluctuations in investment impact on the dynamics of aggregate demand and, consequently, on the volume of the national production and employment;

– Secondly, the investments lead to the accumulation of capital, determine the process of expanded reproduction. Moreover, it is important that cash assets have been invested in the newest factors of production and technology, then they can already today have an impact on the growth of production, or at least provide a basis for economic growth in future. If investments will be directed in old equipment, they can have the opposite effect;

– Thirdly, the irrational using of investment leads to the freezing of production resources, and, consequently, to the reduction of the volume of national production.

The main types of investment: production investments; inventory investments, investment in housing. If the economy is on the rise, then in order to increase production investments in inventory holdings grow. If there is a fall in the production in the economy, then stocks of finished products rise, demand falls, the production doesn't expand. Thus, investments play a role of barometer of state of economy.

Factors, determining the dynamics of investments:

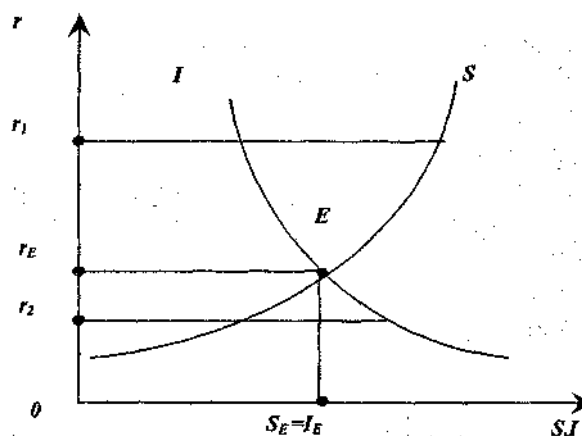
- the expected rate of net profit;
- the real rate of interest ;
- the level of taxation;
- changes in production technology;
- cash main capital;
- economic expectations ;
- the dynamics of aggregate income.

In making decision an investor takes into account alternative investment opportunities and crucial here is the level of interest rates.

The point  $E$  on the chart means the equilibrium between savings and investments, it is point of intersection of savings ( $S$ ) and investments ( $I$ ) curves.

It is clear that the investment is a function of the interest rate:  $I = I(r)$ , and this function is decreasing: the higher the interest rate, the lower the level of investment.

Savings is also a function (but increasing) of rate of interest:  $S = S(r)$ . The interest rate which is equal to  $r_E$  ensures the equality of savings and investment at the scale of the whole economy, levels  $r_1$  and  $r_2$  is a deviation from this condition.



**Fig. 10.5. Equilibrium between savings and investments**

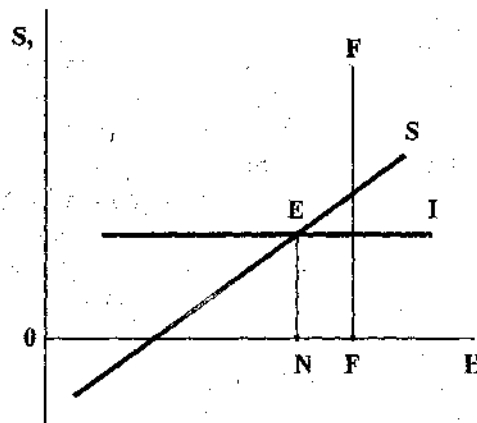
The dependence of the investments from income can be characterized by the marginal propensity to investing:

$$Y = I/Y,$$

Where  $Y$  - the marginal propensity to investing;  $I$  - change in the value of investments;  $Y$  - income increase.

There are two ways to determine the equilibrium level of national income with the help of Keynesian theory:

- on basis of the equality of savings and investments (fig.10.5);
- on the basis of consumption and investment (the model of "national income - the total expenses" (fig. 10.6).
- The x-axis (fig. 10.6) - national income level (NI) and the y-axis - saving (S), investment (I). Line  $I$  means immutable investment volume at any level of NI. In other words, investments are independent from NI and are set independently. It is an abstraction.



**Fig. 10.6. Level of NI, when savings and investments are in equilibrium**

In reality, it can be, and really is, the situation where growing volume of NI leads to increase of investments. The graph shows that as NI grows, savings also increase. At point  $E$ , lines  $I$  and  $S$  are intersected. After drawing an imaginable vertical to x-axis, we see that the size of the national income  $ON$  is the level at which the equilibrium between investments and savings is formed. However, this level NI does not ensure full employment - lines  $FF_1$ . This line runs more to the right side of the point of intersection of  $S$  and  $I$ , which is a graphical interpretation of the position of Keynes that the equilibrium NI may also be in underemployment. Point  $N$  is a state of equilibrium of national income, to which country's economy will seek whenever the equilibrium between  $I$  and  $S$  will be violated.

As previously noted, the national income is used for two main channels: the consumption and investments, i.e.  $Y = C + I$ . Aggregate expenses are the expenses for private consumption ( $C$ ) and for production consumption ( $I$ ). In conditions of stagnant economy the level of propensity to consumption is low and the level of national income, corresponding to equality of incomes and expenses (personal consumption) is established at point  $S_a$ , i.e., at the level of zero savings (fig. 10.7).

However, if you add investments to expenses for personal consumption, line  $C$  will move up vertically and take the  $C + I$ . Now curve  $C + I$  crosses line  $45^\circ$

(line of equality of incomes and expenses) at point *E*. This point will correspond to the amount of NI in the amount of ON. Point *N* came closer to point *F*, i.e., to the level NI that corresponds to full employment. The more investment, the higher the curve  $C + I$  rises and the closer the "cherished" level of full employment is. If the state will not only stimulate private investment, but also carry out itself a whole set of different expenses, then curve  $C + I$  will turn into a curve  $C + I + G$ , where  $G$  - government expenses. This image is a clear graphical illustration of that beneficial role of government expenses and stimulation of investments in the private sector, to which J. Keynes attached great importance. So, aggregate expenses are the sum of  $C$ ,  $I$ ,  $G$ , and, taking into account the foreign trade operations, net exports ( $X_n$ ):  $CH + G + X_n$ .

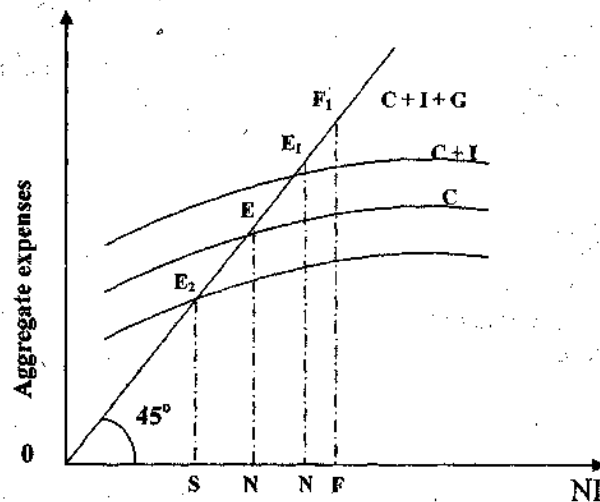


Fig. 10.7. "Keynesian cross"

Increase of investments leads to an increase of national income and contributes to the achievement of full employment because of a certain effect that is called **multiplier effect** in economic theory.

Literally multiplier means "factor". The essence of the multiplier effect in a market economic system consists in the following: an increase of investments leads to an increase of the national income of the society, with a value greater than the initial investment increase. Figuratively speaking, like a stone thrown into the water, causing ripples, investments, "thrown" in the economy, causing a chain reaction in the form of increased income and employment.

In the Keynesian theory **multiplier** is a coefficient showing the dependence of change of income from changes of investments:

$$K_K - 1 = Y,$$

Where  $K_K$  - Keynes's multiplier (factor);  $I$  - increase of investments expenses, regardless of the form of investing, private or state;  $Y$  - general change of aggregate income.

Therefore,

$$\frac{\Delta Y}{\Delta I} = \frac{\Delta Y}{\Delta Y - \Delta C}, \text{ as } \Delta Y = C + I$$

Hence, divided into  $Y$ , we get

$$\frac{1}{1 - \frac{\Delta C}{\Delta Y}} = \frac{1}{1 - MPC} = \frac{1}{MPS} K_K$$

Thus, the Keynes's multiplier is a value, which is inverse to the marginal propensity to consumption. However, this statement proposed by J. Keynes, has a purely mathematical nature and explains the fact of relationship between changes of income and changes of investing at a given moment of time. Thus, the effect of multiplier reflects the relationship between the increase of the investing and growth of the level of economic activity in the same year.

**Accelerator effect** means that the scales of the investing year  $t1$  depends on an increase of GNP in year  $t1$ , in comparison with a year  $t2$ . Then

$$I_{t1} = A(I_{t2} - Y_{t2}) = AY_{t1},$$

**When**  $I_{t1}$ —volume of investments in year  $t$ ;  $A$ —accelerator;  $Y_{t2}$ ,  $Y_{t1}$ —increase of GNP in the year  $t1$ .

Consequently, accelerator effect connects scales of investing in a given year with change of level of economic activity in the previous period.

Multiplier effect and accelerator effect allows to understand the interaction of aggregate values of consumption, investing and income. The combination of these effects makes it possible to track over time the relationship of economic phenomena, such as the increase of consumption and income thanks to investment expenses and opposite influence of changes in incomes and consumptions on investing. These relationships are commonly used to explain the fluctuation of economic activity, as well as for the analysis of equilibrium in the domestic economy.

In Keynes's theory, consumer expenses are much more stable than investments. This means that exactly investments play an important role in occurrence of recessions. J. Keynes came to the conclusion that there are two consequences of economic growth in rich industrialized developed countries, showing that the desire to save will always overtake the desire to invest. Firstly, as the continued accumulation of capital all most profitable projects for investment end up to be used. Consequently, the new possibilities promise a lower rate of return to investors, and this destroys stimuli to invest. Secondly, due to the continued economic growth stimuli to save grow as income rises.

But then increase of savings will not make society richer. If the economy is in a state of underemployment, the increase of the propensity to savings means a decrease of the propensity to consumption, and this, in its turn, means a decrease of aggregate demand. And then this process will lead to a reduction of production and reduction of level of new investments and, consequently, an increase of the unemployment rate. The result of this will be the fall of level of national income in general and reduction of incomes of various groups of population. In economic

theory, this process found the reflection in *paradox of thrift*: the constant desire to save is more than investors want to invest, will cause a chronic decrease of aggregate demand, which will eventually lead to the universal reduction of desire to invest.

On the basis of this paradox J. Keynes concluded that during periods of low business activity, when there are significant stimuli for households to save more and consume less, the government should stimulate the growth of consumption rather than savings. According to John Keynes, the policy of stimulating of savings is not only useless but also harmful, and the way out of this situation is in maintaining demand, which would impel investors to buy new production equipment.

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### 10.5. Joint equilibrium of commodity and money markets. IS-LM model.

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**IS-LM<sup>43</sup> model** is a joint equilibrium of commodity and money markets in a short term. It retains all preconditions of simple Keynesian model: about immutability of the price level, perfect elasticity of aggregate supply, equality of aggregate output to aggregate income, etc.

Fundamentals of *IS-LM* model was developed in 1937 by John Hicks (1904-1989, Eng.-Amer., Winner of the Nobel Prize in Economics in 1972) as the interpretation of macroeconomic concept of John Keynes. Model gained a wide spreading in the scientific world after the publication of the book of A. Hansen (1887-1975, Amer.) "Monetary theory and financial policy" (1949), in which he studied the interaction of the money market and commodity market and services, and since then it became known as a "*model of Hicks-Hansen*."

**Exogenous variables** of IS-LM model, given by the outside, include government purchases of goods and services  $G$ , money supply  $M$ , the tax rate  $t$ .

**Endogenous variables** defined within the model, are income  $Y$ , consumption  $C$ , investment  $I$ , net export  $X_n$ .

The exception is the precondition about immutability of interest rates. In contrast to the Keynesian cross model, where the interest rate is fixed and acts as exogenous variable, it is endogenous in *IS-LM* model and is formed within the model. Its level changes and is determined by changes of situation in the money market. Change of interest rates affects the planned autonomous investment expenses of companies, household consumption expenses, expenses on net export. Therefore, the interest rate is a link of money and commodity markets.

**The equilibrium curve of the commodity market IS** describes the equilibrium of the commodity market and reflects the relationship between the interest rate  $I$  and income level  $Y$  in market of goods and services. In two-sector model of the economy (in the absence of the state and abroad) the aggregate demand acts as the sum of aggregate planned expenses  $AE$  (aggregate expenditures) for consumer and investment goods. Knowing that consumption is a positive function of real income,

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<sup>43</sup>*IS-LM* abbreviation is formed from the initial letters of phrase *investment - saving-liquidity - money*.



and investment is a function of the interest rate, we can write the equation of aggregate demand as follows:

$$AE = Y = C(Y) + I(r).$$

Supply equal to the aggregate value of income has the following form:

$$Y = C(Y) + S(Y).$$

Equating right parts of equations, it can be argued that the equilibrium state of the commodity market is ensured while respecting the equality:

$$I(r) = S(Y).$$

The condition of commodity market equilibrium is the equality of aggregate planned expenses  $AE$  to aggregate income  $Y$ , which makes it possible to draw a graph of curve  $IS$  with the help of function of investment, showing the inverse relationship of part of planned aggregate expenses, especially investments, from interest rate and the Keynesian cross.

In this case, the interest rate is the expenses for acquisition of credits to finance investment projects, i.e., its magnitude determines whether one or another investment project is profitable for an investor. The lower the interest rate, being, the higher the level of investment expenses, and vice versa. Graphically, this inverse relationship reflects the investment function (fig. 10.8 *a*). Let us use this function to draw curve  $IS$ .

Figure 10.8 *a* shows a graph of a planned investments which shows that reduction of interest rate from  $r_1$  to  $r_2$  leads to increase of the level of planned investments from  $I_1$  to  $I_2$  to value  $\Delta I$ .

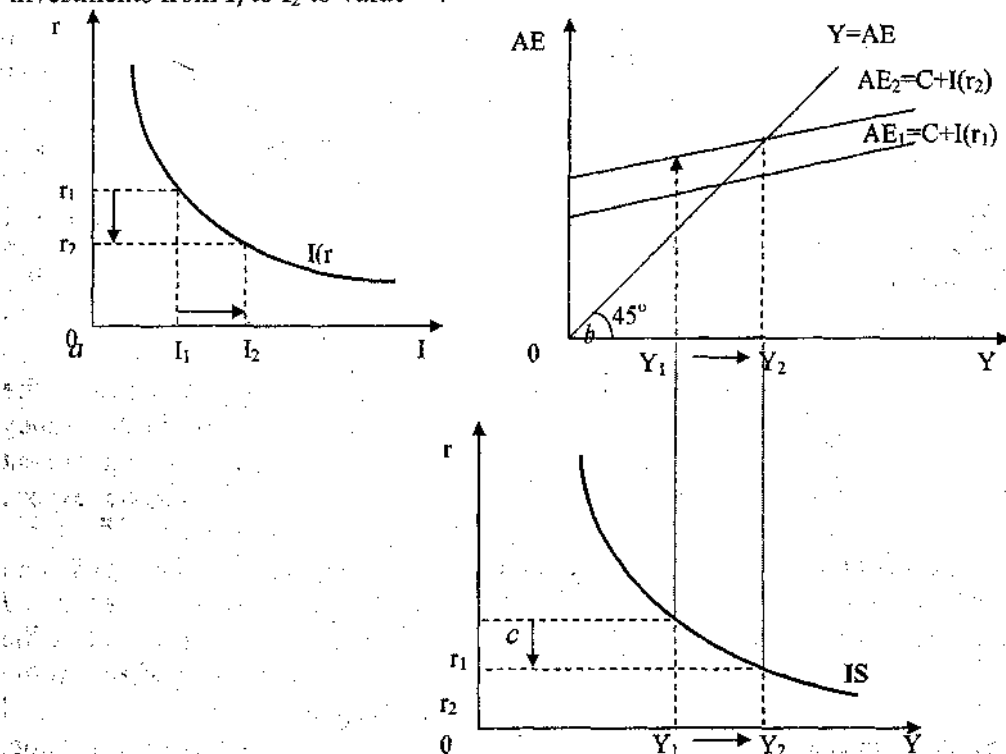


Fig. 10.8. Drawing of IS model

In the Keynesian model (fig. 10.8 *b*) multiplicity of equilibrium states in the commodity market is allowed: curve *IS*, representing a set of multiple equilibrium points, corresponding to each pair of values of interest rate *I* and national income *Y*, acts as the equilibrium curve of commodity market. All points of curve *IS* are the essence of point of equality of savings and investments at different interest rates and national income.

Thus, curve *IS* reflects not functional dependence between the interest rate and income, but multitude of equilibrium situations in the commodity market, which are the results from the projection of the savings function and the investment function (fig. 10.8 *c*).

Curve *IS* is equilibrium curve of commodity market, showing all possible combinations (pair combinations) of the level of real income *Y* and the interest rate *r*, at which the commodity market is in equilibrium, i.e., the demand for goods and services is equal to their supply that occurs only when the income is equal to planned expenses, and injection – to withdrawals.

Curve *IS* has a negative slope, as interest rate reduction increase the amount of investments, and consequently, aggregate demand, increasing the equilibrium value of income.

The shift of curve *IS* may be in cases when other factors than interest rate change. To these factors belong:

- the level of consumer expenses;
- the level of state purchases;
- net taxes ;
- changes in the volume of investment at existing interest rate (as a result of curve shift *I*, i.e., the growth of investment demand).

Let us suppose, as a result of government actions the amount of government expenditures ( $G_2 > G_1$ ) increases. This will lead to increasing of output and income from *Y1* to *Y2* (fig. 10.9 *a*). At the previous interest rate *r1* equilibrium volume of income will be more than before. Curve *IS1* shifts to the right in position *IS2* (fig. 10.9 *b*).

A similar effect is observed in case of changing investment plans of entrepreneurs at any interest rate, which will lead to shift of investment demand curve *ID* (fig 10.9 *a*), and therefore, to a shift of the line of aggregate expenses (fig 10.9 *b*), following which curve *IS* will move too. (fig. 10.9 *b*).

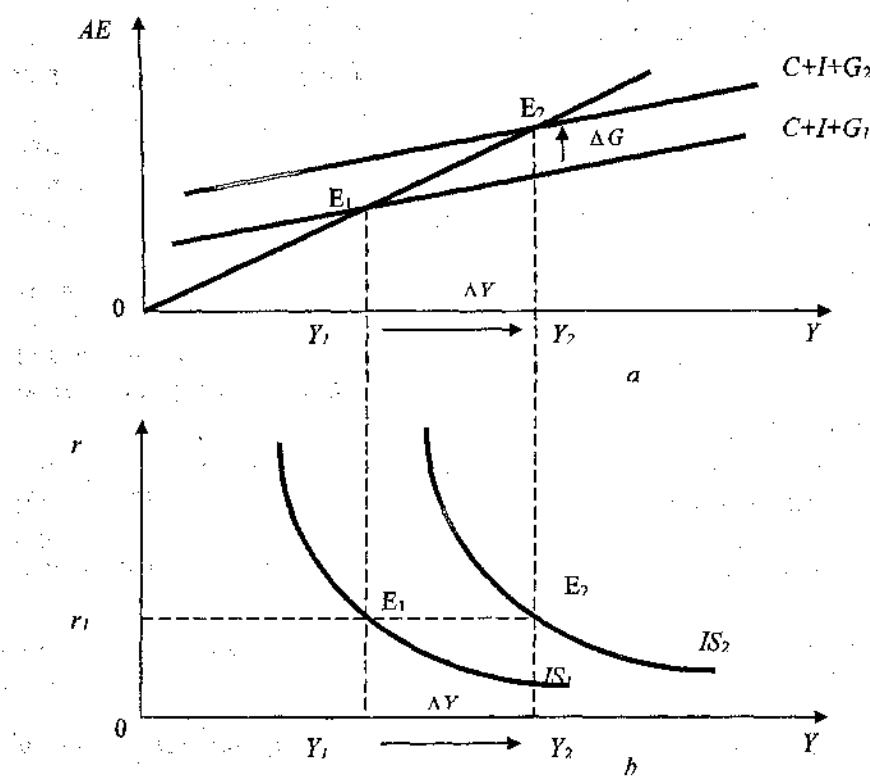
Curve *IS* will be gently sloping if:

– *sensitivity of autonomous expenses to the interest rate is large*. This means that even a small change of interest rate leads to a significant change in autonomous expenses and, consequently, the income;

– *expenses multiplier is large*. This is possible if the marginal propensity to consumption *mpc* is large; marginal tax rate *t* is small, the marginal propensity to import *mrm* is small. If the multiplier is large, it means that even in significant change of autonomous expenses would lead to a large multiplicative change of income<sup>44</sup>.

<sup>44</sup>Value of multiplier determine slope and shift distance of curve *IS*.

Accordingly, if the interest rate and the expenses multiplier are small, the curve  $IS$  is steep.



**Fig. 10.9. Shift of curve  $IS$  when changing state expenses**

Now let us turn to money market. **Curve  $LM$**  represents the dependence between the interest rate  $r$  and income level  $Y$ , arising on the market of cash. Each point of curve  $LM$  means equality of money demand  $L$  and money supply  $M_s$ . This equilibrium in money market is achieved only when with the growth of income  $Y$  interest rate  $r$  will rise.

To go deeper into this condition, it is necessary to remember that in the Keynesian theory of money demand three motives identified: **transactional, precautionary and speculative**. The first two motifs reflect a traditional role of money as means of exchange and payment, so in the economic literature, they usually are combined under a general concept of *transactional demand*, which depends on the level of disposable income:  $L_{trans} = L(Y)$ .

The speculative demand for money is the demand of assets, and it depends on the interest rate: when interest rate is low, economic agents prefer liquidity (store wealth in the form of cash), on the contrary, when interest rate is high, they prefer to keep wealth in securities. Consequently, speculative demand for money is a decreasing function of the interest rate:  $L_{spec} = L(r)$ .

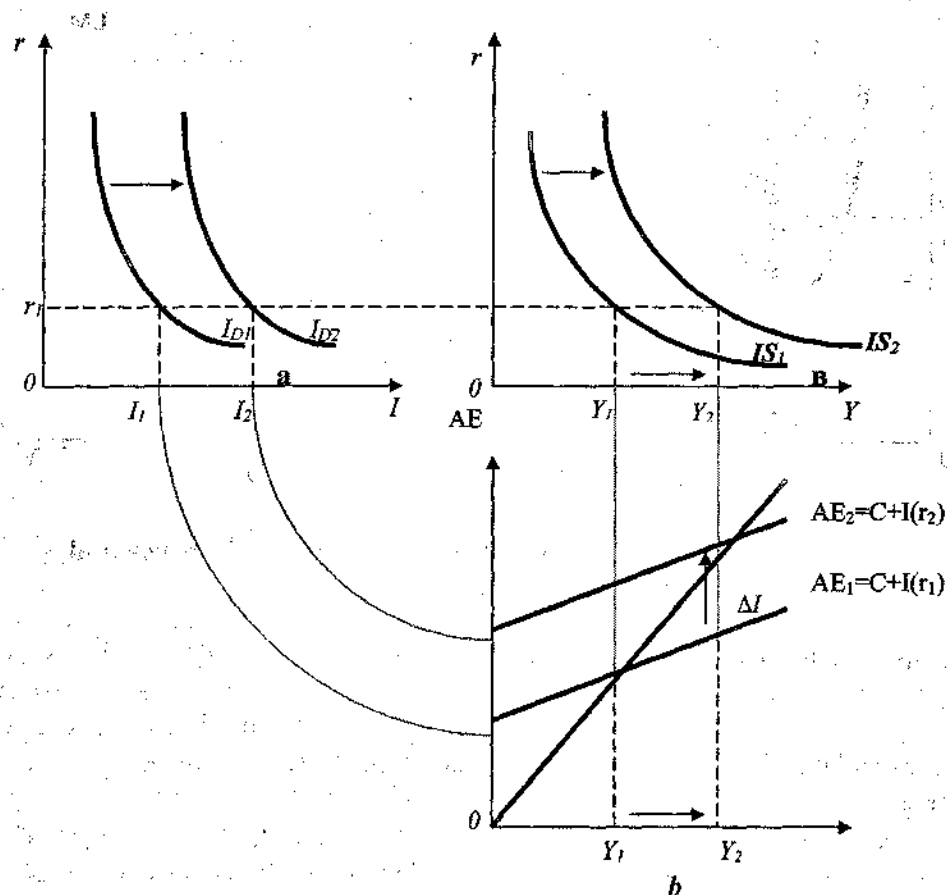


Fig. 10.10. Shift of curve IS at change of investing demand

Highlighting speculative demand for money by J. Keynes is an important element of his theory of effective demand. Keeping savings in liquid form reduces the total solvent demand, since the money as property is not used for personal consumption and not turn into investments. Savings, existing in the form of securities, are essentially loan capital. For this reason, they increase both consumer and investment demand. Therefore, when increasing the speculative demand for money the effective demand ends, and vice versa.

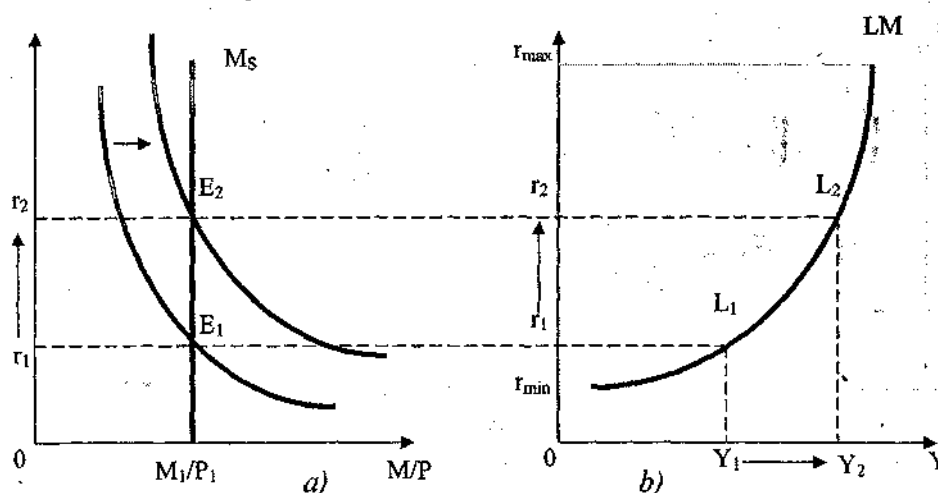
The total demand for money is a sum of money demand for transactions and speculative demand and is a function of profit and interest rate:

$$L_{gen} = L(Y, r).$$

Thus, the equilibrium in the money market implies that the following condition is fulfilled:

$$M_s = L(Y, r).$$

At this level of income equilibrium of money market will be at a point of intersection of curve  $L_f$  with line of money supply  $M_s$ , as it's shown in fig. 10.11. *a*. If the level of income will vary, for example, in the direction of increase, it will lead to increasing demand for money (the shift of curve  $L_1$  in position  $L_2$ ) and growth of interest rate from  $r_1$  to  $r_2$ .



**Fig. 10.11. Influence of change to income on demand, money and Interest rate at fixed money supply**

As a result, we obtain a set of equilibrium situations at points of intersection of the supply lines with curve of money demand  $L_1$ ,  $L_2$  etc. This means that each pair value of the interest rate and income will match its equilibrium state of the money market. Graphically, the line of the money market equilibrium will be presented by curve  $LM$  as a positive function of interest rate and national income. Fig. 18.4 *b* shows that the growth of income from  $Y_1$  to  $Y_2$  increases the demand for money (the shift of  $L_1$  in the position of  $L_2$ ) and, consequently, increases the interest rate from  $r_1$  to  $r_2$ . Curve  $LM$  illustrates an important condition of money market equilibrium: with the growth of income interest rate rises.

Thus, curve  $LM$  is the equilibrium curve of money market, showing all combinations of income  $Y$  and the interest rate  $r$ , in which the demand for money is equal to the supply of money.

Curve  $LM$  has a specific configuration: horizontal and vertical parts. Horizontal parts of curve  $LM$  reflects the fact that the interest rate cannot fall below a minimum value  $r_{min}$ , and the vertical part of that curve shows that beyond the maximum level of interest rate  $r_{max}$  no one will keep the savings in liquidity (money) form, and turn them into securities. The shift of  $LM$  curve will occur when change of money supply or change of level of prices.

Curve  $LM$  is gently sloping if:

- the sensitivity of money demand to changes of interest rate is high. This means that even a small change of interest rate leads to a significant change of money demand;

- the sensitivity of money demand to changes of income is low. This means that a significant change of income causes just a little change of money demand.

Reduction of the sensitivity of money demand to changes of interest rate and an increase of the sensitivity of money demand to changes in income increases the slope of curve  $LM$ , making it steeper.

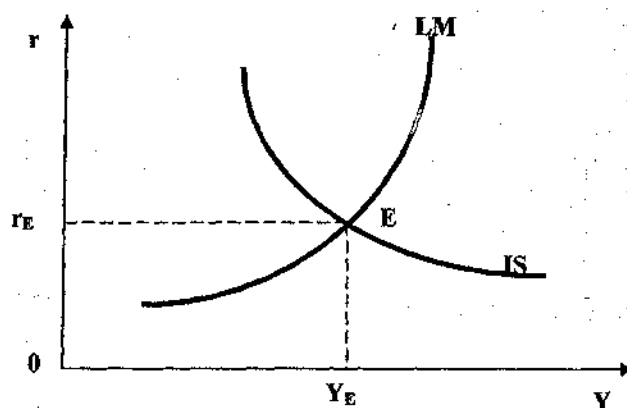


Fig. 10.12. Equilibrium in *IS-LM* model

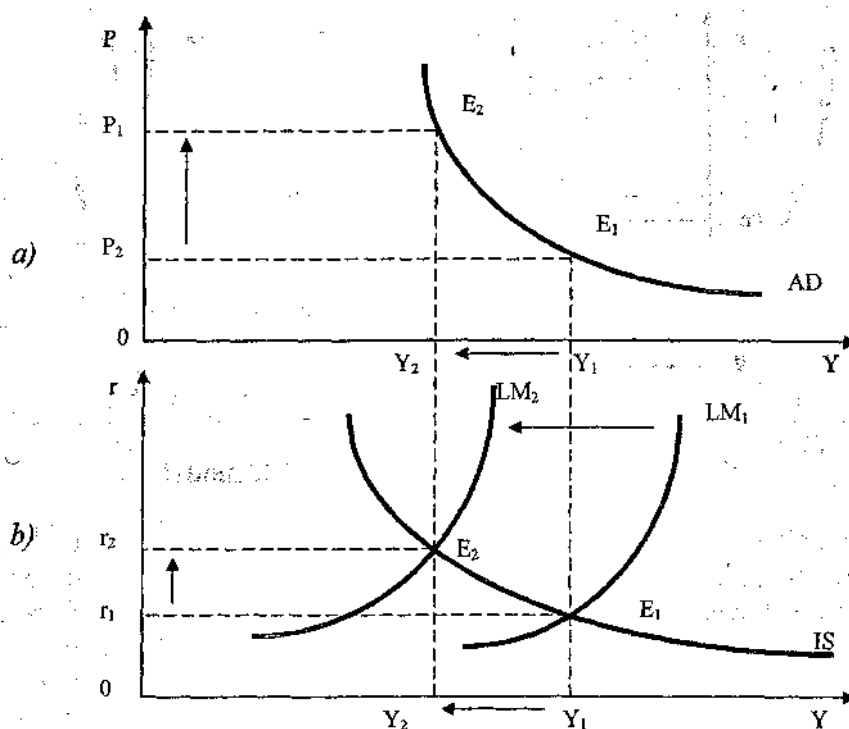
*Joint equilibrium of commodity and money markets* is achieved at the point of intersection of curves *IS* and *LM* (fig. 10.12). It shouldn't be confused joint equilibrium with general equilibrium. When we say about joint equilibrium, it is a matter of two markets (welfares and money). When it comes to the overall equilibrium, this refers to the achievement of equilibrium in all 4 macroeconomic markets of welfares, money, securities and labor.

*IS-LM* model also allows to find combinations of market interest rate and level of income (production) under which simultaneously equilibrium in commodity and money markets (joint equilibrium) is achieved.

Curves *IS* and *LM* are made at these levels of prices *P*, state expenses *G*, tax revenue *T* and money supply *M*. With a glance of these assumptions, there is only one combination of values of interest rate and level of income ( $r_E$ ,  $Y_E$ ), by which equilibrium is achieved simultaneously at two markets which under consideration. The intersection of curves *IS* and *LM* at point *E* means money supply is enough for such interest rate that counterbalances the planned investments and savings. Since curve *IS* is associated with the planned expenses, its change reflects changes in *fiscal policy*. Curve *LM* reflects changes in *monetary policy*, as related to the money supply. Thus, *IS-LM* model allows evaluating the joint influence of fiscal and monetary policy on macroeconomics.

If we "remove" the precondition of immutability of price level, which is one of the basic preconditions of *IS-LM* model as a model of Keynesian type, then out of *IS-LM* model we can get aggregate demand curve, every point of which shows the amount of aggregate demand *Y* at each possible price level *P*. In the model of aggregate demand - aggregate supply (*AD-AS* model) price level *P* becomes an endogenous variable. The change of price level *P* changes real money supply ( $MS/P$ ), if nominal money supply *Ms* remains immutable, and change of real money supply moves curve *LM*.

On fig. 10.13 *a* is shown a rise of price level *P* (with unchanged values *G*, *T* and *M*), which will cause change of equilibrium in the system of two markets (10.13).



**Fig. 10.13. Change of equilibrium in the system of two markets when decrease of price level  $P$  on commodity market**

Curve  $IS$  in this case does not change its position, since main factors that determine its configuration – state expenses, taxes, expected income – remain the same. Curve  $LM_1$  shifts to the left in position  $LM_2$  as real money supply  $M/P$  in this case is reduced.

Consequently, equilibrium in the system of commodity and money markets can be achieved at a higher interest rate  $r_2$  and a lower level of output  $Y_2$  compared to the initial position of curve  $LM_1$ . Thus, the equilibrium shifts from point  $E_1$  to point  $E_2$ .

Since price level has increased (which is equivalent to reduction of real money supply  $M/P$ ), then for the same values of  $G$ ,  $T$  and  $M$  the amount of aggregate demand in the commodity market will decrease. The result of this change is shown in fig.10.13.a in which aggregate demand curve  $AD$  is shown, showing dependence between price level and volumes of purchases of goods and services. This is a decreasing curve, because greater amount of money remains corresponds to lower prices. Keynes called the level of aggregate demand in the commodity market, corresponding to joint equilibrium in the markets of goods and money, the magnitude of the *effective demand* (the levels of the  $Y_1$  and  $Y_2$ ).

Hence  $IS-LM$  model is a *model of aggregate demand*, as it allows defining such level of aggregate income  $Y$  and the interest rate  $r$ , which provides

simultaneous equilibrium of commodity and money markets and corresponds to magnitude of "effective demand" - the point of intersection of curves *IS* and *LM*.

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### Control questions

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1. Explain the essence of the equilibrium analysis method.
2. In the analysis of what macroeconomic categories the method of equilibrium analysis is used?
3. Give characteristics to the state of general equilibrium in the market. How does it differ from the partial one?
4. Give definition to ideal and real equilibrium.
5. What does the law of Walras prove? Describe neoclassical version of Walras model.
6. What is the essence of Keynesian understanding of general economic equilibrium?
7. Give definitions to the categories of "aggregate demand", "aggregate consumption", "savings", "investment". Describe the model of allocation of expenditures between the aggregated sectors of the economy.
8. What does aggregate demand curve demonstrate?
9. What trends can be identified using aggregate demand curve?
10. What processes in the economy does supply curve characterize?
11. Describe the main types of the aggregate supply curve, short-term, intermediate, long-term sectors, shifts of the aggregate supply curve.
12. Describe the relationship of processes of consumption, savings and investment at the macroeconomic level.
13. What is the essence of the functions of consumption and savings in Keynes's theory?
14. Describe the role of investment in macroeconomics
15. What factors determine the dynamics of investment?
16. What is the role of interest rates in national economy?
17. Describe the dependence of investments from income.
18. How does the equilibrium between investments and savings affect the level of national income?
19. What is the essence of the multiplier effect and accelerator effect according to Keynes?
20. Describe J. Hicks's *IS-LM* model.
21. Which processes in the commodity market does *IS* curve reflect? What processes in the monetary market does *LM* curve reflect?
22. Describe the joint equilibrium of commodity and monetary markets. What factors break the equilibrium in the system of two markets?



## CHAPTER 11

### ECONOMIC GROWTH

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#### ***11.1. Essence, purposes and main parameters of economic growth***

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*Economic growth* is the most important macroeconomic category, which is an index of not only absolute increase of volumes of social production, but also the ability of economic system to meet growing needs, improve the quality of life. That is why economic growth is included in number of main objectives of the society along with economic freedom, economic efficiency.

The problem of economic growth was the most important issue in economic theory of XX century. And its importance grew considerably in XXI century. Although the concept of economic growth dates back to the works of economists of XVIII and XIX centuries (J-B Say, I. von Tyuten, etc.), only in the late of 30's of XX century, the study of this problem began to be realized in the frame of independent theory.

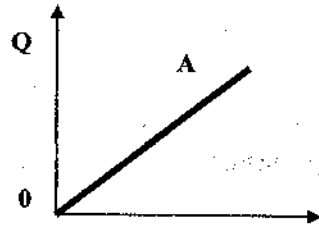
American economist E. Domar and Englishman R. Harrod are the founders of the theory of growth. They were followers of neo-Keynesian positions. In modern economic theory, there are three main directions in the study of this process. The first direction is the neo-classical growth theories, based on propositions of a market self-regulation, developed by A. Marshall, L. Walras. Now the leading ideologist of this direction is considered M. Friedman. The second direction is represented by neo-Keynesian theories, joining several streams (D. Tobin, O. Simomura, S. Fujino). The third direction, just forming, which is called evolutionary, represents interpretation of economic development, based on the works of I. Schumpeter, J.St. Mill. All of the above directions are similar with the lack of clear boundaries between growth theories and theories of equilibrium, cycles and crises, and reproduction problems, theories and practices of state regulation. Many scientists were engaged in researches in totality of problems, which reflects the relationship of economic growth with many other processes of economic development.

In the domestic science, researches of economic growth were initially conducted under justification and explanation of the growth rates with the use of internationally accepted mathematical instrument, the use of which was carried out taking into account the specifics of the planned economy management. Attention to the problems of economic growth became stronger in the late 70's., when regularities in slowdown of rates of growth of the Soviet economy appeared.

*Economic growth* is commonly an increase of volumes of goods and services, created over a certain period (increase of potential and real GNP), increase of the economic strength of the country.

If considering the dynamics of volume of national production in the free market system over a long period, then graphically this dynamic may be presented in the form of increasing line (fig. 11.1), where along the horizontal axis we put

time ( $t$ ), along the vertical axis – production volume ( $Q$ ). Increasing line  $OA$  is an evidence of constant economic growth and development of production in a free market system.

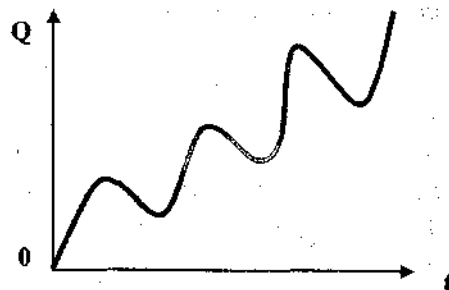


**Fig. 11.1. Economic growth**

Therefore, economic growth, first of all, means quantitative increase of production consumed resources and volumes of produced product, i.e. increase of social product.

The concept of "economic growth" in view of the qualitative characteristics is closer to the concept of "economic development", but not identical to it. Growth is a constituent of economic development, which is understood as a process involving periods of growth and recession, the quantitative and qualitative changes in the economy. Growth is a positive dynamics of the economy. The recession is a negative dynamics of both the economy as a whole and its individual phases, spheres, sectors, factors and elements. Therefore a wavy line should show more exactly dynamics of the economy, where each wave characterizes a whole cycle of economic development.

In the interpretation of economic growth there are always qualitative and quantitative aspects of this concept. The first one reflects in a dynamics of change of the volume of manufactured product (public, national), the second one reflects in the ability of economic system to meet the growing needs. These sides are surely interrelated, and this relationship is quite complicated. By itself, the growth of manufactured product, even significant, does not necessarily entail a new quality and improvement of society's life. For example, the unreasonable use of raw materials and fuel reduces to zero the achievement of a large growth in the extractive industries and does not give increase of really essential public products. In addition, the increase of volume of military production does not mean rise of the level of life.



**Fig. 11.2. Economic development diagram**

*The essence of economic growth is in finding out a solution and reproducing on a new level of the basic contradiction of the economy: the contradiction between the limitedness of productive resources and limitlessness of growth of social needs. This contradiction can be solved in two main ways: firstly, through increasing of production capabilities, secondly, through the most efficient use of available production capabilities and the development of social needs. Economic growth and development of the national economy are caused not only and not so much by the quantitative growth of social needs, but by a change in their structure, increase of portion of one needs and decrease of portion of other needs in the structure of consumer preferences.*

Striving of main subjects of the economy to economic growth always exists, regardless of their level of development in the society. However, the actual production conditions do not always allow the growth potential to get realized. In these circumstances, depression, or recession, comes.

American economist Simon Kuznets (1901-1985), who received in 1971 the Nobel Prize for his research on the history of economic growth in developed countries, considered economic growth "a long-term increase of the ability of the economy to provide more diverse needs of the population through more efficient technologies and appropriate institutional and ideological change."<sup>45</sup> In this regard, he identified six characteristics (indicators) of economic growth which are typical to almost all developed countries:

1) high rates of growth of per capita income and population. In developed countries, the average growth rates of per capita income in the last 200 years made 2% per year when an increase of population was 1% per year. With this ratio the average growth rate of real GNP is 3%, which ensured a doubling of per capita income every 35 years, which number of population - every 70 years and the real GNP - every 24 year. Per capita income over the past two centuries have grown almost in 10 times faster than in the pre-industrial era, the population - in 4-5 times faster;

2) high growth rates of productivity of factors of production. According to various estimates, from 50 to 75% of increase of per capita income of the population in developed countries in the industrial era was the result of growth of productivity of factors. The main part of increase of GNP per capita was achieved through technical progress, including improving the quality of both physical and human capital;

3) high rates of structural transformation of the economy. It included the movement of labor force from agriculture to industry, and recently - from the industry to the service sector, the growth of medium-sized enterprises from the family and individual production to multinational corporations, the development of process of urbanization and much more;

4) high rates of social, political and ideological transformation. A serious structural reorganization is always accompanied by changes in social institutions,

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<sup>45</sup>Kuznets Simon. Modern Economic Growth: Findings and Reflections // American economic Review 63 (September, 1973).

the behavior of people and ideology. Examples are the general process of urbanization and a complex of institutional and spiritual changes, which is called modernization;

5) international scales of economic growth, specified with the ability of developed countries in the past and present to find end markets overseas, sources of raw materials and cheap labor force, leading to political and economic enslavement of poor countries;

6) limited distribution of the results of economic growth. In spite of the huge growth of production in the world over the last 200 years, only a quarter of the world's population took part in the process. This minority has about 80% of world income. Unequal relationships between poor and rich countries cause a tendency to intensification of income gap. The growth in rich countries often takes place at the expense of poor countries.

Thus, *economic growth as the process is characterized by a system of indicators* that represent the comparison of the results of production over time. You can compare national income, gross national product, etc. Measurement is usually carried out with a percentage.

In economic theory, there were two main approaches to the interpretation of form of manifestation of economic growth. The most prevailing is interpretation of economic growth as a final characteristic of the development of the national economy in a given period, measured by either the growth rate of real GNP (N1), or rates of increase of these indicators per capita. Economists single out rapid ' growth rates, slow, stable and unstable.

Economic growth means a development of the national economy, in which the rates of increase of real national income exceed the rates of population growth. This makes it possible to consider the problem of growth from the position of a resident of the country, not a casual observer.

Economic growth is one of the main objectives of the society. In this capacity, it suggests increase of the material prosperity of the population and maintenance of national security. At the same time, economic growth is a means to achieve these goals, i.e. shows itself as a mechanism providing the action of the law of increasing needs.

Today, in Uzbekistan the problem of economic growth has a new aspect. The concept of increase of production in the country is based primarily on the structural changes in the national economy, the development of the newly formed branches, such as automobile production, reclamation industry of agricultural products. Production of domestic cars is based on modern innovative technologies. For example, the creation of an engine running on alternative fuels or even solar energy. Today, the national economy of Uzbekistan needs to increase not just any production, and one that ensures a further, more efficient and stable economic growth.

The concept of economic growth is used to compare the effectiveness of national economies and for the characteristics of individual industries of production, when the study of the dynamics of economic development.

The ability of economy to get dynamically rebuild, moving to a higher level of balance with the least loss of resources and products is one of the main manifestations of the effective development of the society.

To the concept of "efficient growth" is closely related the "quality of economic growth," which is called to reflect intensification of social orientation of economic development. The main components of a quality of economic growth:

- improving of material prosperity of the population;
- increase of leisure time as the basis of development of a harmonious personality;
- rise of level of development of the social infrastructure sectors;
- increase of investments in human capital;
- providing security of labor conditions and lives of people;
- social security of the unemployed and the disabled;
- maintenance of full employment in conditions of a growing volume of supply on the labor market.

Between economic growth on the one hand, and improvement quality on the other hand, there is a certain contradiction. High rates can be achieved at the expense of worsening of the quality of growth. For example, increase of the length of the working day or an increase of the intensity of labor, leading to an increase of labor costs and thereby contributing to increase of rates of economic growth, will have a negative impact on the quality of economic growth because of the decrease of free time. In contrast, low and even negative rates of growth can be accompanied by increase of consumer satisfaction as a result of output of products of better quality. Therefore, many economists believe that the most preferred low and stable rates of economic growth (2-3% per year).

The ideal form of economic growth in conditions of a market system of management is the equilibrium economic growth.

*Equilibrium economic growth* is development of the national economy in the long run, at which volumes of aggregate demand and aggregate supply increasing from period to period, constantly equal to each other. This definition implies that when equilibrium economic growth aggregate demand and aggregate supply increase by the same pace that allows the economy to maintain a constant level of prices. The sequence of states of equilibrium, which characterizes changes of real macroeconomic indicators over time is called the equilibrium trajectory of development.

Thus, we can say that economic growth is an overall economic category, which is filled with ambiguous content in different conditions of its manifestation.

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### **11.2. Factors of economic growth, their classification**

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*Factors of economic growth* are the reason causing economic growth, i.e., the phenomena and processes that determine the possibilities of increase of real production volume, rise of efficiency and quality of growth.

They exert both direct and indirect influence on economic growth, so by way of influence on economic growth direct and indirect factors are distinguished.

**Direct factors** are those that directly determine the physical capability to economic growth. Among them:

- increase of number and improvement of quality of labor resources;
- increase of volume and improvement of qualitative composition of fixed capital;
- improvement of the technology and organization of production;
- increase of the quantity and quality of natural resources, involved in economic circulation;
- growth of entrepreneurial skills in society.

**Indirect factors** affect the possibility of converting this ability into reality. They can favor to realization of the potential laid in the direct factors or limit it. The most important of them can be considered:

- reduction of the degree of monopolization of markets;
- reduction of the prices for productive resources;
- decrease of income taxes;
- expanding possibility to obtain credits.

Any classification has a relative nature. The following factors of economic growth are also known: extensive and intensive, structural, organizational and managerial, economic, political and social, subjective and objective, scientific, technical, resource, general (long-term) and specific (short-term), international, state and industry; material and non-material, etc. The reasons of this variety of classifications of factors are different views on the problem and the study of the growth by various researchers.

In modern economic literature, there are three main groups: factors of supply, demand and distribution (fig. 11.3).

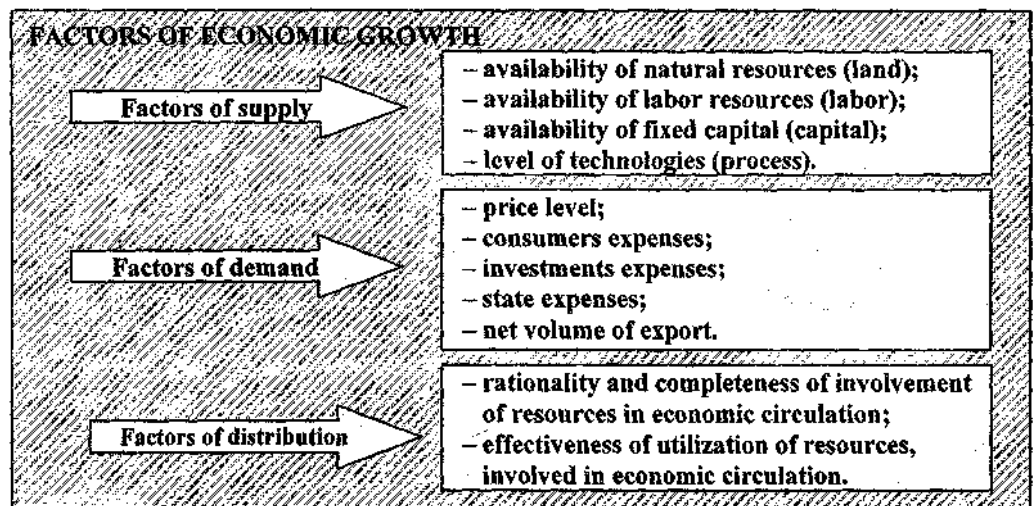


Fig. 11.3. Factors of economic growth

Labor efficiency is the most important factor providing the growth of real product and income. The increase in labor expenses determines the third of increase of real income, and two thirds of increase is provided by rise of labor efficiency.

The interaction of factors of economic growth often depends on external influences on their behavior, in the first place, by state management, which can be identified as a superstructure factor. State programs of economic development include goals of providing of economic growth. For example, in Uzbekistan year of 2009 has been declared as the Year of prosperity rise of the village, and 2010 as the Year of harmoniously developed generation. In these programs, the state at least provides the legal basis for economic relations. And it differently can affect the behavior of economic processes. In this case we are talking about the degree of influence of the state on economic processes, forms and methods of state regulation.

In practice single factors of economic growth are marked out too, for example, the emergence of new sources of energy, raw materials, etc.

Various phenomena in the economy of some countries may cause changes in the economic growth of other countries. Thus, the appearance of branches of leading foreign companies in countries of third world has led to significant economic growth in countries such as Malaysia, Taiwan, Singapore, etc.

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### ***11.3. Types, models and concepts of economic growth***

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The economic growth is under influence of some factors. Depending on it two types of economic growth are marked out: extensive and an intensive.

When *extensive type of economic growth* increase of social product occurs because of quantitative increase of production factors: involvement of additional labor resources, capital (means of production), and land in the production. Besides technological base of production remains unchanged. Thus, ploughing up of virgin lands in order to obtain a large number of crops, the involvement of more and more workers for the construction of power plants, the production of growing number of combine harvesters, all of these are examples of extensive way of increase of a social product. Due to the fact that in this type of growth, the capacity of the enterprise increases from the increase of the installed equipment and at the same time number of workers, output per worker does not change.

With *intensive type of economic growth* an important thing is increase of production efficiency, increase of efficiency from the use of all factors of production, though the number of employed labor, capital and others may remain unchanged. The main thing here is the improvement of production technology, improvement of the quality of basic factors of production. The most important factor of intensive economic growth is increase of productivity of labor.

Intensive type of economic growth is characterized by the increase of the scale of output, which is based on wide use of more efficient and qualitatively

perfect factors of production. The growth of scales of production is usually achieved through the use of more improved equipment, technologies, advanced technologies, advances in science, more efficient resource, professional development of workers. Due to these factors improvement of the quality of products, the growth of labor productivity, resource-saving, etc. are achieved.

In terms of innovative revolution taking place in the middle of XX century, and continuing at present, preferential type of development in developed industrialized countries becomes an intensive economic growth. *Extensive way in the world has exhausted itself long time ago.* However, we should not forget that the extensive way contributed to the birth of a new type of development - intensive. Having created a basis for the development of new economic relations, extensive way made a huge contribution in the development of the national economy of the world.

In real life, extensive and intensive types of economic growth do not exist in its pure form. Therefore, when analyzing the real economic growth, not its theoretical models it is better to speak of predominantly extensive and predominantly intensive type of economic growth.

Now classification of economic growth to a certain type depends on the share of increase of real GNP specified to intensive growth factors. If the share of real GNP obtained through intensive growth factors, exceed 50 %, then predominantly intensive type of growth is typical for economy. And conversely, if the share of growth of real GNP through intensive factors of less than 50 % of the total increase of GNP, the economic dynamics is characterized predominantly by extensive type of growth.

The development of the theory of economic growth was carried out by representatives of the various scientific fields in economic theory, therefore there were created many models of economic growth.

**Economic growth model** is an abstract, simplified expression of real economic process in the form of equations and graphs. Today there are two types of models of economic growth: *neoclassical and neokeynesian*.

**Neoclassical growth model** is based on the idea of optimality of the market system, which is installed automatically with free competition, creating conditions for gaining of maximum utility. According to this systems of optimal growth of perfect competition were modeled, in which, however, subsequently was introduced a number of assumptions: necessity of full awareness of economic entities about the conditions in the supply and demand, about technical capabilities of production in all markets etc.

Charles Cobb and Paul Douglas developed a multi-factor model of economic growth, known as the production function, or Cobb-Douglas model, which was later improved in the study of Robert Solow, James Meade, Jan Tinbergen and others. Neoclassical growth models overcame number of limitations of Keynesian models, and allowed more precisely describe specifics of macroeconomic processes, and economic growth was considered from the point of view of interchangeable factors of production. In the most general form production



function enclose dependence of aggregate product (aggregate income)  $Y$  from two factors - capital  $K$  and labor resources  $L$ :

$$Y = F(K, L),$$

i.e. it is assumed that for a given level of technology volume of production depends on the amount of capital and labor used. However, level of technology is gradually improving, and therefore the time factor introduced into the equation. For the first time it was done by Jan Tinbergen, a Dutch economist and Nobel Prize winner (1969) and the production function took the following form:

$$Y(t) = A(t)F[K^{\alpha}(t), L^{\beta}(t), N^{\gamma}(t)],$$

Where  $Y(t)$  is the volume of production for the period of time  $t$ ;  $A(t)$  is the coefficient, reflecting the development of scientific and technological progress over the period of time  $t$ ;  $K^{\alpha}(t)$ ,  $L^{\beta}(t)$ ,  $N^{\gamma}(t)$  is the expenses of capital, labor and natural resources for the period of time  $t$ ;  $\alpha$ ,  $\beta$ ,  $\gamma$  are coefficients of elasticity of output, respectively, by capital, labor and natural resources. These coefficients reflect the increase of the volume of production caused by the increase on 1% of the corresponding factors of economic growth.

Any increase of GNP, not associated with short-term changes of labor or capital expenses, is usually attributed to the so-called *Solow's remainder*. This "remainder" accounts for 50 % of GNP growth in the developed countries in the historical retrospection. The neoclassical theory consider it as the result of an action of *exogenous*, i.e. completely independent from economic system, factor - technical progress. It would be possible to take such a simplification, but it has two serious flaws. Firstly, in the neoclassical scheme it is not possible to see the reason of the technical progress itself, since it completely does not depend on the decisions of business entities. And secondly, with the help of this theory it's impossible to explain the large differences in the magnitude of the Solow's remainder of countries with the same level of technological expansion. In other words, a huge role in the neoclassical theory is assigned for external factor which action is very poorly examined.

R. Solow confined himself to consideration of the equilibrium of the economic growth, which is characterized by even and identical increase of endogenous macroeconomic parameters. However, using the model proposed by this scientist, it's possible to conduct an analysis of the optimal equilibrium growth, which is characterized by maximally possible level of consumption. The rate of accumulation of capital, providing the equilibrium growth with the maximum level of the consumption is called the optimal rate or golden rate of capital accumulation, as determined by the "golden rule" of E. Phelps.

Thus, the value of national income can increase both due to the rise of expenses of capital, labor, and due to the qualitative changes: the growth of skills of employees, innovation, improving the organization of production, the growth of education in general and in the scale of society, etc. The reason for introducing the new parameter is related to the fact that the growth of output in the era of scientific and technological revolution may be caused not only (and not so much) by the

increase of the expenses, but by some other "intangible" factors in the form of growth of capital and labor. Special attention of foreign and Russian scientists is paid to the indicator, which in different textbooks and monographs have different names: "indicator of technical changes", "change in production efficiency", "index of efficiency" and even a "measure of our ignorance." The latter expression is often defined as an "Abramovitz's remainder" on behalf of American economist M. Abramovitz, who studied this type of production function in the middle of 1950s. Further analysis of the production function with a glance of technical progress is associated with the names of such American economists as R. Solow, J. Meade, E. Denison, etc.

One of the most important models of economic growth is *model of intersectoral balance*. The theoretical basis of intersectoral balance was developed in the period of the planned economy in 30-50 years of the twentieth century and was first introduced in a formalized form by economist V. Leontief. The method of analysis of intersectoral bonds through tables of chess types and with involving of the apparatus of linear algebra has been applied by him in 1930s. for the study of American economy. In the economic literature this method received a name "input-output". "Input-output" model, according to Leontief (in the book "The Structure of the American Economy"), is an "attempt to apply the economic theory of a common equilibrium to the empirical study of the interdependence between different sectors of the economy ..."<sup>46</sup>.

In the method of economic analysis of the "input-output" Leontief first drew attention to the quantitative relationships in the economy. These connections between industries are established through the so-called technological factors.

In the scheme input-output balance is represented by four quadrants. In the first quadrant - indicators of material costs for production of products. In the second quadrant indicators reflect a finished products used for personal consumption, accumulation, state procurement and export. In the third quadrant - indicators of added value (wages, profits, taxes) and import. In the fourth quadrant - indicators of redistribution of net national product. Table of intersectoral relations reflects costs in the columns, i.e., the elements that make up the cost of products for every industry and in the lines - the structure of the distribution of the products of each sector of the national economy.

The change in final demand or in conditions of production in one industry is studied in Leontief's table through tracing of quantitative reaction of all interrelated industries. This means that any change of needs or technology of a production of some commodity will change the structure of the equilibrium prices and thus will change technological factors.

Thus, the use of the "input-output" method of input-output balance allows us not only to study the relationship between the various sectors of the economy, manifested in inter-influence of prices, production volume, investments and income, but also realize the prediction of economic development of the country as specifying a growth of one or a group of products, we can determine the scales of

<sup>46</sup>Leontief W. The Structure of American Economy 1819-1929. Cambridge, 1941.

the growth of other sectors of the economy, and thus the rate of economic growth, its industrial structure.

*J.Keynes* argued that spontaneous mechanism of capitalist economy, without providing equilibrium between supply and demand, leads to unemployment, instability of economic development. He and his followers fought for state regulation of the factors affecting the effective demand, which ensures the stability of the economy.

Among the followers of John Keynes there are such representatives of neo-Keynesianism as Roy Harrod, Domar Evsey, Alvin Hansen, Joan Robinson. Not only based on the theory of Keynes, but criticizing it for its static nature, i.e., focus on the quantitative dependence of simple reproduction, they focus attention on dynamics, i.e., of quantitative dependencies expanded reproduction.

*Neo-Keynesianism* examined the problems of the dynamics of demand efficiency, the use of investments, and the concept of the multiplier. Others aspects of Keynes's theory relating to the monetary sphere (the dynamics of the money mass, interest rate, price) were found unimportant and in models of economic growth and the cycle did not play any role at all.

Key factor of economic growth and its rates, according to the neo-Keynesians, is the growth of investments. Investments in the considered model of economic growth played an important role: on the one hand, they contribute to the growth of national income, on the other - increase production capacities. In turn, the income growth contributes to increase of employment. As the investments increase production capacities, income increase must be sufficient to balance the increasing production capacity of society, without appearance of underloading of enterprises and unemployment.

In the postwar period, in the economic literature of the West the biggest fame received the neo-Keynesian models of economic growth, put forward by the English economist R.F.Harrod, American economists E.Domar and E.Hansen, based on two premises:

1) the growth of the national income is only a function of the accumulation of capital, and all other factors (increased employment, the degree of use of the achievements of scientific and technical progress, improving the organization of production), affecting the growth of capital productivity ratio are excluded. Thus, Harrod and Domar's models are one-factor model. It is supposed that the demand for capital in this capital intensity depends only on the rate of growth of national income;

2) capital intensity does not depend on ratios of prices of production factors, and determined only by the technical conditions of production.

- According to the model of economic growth in the Harrod-Domar model, in each economy a certain portion of the national income should be saved for the purpose of restoration of worn-out and out-of-work capital welfares (buildings, equipment, and materials). However, for economic growth its needed net investments, i.e., increase of capital volumes. Let's assume that this volume, let's call it  $K$ , and GNP of the country, we designate it as  $Y$ , are linked by some proportion. Let's concede, for production of \$1 of GNP is necessary to spend \$3 of

investments. The growth of GNP can be calculated at one or another volume of net investments us.

Let the said ratio, known in science as *coefficient of capital intensity* is equal to 3:1. Having designated this coefficient through  $k$  and assuming that the savings rate  $s$  is a fixed proportion of national income (say, 6%), and net investment are determined by the level of savings, we can build the following simple model of economic growth:

1. Savings  $S$  are a fixed part of the national income  $Y$ , i.e.:  

$$S = sY.$$

2. Investments  $I$  is change in the volume of capital  $K$ :  

$$I = \Delta K$$

As the volume of fixed capital is directly related to national income or product  $Y$  through coefficient of capital  $k$ , then

$$\frac{K}{Y} = k;$$

$$\frac{\Delta K}{\Delta Y} = k;$$

$$\Delta K = k\Delta Y$$

National saving  $S$  must be equal to the aggregate investment  $I$ :  

$$S = I.$$

Taking into consideration that  $S = sY$ ,  $\Delta I = \Delta K = k\Delta Y$

Hence the equality between savings and investment can be written as follows:

$$S = sY = k\Delta Y = \Delta K = I = sY = kY.$$

Dividing both sides first on  $Y$ , then  $k$ , we obtain

$$\Delta Y/Y = s/k.$$

Let's note that left side of the expression represents the rate of growth of GNP (i.e. the percentage change in GNP). In general, this expression is a simplified form of the known equations from the Harrod-Domar's theory of economic growth. It means that the growth rate of GNP ( $\Delta Y/Y$ ) is defined simultaneously by savings rate and the coefficient of capital. Thus, from this equation follows that the rate of growth of national income is directly dependent on the savings rate (at a given GNP, the greater the volume of savings in the economy and, therefore, investment, the faster growth of the GNP). At the same time, GNP growth is inversely proportional to the coefficient of capital (it will the less the more  $k$ ).

The economic meaning of the equation is very simple. So that there is a growth in the country should be saved and invested a certain percentage of GNP. The bigger it is, the faster the growth is. At the same time, the real growth rate that can be achieved in a given level of savings and investment is predetermined by the increase of the product, which gives one additional unit of invested capital. In other words, the growth rate is given by value, inverse to the coefficient of capital,  $1/k$ . It shows output per unit of input of capital or, equivalently, per unit of investments. Hence, multiplying the rate of new savings  $s = I/Y$  to measure the index of investments  $1/k$ , we obtain the growth rate of GNP.

The main task of the model is the definition of sustainable rate of growth of income. So three main types of growth are used:

1) natural growth: is determined by the rate of population growth and expresses the natural upper limit of the growth of income:  $T_y = T_p$ ;

2) guaranteed growth : it is the growth rate, limited by available volume of reproducible factor of production - capital  $(K/F)=T$ ;

3) the actual growth: the growth varies depending on the availability of capital and labor:

$$a) T_p = s/b; \quad b) T_p < s/b; \quad c) T_p > s/b.$$

The condition for the existence of constant equilibrium growth rate of the economic system is the observance of equality of population growth and the growth rate of capital:

$$T_p = s/b \text{ and } T_p = T = T_y,$$

Where  $T_y$ —equilibrium steady growth of income.

The economic crisis of 1973-1975, contributed to the formation of the new trend of post-Keynesianism, a recognized leader of which is a representative of English Cambridge School J.Robinson. Originality of post-Keynesianism as an independent trend manifested itself most clearly in the development of the theory of economic growth and the distribution of the product, which is based on the idea that the growth rates of the social product depends on the distribution of national income, which, in turn, is a function of the accumulation of capital. It is the rate of accumulation of capital that determines the rate of profit, and, consequently, the share of profit in national income. The share of wages is determined as a residual. The actual significance of the post-Keynesian theory is that it attempted to link the distribution proportions with the proportions of reproduction.

Frustration in traditional neoclassical models became stronger in the late 1980s - early 1990s. with the deepening of debt crisis and cross-country differences in growth rates. Traditional theory could not give a satisfactory explanation for these phenomena. After all, according to its lack of capital in the "third world" should lead to increased investment profitability. And it is on the growth of investment was targeted policy formation of free market, which the World Bank and the IMF imposed on countries with large external debt. Investment growth, as expected, had to cause an increase of labor productivity and standards of life. However, despite the prescribed liberalization of foreign trade and domestic markets, many developing countries have not come out of stagnation and were unable to attract new foreign investments; they could not even stop the leakage of their capital abroad. *The concept of endogenous growth (new growth theory)* tried to explain these phenomena.

New theory is aimed to analysis endogenous growth - of the constant increase in GNP, predefined of the economic system that actually manages the social production in the country.

Endogenous growth model looks similar to the neo-classical models, but are significantly different from them by initial premises and conclusions. First of all, the models of endogenous growth reject the neoclassical premise of diminishing marginal productivity of capital, concede possibility of effect of scale of production in the framework of all economy and often focus attention on the

impact of external effects on the profitability of investments. Although technical progress in these models is given a considerable role, it is not the only possible reason of economic growth in the long term. The main objectives of the new growth theory are an explanation of cross-country differences in growth rates and factors on which these rates depend.

An important conclusion, which is drawn from these propositions, is that a temporary or long-term slowdown of economic growth in the country leads to its chronic, more serious lag from richer countries in terms of per capita income. But perhaps the most interesting aspect of endogenous growth models is an explanation of the unnatural overflow of capital from poor to rich countries, which is aggravate the income gap between the "first" and "third" world. Potentially high investment profitability in the "third world" is often rendered null by the low level of complementary investments in human capital (education), infrastructure, and research and development. Poor countries extract from these types of investments less benefit than developed countries. We conclude that the state is called to improve the allocation of resources, providing at its own expense, the public goods and services (creating infrastructure) and at the same time stimulating private investment. Therefore, the endogenous growth models as opposed to the neo-classical ones stand for active state intervention in the development process. Being mostly in line with the neoclassical theory, the theory of endogenous growth is a step away from the dogma of the free market and minimal state role in the economy.

In early 70's of XX century some economists stated the concept of the inevitability of global catastrophe if current trends in development of society are preserved. Thus, in report of Rome club "The Limits to Growth", prepared by the research group of Massachusetts Technological Institute, USA, under the supervision of Professor D.Meadows, it was noted that due to the intensification of the contradictions between rapidly growing population of the Earth, the rapid development of production of investment goods and fast depleting natural resources of the planet every day continued growth of the global system brings closer the world system to the limits of growth. On the basis of our present knowledge of the physical limits of the planet can be assumed that the growth phase should come to an end within the next hundred years<sup>47</sup>. Further, according to the author of the report, by the current trends the achievement of the "limits of growth" will inevitably be accompanied by a spontaneous reduction of number of population and industrial production as a result of hunger, environmental degradation, resource depletion, etc. In this situation, according to the report, the only output is to maintain a "zero growth".

Supporters of "zero growth" argue that innovative technologies and economic growth lead to a number of negative phenomena of modern life: the pollution of environment, industrial noise, emission of toxic substances; deterioration of image of cities, etc.

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<sup>47</sup>Meadows D. et al. The Limits to growth. N.Y., 1972. - p. 183.

Since the production process only converts natural resources, but does not utilize them fully, then over time they returned to the environment as waste. Because of this, supporters of "zero growth" believe that economic growth is has to be purposefully held back. Recognizing that economic growth provides an increase of the volume of goods and services, supporters of "zero growth" come to the conclusion that economic growth is not always can create a high quality of life.

Among the different approaches research of the problem of economic growth in "ultralong" period, a special place takes an analysis of economic dynamics in terms of global historical perspective of qualitative evolution of society. This approach has led to the creation of *alternative theories of stages of economic growth*.

The main specifics of "phasic" approach to the theoretical analysis of economic growth is highlighting of the fundamental differences that characterize the fundamental features of functioning of society at each stage (stages) of its development.

Among the different concepts of the division of society in growth stages, two main ones can be marked out.

**Formational theory.** This theory was developed by Karl Marx and his followers. Its essence is in class approach to society, and separation of social and economic formations as individual stages, change of which is objectively contributed by dialectical development of the productive forces and production relations. As those there are five; primitive, slaveholding, feudal, capitalist and communist formations.

**The theory of stage of economic growth W. Rostow.** Creating his theory, W. Rostow, on the one hand, tried to show that the process of economic development is not limited by the system of relations, which are traditionally the subject of study of analysis of economic growth (the interaction of producers and consumers, the harmonization of plans "savers" and investors, development investments, etc.). On the other hand, he sought to create a theory of the historical evolution of the economy and society as a whole, which would not be so definitely, as in Marx, deterministic by relationship of the productive forces and production relations, property relations and the class struggle of the capitalists and wage workers.

According to Rostow, the division of the whole historical evolution of society on the stages should be based on differences between the three main fundamental characteristics: the level of technology development, the level of business activity and the level of consumption.

In accordance with qualitative difference of these characteristics Rostow identified five stages of economic development:

1. *Traditional or class society.* For it are typical "before-Newton Science and Technology", the predominance of agriculture, the division of society into classes (according to Rostow, the concept of "classes" are identical to the closed, compartmentalized castes), static equilibrium in the economy, a low savings rate, immunity of manufacturers to scientific and technical progress and high rates of population growth. The combination of low rates of economic growth and, on the

contrary, high rates of population growth leads to a drop of real income per capita. Under pressure of this negative trend gradual stabilization of population and income levels takes place.

2. *Stage of creation of conditions for the running start.* It is characterized by slow, gradual creation of conditions for some increase of the efficiency of production and economic growth.

3. *Stage of the running start.* It is distinguished by increase of the rate of accumulation in the national income, which creates the opportunity to use the achievements of scientific-technical progress and overcome resistance to the development from well-established state institutions, traditions and customs.

4. *The path to maturity.* The rate of economic growth increase. The expansion of production volume begins to outstrip population growth, leading to higher standards of life.

5. *Society of high mass consumption.* At this stage concerns on the resource limitations of growth of production volume fall away. On the contrary, limitations from side of demand and ecology become stronger, the importance of durable goods and services increase.

Replacement of one stage of economic growth with another should occur, from Rostow's point of view, in an evolutionary, not revolutionary way. He believed that all countries pass this way at different rates and are in different stages of development. In particular, USA, as Rostow believed, are in the final stage, and the Soviet Union is in the fourth stage. He attributed communism to the number of "diseases of the transition period", specified with the necessity of accelerated industrialization.

In addition to the above-mentioned concepts, in economic theory there are also concepts of industrial and postindustrial society, accent an attention to the evolution of modern industrial structures and the prospects for their development<sup>48</sup>.

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#### **11.4. Application of state programs in social and economic development of Uzbekistan**

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Since 1997, the government of Uzbekistan at the initiative of President Islam Karimov adopted the basic parameters of social and economic development of the country, provided for the current and subsequent years. Government programs plans package of measures for modernization of the economy of public relations for the future, indicate the sources for its implementation and the ways of realization of strategic objectives.

These programs reflect the importance of use of methods of planning of most important macroproportions and links in the economy and life of society, define the direction of development of the country for the coming future.

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<sup>48</sup>Galbraith D. Economics and the Public Purpose. - M., 1976.



Unlike the planned calculations of administrative and command system, the Ministry of Economy of Uzbekistan took as a basis not five-year but a three-year time horizon, based on achievements in the economy of the past years.

In 2005-2007 Uzbekistan managed not only to eliminate pernicious aftereffects of centralized economy, but to organize the new structure of the national economy, which since 2007 has allowed to move decisively to the stable development of the country, its regions and industries. During the period from 2000 to 2013 real incomes of population increased almost 30 times, indices of the social differentiation among the population have decreased significantly.

Over the past few years as a result of the measures taken to increase salaries, pensions, scholarships and benefits, reduction of tax rates on personal income, reduce the level of inflation aggregate and real incomes of the population have increased significantly, customer demand steadily grows. Thus, compared with 2013 in the past year, the average salary increased 29.5 times, the average pension - 18 times, income per capita - 12 times. Scheduled salary increase in this year is at least 30 percent, real income increase - 23 percent. Significantly increased expenses for acquisition of a non - food industrial durable goods.

Today increased national wealth serves as foundation of economic and political relation.

The development of economy of Uzbekistan in the coming years will occur in the difficult conditions of the ongoing *global economic* crisis. After a slowdown of growth rates in 2008-2013, some recovery in global growth of global economy is forecasted. In 2010-2013 a continuing of slowdown rates is expected, mainly caused by the possible deterioration of the situation in the U.S. economy. In USA during this period influenced by the weakening of domestic demand due to reduced investments in housing and reduce investment activity in the industry rates are significantly reduced. In Japan, thanks to the growth of private investment and personal consumption in the coming years, the rate will remain at 2%.

The developing countries and industrialized countries in Asia are making a significant contribution to the maintenance of high rates of development of the world economy. China will retain the position of the second (after the U.S.) locomotive of world economic growth, more and more significant contribution to the overall dynamics of indicators will also make India. By 2010, we expect a slight decrease (up to 7-8 %), of growth rates of the Chinese economy due to the global economic crisis, the slowdown of growth rates of exports and state measures to overcome the "overheating" of the economy.

In the forecast period of 2010-2013 because of the threat of appearing a cyclical regression in USA and other developed countries probability of slowdown of growth rates of global GDP will retain. Besides, still retains the probability of rise of world oil prices and the destabilization of financial flows due to aggravation of the situation in the oil producing regions of the world.

Experience of the development of the domestic economy, adopted in the new conditions of innovative development of the economy, proves that neoliberal private capitalist model is beneficial to those countries that have the leadership in economic development. In environment of Uzbekistan, while retaining elements of the transition period, the development is only possible when using the effective

key factors of government support and the liberal market regulation. As a result, in 2007, annual GDP growth in the country is more than 7,0%, in 2013 – 8,0 %, in 2014 it is planned to – 8,0%.

Changes of the strategic direction of development of the national economy requires a complete modernization of the economy based on innovative, based on the realization of human potential, the most effective use of knowledge, constant development of technology and achievements of the economic results. The state, using market key factors and stabilizers must simultaneously provide greater freedom to entrepreneurship at the stage of innovation growth.

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### Control questions

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1. Give definition to the economic growth as a macroeconomic category and as a process.
2. What is difference between qualitative and quantitative characteristics of economic growth?
3. Why the graph of economic growth is wavy?
4. What types of economic growth have been identified by economic theory in the twentieth century?
5. Enumerate the factors of economic growth.
6. What is difference between the extensive and intensive type of economic growth? What factors is intensive type of economic growth related to?
7. Describe the neoclassical model of economic growth. What place does production function take in this model?
8. What is the essence of input-output balance model?
9. How did Keynesians and neo-Keynesians interpret solution of economic growth problems?
10. What phenomena does the concept of endogenous growth explain?
11. Describe the basic theories of economic growth of classicism and neo-classicism.
12. How does the state solve problems of economic growth in practical economy? Give examples.

## CHAPTER 12

### CONTEMPORARY MODELS AND INSTRUMENTS OF STATE MACROECONOMIC POLICY

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#### 12.1. Types and models of economic policy

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*Economy policy* is a purposeful system of state measures in spheres of social production, exchange and benefits consumption. It is called to reflect interests of community, all of its social groups and directions of national economy.

The economic policy is an instrument of government regulation of economy in conditions of market system of management. The latter is a system of standard measures of legislative, executive and control character. The measures are implemented by legal state organizations and social organizations in purpose of stabilization and adopting current social and economic system to changing conditions.

In mixed economy, the state, fulfilling wide function package, uses various types of economic policy. First of all the state must develop the *institutional and legal policy*, providing the base activity of economic agents, by establishing "the rules of market game". It touches of determining rights and forms property, terms of making and implementing contracts, trade-union interrelations and employers, general bases of external-economy activity and etc.

Functioning market mechanism supposes that income of economic agent depends on quantity and quality of existing resources, which can be used in production of goods and services. But the main part of population is unable to provide itself worthy life neither through organizing own production, nor selling existing resources. Retirees, handicaps, minors, students, obliged joblessness and etc concern to this group of population. Therefore, the state in purpose of supporting stable social climate in society must with assistance of *budget and taxation policy* to make redistribution of created income to provide normal life of mentioned categories of population (to say nothing of more complicated task – determining and supporting of differential optimal level of income in society).

*Social policy* stipulates not only assistance for poor and rise in the standard of living include also policy in labor sphere, leisure of citizens, employment sphere, education, culture and etc. Solving the social problems mostly depends on development of national economy in tote and important of its economy spheres, particularly, what industry, agricultural and other policy of state determine. Necessity of liquidation and compensation of negative effects of market hearth and satisfaction consumptions in public benefits stimulate the state to develop policy of economic and ecologic safety, national defence, especially underlining in row cases the organization of fundamental science researches, state system of education and medical service, road construction and etc.

Separate types of state economic policy appeared as reaction on corresponded faults in work of market mechanism.

The essence of state *business cycle policy* is to stimulate demand on goods and services, capital investment and employment during crises and depressions. For this, the private capitals provide additional finance preferences; increase the state expenditures and investigations. In long time increase conditions in state economy can appear dangerous facts – resolution of stocked goods, increasing import and worsening balance of payments, exceeding demand on labor force by offer and here baseless wage push and costs. In such situation the function of SEP – slow down growth demand, capital investment, in order that as far as can slow down goods over production and over accumulation of capitals.

*Stabilization policy* directs on recovery and support of macroeconomic equilibrium at a level, close to full employment factors in stable costs level conditions. Deviations from equilibrium can appear as owing to the shocks by demand or supply, so as cyclic vibration of economy. On both occasions the economics bends from production level within full employment factors (potential production value), trouble condition of price stability. Short-term stabilization of economics can be reached by equilibrium or by not full employment of resources, that is, with production value less potential.

Stabilization policy usually connected with impact on aggregated demand as more dynamic component of macroeconomic equilibrium, regulating of which is possible fast return the economy to potential, that is, full employment and provide equilibrium, at least in short-term period. This impact is implemented with assistance of instruments budget and taxation and monetary policy.

*Structural policy* directed on providing conditions for stable long-term economic growth that is increasing of potential production value. Instruments of structural policy impact, first of all, on aggregate supply.

There are as direct, so indirect impacts on economy with assistance of these instruments. Direct impact is connected, first of all, with target state programs, supposing of addressed expenditure funds on support or creation of specific organizations, spheres, on fundamental science researches, personnel training for separate sectors of economy and etc. Indirect impact can be provided, example, taxation reform, meant for that tax cut in long-term period will be stimulate investments, labor offers, so increase production value, enlarging thereby tax base.

With assistance of *regional policy* provide privileged conditions for some regions. In one case the support is afford to those spheres and units of economy in regions, which are in protracted crisis condition; in other case stimulates the development of new spheres of economy and manners of manufacture, which is called to lead progressive structural improvements inside of spheres, among spheres and regions allover the national economy, to increasing their effectiveness and competitiveness. But also can take measures by slow downning excessive concentration of production, out-dated production, noncompetitive production and etc.

Most important object of SEP is capital accumulation. Production.

territories, the *investment policy* impacts on economic cycle and structure.

*Employment policy* is directed on supporting of normal from point of view market economy correlation between demand and supply labor force. This correlation have to satisfy economy needs in qualified and disciplined workers, salary of which as enough motivation to labor for them. But correlation between demand and offer has not to lead of overgrowth of salary, which can negatively reflect on national competitiveness. Undesirable and sharp cutting of employment lead to increase of army of unemployed, slowdown of customer demand, taxation earnings, tax increase on grants and hazard social effects.

The most important link of employment policy is acting *industrial policy* - is measures system, directing on development of national economy, high technologies and products with high level treatment, modern information and other services, human capital. Its energetic and consistent implementation allow for state to provide high quality of population life, to hold deserving place in global economy.

The mechanism of state industrial policy is corresponded as the aggregate of legal and organizational forms of its realization, macroeconomic and specific methods and influence instruments on industry. There are popular the main models of industrial policy: export-oriented, import-substituting and innovative.

Essence of *export-oriented model* of industrial policy is in utmost encouragement of productions, oriented on export of own product. The priority task is production competitive product and exit with it on international market. The important advantages of this model are inclusion the country in world economy and access to world resources and technologies; development of strong competitive spheres of economics, which provide multiplicative effect development of other "internal" spheres and are the main purchaser of monetary in budget; attraction of currency funds into country and their investing in production development and services sphere of national economy.

*Import-substituting* is corresponded as the strategy of providing internal market on base of development the national production. The import-substituting suppose of conduct protectionist policy and supporting the firm rate of national currency (thereby prevent the inflation). The negative sides of import-substituting model of industrial policy are self-isolation from new tendencies in world economy; ability of technologic and therefore, competitive backlog from advanced countries; danger of making "hothouse" conditions for national manufacturers which will lead to ineffective management and resources usage; necessity, regardless of international division of labour, build the full production chains, which can be more capital-and resources consuming, than already existing in other countries.

In the base of *innovation model* is lay the process of state economic development as on internal, so on external markets, supporting on new tendencies of technologic and social development with using high technological and capital-consuming production.

*Agricultural policy* - is policy, directed on dynamic and effective development not only agricultural production, but also other spheres of

agribusiness, providing on this base the growth of living standards of population and social process in country. In agricultural policy the great attention must attend to reaching more high final results of productive activity as in agriculture, so at whole agribusiness, providing stable temps of expansion of production, increasing of its effectiveness and social development of village.

Important mean for effective realization of state industrial agricultural policy means the state *money (monetary) policy*. In frame of *money-credit policy* the state tries to implement the strict, beforehand counted on impact on reproduction process.

The special attention state gives on money circulation (*monetary policy*). Mainstream of regulating monetary circulation – fight against inflation is grave danger for economy (*antiinflationary policy*).

Condition of payment balance is objective indicator of country economic health. At all countries with market economy the state implement operative and strategic regulating of payment balance by impacting on export and import, capital moving, rise and fall of rate national currencies, participation in international economic integration.

One of main target for regulating is the costs (*pricing policy*). Dynamics and structure of costs reflect economic condition. At the same time the costs strongly impact on economic structure, terms of capital-investing, stability of national currencies. They come out as one of critical point of economic and social-politic life, where across interests of users and manufacturers, importers and exporters. Concrete measures in price sphere may have short-term or even emergency targets, which can in current concrete moment mismatch with other targets, but they always act to general target of state regulating – optimization temps and proportions of economic development and stabilization of social system.

*State policy of external-economic activity* is also important instrument of state regulating. The state fulfill trade and currency regulating, using quotation, customs duties, grants, taxes and etc. manipulating by customs duties, the state can indirect stand for national production, regulating currency rates – impact on export and import and etc.

All types of economy policy are closely interconnected. Within making decisions in one sphere, there is necessary to take into account their impacts on others. So, changes in state expenses and taxes demand corresponding changing of money supply. Changes in fiscal and monetary policy impact on investments, income level, national production level and values of pure export. Important to underline, that none of economy policy type not impact isolated from others.

In economic literature the *normative* and *positive theories of economic policy* stand out.

*The theorists of positivism* try to explain, why economic authorities is behavioural approach themselves. On authorities' activity impact factors: politic pressure, institutional frames, economic theories and real targets changing. The perspectives of formatting of economic policy as in one country border, so in interrelation between countries search by theorists of positivism.

In the base of most normative theories of formatting policy is the theory

created in beginning of 50<sup>th</sup> years last century by Jan Tinbergen, the first Nobel prize winner in economy sphere in 1969, its correspond the attempt definition of that, how have to act persons determining economic policy.

Tinbergen strictly outlined (described) main steps by creating economic policy. First of all, there must be determined *the targets of economic policy*, usually in frame of improving social welfare. On the base of it tasks, which must be accessible is developed. Second, must be determining (accessible) *instruments of economic policy*, which are existed for tasks realization. Third, it must be existed *economic model* connecting targets and instruments in order to select optimal instrument of economic policy.

*Positive theory of economic policy* searches hearth of policy founders. The starting point in understanding of discrepancy is awareness of that creation of policy is usually implemented by not only state organ but several. The actions of state – is result of several decisions was making on different and often competing levels (central, regional and local) and also decentralized subjects, social organizations, Central bank.

J. Schumpeter in his book “Capitalism, socialism and democracy” (1943) showed democracy as political market on which politicians present as sellers and voters as buyers, by which manipulate partly the sellers. So the *economic model of democracy institute* is appeared.

Interpretation of policy as exchange process mounts to dissertation of Swedish economist Knut Wicksell “Researches of finance theory” (1896). The main difference between economic and political markets he seen in conditions of display people interests. The idea, that people act in political sphere furthering their own interests and there is no insuperable border between business and policy laid in base of work of American economist J. Buchanan, who received in 1986 for researches in social choice theory Nobel prize. “The policy, - he written, - is complicate system of exchange between individual, in which the latters collectively try to reach own private targets, as he can not realize them by usual market exchange. Here are no other interests, besides, individual»<sup>49</sup>.

The state, according to logic of Keynesianism, not can but must actively intervene in economic life of society. Depending on apply in such intervene instruments and arms of impact on economic policy of state accepted to subdivide on budget and taxation and credit-monetary.

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## **12.2. Financial institutions in the market system of management**

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Effectively functioning of financial institute is one of conditions of stable growth of economy of country in tote.

Creation of financial institutes is supposing the complex of organizational forms and conditions of their functioning, including information and operation norms providing by them quality financial services. Generalization of theoretical

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<sup>49</sup> Buchanan J. Constitution of economic policy // Economy questions. 1994. № 6. - p. 108.

bases and world experience allows making conclusions that there is standard set of correspond institutions and requirements to them, which is necessary for providing stable functioning of finance market economy in tote.

Financial institutes unite all participants of market within process moving of financial streams and support their targets in act of finance economic laws conditions. Peculiarity of financial mechanism expresses in monetary form, which allows redistribution the funds at any level. At the same time the functioning of this mechanism as distribution and redistribution instrument is realized by correspond institutions. In tote, at system of financial institutions can underline following sections: budget; bank; equity market; monetary activity market; services of infrastructure abovementioned sectors.

Flexible rate and role of each of these sectors has difference depending on type of economic system. In *command economic system* the main role in distribution and redistribution of finance resources is responsible the budget sector, as main instrument of financial relations. In *market economic system* require another mechanism for redistribution of monetary capital – through monetary market and equity market. Therefore appear new relations and corresponding institutions, such as financial companies, funds, investment banks, stock exchanges and etc. naturally, for countries with transition economy is necessary the time, knowledge and information for formatting them. In *countries with transition economics* the system of financial institutions has own definitive features. First of all, because of not completed market infrastructure yet, the necessity of more state regulating is keeping and prevailing of state institutions, second, this system assigned to serve the financial market, simultaneously forming the new institutions.

For two last types of economic systems inherent the conception of financial market.

**Financial market** is the aggregate of competitive relations by moving of monetary streams between agents of macroeconomics by transformation of free financial assets into loan and investment capital. The process flows through redistribution mechanisms of these assets between creditors and borrowers by means of brokers on base of demand and supply. At the same time its functioning, effectiveness and stable in much is defined by functioning and activity of financial institutions.

As follows from fig. 12.1., the financial market includes aggregation of all finance resources in their moving. Under **monetary market** understand the market of circulating cash and providing the similar functions of short-term the means of payment (bills and etc.). **Insurance market** is market by providing insurance services. **Capital market** is the market on which the owners of financial resources sell the profit of temporary use of these funds for stipulated remuneration.



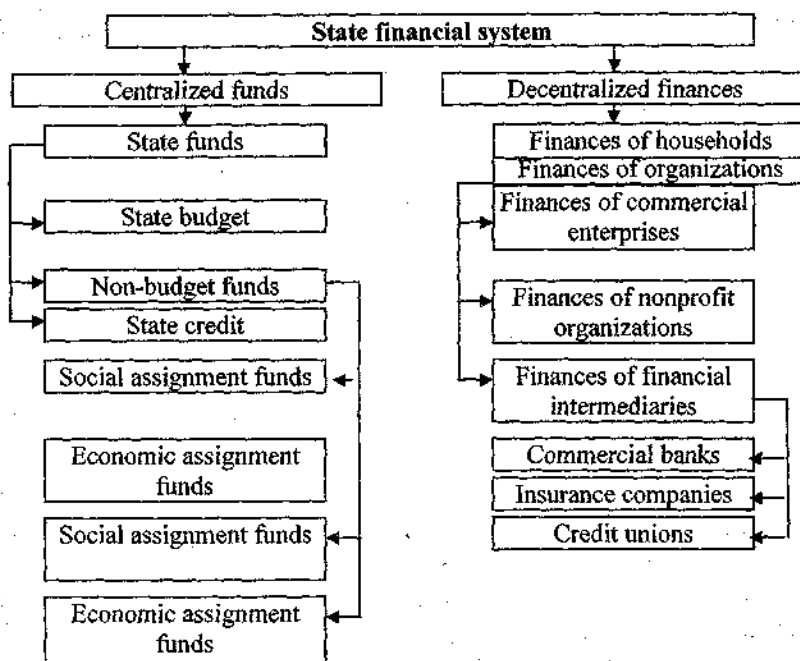


Fig. 12.1. State financial system

Capital market is showed as movement of either direct bank lending or securities. Accordingly there exist *loan market* and *share market*. The *loan market* is market of short-, middle- and long-term bank credits. *Short-term credits* serve the movement of circulating assets, *middle- and long term credits* – movement of fixed capital of enterprise. *Share market* serves the movement of securities – stocks, bonds, mortgage notes and etc.

Financial market supposes existing of equilibrium market *institutions*, with which implement trade by asset. The main trading financial assets are *the foreign currency, equity, deposits, and derivative instruments*. In role of main brokers on this market act *commercial banks, exchanges, saving institutions, companies of joint investment* and etc.

The main *function of financial market* is to provide spillover of funds (free at the moment) from some economic entities to those who have shortage on them.

The main functions of financial market:

- mobilization of temporary available funds from many sources;
- distribution of available funds among resources users;
- determining of effective directions of using financial resources;
- estimation of financial products on the basis of demand and supply;
- broking between seller and buyer of financial products and instruments (brokers, dealers);
- providing control of financial condition.

Variety of affording financial services and functions resulted from them formatted the financial system.

*Financial system* is organizational system of monetary relations between all

subjects of reproduction process by distribution and redistribution of aggregate social product.

Depending on methods of formatting incomes of economic subjects, accepted to subdivide the financial system on spheres of centralized finances (public finances) and decentralized finances (organizations and households finances).

Financial system as form of organizing monetary relations can be subdivided on three interconnected subsystems, providing formatting and usage of financial resources accordingly at business entities, population, state and organs of local authority. In each allocated subsystems use specific forms and methods creating and using of financial resources; each of them has own functionality and accordingly financial mechanism for reaching target.

Activity of one or another function changes depending on state of the economy, short-term and long-term priorities. None the less, there is a set of traditional elements of financial institutions system, which are necessary for functioning of financial markets:

- 1) state funds;
- 2) bank system (head or central bank; commercial banks; specialized bank institutions; quasi-banking institutions);
- 3) non-banking financial institutions;;
- 4) insurance institutions (financial infrastructure; legal infrastructure; information infrastructure; operational infrastructure);
- 5) funds of enterprises and organizations.

Functioning systems of financial institutions, from point of view of market relations, are based on principles "savings-investments". The savings are source of functioning of all mentioned above chains of financial institutions system. The economic growth and activity of financial market in tote depend on effective and rational investment of these savings. The more savings are redistributed through financial market, the more its mechanism is complicated. The system of financial institutions of countries with more high level of incomes, as usual, is more complicated and more developed in compare with similar systems of developing countries.

The state budget is one of important financial institution. The budget is statement of incomes and expenditures of economic unit. For the state it is centralized fund of monetary resources, disposable of state and oriented for financial providing of its activity. As financial state plan it has status of the law on some specific period, usually one year. The budget is central chain of budget system of modern countries.

In countries with developed market economy the large value of monetary streams distribute through bank system and non-bank institutions.

The functions, recognized officially of financial institutions among of which majorities are commercial banks, include: attraction deposits and investments; place them in assets returning interest (credits and investments); fulfilling of count-cash services of juridical and physical persons; providing trust (confidential) services; implementing of currency operations and consulting services.

*The bank* - is finance and credit institution, implementing different types of

operation with money and securities with purpose of providing services to agents of economy for adequate compensation.

Banks produce, accumulate, save, give credit, distribute, buy and sell, exchange money and securities, control movement of monetary funds, movement of money and securities, provide services by payments and payments transfer, fulfill the intermediate and trusting operations.

There is two-level bank system in Uzbekistan and Russia, based on two-kind of banks. First level – is central bank – the main state bank of a country provided with especial rights. Second level is covered by the commercial banks – as state and non-state, fulfilling wide circle of banking operations, mostly servicing enterprises, firms, organizations, offices providing bank services for population.

*The Central bank* has to regulate monetary circulation in country, implement monetary emission, and regulate credit and currency rate, control activity of commercial banks, save reserves and stocks of gold monetary funds. Central bank is the main state bank of a country, provided by especial functions, right of emission of banknotes (emission bank) and regulation activity of commercial banks. The central bank is the organ, supporting the state, government to adjust monetary circulation, manage the budget. The main functions, beside money emission, are storing of official reserves (gold-currency reserves) of state, crediting and administration of accounts of commercial banks and government, regulating of monetary circulation, and controlling activity of credit offices.

*Commercial bank* is the credit institution, providing bank services for enterprises, organizations, citizens (clearing transaction, payment operations, attraction investments, loaning and operations on equity market). The commercial banks function is under central bank control and can make operations by state financial organs' order, interrelate with them. Financial resources for realizing operations, the commercial banks formatting on savings account, attracted as investments, interbank credits, issue of own bonds and stocks. Commercial banks can be universal, implanting of wide circle of operations, and specialized (savings, mortgage, investment, clearings).

Quasi banks represented by financial companies, specialized on fulfilling specific bank functions: micro financing, crediting, mortgage crediting, mediation, saving services under post-offices. Sometimes these institutions create as non-specialized for supporting specific spheres of economy or specific part of business or population. Such support can be organized as government, so large corporative unions and donors. Being non-depository institution they can make dedicated functions, such as leasing or factoring. Activity of these institutions also requires the juridical provision.

In spite of possible variety of bank and non-bank credit organizations their number unwarranted, because on forefront out their solvency and ability to provide qualitative service.

Wide popularity in banking sphere received specialized and non-banking institutions, facilitating to effective development of financial market and acting as institutional investors. They act as subjects of basic financial market or as secondary.

Institutional structure also depends on sizes of financial sector, its components and their ability effectively servicing the key users of a country main bank, commercial banks, saving institutions, development institutions, insurance companies, pension funds and other institutions of financial market. The other determining factor of institutional construction is complex providing and requiring financial services.

Stable of bank sector in international experience determine with taking into account six main characteristics by CAMEL system, include indicators, providing correspondence of capital adequacy, quality of assets, reasonable direction, profitability, liquidity and sensitivity to risks.

The one of characteristics of finance-credit sphere maturity is foreign capital participation.

Role of non-banking financial institutions raises, with widen of frames market relations and plantation of market instruments in the course of reformation.

*Financial companies* are supplement to banks; they can provide truncate set of bank services of special type, as the institutions of micro financing, credit unions, special mortgage structures or development institutions sponsored by state. They are so-called near-banks or quasi-banks. On the base of such structures have small sizes and source of their resources from outside relatively stable it make them attractively for wide spectrum client services (postal savings banks, mortgage banks). They are less sensible to market vibrations. Many of such structure not put the main target the receiving profit and specialized on limited financial products or economy spheres (fund of micro-financing donors, governmental banks of development or credit unions of cooperative type). Some of quasi-banks, without attraction deposits, specialized on providing leasing or factoring services.

Nowadays in Uzbekistan and Russia non-banking financial institutions, in spite of sufficiently high tempos on growth assets, as before yield the banking sphere by volume assets. Less actively, than other non-banking financial institutions, developed the insurance companies.

*Insurance* is important and growing part of financial market, helping to divide risks and mobilize financial resources on long-term period.

*Insurance companies* stimulate the economy development especially in such spheres as aviation, navigation, passenger transportation and other spheres. The character of banking and insurance risk is different. Assets of the latter are more sensitive and can seriously impact on capital. For insurance companies more long liabilities and more quick assets are distinctive. In insurance sphere relations each of links, are provided by specific sphere of insurance and subdivided by insurance types.

In many countries *equity market* (EM) is an essential part of financial market.

*Equity market* is part of financial market, through which it is possible to borrow funds for the period up to several decades (bonds) or in perpetual use (assets). Equity market is added the system of banking credit and interrelated with it. Example, banks submit to brokers of equity market the loans for subscription on equity of new issues and those sell to banks the main sections of equity for reselling and by other reasons. In some European countries the biggest commercial

banks have the main mediating role at equity market. Part of equities circulates at monetary market, where short-term (up to one year) debt instruments, mainly the treasury bills (notes) circulate.

*Equities* as financial instrument are the documents, certifying, with observance of current form and obligatory identifications, property rights, implementation or passing of which, possible only by submission these sheets (assets, bonds, bills and etc.). They are may be bearer (pass to another person by handing), ordering (pass by making inscription proving the passing), personal. As usual, the buying and selling of equity implements at stock exchange.

In September 1998 the standards by targets and principles of regulating market of equity have been developed by International Organization for Securities Commissions (IOSCO). Developed equity market submits alternative methods of financial intermediation, permits to diversify risks, effectively estimate assets, raise liquidity. The transparent protective and informational systems of payments, calculations, clearings and other operations of share market are created for this. As the rule, the level of capitalization of share and debt markets of equity considerably exceeds the deposit savings and assets of bank sector.

In spite of high tempos of development of *share market*, it is not considered as financial institution, as main mechanism of attract investments. Own funds are still the main sources of enterprises investments of real economy sector.

*Stock exchange* is an organized market, where purchases and sales of equity are implemented. Creating of stock-exchange is a result of objective consequence of market relations development. Necessity in appearing of such institution is caused by widening commerce of some goods, such as raw materials and later equity. Mentioned goods are characterized by specific features, which transform them into exchange goods, that is, large-scale goods or substitute goods in frame of their commodity groups or having unpredictable fluctuating prices.

*The national market of equity* is formed and functions on the basis of corresponding legislation and regulated by authorized state organs.

There is a necessity of presence of institutions, assisting to the work of specialized financial and credit organizations, for financial market functioning. Researches of local and foreign economists in financial sphere confirm the necessity of following variety principles and rules for market stability of financial services market. The world practice underlines that for normal functioning of financial system it is necessary to follow three ground rules:

- 1) supervision and proper regulation of financial institutions for supporting financial stability;
- 2) providing of trustworthiness and reliability of financial institutions activity with purpose of reduction risks by force of introduction;
- 3) establishing of financial system infrastructure, including:
  - juridical infrastructure by financing, included measures by protection creditors rights and system of financial security;
  - operational infrastructure, including monetary and currency operations, payments and calculations, also by equity, micro structure of money and exchange, stock exchange;

– information structure for providing transparency of enumeration and auditing, credit accountability and openness.

Observe of these three ground rules requires, first of all, organization of effective supervision and regulation corresponding to principles of Basel Committee by banking supervision, established in 1974.

Whole infrastructure of financial market can be grouped by three directions: juridical, informational and operational.

*Juridical infrastructure* supposes as existing legislative package of documents by providing the functioning of financial market, so institutions, guaranteeing their implementation. It requires effective functioning of judicial system, property registers. In conditions of integration and globalization functioning of information sector is in providing and submitting the trustworthy, transparent and clear information to all participants of market.

*Information system* includes institutions, producing, passing and saving information in frames, foreseen by legislation and in accordance with international standards and requirements. The sources of information are banks and non-banking organizations, and specialized structures. Such specialized institutions relatively new for Uzbekistan and Russia, are the credit bureaus and credit rating agencies.

The complex infrastructure service of financial sector demands creation of *operational technologic system*, providing the payments, mutual settlements and accessibility to information. The need in corresponding technologies and juridical norms of their usage is caused by that the operation infrastructure determines speed and security of payments, participation in international payment systems.

Forming institutions of financial market, absence of experience of controlling and transparence financial operations and reinforcement processes of international integration require strengthening of financial sector, as system of financial monitoring. All over the world the International committee against “money laundering” (FATF – the Financial Action Task Force on Money Laundering) heads the activity of financial monitoring. This international organization, established in 1989, develops standards determining “money laundering”, and methodology of cooperation forms in this direction.

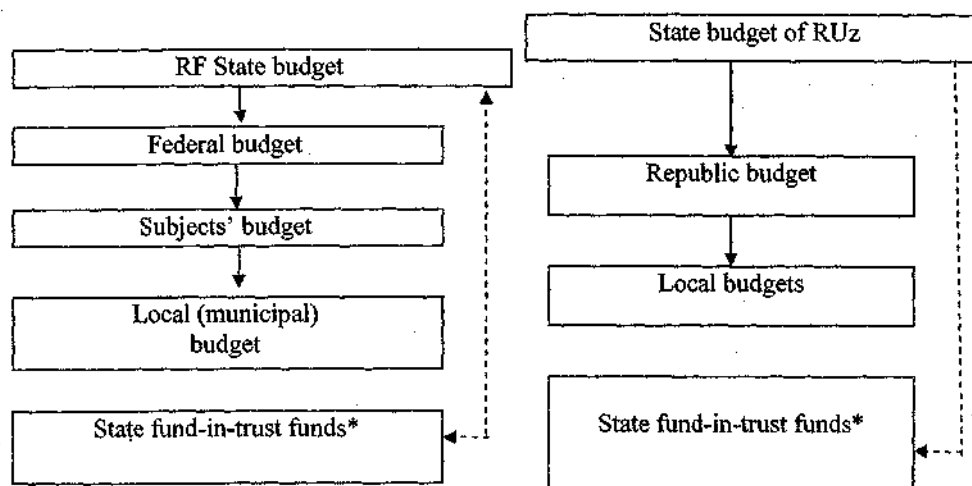
*Financial monitoring* is activity, identical with conception of financial control, and directly connected with obligatory procedures of internal control in part of implementing of financing transactions. Financial monitoring is supervision for activity of organizations, implementing transactions with monetary funds or other property, by detecting operations under obligatory control and other operations with monetary funds or another property connected with legalization (“laundry”) of incomes, received by criminal way and financing terrorism.

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### **12.3. Budget and tax policy: aims, types, instruments**

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*Budget and tax policy* is an aggregate of state arrangements on state regulation of expenditures and taxes, directed on providing full employment and production of equilibrium GDP.



**Fig. 12.2. Structure of state budget of Russian Federation and Republic of Uzbekistan**

\* State fund-in-trust funds include in composition of consolidated budget.

The main *instruments* of this policy are the state budget and taxes.

**State budget** – is annual plan of state expenditure and sources of finance covering (incomes).

The structure of country budget depends on, first of all, its state structure. In the countries, having unitary structure (Uzbekistan, Kazakhstan, France, Japan) the budget system has double-level construction – state and local budgets. The countries with federal structure (Russian Federation, USA, Germany, and Canada) have intermediate – budgets of federal subjects, states, lands and corresponding administrative foundations.

The unit weight of expenditures of individual articles in state budget of countries with market economy is showed at table 12.1.

The treasury system of budget performance is introduced in Russian Federation and Uzbekistan.

Ideal implementation of state budget – it is full covering of expenditures by profits and formation the rest of funds, that is, excess of receipts over expenses. 85% of state budget incomes are formed by tax proceeds, industry profits, incomes from property privatization and etc. The excess of expenses over receipts leads to **budget deficit** formation.

Budget deficit by international standards has not to exceed 5% of GDP. It is covered by internal and external state loans in the form of selling state equity, lending at non-budget funds (insurance funds by jobless, pension fund) and also by additional monetary emission. To the latter the governments resort more often in critical situations – during the war, continuously crisis.

Table 12.1

## Approximate structure of State budget

Budget item	Portion, %
<b>EXPENDITURES.</b> Expenditures on social services: healthcare, education, social hardship allowances, grants for budgets of local authorities on these targets	40-50
Expenditures on economic needs: capital-investments on infrastructure, subsidies to public industries, subsidies on agriculture, expenditures on state programs implementing.	10-20
Expenditures on arms and material provision of external policy, keeping of foreign service and loans to foreign countries	10-20
Administrative-managerial expenditures: keeping governmental organs, police, justice and etc.	5-10
Payments by state debts	up to 7-8
<b>PROFITS.</b> Taxes, excise tax, customs duties and etc.	75-80
Non-tax earnings: earnings from state property, state sector in economy, state trade	5-8
Due to state funds of social insurance, pension, insurance of unemployment	10-12

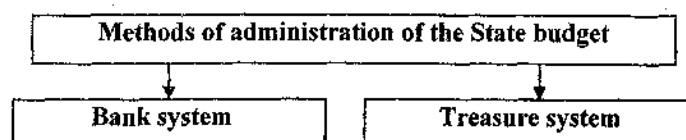


Fig. 12.3. Methods of administration budget

In case of financing deficit of state budget on account of monetary emission the state receives especial profit (profit from printing money), so-called the seignorage. It is appeared on exceeding of increase money mass over increase of GNP, which led to rising of average prices level. In result of it, all economic agents pay the peculiar tax and part of their incomes redistribute for benefit of state through mechanism of rising prices.

If deficit of state budget finance on account of emission state lending, so its guide to *growth market rate of bank interest*. But growth of latter guides on rising prices of credits and to contraction volume of investments, which reduce incentive effect of fiscal policy.

State lending are less danger than emission, but they have negative impact on country economy with that lead to state debt and following to increase of debt consequences.



**State debt** - is an inevitable result of budget deficit reasons of which are connected with setback in production, growth of marginal costs, unsecured monetary emission, growth of expenditures by financing military-industrial establishment, growth capacity of black economy, nonproduction expenditures, losses, misappropriation and etc.

The state debt is subdivided into internal and external.

**Internal debt** is backlog to own citizens and enterprises. It is an amount of produced and underpaid debt liabilities.

**External debt** is backlog to citizens and organizations of foreign countries. It is the hardest debt, because it connects the state with a number of target commitments from one side, and from other side the state repaying a debt, must to settle accounts with valuable products and pay big interests.

The main article of budget profits is the taxes.

**Tax** is cash means, compulsory withdrawn by state from juridical and physical persons and necessary for implementing by state own functions.

In modern conditions taxes make three main functions: *fiscal, economic and social*.

**Fiscal function** includes in collecting cash means for creation of state cash funds and material conditions for state functioning.

**Economic function** is supposed usage taxes as instrument of redistribution of national income, impact on enlarging or repression production, stimulating manufacturers in development of different types of economic activity. This function sometimes call distributional.

**The social function** is directed on supporting social equilibrium by changing correlation between incomes of separate social groups with purpose of leveling inequality between them.

**Direct** - are taxes on income or property of taxpayer. In turn, the direct taxes subdivide on real and personal.

The real taxes became popular in first half of XIX century. They include land, house, field and equity taxes. Personal taxes include: income tax, profit tax of corporations, incomes tax from money capital, capital gains tax, excess profit tax, inheritance and gifts tax, property, poll tax.

**Indirect taxes** include excises, value-added tax, sales tax, turnover tax, customs duties.

Depending on nature of rate of pay differ *hard* (fixed), *regressive*, *proportional* and *progressive* taxes. Hard rates determine at absolute amount on unit taxation in depend of incomes size, level of production, selling and other economic indicators connecting with business activity (property tax, usage of natural and labor resources, fixed taxes on specific types of activity). It is *conditionally constant* taxes.

Second group - is *condition variables*, or *redistributable taxes* (profit taxes, excises, AVT). These taxes actively control economic activity. On *regressive* taxes the interest of withdrawal of income decreases within growth income. On *proportional* taxes in depend from size of income act equal rates, on progressive taxes the interest of withdrawal of income increase by income increase rate.

Depending on legal organ, at the disposal of which come that or other taxes, is differed the *state* and *local* taxes. Depending on using, the taxes divide on *generals* and *specials*. The generals are oriented for financing current and capital expenditures from budget, without consolidation after any specific type of expenditures. The special taxes have purpose.

Budget and taxation policy is the part of financial policy – aggregate of financial arrangements, implementing by governmental organs through sections and elements of financial system. The financial policy includes the fiscal (in taxation sphere and regulation structure of state expenditures with purpose of impact on economy), budget (in budget regulation sphere) policy and financial programs (fig.12.4).

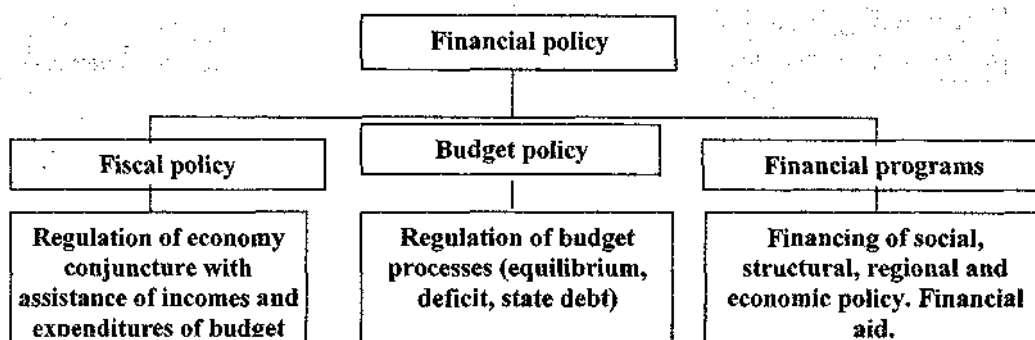


Fig. 12.4. Structural elements of financial policy

It is necessary to look for theoretical origins of current western conceptions of financial policy in works of western economists of XIX – beginning of XX centuries. Their development connects with general rules of moving market economy and reflects principal changes in economy development of western countries. Up to the end of 1920 years, in the base financial policy of countries conceptions of neoclassic school have laid. Their main direction was non-interference of the state, saving free competitiveness, usage of market mechanism as the main regulator of economy processes. Economic reality of end 1920 - begin 1930-ths made to revise this course as discontinue meeting the case of life.

Under the influence of state monopoly capitalism in 1930 – 1960 years in the base of financial policy the Keynesian and Neokeynesian doctrines have been inputted.

The economic science underlines the targets and types of fiscal policy.

The purposes of fiscal policy:

- leveling vibrations of economic cycle;
- stabilization of growth rate of the economy;
- achieving of high-level employment and temperate speed of inflation.

The main arm of state fiscal policy – is change of taxation rates in line with government aims. Impact of taxes on GNP value is implemented through mechanism of tax multiplier. The second component of fiscal policy is change of state expenditures. State expenditures like investments make impact on aggregate

demand and have multiplicative affect.

There are different conceptions in the base of state budget policy: conception of every year balancing budget, conception of balancing budget during economic cycle, conception of functional finances.

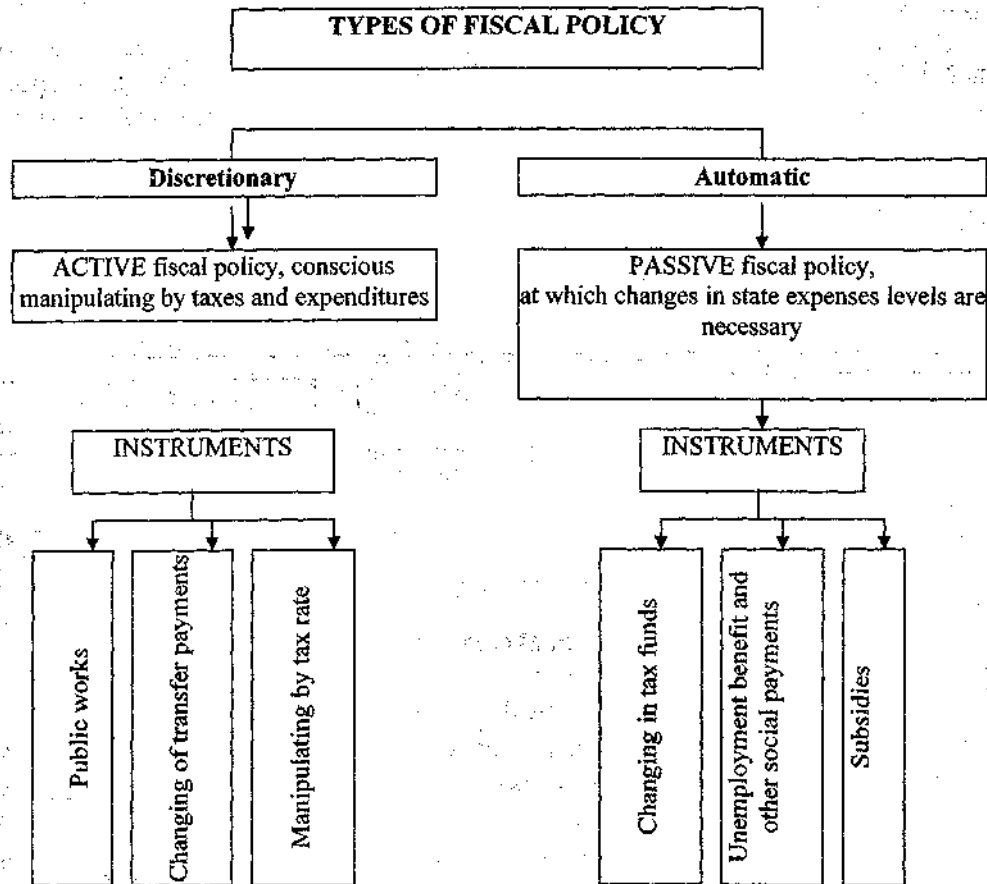


Fig. 12.5. Types, forms and instruments of fiscal policy

As it is known, so-called *multiplicative effects* exist in economy. In common with investments and state expenditures, the taxes lead to appearance of multiplicative effect. Taxes changing of DT impacts multiplicative influence on equilibrium level (fig. 12.6).

If taxation allocation reduces  $\Delta T$ , so disposable income  $Y_d$  ( $Y_d = Y - T$ ) increases on unit  $\Delta T$ . Consumers expenditures accordingly increase on  $\Delta T \cdot MPC$ , that moves up planning expenditures curve and increases equilibrium production value  $Y_1$  and  $Y_2$ .

Pure taxation earnings are corresponded the margin between rate of general taxation earnings into state budget and sum of paid out transfers by government. The taxation function has look:

$$T = T_0 + tY,$$

Where  $T_a$  – are independent taxes, not depend from income rate  $\bar{Y}$  (example,  $t$  – is maximum taxation rate, taxes on realty, inheritance and etc.).

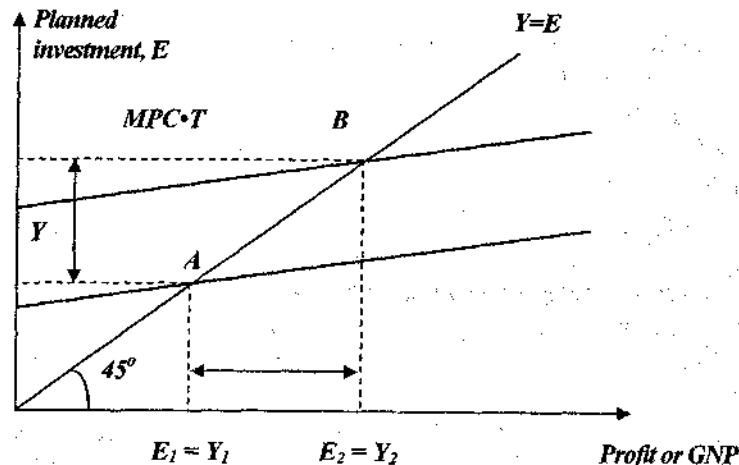


Fig.12.6. Multiplicative impact of changing tax at equilibrium level of income

**Tax multiplier** exerts less impact on decrease aggregate demand, than multiplier of state expenditures on its increase. Growth of taxes leads on reducing GNP, and decrease taxes – on its growth. At the same time is necessary to take into account the time lags between changes of national income, which can be from several months up to several years.

Decrease taxes for user means growth of their incomes and accordingly growth their expenditure, which express in growth demand on consumer products. Decrease taxes for firms lead to growth of businessmen profits that stimulate their expenditure on new investments and cause growth demand on investment goods.

The multiplicative effect on reduction taxes weaker than rising state expenditures that is algebraically express in exceeding multiplier expenses over taxation multiplier on unit. It is result of more strong impact of state expenditures on rates of income and demand (in comparing with taxes changing). This difference is constitutive in choosing instruments of fiscal policy. If it directed on enlarging of state economy sector, so, for overcoming of cyclic fall increase state expenditures (which give stimulating effect), and for curb inflationary rise increase taxes, which is rather soft limited step.

In case, when state expenditures and taxation assessments rise on the same rate, the same production value increases on equal rate. With this, the multiplier of balanced budget is always one.

#### 12.4. Monetary and credit (monetary) policy of the state

Functioning of *monetary market mechanism* (important elements of which are demand and money supply) is under influence of general condition of

economy, which is appear within monetary system condition.

Current money circulation is corresponded aggregate of monetary means in noncash and cash forms.

The demand on money is determined by rate of monetary means which the economic agents want to use as the means of payment.

Demand for money is not identical to demand on cash income. It shows, which part of own profit the economic subjects prefer to keep in more marketable form – as cash (monetary office). Demand for money is demand on money reserve at measured specific point of time. Demand for money formatting at sectors of economy.

In economic literature separated out two conceptions of demand on money: *neoclassic* (monetarist) and *Keynesian*.

Monetarist theory of demand on money bases on neoclassic traditions and inherited fundamental postulates of money quantitative theory arisen in XVIII century and undividedly dominated in economic science up to 1930-1940 years. Fundamental postulate of quantitative theory is including in following: absolute price level is determine by proposing of nominal rest money. The current interpretation of quantitative theory based on conception velocity of money circulation on the run of profits, which determine as:

$$V = \frac{P \cdot Y}{M}$$

Where M – is monetary stock; V – is velocity of money; P – is absolute price level; Y – is real volume of production.

It follows that rate of demand on money depends on following factors:

- absolute price level. On the other equal terms and conditions, as high the level of prices, so high the demand on money and vice-versa;
- of level real production volume. As far as growth production volume increase and real profits of population, so people will need more money since the presence of higher profits mean and growth of bargain value;
- velocity of money. Accordingly all factors impacting on velocity of money will impact and on demand of money.

The Keynesian theory of demand on money. J. Keynes considered money as one of type treasure and thought, that part of assets which the population and firms want to keep as money, depend on that, as far as they rate the feature of cash position. Keynes called the theory of demand on money as theory preferring cash position. Exactly this cause form feedback between quantity demand for money and rate of interest.

Modern theory of demand on money differs from theoretical model of J. Keynes by following features:

- consider broader band of assets beside non-interest saving of money and long-dated bonds. The investors have to own with another types of marketable assets: funds on savings and time accounts, short-term equity, bonds and equities of corporations and etc;

- refuse of dividing demand on money on base of transactional, speculative causes and cause of precaution. Interest rate is display as demand on money, but only thereof that rate of interest is correspond the alternative price of keeping money;

- consider the treasury as main factor of demand on money;

- include itself and other conditions, impacting on the desire of population and firms to prefer marketable asset, example, changes in expectation of: on pessimistic forecast on future conjuncture, the rate of demand on money will fall;

- take into account the presence of inflation and clear differentiate such conceptions as real and nominal income, real and nominal rate of interest, real and nominal rates of monetary mass.

Demand on money for purchasing other financial assets is determined by aspiration to receive profit in form of dividends or interests and change inversely to rate of interest. This dependence reflects by demand curve on money (MQ) (fig. 12.7).

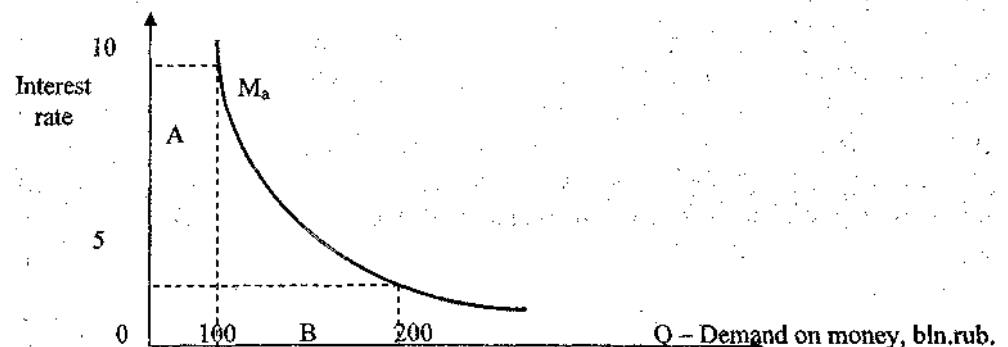


Fig. 12.7. Demand curve on money

Demand curve on money (MQ) means total amount of money, which the population and firms want to have for deals and purchasing assets and bonds on each possible measure of interest rate.

By vertical line the rate of interest lays, by horizontal line – is demand on money. In the point A the rate of interest is 10 units, demand on money is 100 units, in the point B rate of interest felled up to 5 units, and demand on money raised up to 200 units.

Under the *money supply* is usually the money mass in circulation, which is aggregate of payment means, circulating at this moment. Money supply is regulated mainly by central bank in economy, and also in specific causes depends on behavior of population, and behavior of big commercial finance structures.

Variety of money funds, functioning in current economics, is generating the problem of money mass measuring.

*Money mass* – is aggregate of whole money funds are in cash and non-cash forms, providing the circulation of commodities and services in national economy.

For characteristics of money supply different overall indexes or so-called monetary aggregates are used. To them are usually concern followings:

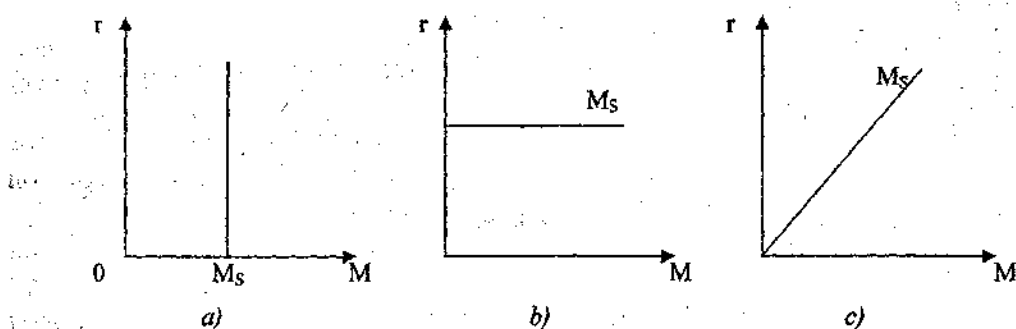
**Aggregate  $M_1$**  – «money for deals» – is indicator, meant for volume measurements the real means of circulation. It includes cash (banknotes and small coins) and bank money.

**Aggregates  $M_2$  and  $M_3$**  include, except  $M_1$ , money funds on savings and time accounts and also deposit certificates. These funds are not money, because impossible to use them directly for bargains of purchase and sale, but their removal is subordinate to specific conditions, but they are similar with money in two relations: from one side, they can be throw out within short-term on market of goods and services, from other side – allow to implement money accumulation. Not occasion they name “almost money”.

The most fully aggregates of money supply –  $L$  and  $D$ ;  $L$  along with  $M_3$ , includes other marketable (easy realized) assets, such as short-term equity. They are called marketable, since without any hardship can be turned into cash. Aggregate  $D$  includes as all marketable means, so mortgage, bonds and other similar credit instruments.

Aggregates  $M_3$ ,  $L$  and  $D$  more clearly reflect the tendencies in economic development than  $M_1$ ; hopping in these aggregates frequently signal about similar changes in GNP. So, the fast growth of money mass and credit accompany by period of rise, and their reducing often accompany by falls. But most economists prefer to use aggregate  $M_1$ , since it includes assets, ingenuously using as means of circulation. We also in future will understand under money supply the aggregate  $M_1$ .

The curve of money supply (fig. 12.8) reflects dependence on money quantity in circulation from level rate of interest (on invariable base of money).



**Fig. 12.8. Types of demand offer curves: a – is strict monetary policy; b – is flexible monetary policy; c – is mixed monetary policy**

There are differences of short-and long term offers of money. For aggregate  $M_1$  short-term curve of money supply is vertical line, since money multiplier stable and not depend on rate of interest. For other aggregates ( $M_2$ ,  $M_3$ ) it showed as slanting line.

Long-term curve of money supply reflects dependence on money supply from changing rate interest on money. The view of curve money supply depends on

tactic targets of monetary-credit policy, fulfilling by central bank.

The curve of money supply has vertical view when central bank realizes the target of supporting money quantity on stable level and confidently control money amount in circulation independently on vibration of rate interest. It submitted on schedule fig.12.8.a : by x-axis is put aside the rate of money supply (Ms), by y-axis – rate of interest (r). Such situation is typical for tight monetary policy directed on curb inflation. It is used such instruments, as changing the norm of required reserves and open market transactions for this. The curve of money supply has a horizontal view when the target of monetary policy is keeping stable nominal size of interest rate (fig. 12.8.b). To reach this by fixation accounting rate of central bank and binding to it the commercial banks rate, as well with open market transactions. Such policy is call soft (flexible) monetary policy. Usually it is used in those cases, when demand change on this money appeal, example, growth money velocity. In this case it is possible succeed to avoid crisis of non-payments.

Supply curve has downward view when central bank allows determined increase of money amount, which are in circulation, and, accordingly, nominal interest rate (fig.12.8.c). As usual, it happens, when central bank keep the constant norm of required reserves, but not implement operations at open market. Current policy (combined) is usually used in that case, when change demand of money conditioned by GDP.

Supply money can be characterized by two variables: nominal amount of money in country or as real.

**Buying power of money** – is number of goods and services which is possible to buy in money rate.

Within increase price the buying power of money is fall and vice versa. So, correlation of money mass and mass of goods and services on market determine the buying power of money.

The *dynamics of supply money* may be characterized by money multiplier.

**Money multiplier** – is ratio of supply money to money base.

**Money base** (money with higher force, reserve money) – is cash of out bank system, also reserves of commercial banks, storing at central bank. The cash is direct part of supply money, when bank reserves impact on ability of banks to create new deposits, by increase supply money.

$$MB = C + R,$$

Where C – is cash; R – is reserves.

The money multiplier shows, how much increase supply money (money amount in country) on increasing money base on unit. Beside money multiplier, can be used *deposit* and *credit* multiplier.

**Deposit multiplier** shows, how much maximum can increase deposits at commercial banks on increasing money base on unit.

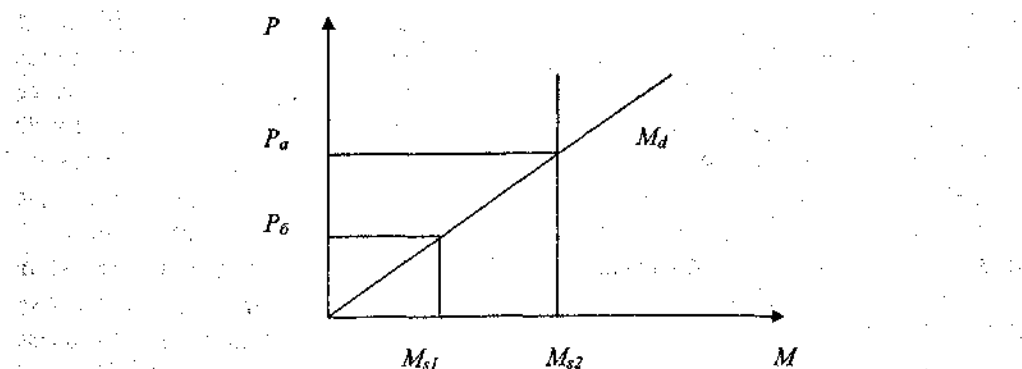
**The credit multiplier** show, how much maximum can increase amount of bank credits for population on increasing money base on unit.

Supply and demand on money determine mainly the value and money market opportunities. Equilibrium on money market determines within interaction process of demand money and supply money and characterizes such state of market on



which the demand value on money is equal to value of supply money. Equilibrium on money market means equality of money, which want to have economic agents in own assets portfolio, money amount, suggesting by bank system on implement conditions of current monetary-credit policy.

Macroeconomic model of money market by neoclassic view is based on that aggregate money demand – is function of money profit level ( $P$ ), and supply money is exogenous constant size, that is determine autonomous, independently on supply money. Graphically this model showed on fig.12.9.



### 12.9. Equilibrium on monetary market in neoclassic imagination

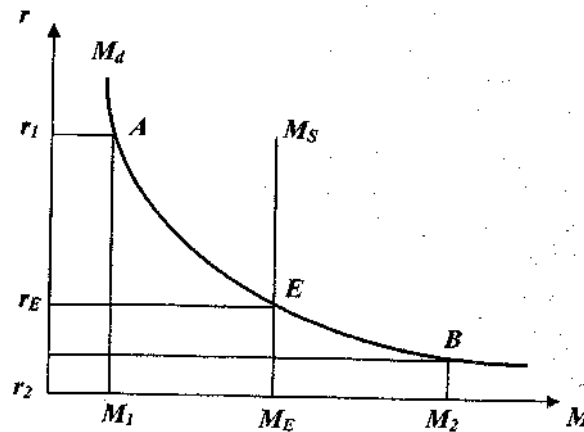
On picture the dependence of demand money  $M_d$  on cost level ( $P$ ) is reflected. The higher is the cost level, the greater will be demand on money. Slope of curve money demand depends on income level ( $Y$ ), which fixed in full employment conditions. Income growth arouses more flexibility (than before income growth), which is witness by gentle position of demand curve. The curve of money supplies  $M_s$  showed as vertical line, since this measure not depends on costs level.

Neoclassic model of money market is in equilibrium condition at an intersection of curves demand and money supply, when the costs determine at  $P_a$  level. If the general cost level fall up to rate  $P_6$ , so, appear over abundant supply of money equal to  $M_s - M_s$ . In this case money is become worthless and start costs growth close them to  $P_a$  level. So, display the tendency to supporting automatic equilibrium on market.

In most text-books by economics, the process of equilibrate on market is described graphically by typical curves of supply and demand money (fig. 12.9). Let's consider its action on sample of limited monetary-credit policy fulfilling by central bank. Curve of supply money ( $M_s$ ) has the form of vertical line on assumption, that central bank controlling supply money try to support it at fixed level, independently on changing of nominal rate of interest. Curve of demand money has negative tilt and faced as curve ( $M_d$ ).

The equilibrium is in intersection of curves demand and supply – point  $E$ . In current point the equilibrium mean  $ME$  (on x-axis) and  $r_E$  (on y-axis) is received, expressing the equivalence of money amount, which want to have economical subjects, to money amount providing by bank system on equilibrium rate of

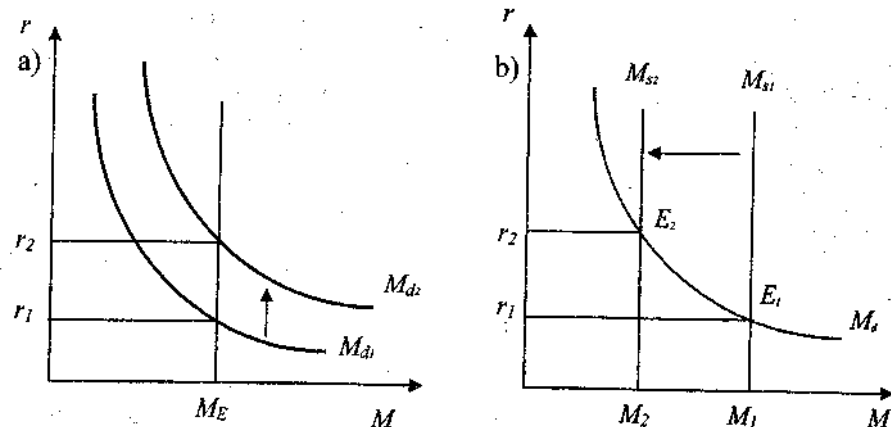
interest. On specified supply money equal to  $M_e$ , the equilibrium reach on level interest equal  $r_E$ .



**Fig. 12.10. Typical equilibrium characteristic at monetary market**

If rate of interest will increase higher of equilibrium level, so growing of alternative cost of money keeping will happen. Demand of money will fall up to  $M_2$  (disequilibrium in point A), if rate of interest will fall lower than equilibrium level (see disequilibrium in point B) up to level  $r$ , so the alternative cost of keeping money will fallen, increase demand of money which will be shortage.

Disequilibrium on money market can appear and in result of changing on for demand money (fig. 12.11a) or supply money (fig. 12.11b).



**Fig. 12.11. Disequilibrium on money market:**  
a – is change in demand; b – is change in supply

In first case (a) the supply money can increase in result of positive changing in national economy: growth of nominal national income, changing in productive forces, suppositions, bank laws and etc. Graphically, it reflects in shifting of demand curve to right. At economic agents structure of assets portfolio to cash side

will change. It'll lead to increase sell of equity and necessity of searching out the credit sources. Since the supply money limited, so the real result of this short-term period will be the growth rate of interest and decreasing rate of state equities.

In second case (b) the changes in supply money will wake changing in equilibrium on market money. If money amount in circulation will increase, co curve of supply will remove from point  $M_{s1}$  to point  $M_{s2}$ . On given level of bank reserve unable to supply money amount in rate of  $M_N$ , which want to have economic subjects on initial rate of interest. In this situation the commercial banks will try to renew of own reserve by selling state equities. They also will increase requirements for receiving credit, which will growth of interest rate. In response to this, the economic subjects will start to give greater preference not to money but more earning assets. In the final analysis will happened turnaround the curve supply and establish equilibrium at point  $E_2$ , which will correspond of new equilibrium amount of money ( $M_2$ ) and new equilibrium of interest rate. Within inverse process the logic of reasoning is similar.

*The monetary-credit policy* (sometimes it is called the monetary or just money) – is package using by financial authorities of country for reaching pursuing by them an aims and impacting on money amount in circulation.

Monetary-credit policy, the main of guide which as usual is central bank, directed mainly on impacting to currency rate, rate of interests and on total volume of bank system liquidities and sure economics. The solving of current tasks pursues aim to provide stability of economic growth, low jobless and inflation. The central bank usually by the book is responsible for stability of money circulation and national currency rate and for these purposes coordinate own policy with other state organs. Mostly the monetary-credit policy is corresponded by one of elements of whole economic policy and directly defines by state priorities.

At the same time interrelations of bank and government in implementing of monetary-credit policy usually defined not clear. The main place has the so-called *financial constitution* that is fastening principles of interrelation of bank with budget. The government is limited in own actions and usually does not interfere in day-to-day activity of bank, just reconciling the macroeconomic policy.

Other important document – is *unity of monetary-credit and currency policy*. The central bank is never lock on supporting internal stability of national monetary unit because of buying-selling of currency directly reflects on liquidity of bank system and connect with emission.

There is difference as “narrow” and “wide” monetary-credit policy. Under the “narrow” policy means improvement of optimal currency rate with investment at currency market, accounting policy and other instruments, impacting on short-term rate of interest. The “wide” policy directed on fight against inflation through impact on money mass in circulation. With direct and indirect methods of credit control, regulate the liquidity of bank system and long-term rate of interest.

In modern conditions regulation liquidity of bank system is purport the control for money circulation in very wide meaning and for growing of crediting value. Non casual, in some countries the liquidity indicator is used as wide indicator of money mass. With distribution of monetarism more effectively

became the impact of money mass, not on rate of interests, though these processes are impossible to separate. The specific problem is international aspect of monetary-credit policy, that is, questions of currency rate, reserves, payment balances.

From other side, the monetary-credit policy must be clear tie-up with budget and taxation policy.

The central bank is responsible for monetary and credit streams with instruments, which are fixed to it in legislative order and seldom by tradition.

*Tooling of monetary and credit policy* of developed countries is unusually wide. Usage of different instruments is strongly modified in dependence on philosophy of economic policy, concrete circumstances, and level of openness of economics and country traditions. The instruments have following classification: short-term and long-term, direct and indirect, generals and selective, market and non-market. It is indicate on that the state has powerful controlling means of market elements, but not tries to go against market and just make it more stable.

Main instruments, which has central bank include:

- regulation of official reserve requirements;
- transactions at open market;
- manipulation by discount rate of interest.

Nowadays the *required reserves* – is more liquid assets which must to have all credit institutions, as a rule, or in the form of cash in desk, or in the form of deposits in central bank, or in other high liquid forms, determining by central bank. The standard of reserve demands corresponds as stated at legislative order percentage treatment of amount minimal reserves to absolute (voluminal) or relative (accession) indicators of passive (deposits) or active (credit inputs) operations. The usage of standards may have as total (determination to total amount circumstances or loans), as selective (to their specified part) impact character.

Required reserves are fulfilling two main functions.

First, they are as liquid reserves use as provision of obligations of commercial banks by deposit of their clients. The central bank supports level of liquidity of commercial banks at minimal available level depending on economic situation by the periodical changing standards of required reserves.

Second, required reserves are the instrument using by central bank for regulation money mass value in country. The central bank impacts on profitability level of commercial banks, increasing or decreasing cost of resources, credits and deposits volume with controlling of reserving standard. Changing the rates of credit-deposit emission, the central bank controls by rate and tempos changing money mass.

At the same time the required reserves at large correspond as administrative-quantitative instrument, using of which as far as development of financial markets decrease (in some countries the maximal size fixing in law to avoid malusages). In row cases the required reserves had been completely canceled as ineffective or their size substantially reduced.

**Transactions at open market** – is the official transactions of central bank by buying-selling of equities in bank system.

On purchasing, by central bank, the equities from commercial banks, the accordingly amounts income on their correspondent accounts, that is increase rate of free reserves, and, consequently, is appear the possibility of expandability of active, including, loans transactions with customers. In the case of selling equities by central bank to commercial banks, vice versa, amounts of their free reserves decrease, and in bank system in tote fulfill the reduction of credit resources and increasing of their cost, which is reflect to general rate of money mass.

Transactions of central bank at open market, as opposed to other economic instruments have fast corrective action on liquidity of commercial banks and dynamic of money mass. Specific usage of central bank of current instrument in that periodicity and scale of implementing of transactions determine at central bank's discretion on the assumption of desired predictable effect, which does this instrument more comfortable, flexible and efficient in using.

On form of implementation the market operations of central bank with equities can be direct or inverse. The direct operation is corresponding the regular buying or selling. Inverse operation consists of selling-buying of equities with obligatory settlement of inverse transaction by before-hand fixed rate. The flexibility of inverse transactions is more soft effect of their impact; add popularity to current instrument of regulation. So, the portion of inverse transactions of central banks of industrial advanced countries at open market is reach from 82 up to 99, 6%.

The third instrument of monetary policy – is *discount policy*, or changing account process. Traditional function of central bank – is providing loans to commercial banks. Interest rate, by which is protrude these loans is called account rate of interest. Changing of this rate, the central bank can impact on bank reserves, increasing or reducing their abilities in providing credit to population and enterprises. Depending on level of account interest it is constructed the system of interest rates of commercial banks, happens price rise or price reduction of credit in general and thereby creating abilities of limitations or widening money mass in circulation.

Account policy, being the component part of state interest policy, is one of important instruments of monetary-credit regulation, the main directions of which develops and realize by central bank by means of establishment and revision (basically) of interest rate. The central banks establish several official account rates depending on period, safety, "class" and etc, equally as several rates by pawn shop credit, on the assumption of provision type, periods and other terms.

Regulating the level of rate by refinancing and rediscounting, the central bank impact on rate of money mass in country, promote to growth or reduce demand of commercial banks on credit. Increasing of official rates complicate for commercial banks is possibility to receive credit resources and in result widening scales of operations with clientele. The official rate of interest is determined by commercial banks in according with terms of credit resources market and not under direct control of central bank.

The central bank uses as indirect, so direct methods of regulation banks' activity. It implements by determining as basically rates of interest (by account operations, by pawn shop and bank credit), so quantitative limitations by equities getting to recount of central bank and under recognizance of which it can provide credit to commercial banks.

**The policy of "cheap" and "expensive" money.** Depending on economic situation, which is occurs in one or another period in state economics. The central bank makes policy "cheap" and "expensive" money. The policy of "cheap" money is typical, as usual, for situation of economic fall and high level of jobless. Its target – is to do the credit cheaper and easily accessible, so that increase aggregate expenditures, investments, production and employment.

The policy of "expensive" money has the target of limitation supply money, so that, reduce aggregate expenditure and decrease inflation tempos. It includes following arrangements:

- growth accounting rate of interest, which is act antistimulus for holdings by commercial banks from central bank;
- selling by central bank of state equities at open market;
- growth norm of reserve demands, which is reduce excess reserves and low multiplier of supply money.

Except general methods of monetary-credit regulations, impacting at whole money market in tote, central banks use selective methods, oriented for regulation of concrete types of credit (example, direct limitation sizes of bank credits on consumer needs, under stock equities, determining limitations loans for one borrower and etc.).

**Control on capital market** – is procedure of stock issue and bonds, including regular rules-requirements, priority emission, an official limit of external borrowings regarding self-financing, quota of bond emission and etc.

**Excess to markets** – is regulation of opening new banks, permissions for transactions to foreign banking organizations. Quantitative limitations – are rate ceiling, direct limitation of crediting, periodical "freezing" the rate of interest. Regulation of concrete credit types in purpose of stimulating or curb of development specific spheres called selective control.

**Currency interventions** – are selling-buying of currency for impacting on rate, and therefore, on demand and supply of money unit (cash and future, swaps). Certainly take into account connection of currency transactions with money circulation, particularly; practicing "sterilization" of interventions, that is simultaneously implement credit measures for neutralization of negative impact.

**Control of state debt.** Emission of state bonds neutralizes liquidity of banks, connects their means and therefore the scales of state debt, techniques of its emission, form of placing has big meaning for control money circulation.

Instruments of credit-monetary policy can be effectiveness only in terms of close tying up with fiscal policy, legislation. The monetary policy, as a fiscal, has own pluses and minuses. To its dignity attribute rapidity and flexibility, lesser in compare of fiscal policy dependence on political pressure, its greater conservatism in political plan is possible.

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### Control questions

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1. Give the definition of state economic policy. Specify its main directions and describe their essence.
2. Reveal the essence of normative and positive theories. What is their difference? What instruments of state economic policy do they propose?
3. Give the definition to the categories as "financial institution", "financial market", and "financial system".
4. Describe the structure of financial market. Name and reveal its functions.
5. Describe the state financial system. Name and reveal the role of financial institutions.
6. What functions do the central bank, commercial banks, quasi-banks, insurance companies, stock-exchanges carry out? Describe the infrastructure of financial market.
7. Describe the goals of taxation-budget policy. What instruments of taxation-budget policy do you know? Describe their essence.
8. What is the difference between state budget structure of Uzbekistan and Russia? Name the methods of state budget implementation.
9. What kind of taxes do you know? What is the essence of tax multiplier? Describe the types, instruments and views of fiscal policy.
10. What is the essence, goals and tasks of monetary policy?
11. Reveal the interaction nature of demand and supply at monetary market. Analyze the views of different scientific schools.
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## CHAPTER 13

### WELFARE AND SOCIAL POLICY OF STATE IN THE MARKET SYSTEM OF MANAGEMENT

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#### 13.1. Welfare as social and economic category. Indicators of welfare

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In modern theories *welfare* means not only the acquisition of goods and services (household appliances, food, clothing, securities, hairdresser services, etc.), but also the intangible benefits and services (information, knowledge, education, training, etc.).

*Economic welfare*, according to Pigou, is the part of the welfare, which can be expressed in monetary terms. There are two approaches that ambiguously interpret the meaning of economic welfare: ethical (social) and the market. From the point of view of ethics, the government acts as social guarantor, which does not allow its members to descend below the "poverty line"? Another approach - the market one - states that the government does not guarantee income, instead creates conditions for increasing the income of each member of society. Social approach based on the principle of social justice, the market - on the principle of economic rationality.

Since all of these forms have a source - cash income, the standard measure of welfare is the real income of the individual and the welfare of the community - the level of national income per capita.

*Welfare* - is life support system - the reproduction of the physical forces of the individual, his socialization as a public figure and social compensation to low-income groups of population.

The first feature of welfare is dependent to the biogenic nature of man. The second one is social, as far as people do not act in isolation, but always are in relationships and interactions between each other. The third feature is dependent to objective inequality in the distribution of income and wealth. On the basis of these symptoms, welfare includes the following components: income and consumption, government social benefits and services, social security and social protection.

In modern economic literature *public* and *individual* welfare are distinguished. Public welfare is often treated as a state of security benefits, conditions of life of an individual or a social group, defined by the development of society as a whole and the individual in particular. In addition, especially in Western literature, the welfare maximization of welfare is identified with the extremely large number of individuals. Along with this, there is a view that welfare is the economic relationship regarding formation of national income, its equal distribution, redistribution and use. It is a combination of normal social conditions necessary for the expanded reproduction of the labor force.

Evaluation of welfare is based on the dialectics of development of the needs and capabilities of the individual. Subjective elements of this assessment is the level of the individual queries - socially shaped and subjectively assessed

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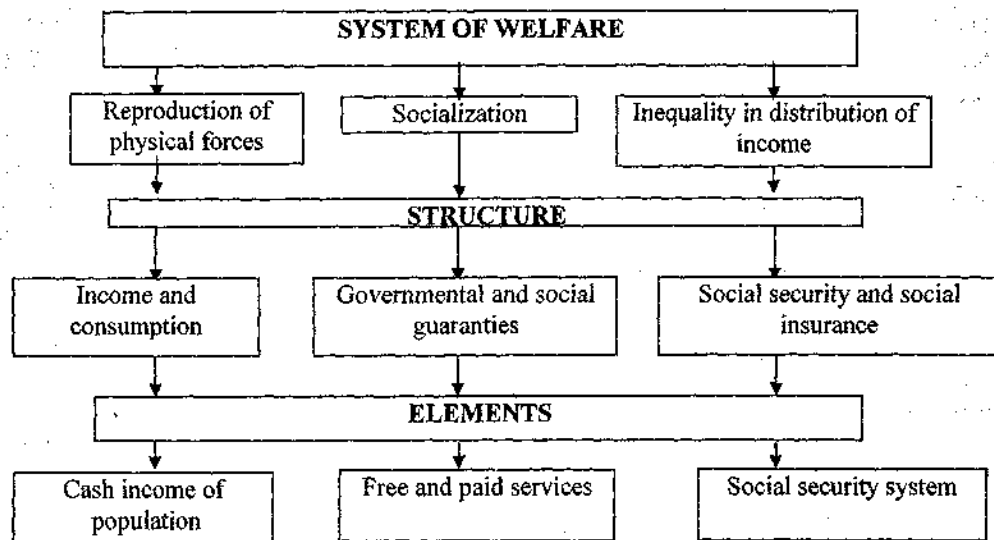
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requirements and objective ones is the level of economic opportunities to satisfy them. In this context, individual welfare is subjective assessment of the level of realized needs and opportunities, formed in the process of human intervention in the reproduction of material goods and services. At the same time not only level of income, but also their surrounding social environment are evaluated.

Welfare as an economic category is a set of social relations arising on the basis of a subjective assessment of the conditions to meet individual and community needs<sup>50</sup>. These relationships can be represented in a scheme (fig. 13.1).



**Fig.13.1. Structure and elements of the welfare system**

A holistic view of the economic welfare is actively developed in modern science. The study of human capital, undertaken by institutional school is of certain interest.

Institutionalisms put forward the problem of meeting basic human needs<sup>51</sup> as the main development indicators. Unfortunately, the current system does not

<sup>50</sup>For example, Abalkin L. said: "The welfare of the population - is characteristic of socio - economic conditions and the needs of population" (Abalkin L.I. [and etc.] Economic encyclopedia. M, 1999. - p. 32). Polyakov, I.V. considers individual welfare, as "a set of social relations that arise on the basis of subjective assessments of conditions to meet individual needs in the workplace and reflects the product of interaction of two material circuits - social and individual" (I.V. Polyakov, Saratov, Publishing of SGU 2004. - p. 82).

<sup>51</sup>One of the first who put this issue was American scientist Theodore Schultz. He proved in several of his works precedence of institutional changes. Under the institutions he understands the rules of conduct, defined broadly. They cover monetary and credit relations and organizational structures based on contracts, cooperation, and property rights, including labor law, and the forms of human capital and physical infrastructure. One of the problems of the state is the need for rational combination of satisfaction levels of personal, collective, social needs, which are largely contradictory. At excessive centralization of the economy it is often public, and more specifically state needs may prevail over personal ones. In this case, it must be assumed that investment in human is the most profitable investment of capital, the basis for economic growth. For a long time in the economic literature there were no works

reflect the performance characteristics of the wealth of personal development as a long-term goal (tab.13.1).

**Table 13.1**

**The basic needs of the individual and their quantitative data**

Basic needs	Quantitative indicators
<b>Health</b>	<b>Life expectancy</b>
<b>Education</b>	<b>Literacy. Share of trainees in primary schools in % from total amount of population at the age from 5- to 14</b>
<b>Nutrition</b>	<b>Amount of calories per capita in % from required</b>
<b>Water supply</b>	<b>Share of population that have access to potable water</b>
<b>Sanitary conditions</b>	<b>Child mortality (per 1000 births)</b>
<b>Accommodation</b>	<b>Share of population living in houses with water pipe and canalization</b>

However, such a multi-dimensional approach allows to evaluate the development of a country more deeply and comprehensively and to highlight the issue of personality development - the most important measure of human society development.

Under the influence of institutionalisms an index of human development was developed in frame of UN program. It is based on three indicators:

- lifetime expectancy, measured by life expectancy at the age of 25 to 85 years;
- the level of education, including: the proportion of illiterate population (with coefficient of 2/3 ), combined ratio of accessibility of primary, secondary and higher education - the proportion of students in the relevant age group (with coefficient of 1/3 );
- living standard, as measured by real GDP per capita (from 100 to \$ 40,000 PPS).

At the same time, investments in human capital costs are long-term and strategic, because they determine the development of the economy in the future for many years. They cause intangible wealth accumulation that occurs not only in the field of education and training, but also includes the accumulation of experience in all sectors of the economy at the same time with the main activity, and even affect the part of the free time to be used for self-education. In this case, investment in

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that considered the issues of investing in human capital. Only through labor of T. Schultz and G. Becker, this formulation gained acceptance among economists.

In general, the problem of human capital formation is not enough developed in domestic literature. Economists frequently take for such problem the human activities on maintaining his life. It is quite clear that activity of the individual is required for maintenance of physical, intellectual and psychological qualities of the person. However, quality, more productive properties can be developed only by means of additional costs.

human capital has its own specific features associated with the fact that this form of capital is inextricably fused with live human personality. These features include:

- Profitability of investments in human capital depends on the terms of his service. This explains why it is advantageous to carry out the formation of the initial period of human life;

- Investment in human capital is much more profitable in comparison to "normal" investments, but the later investments are made at higher levels of education, the lower the returns are;

- Not all the benefits of investment in human capital take the form of money, but may have psychological, social, cultural and other external effects that increase the economic benefits. But these effects are not always amenable to economic estimation.

As the use of human capital, the value of its volume does not decrease but increase instead. This is due to the accumulation of knowledge, experience: the mature worker is generally more productive than newcomer.

With the accumulation of human capital his profitability can increase, not decrease. Education improves a person, not only as an employee but as a student, as it accelerates the process of accumulation of skills and knowledge. The transfer of human capital can be carried out informally, during joint activities of its keeper (from more skilled workers to less skilled ones). Accumulated human capital is a key resource for its reproduction in the next generation.

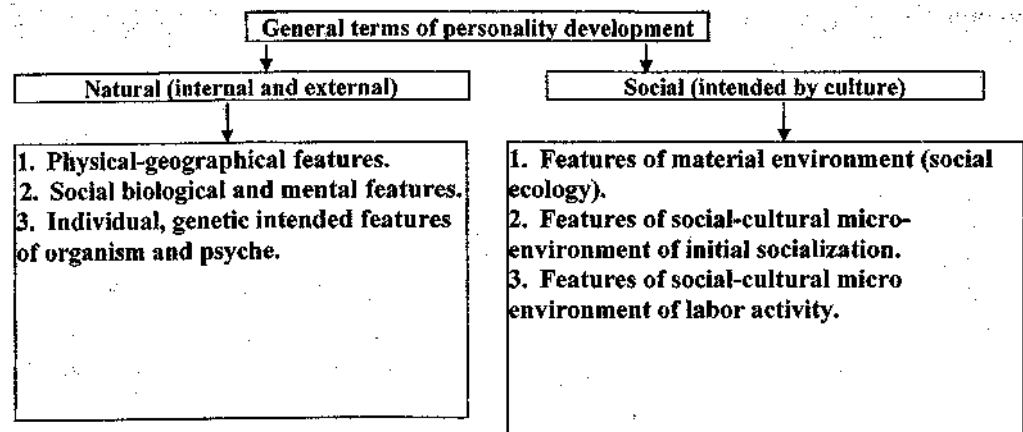
These features of human capital suggest that the level of living has to be appropriate.

Human capital includes not only the direct costs of education in secondary and higher institutions, but also self-education at home, the accumulation of experience on the job, as well as the costs of health care, education and science. Investments in human capital are the most important factors in the development of the economy, its transformation and modernization of economic and legal institutions. Development is seen not just as an increase in the rate of economic growth, but as an investment in human capital and poverty eradication.

In modern economic literature person is treated as an active participant in the reproductive process that is in charge of the welfare increase<sup>52</sup>. Welfare is regarded as a derivative of human capital, which determines the revenue growth. Increase of welfare is linked with the abilities, qualifications, age. Human potential is investigated in terms of impact on the change in income. In other words, the proponents of this theory are truly treat human capital as a factor in the growth of social welfare; leaving out the fact that it itself is the epitome of individual welfare.

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<sup>52</sup>"Human capital is the measure embodied in a person the ability to generate income. Human capital includes innate abilities and talents, as well as education and acquired skills" (Fisher S., Dorbush R., Schmalensee R. Economics. - M: Delo, 1993. - p. 303.) For example, in one of his works stand out three central functions: informational, motivational and creative (I.V. Polyakov Adaptive basis of economic behavior of workers. - M., 2004. - p. 91).



**Fig. 13.2. The set of basic conditions for the development of personality**

The economic content of welfare category is shown in its functions. In the economic literature, we find different approaches to the classification of the functions of welfare. As the main functions of the welfare are challenging (motivating the development of social production) and reproductive (ensuring human development, its reproduction). Welfare is closely related to the material and spiritual boons which are the basis of the level of living. The level of living refers to the ability of meeting the set of requirements necessary for human development.

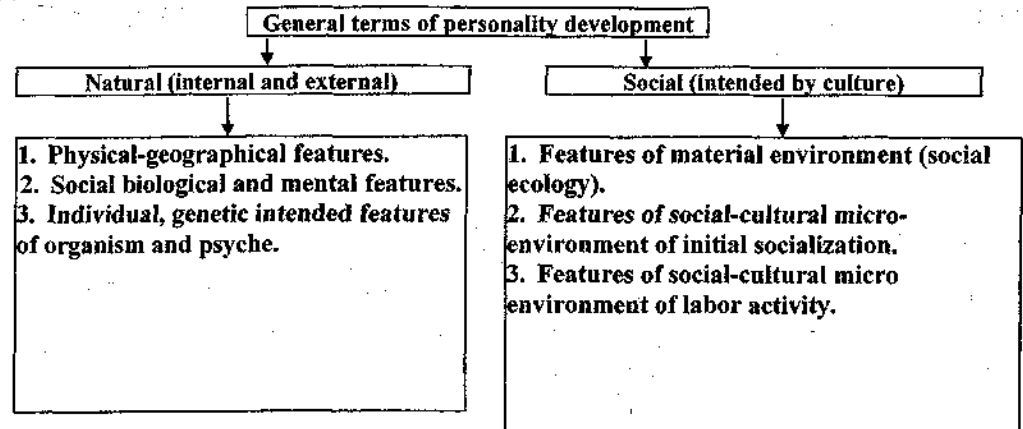
*The level of living* is social and economic category, which characterizes the degree of satisfaction of the physical, spiritual and social needs of people. This level, as noted by classical political economy, involves not only satisfaction of physical life needs, but also the satisfaction of needs generated by the social conditions in which people are living and growing up. The level of living depends on the development of human needs, quantity and quality of vital boons and services used for satisfaction. It is directly connected with the reproduction of the labor force.

The close relationship of needs with the level of needs and lifestyles lets in more detail look and texturize the social needs that are directly related to human activity and society.

Needs understood as a lack, a necessity, is one of the primary economic categories, which play a key role in the understanding of the driving forces - facilitators of production and economic Activities. The nature of social needs is extremely diverse.

On the one hand, a series of biological needs of the human body, without the satisfaction of which can't proceed the process of life. These requirements are laid in the very nature of the human person.

On the other hand, human is not only biological, but also social, public creature. Hence many of his needs are generated by the fact that he lives in a



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On the other hand, human is not only biological, but also social, public creature. Hence many of his needs are generated by the fact that he lives in a



community of people communicating with other people. Moreover, the formation of social groups, the state, society, creates public and social needs.

Therefore, the social needs of society - is an objective necessity arising from the realities of the market economy. This component is directly included in the sphere of market relations, as in the present conditions of competitiveness of the deciding factors of production are the educational and skill level of employees, development of creative abilities. Therefore, modern production pays much economic attention to quality of life - this is the maximum achievement of physical, intellectual, spiritual and aesthetic potential. Formation of social motivation responding to the interests of the market is oriented to increasing of reproduction of human capital, leads to the creation of the institutional prerequisites for self-ability of citizens.

Solution of the problem of life support as a strategic problem requires a new approach. It is necessary to distinguish regulatory requirements also. The real need - is to request specific people or groups of people to receive a certain amount of goods and services. Regulatory requirement characterizes the normal level of satisfaction of this real need, that is, shows the rate of consumption is established on the basis of the analysis, calculation, experience, accounting capabilities.

The study of living standards, is increasingly characterized by quantitative measures of human welfare, as well as determines its minimum, physiological limits laid actually implemented and regulatory requirements. Thus with the help of certain indicators can be assessed level of satisfaction of personal (individual), family needs and community groups (government) needs.

For the analysis of the level of life, from the point of view of social and personal welfare, it is necessary to deal with the economic concepts: social protection, social protection and social guarantees. Basic categories that integrates these concepts into a single system, is social guarantees.

*Social guarantee* is a form with specific quality and certainty, it is verified public necessity, appropriate means of social development.

*Social security* is a mechanism for the implementation of safeguards.

*Social protection* is a set of social guarantees and the mechanism of their realization in the society, the system of measures taken by the government to ensure the stability of the normal social material and social conditions of citizens.

Social security as a mechanism of social protection includes universal social security, social security of employed population, social assistance. Universal social security covers the entire population in the event of old age, death, disability, medical expenses for excessive risks and etc. Social security of the employed population extends to the entire working population, ensuring benefits for sickness, unemployment, disability, etc.

*Social security* should be provided to those who have an income below the poverty level (in some countries below the social minimum). These members of the public have the right to receive income in the community, supplementing his income to the level of the social minimum.

Social security in the broad sense of the word is designed to protect people from a variety of risks that accompany him throughout his life. We are talking

about the risks of a normal childhood deprivation, foregone normal education, unemployment, poverty, work accident, an unsecured age. Full performance of the functions of social protection in Russia prevents not only an economic crisis, but the current practice of centralized distribution of funds to help those who are in need.

Along with the concept of "life level" in the scientific practice of management introduced the concept of "quality of life". The first one reflects the conditions (material and ideal) in which lives man and society. The second assesses the state of the population, their satisfaction with living conditions in view of their importance and personal priorities.

*The level of living* is determined, on the one hand, the degree of development needs of the people themselves, and the other - the quantity and quality of vital goods and services used to meet them. It is directly connected with the reproduction of the main productive force of society - manpower of workers. At the same time, the level of life - is the degree of satisfaction of the needs of people that reaches the appropriate stage of development of the productive forces and the relations of production method.

**Table 13.2**  
**Indicators of working life quality**

From worker's point of view	From employer's point of view	From society's point of view
Satisfaction with labor. Presence (absence) of stress situations at work. Possibility of self-improvement. Working conditions. Possibility of professional growth and self-expression. Substantiveness of labor.	Effectiveness of labor. Occupational adaptation. Fluctuation. Absenteeism. Labor discipline. Alienation of labor. Match of employee's aims with organizational aims. Number of conflicts. Presence (absence) of stealing, production sabotage.	GDP. Quality and level of living. Level of manpower quality. Social security system cost. Consumer's behavior. Social adaptation. Alienation from society. Indicators of satisfaction with life.

The material and cultural level of living of people consistently grows in proportion to development of macroeconomics. Hence, the level and quality of life are not only social, but also in economic terms. Social is called everything that relates directly to the public, the people, and their lives. So as the economy is life-support system of people and society, according to its direction all economic processes are at the same time social processes.

*Social economy*, primarily as part of the economy is associated with the needs of people and their consumption of goods and services, studies, researches, analyzes the nature of a needs and consumer demands, consumption patterns,

highlights the rational needs of individuals, families, social groups, regions, societies, with a glance to the diversity of the needs and consumers.

On the other hand, incomes of different segments and groups of the population fall into the range of the social economy. Species, nature of occurrence, the sources, the level of income, including, first of all cash income, as well as measure the gains and losses, consumer budgets of individuals and families in relation to the various age and sex, territorial groups, money savings, property condition of the people, all kinds of social security - all matters of social economy.

Summarizing the above, it can be argued that the economic welfare category includes the lifestyle of the people of all classes, all categories of the population. The state and development of the economy directly affect the level and quality of life. The level of population welfare can be judged on the basis of economic development, its human-orientation, designed to help for meeting its needs, interests. With all the variety of vital processes can form a general idea of the

conditions under which people live, how they are happy with these terms and conditions, that gives them life. All this taken together is called quality of life. Quality of life is a part of welfare. It must be measured.

Social and personal welfare determines the level and quality of life. The level of living is the material basis of the needs of society and the individual. And quality of life "is not limited to the level of consumption of goods and services, and serves general characteristic of social and economic development of society and includes the average life expectancy, morbidity, and health and safety conditions, availability of information, human rights, and so forth."<sup>53</sup>

Quality of life encompasses the entire range of its characteristic properties that apply to all of its parts, reflects the satisfaction of the people providing them with material and spiritual goods, reflecting the security, comfort, convenience of living conditions, their adaptation to modern requirements, painless and life expectancy. Simply, the quality of life - is how life is good for people. When we speak of "quality of life" that does not mean one measure, meter, expressed in quantitative numerical form.

Quantitatively, the "quality of life" measures the set of indicators. The complex index of quality of life was developed in 1992 at the State Research Center for Preventive Medicine and tested in a number of massive researches. Its design took into account that this indicator should:

- To reflect the most important social parameters which are integral value to the community and reflecting his feeling fortunate or disadvantaged;
- Equally understood by all citizens throughout Russia;
- To have sufficient sensitivity and the ability to react quickly to factors that modifies the conditions of life;
- Have available a standard measure quantitative characteristics, providing the opportunity of comparative assessment and monitoring of the dynamics.

All the indicators are grouped into three blocks.

<sup>53</sup> Savchenko P., Fedorova M., Shelkovo E. Level and quality of living: concept, indicators, current condition in Russia // REJ. 2000. № 7. - p. 67.

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All the indicators are grouped into three blocks.

<sup>53</sup> Savchenko P., Fedorova M., Shelkovo E. Level and quality of living: concept, indicators, current condition in Russia // REJ. 2000. № 7. - p. 67.

*The first block* represents the state of the right to life, healthy existence and continuation of the species. To do this, use the indexes of fertility, mortality, life expectancy, disability. Each of them has a slow reacting (in 5-10 years), and fast reacting (in 0.5-1 year) component.

*The second block* describes the satisfaction of the conditions of daily existence: life, food, work, health, education, etc. Also takes into account the significance of these conditions for a person in accordance with his personal priorities. Thus, it is possible to quantify the subjective comfort, a sense of personal welfare.

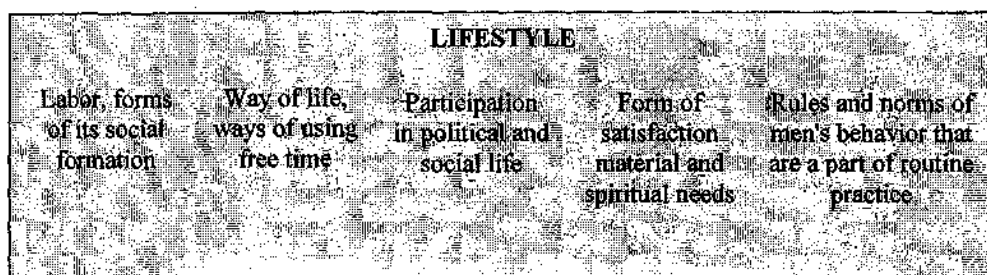
Along with the internal indicators of social welfare must exist and external evaluating its criteria of universal, spiritual truth. This third block of indicators is developed for it. By spirituality we mean the activity of consciousness, the direction to the search for the meaning of life and his place in it, the definition of the criteria of good and evil, the formation of motives in harmony or conflict with the principles of morality. Spiritual activity is considered safe, the corresponding universal precepts laid down folk wisdom for optimal human existence and society. Opposing motifs belong to the sphere of spiritual distress. In this case, the more the society of their spiritual state is predisposed to commit evil deeds or protecting them, the more they are really committed. Consequently, the number of emerging social anomalies can indirectly judge the spiritual and moral health of the population. The said law was the basis of the method of quantifying the level of spiritual distress. The units of measurement used official statistics on social anomalies: murder, theft, rape, alcoholism, suicide and others. Where violations are more common, the level of spiritual distress is higher.

In the economic literature, the quality of life is defined more clearly: "it is proportion of income level to the cost of living"<sup>54</sup>. The level of living, along with a way (complete system of production and social relations of a certain type, forming a particular form of production and quality of life) determine the conditions the way people live<sup>55</sup>.

*Lifestyle* is social and economic category that expresses the view, the way of life of people (society, social class, personality) in the national and international community. Lifestyle encompasses various aspects of human life (fig. 13.3). Therefore, life is influenced not only by economic relations, but also the socio-political system, culture and worldview of the people in a particular formation, at a certain stage of social growth. In turn, the way of life has an active influence on the economic and socio-political processes in society.

<sup>54</sup>Jerebin V.M., Ermakova N.A. *Living standard of population* – as it is understood today // Statistical questions. 2000. № 8. - p. 6.

<sup>55</sup>Encyclopedic Dictionary of Philosophy. - M., 1989.



**Fig. 13.3. Different parts of human life that define lifestyle**

The concepts of "lifestyle " and " level of living" are related, but not identical. Indicators of life level can characterize also life mode. However, the level of living is the only one of the conditions for the formation of life, is actively working on the livelihoods of people. At the same time, with the same level of living lifestyle may differ materially.

In socially diverse society, there can be no single way of life. The profound differences in lifestyle, in turn, perpetuate social stratification of society.

So, in terms of commodity- money relations, the way of life of dominant is characterized by constant desire to maximize profits, the worship of money and things, personifying the wealth, and the ensuing competition, individualism and pragmatism of the people. The hallmarks of life of employees are the material conditions of instability, insecurity, and the constant threat of unemployment, fear of the non- secure old age, and property barriers in education, discrimination based on gender, age and ethnicity. In addition, there are differences in the lifestyles of workers, peasants, intellectuals, urban and rural residents, representatives of the industrial and agricultural labor workers mostly mental, and mostly physical labor.

The scale of improvement of living standards depends on the specific historical conditions of the development of society. They define the objectives of growth and prosperity possible resources for their implementation.

The above categories outlined a large composition of qualitative and quantitative indicators of economic and social content, along with a combination of factors, processes and outcomes of reproduction determine the content of the economic category of "essential services" and are components of the social and economic model of the life support system of the population.

Life support system includes: *a reproduction phases* that implement the function of life support - production, distribution, exchange and consumption; *spheres of life support* (spiritual, economic, and social welfare and reproduction). In turn, survival - is a constant meeting the needs, comprehensive development of the individual and the quality of his life.

Category of " population life support " - a multi-faceted system that reflects the unity and development of all aspects, areas and phases of social reproduction in view of the socially necessary labor and tasks of social progress. Category of "population life support" is characterized by a synthesis of qualitative and quantitative characteristics of the forces of social labor, social and economic and

demographic relations in the operation and development of the economy. The main components of livelihoods are determined by spheres (economic, social, spiritual, demographic) social reproduction, given the scale of investment. It should be noted that the life support as a social and economic category is extremely complexity of its inner structure, multiple interconnections and interdependencies, the different nature of the individual components of the complex where the economic, social, demographic, climatic, regional, national, psychological, and other factors.

To measure the use of public welfare indicator "net economic welfare," introduced in the economical science W. Nordhaus and J. Tobin.

To determine the net economic welfare of the value of ND, GDP or GNP deducted money value of negative factors affecting the welfare and added monetary estimates of non-market activities and free time.

The level of living is a complex socio - economic category, which is in accordance with the criteria in varying degrees, is characterized by statistical indicators. By definition, the criterion is a sign, on the basis of which the evaluation, classification, measure objects, phenomena concepts. However, the statistic indicator is a concept (category), showing the quantitative characteristics (size) of proportion the signs of social phenomena. Statistical indicators are always defined not only qualitatively but also quantitatively, depending on the specific circumstances of time and place. It should be noted that the sign is qualitative feature of the unit (the primary element) set of social and economic objects or phenomena of social life, united by a certain basis, a common bond.

The level of living is characterized by more than a hundred indicators. Typically, the quantitative determination of living standards are a set of absolute and relative statistical indicators that show the security of the population of material and spiritual goods and, consequently, the degree of satisfaction of the needs of people in these benefits. Recently, group of general indicators of living standards is the most highly developed. The level of living, as an indicator of welfare and social development, including: income (distribution of population by per capita income and the concentration of various groups, the share of wages in money incomes of the population, the ratio of cost of living, the minimum consumer budget and rational consumption budget to the level of cash household income, the number of people with incomes below the subsistence minimum ) costs ( household consumption per capita, percentage of consumer spending, used in food ) - by groups of different income, paid services, the volume at constant prices - per capita, government consumption expenditure across the population as percent of total consumption, the share of government spending - at the federal and regional levels - the social sector as a percentage of GDP).

Social processes in recent years intensified. At present, therefore it is advisable to use not only the average figures for the real picture of human welfare, but also to apply a differentiated approach to the study of the living standards of different groups. The need for such an approach stems from differences in social and economic status of a population. A differentiated approach involves an in-depth analysis of the mechanism of formation of the living standards of the people by social group, income level, profession, across the country and other features.

To solve the problems of social protection of people it is required information about: what segments of the population have still relatively low level of living, under the influence of factors which it was formed, what activities on increasing welfare are most appropriate for this stage of economic development, as well as one and the same income growth leads to different results in terms of meeting the needs of the population, depending on which channels, to address what groups and sections of the people, and in what form will be sent to this revenue growth. Therefore, it is urgent and important to analyze the formation of income of the population in general, and the differences in income generation in different population groups in particular. The system of basic statistical indicators of the level and quality of life of the population is as following:

1. generalized indicators:
  - gross domestic product;
  - the index of income of the population (by population group);
  - consumer price index;
  - the ratio of the index of monetary income and the consumer price index;
  - the poverty rate - the number and proportion of the population with incomes below the subsistence minimum;
  - the level of unemployment;
  - life expectancy;
  - infant mortality;
  - the level of education;
2. income:
  - balance between revenue and expenditure;
  - the aggregate, cash, real, disposable, personal income;
  - wages;
  - pensions;
  - scholarships, various allowances;
  - the purchasing power of wages, pensions, stipends and allowances;
3. the cost and consumption:
  - total volume of consumption of goods and services;
  - monetary costs;
  - consumer spending;
  - consumption of food and non-food products and services for groups with different levels of material wealth);
    - chemical composition and caloric content of the diet;
    - taxes;
    - savings ( savings bank, commercial banks, cash and securities);
4. the property and housing:
  - the accumulated assets in value and volume terms (production and consumer);
    - housing;
    - improvement of the dwelling;
5. the stratification of society:
  - the distribution of the population by per capita income;



- the decile ratio - the ratio of average per capita income of the richest 10% of the population and a share of the poorest people;
- concentration of income factors (Gini index);
- the distribution of incomes across different populations;
- the cost of living;
- the minimum consumer budget;
- rational consumption budget;
- the number and proportion of the population with per capita incomes below the cost: the minimum consumer budget, the cost of living;
- the minimum wage;
- the minimum pension;
- poverty profile (composition of the population with incomes below the subsistence minimum;
- an index of the degree ( depth ) of poverty;
- an index of severity of poverty;
- 6. the living conditions of the population:
  - endowment of the population with social and cultural objects (schools, medical and childcare agencies, theaters, libraries, objects of trade and services);
  - indicators of infrastructure development;
  - time budget;
  - morbidity;
  - the state of the environment;
  - the number of registered crimes.

Thus, many indicators are large aggregating blocks including, in turn, a group of indicators.

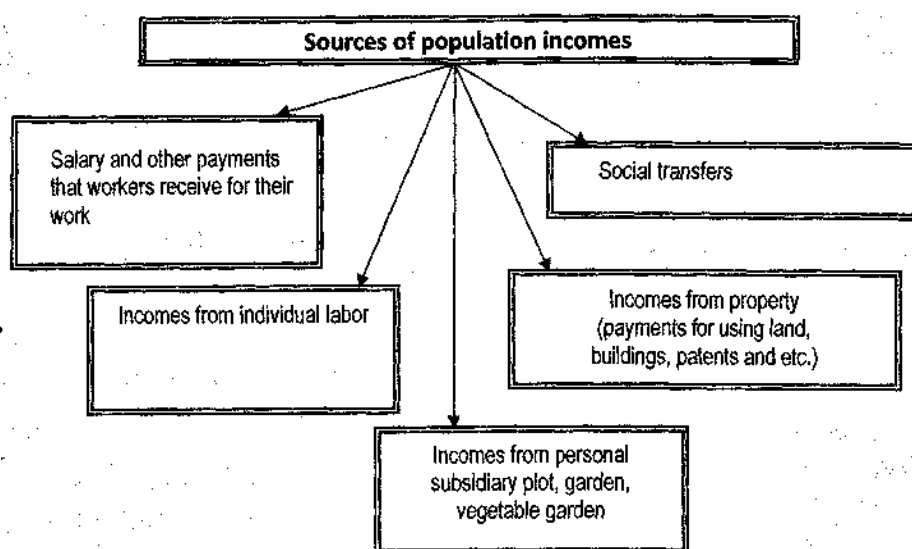
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### **13.2. Income as a basis for improvement of welfare**

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Among mentioned indicators of living standards the most important ones are revenue and expenditure of population. Revenues represent the aggregate of all funds received by the person spent on payment of wealth necessary to ensure a certain level of life. Items of income of the population are diverse. The bulk of personal income is income in cash. These include: wages, pensions, scholarships, property income and self-employment. The basis for the study of human welfare is put statistics households.

*Money income* of households is the sum of the funds received by household members in the form of wages, income from self-employment and entrepreneurship, pensions, stipends, benefits, compensation and other additional payments ( including the cost of charity care), interest, dividends, rents and other property income from the sale of products private farming and other cash flows. Cash income may be common (before taxes and mandatory payments) and disposable after implementation of the above payments.



**Fig.13.4. Grouping of population incomes, most strongly influencing the quality of life**

Cash income of each household by the number of amateur members, i.e., having an independent source of income and the value of the "invisible" income depends mainly on the number of household members, age and some other characteristics. In the consumer's budget revenues in the form of money are taken into account fully, and in the form of services - only partially. It is hard to determine the cost of free services consumed by households in relation to each particular household, for each specific recipient.

Along with the individual income in cash and in kind population satisfies a wide range of their needs free of charge or at reduced prices ( prices that are not economically significant ), using the services of the state-owned health care, education, culture, public housing, public transport, etc. Thus together consumed material goods, being part of the revenue of the society, form the income of particular recipient (population, households).

It should be noted that although the income is one of the most important indicators of economic welfare, for the characteristics of it makes sense to use a multi-dimensional approach, which would include (if we talk about the current welfare) and the response of consumption. It is difficult to distinguish between income and consumption. Rather, they are two sides of the same economic conditions that characterize it as a process of formation of resources (income) and the process of their use (consumption).

As a rule, in the index of income are *the following components*:

- 1) income from employment, which includes a payment in cash, other cash prizes, as well as monetary value of payment in kind of work;
- 2) farm household income from self-employment, which is the difference between gross income from agricultural activities ( sales of goods and money value of consumption of own production ) and production costs;

3) the non-farm household income from self-employment is the difference between gross income from business activities and production costs, while monetary value of consumed own products included in income;

4) income from property (rent, interest, dividends, etc.), as well as imputed income home owners who live in their own home;

5) received transfers include the transfer in cash and in kind from other households, government, social funds, etc.

The main components of household income considered employment income and pensions.

*Earned income* is income received by employees as a result of their economic activities in paid employment, and in self-employment. Current international statistical standards relating to the measurement of income from employment takes into account only the statistical wages and household incomes.

*Payment of pensions* is a form of financial security in old age, premature disability in survivors' benefits from the funds earmarked for social security in retirement funds. The following types of pension exist:

- occupational pensions - payments before reaching retirement age, seniority, disability, due to the loss of the breadwinner;
- social pensions - payments to disabled from childhood, the disabled and the elderly if they have no right to a retirement pension;
- retired military personnel and their families, including pensions, paid by the social protection of disabled conscripts, and in the case of death (death) - disabled members of their families.

By the method of disposal income households are divided into mobile and immobile. *Mobile or money, income* - is income that households dispose of resources without any restrictions. Immobility, or non-monetary income received by the population from government agencies, businesses and non-profit organizations, public service, have a target value. Households cannot dispose of their immobility income on your own.

*Income immobility* is divided into two types: visible and invisible (visible and invisible, in the terminology of P.P. Maslow). Visible revenue derived from the income target: the size of the revenue can be measured for each household, as they are determined individually for each recipient. Invisible income is the total cost of government agencies and non-profit organizations for the maintenance of free social institutions.

Determining the value of services consumed in social sectors to be included in the household budget is made according to standard estimates and conditionally adopted by the size of their consumption of specific recipient. Mobile family income depends mainly on the number of working members of the household, and immobility - is determined by household size, composition, age of members.

Cash incomes at the micro level (i.e. at the level of individual households) do not coincide with the level of consumption of the members. This is due to the fact that household consumption depends not only on revenues in cash and in kind, but the results of labor within the household. These results are determined by two components:

- consumption through the use of personal subsidiary agriculture and property;

- consumption through the use of "householder's" labor, i.e., the savings on the purchase of goods and services and their production directly by the household.

*Aggregate incomes of households* determine its relationship with the various sectors of the economy and the typology of behavior in the markets for labor, capital, goods and services. The level of per capita income of the household depends on the household size and composition and the structure of income sources. On average, it is higher in the smaller sized households and in households with fewer children.

The shortest period for the assessment of income is a week (Great Britain). In this sense, the hourly rate or the cost of one hour of work can only be regarded as the norm, but not how to actually receive or accrued revenue or earnings. The shorter the period for which the estimated income, the more it depends on the season and the stronger will be shown short-term fluctuations in income distribution. Obviously, a longer period for the assessment of income reduces the dependence on seasonality.

Individual researchers, believing that the income calculated for the year cannot be taken as the basis of measurement of economic inequality, suggests assess an individual's income from the calculation of his life. Their arguments are based on the impact on the income of the life cycle or households that "Lifelong" income can be distributed more evenly than revenues. A case in point may be a change in the social status (or employment status): Student - Engineer - retired. In this scheme are obvious differences in income over the life of one man.

The rapid development of private farms of the population has led to the fact that the majority of rural households and much of the city, the state budget is heavily focused on inpayment of resources from personal subsidiary agriculture (at the same time selling the products is not common). In total household income must be taken into account and the government social programs aimed at supporting low-income families through the idea of free (or partially paid), social services, and tax incentives should also be taken into account in the budget of the household. A substantial portion of the complex social services continues to be free for the entire population, and at least a significant portion of such services provided to the population differentiated by regions, sub-regions, sectors of the economy, businesses and social benefits. Therefore, calculations of total household income must be focused on assessing the consumption of not only the general population, but also consider the impact of non-cash income on the financial condition of different households.

The differences in the structure of incomes of different groups of households should be taken into account. There are important criteria such as the type of settlement (the capital, the central city of the Federation, etc.), household size, type, sex and age data of its members, income level, etc.

Features of income generation at the household level involve the use of modified concepts of income at the micro level. The most common expression of personal incomes (households) is the index of the so-called comprehensive

income, acting as the statistical equivalent of the amount of the means of life that get in the household to meet their needs, regardless of the source.

Income of the population distributed across channels: *through the labor, social transfers and a free or reduced services*. Consequently, according to sources of income can be classified as follows: Remuneration of staff, provision of social transfers, income from property, free and preferential services and self-employment (self-employment), including, from LPH.

Extremely acute acquired the rapid growth of the economically and socially unjustified differentiation in incomes of the least and most income groups of the population. According to some researchers, the 5-7 % of the population owns today to 70 % of the national wealth of Russia, located in a private property of citizens. This part of the population has almost reached the western standards of food consumption, household items and household goods, services, quality of education and leisure activities.

Revenues are classified by sources of receipt. There are *primary* and *secondary incomes* in economy. In a developed market economy people have, as a rule, a certain constant (i.e., main) source of income funds. It is payment for employed, and the net profit for the entrepreneur. Additional income - is income received in addition to the main source of financial and material resources. With the development of market economy, the possibility of obtaining additional revenue must be continually expanded. This category of income includes funds received by the Securities and lotteries and inheritance, as a result of reduced tax payments, etc.

Revenues are also differentiated with respect to form: they can be *monetary* and *material*. Incomes of the population include: labor remuneration of all categories of the population, pensions, scholarships and other social transfers, proceeds from the sale of farm products, property income in the form of interest on deposits, securities, dividends, earnings of persons engaged in business activities, as well as insurance claims, loans, proceeds from the sale of foreign exchange and other income. Tangible gains are tangible assets (cars, cottages, apartments, furniture, etc.).

*Nominal* and *real* incomes are distinguished. Nominal income - the amount of funds allocated or accrued to the employee, employer prior to the implementation of its various tax payments and other social contributions. The real is the amount of money for which a person can acquire necessary for the good life. The value of real income depending on the degree of price growth and high inflation reduces.

Thus, the dynamics of welfare is determined by the following parameters:

- a) wages of employees of industrial firms of all forms of ownership;
- b) the size of income from private business activities and private farming;
- c) the size of the payment and benefits of public (social) consumption funds to the general population;
- d) the dynamics of tax and fiscal policies of the state;
- e) trends in prices and market conditions, the level of inflation.

In turn, the monetary costs and savings include the cost of purchasing goods and services, compulsory fees and a variety of contributions (taxes, fees, insurance

payments, contributions to the social and cooperative organizations, the return of bank loans, interest on trade credit, etc.), the purchase of foreign currency, as well as an increase in savings deposits and securities. It should be noted that expenses for final consumption of households include expenditure on consumer goods and services, as well as the consumption of goods and services in kind: produced for own use (agricultural production of family farms, and imputed services of owner occupied dwellings) and received as wages and various kinds of welfare.

One of the tools of social and economic analysis of the level of welfare, is the *balance between revenue and expenditure*. Balance defines the volume, sources of cash income, and the amount, the structure of expenditures and savings. It reflects the movement of the part of the GDP, which is in the form of cash income goes to the people, it is used to purchase goods and services, payments, fees, and NAP-controlled via all kinds of savings ( deposits with banks, purchase of foreign currency, securities, etc.).

The scheme of balance of income and expenditure, the composition of revenue and expenditure balance sheet are as following (tab. 13.3). With the balance are determined not only the overall size and structure of incomes and expenditures are estimated real and nominal incomes and purchasing power of the population, but also calculates the distribution of the population by income level and the proportion of the population living below the poverty line.

**Table 13.3**

**Balance of income and expenses of population**

1. Income	2. Expenses and savings
1. Remuneration of labor 2. Incomes of workers and office workers from companies except remuneration of labor. 3. Dividends. 4. Revenues from selling agricultural goods. 5. Pensions and allowances. 6. Scholarships. 7. Revenues from financial system, including: a) insurance indemnity; b) lending for individual housing and other purposes; c) changing debts by lending, given for consumption purposes; d) interest on deposit; e) gains and redemption of loan; f) winning lotto; g) changing of debts of population by	1. Buying goods. Including: a) buying goods in all directions; b) payment for services and other expenses; Including: a) payment for accommodation and public facilities; b) payment for household services; c) education system services; d) expenses for tickets to sanatorium and rest e) homes, tourism and medical services; f) expenses for cinema, theaters and other shows; g) expenses for all kinds of transport; h) payment for communication services; i) other expenses. 2. Obligatory payments and optional contributions.

credits for purchasing goods (increase +, decrease -);	Including:
h) changing of debts by lending to person performing activity without formation legal body (increase +, decrease -);	a) taxes;
i) repayment of expenses to invalids (for fuel, repair of car);	b) payment on insurance;
j) compensation of damage to repressed citizens.	c) payment to social and cooperative organization; redemption of a loan;
8. Income of population from selling foreign currency.	d) buying lotto;
9. Other income:	e) interests for credits;
a) from selling things through commission store and buying-up centers;	f) obligatory insurance amount to pension fund.
b) from selling scrap, scrap metal and others (nonfarm provision);	3. Increase of savings in bonds.
c) other incomes.	Including:
is received by transfers (minus transferred and contributed funds).	a) increase of deposits to institutions penny bank;
cash incomes.	b) increase of investment in investment bank;
expenditures in excess of revenues.	c) purchasing obligations of Russian internal debt 1992;
nce.	d) purchasing obligations of state saving demand loan;
	e) acquisition of certificates of the Russian Federation;
	f) increase (decrease) of funds physical persons, deposited in banks for calculation with use of plastic cards;
	g) purchasing of stock of enterprise.
	4. Buying of living space.
	5. Expenditure of population for procurement foreign currency.
	6. Funds sent via transfers (minus received funds).
	Totally expenses and savings.
	Excess of receipts over expenses.
	Balance.

To measure the degree of differentiation in income a number of indicators is used, including a graphical indicator, called the Lorenz curve. Under the income differentiation is understood objectively determined the existing system of industrial relations result of the distribution of income, which expresses the degree of distribution inequality of wealth and manifested in the difference in share of national income received by various groups.

Measuring the level of low income derived by establishing a line (or threshold limit) below which individuals or households are deemed to have insufficient funds to secure the cost of life, determined on the basis of the concepts of relatively low (minimum) requirements.

In the classic sense of the term "cost of living" is used to refer to the aggregate value of commodities, an appropriate level of needs. The cost of living is determined by several factors:

- the level of prices of food and non-food products and services;
- the dynamics of different types of income, savings;
- improvement of the system of free service;
- changes in taxation of personal income;
- structural changes in the needs of the population;
- the conditions of life and work;
- the requirements of fashion and changing consumer tastes and habits;
- a set of demographic characteristics of the population.

In addition to this indicator to measure the use of social differentiation it is used so-called decile coefficient. It is calculated as a profitable gap 10% of the population with the highest income level, and 10 % of the population with the lowest level of income.

With this understanding of the term "cost of living" it mostly corresponds to the content of the level of living of the population, its welfare. To calculate the index of living cost it is fixed set of consumer goods, or "market basket". Hence the cost of living index evaluated by the change in composition of fixed cost "market basket". Also, it can be estimated by averaging the group indices.

Economists distinguish rational (optimal) and the minimum set of objects "market basket". *The rational structure* is formed on the basis of evidence-based standards of consumption. *The minimum* determines the level of satisfaction of the needs of food, clothing, shelter, below which human existence is unacceptable. Set of food in the "food basket" is determined according to the standards previously developed by the Institute of Nutrition of the Academy of Medical Sciences.

In the calculation of the rational and the minimum composition of the "market basket" used a set of products for various age groups. Structure of consumption in different population groups significantly differentiated. Therefore, it was necessary to advance the science-based "market basket" of goods and services for certain categories of the population with a systematic review of sets of products and services and, accordingly, the adjustment of consumption.

Of particular importance was the rationale for the practice of the cost of living and the corresponding "market basket", which has been recognized as the minimum subsistence level. The value of the minimum subsistence level - one of the main characteristics of the living standards of the population, the poverty threshold needed a guide for the development of measures for the social protection of the population.

The subsistence level is a measure of the absolute measurement of low income using the most important standards for consumption of goods and services to the minimum acceptable level.

A living wage is a natural set of food, taking into account dietary restrictions and providing the minimum number of calories, as well as the cost of non-food goods and services, taxes and other payments corresponding to the structure of expenses for these purposes budgets of low-income families. For example, the



Institute of Nutrition of the Russian Academy of Medical Sciences, the Institute of Social and Economic Studies of Population, RAS and the Ministry of Labor of Russian Federation with the participation of The World Health Organization has calculated the food on the basis of the minimum consumption<sup>56</sup>.

The basis of the calculation of the set is based on:

- norms of physiological needs for nutrients and energy for different groups of the population of Russia and recommendations of WHO/ UNU 1985 on the human need for energy and protein;
- information on the chemical composition and energy content values of the edible part of food and nutrient losses during cooking and food preparation;
- the data on protein digestibility and content of essential amino acids in it.

The living wage is the valuation of the consumer basket, which includes the minimum food and non-food goods and services necessary for human health and ensures its life, as well as mandatory fees and charges.

So, *the living wage* is the total valuation of the food basket (minimum food "baskets") and related to it by the share of non-food products cost and services with added value of tax.

Set of food, so-called minimum "food basket", provides the content on the chemical composition of foods and their caloric proportions (per day), which is listed in tab. 13.4.

**Table 13.4**

**The minimum food basket, in gr.**

Content	In average per capita	Men 16-59 years old	Women 16-54 years old	Pensioners	Children 0-6 years old	Children 7-15 years old
Albumen	73,6	88,7	70,3	65,3	49,4	74,5
Incl., animal origin	28,9	31,5	27,3	25,6	25,1	33,1
Fats	56,8	64,1	54,3	48,3	51,6	73,9
Carbohydrates	353,3	441,2	337,6	316,9	228,1	351,7
Caloric value, kilocalorie	2236,7	2720,4	2138,4	1979,6	1581	2385,6

In addition, the minimum food basket is differentiated by the eight climatic zones. Zoning of the territory of Russia is made on the basis of a quantitative assessment of the factors that determine the material and cultural needs of the people and their territorial differentiation by a combined indicator of living

<sup>56</sup>Cost of minimal set of products is determined on the basis of minimal set of products for men of working age. (Approved by the Government of the RF dated 17.02.1999, № 192). Used for interregional comparison for purchasing ability of RF population, calculated on the basis of unified values of consumption, also average prices along Russia and its individuals. Set includes 83 names of goods and services, including, 30 types food products, 41 type nonfoods and 12 types of services.

conditions. Integral indicator of the living conditions of the population determines the territorial differentiation as a function of the impact zone of the complex factors that affect the structure of the difference and the minimum consumer budget (natural climatic conditions, age and sex structure of the population, the size and structure of households, population density, settlement patterns, economic development of the area, especially national life, etc.).

Comparison of the data on the distribution of the population (families) in terms of per capita income and the subsistence minimum lets to get the number of people living below the "poverty line". In this case, the average amount of money missing "poor" people to raise revenue to the subsistence level of income is called a deficit.

The poverty level (degree of poverty) - an indicator of the proportion of the population with incomes below the subsistence minimum. In addition, the indicators are distinguished: the index of the degree of poverty (often referred to simply as "poverty level " or " deep poverty ") and poverty severity index. The index of the depth of poverty - the average amount of low- income, divided by the total number of households in the choice for the region. The index of severity of poverty - the average amount of low- income, squared and divided by the total number of households in the sample for this region. This index gives more weight to the income deficit of poorer families.

Thus, these parameters allow the system to assess the welfare and living standards of the population, to assess the needs of people at this stage of economic reform, to take concrete measures to indexation of income to the poor, to develop an effective mechanism of social control and social protection.

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### **13.3. Social policy of the state and its models.**

#### **Social justice.**

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*Social policy* is the activity of the state by management of social processes in society, ensuring the material and cultural needs, the regulation of the processes of social differentiation, allowing every member of society to realize their social and economic rights necessary for normal reproduction and development of the individual.

For the implementation of social policy, the state solves a number of problems, including:

- regulation of social and labor relations (wages, income, prices, conditions of work and the reproduction of labor force);
- formation and maintenance of economic incentives for participating social production;
- social protection of the rights of its basic social and economic rights;
- development of social infrastructure (housing, utilities, transportation, education, health), the quality and nature of products which meet the conditions of life and reproduction and full human development.

The clarification of the nature and development of the state social policy involves the use of such categories as "minimum consumer budget", "cost of living", "poverty", "minimum wage".

Market distribution of income on the basis of circumstantial mechanism of supply and demand for production factors leads to the remuneration of each factor in line with its marginal product. This mechanism does not guarantee equality of income distribution, and the reality of a market economy - there is a significant disparity in their distribution.

It is accepted to distinguish *functional* and *personal* income distribution. Functional distribution refers to the distribution of national income between the owners of factors of production (labor, capital, land, businesses). In this case, we are interested in how much of the "national cake" falls on wages, interest, rental income, profits. Personal distribution is the distribution of national income between the citizens of the country, no matter what the owners of the factors of production they are. In this case, we analyze what proportion of the national income (in money terms) is obtained, for example, 10 % of the poorest and the richest 10% of families.

The essence of social policy is to regulate relations between members of society, aimed at helping low-income groups, the reduction of poverty and achievement for all members of society an acceptable level of welfare. Carried out through the development of social policy and social programs financed from the state budget through income redistribution, regulation, employment, etc.

The need for social policies due not only to the existence of inequalities in the primary distribution of income as a result of factual distribution, but also the formation of family budgets and the impact on the amount of per capita income, family size and structure, the ratio of dependents and persons with independent incomes. As a result of the unequal distribution of consumption inequality is exacerbated when there is a family with many children, disabled or unable to work. In addition, with the development of society are increasing demands on the level of education and workforce development. Scientific and technological progress makes the main factor of economic and social growth of the creative work of the person, the use of innovative and creative potential of employees. The needs for education and health care are among those which, from the point of view of society, are a priority and need to be satisfied and society puts it under control, setting free health care and education.

Implementation during the second half of the twentieth century social policy in the developed countries has led to the formation of a market economy (or welfare), where most of the residents provided a stable level of wealth required to create the prerequisites for skilled labor and creative activity, the use of the innovative potential of the individual and to ensure social stability.

The social market economy as a special type of management system is characterized not only a high level of welfare. It is distinguished by a set of social and economic institutions, which directs the operation of all elements of the system to achieve the objectives of social justice, security, and a high level of quality of life.

It is important to distinguish between an economy with a high level of living and significant expense of proper social market economy. First - this is usually liberal societies that have achieved the highest level of material wealth, and therefore can afford the huge allocation of funds to help the poor, health financing and other social purposes. The most obvious illustration of such countries is the U.S. and Canada. However, these countries do not have a sufficiently powerful «built-in» mechanism of coordination of interests between social groups. On the contrary, the small Western European countries, such as Australia, Belgium and Switzerland, can be attributed to the countries with the "social economy" is on the basis that their social and economic and legal norms that are "adjusted" to achieve social cohesion and a high level of living of the masses population, although in absolute terms of income and quality of life they are inferior to the leading market economies.

Social and economic models used in different countries, characterized by severe, depending on the specifics of their level of development, the historical path and national traditions.

There are four basic models:

*The first model* is traditionally called *continental* or *German*. In addition to Germany, the continental model is used in Austria, Belgium, the Netherlands, Switzerland, and partly in France. For this model, characterized by high volumes of GDP redistribution through the budget (about 50 %), the formation of insurance premiums paid by the employer, the developed system of social partnership, the desire to maintain a complete, or at least a high level of employment.

*The second model - the Anglo-Saxon* - used in the United Kingdom, Ireland and Canada. It provides a lower level of GDP redistribution through the budget (not more than 40%), predominantly passive state employment policy, a high proportion of private companies and public organizations in the provision of social services. It should be noted that, for various indices of "comfort" and the quality of life of Canada in recent years, moved into first place in the world. In Southern European countries (Greece, Spain and Italy) implemented *a third model - Mediterranean*. The volume of GDP redistributed through the budget, here varies considerably (by almost 60 % in Greece and Italy, 40% in Spain). Social policy is addressed mainly to socially vulnerable categories of citizens and not comprehensive.

Finally, the fourth model - *Scandinavian* - is used in Sweden, Denmark, Norway and Finland (in the strict sense, this model is a type of social democratic, not a social market economy). For the Nordic model is characterized by a very active social policy, an understanding of social welfare as the goal of economic activity of the state is very high (50-60 % of GDP) amounts of wealth redistribution through the budget, the implementation of the ideas of social solidarity and active pro-active social policy. Major role in the financing of social spending state plays by financing either through the central government budget or through sub-national budgets.

State taking responsibility for the social climate, is facing an extremely controversial at times with the public perception of their actions. The fact is that

successful implementation of social measures required considerable financial resources. Their source - taxes. Hence the law - the higher the amount of social benefits, the harder the tax assessment should be.

The practice of social policy in developed countries has developed several areas of its implementation. These include:

- social insurance;
- social protection of the population;
- policy on salaries;
- social measures in the labor market;
- housing policy.

Currently, the center of gravity of the social policies of Western countries moved from the so-called passive transfers (direct payments) to the activity associated with the cost of state for education, science, health, the investment in human capital.

Social policy should be based on the grounds of social justice, which, according to the dictionary of modern economics McMillan is fairness and impartiality. Social justice in economic theory - it is a problem acceptable system of inequality and income distribution.

*The market system* - a system in which there are relations of competition, and the amount of income in a competitive environment is determined not only by the volume of work, which has the owner of the means of production, but also by how the rest of the supply and demand in the market.

Manufacturer behaves according to the requirements of the competition, a profit, expanding production and well, if he manages to catch the pulse of the market. This creates a strong motivation to entrepreneurship, is the progress of the economy.

Deceived in his calculations fall in the number of failures and ruined. This is related to the *constant differentiation of incomes, income inequality as one of the laws of the market economy.*

The market sets the economic justice in the sense that the more knowledgeable, more adventurous, has more and better resources, is in a better economic position, and vice versa. And that is a certain sense of economic justice: everyone gets their just deserts. Fair in a market economy are recognized income received as a result of free competition.

However there is another side of justice - social and economic equality of the humanist order. Firstly, it implies that the welfare of society should not depend on their initial opportunities - they inherited from the material factors of production. Secondly, it comes from the fact that in society there are people less capable, needy, orphans, the sick, and the principles of humanity, humanity require everyone to have a minimum, a decent human level of living.

The market system does not automatically provide a social justice, social equality of people. To approach it is necessary to state the redistribution of wealth. This is one of the functions of the state and the transition to a market economy.

In the context of the known theory of welfare economics can be considered fair distribution corresponding to the following two conditions: firstly, it must be

equal, i.e., none of the entities of the society does not prefer commodity set of another person to his own commodity set. Secondly, it should be *effective of Pareto*. Simultaneously and equally, and Pareto efficient allocation can be treated as fair.

Too deep inequality undermines social stability. However, the leveling of income undermines the effectiveness of, and incentives for work and entrepreneurship. For more equality often have to pay a lower efficiency. The hardest part of the implementation of social policy is to find an acceptable "social costs" or fee, for a more even distribution of income.

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### Control questions

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1. Define the category of "welfare". What types of welfare do you know?
2. Describe the structure and elements of welfare system.
3. What indicators are the needs of individual measured by?
4. What indicators is human development index based on?
5. Give the definition of "human capital". What factors determine features of human capital?
6. Name the general terms of personal development.
7. What is the economic content of welfare?
8. Describe the living standard as a social and economic category.
9. Why is satisfaction of social needs of the society in market economy considered an objective necessity?
10. Define the terms of "social security", "social protection", "social security", "social assistance".
11. What indicators is the living standard determined by?
12. What is the way of life? What characteristics is its essence determined by?
13. Describe the system of main statistical indicators defining the living standard and quality of life.

**PART IV**  
**DEVELOPMENT OF THE WORLD ECONOMY**  
**AND GLOBALIZATION**

**CHAPTER 14**  
**GLOBALIZATION AS A RESULT OF CURRENT**  
**TRANSFORMATION IN THE WORLD ECONOMY**

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**14.1. Theoretical aspects of world economy development**

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*The world economic system* is a system of national farms of the certain countries united by the international division of labor, trade and production, financial scientific and technical communications. The world economy isn't just the sum of separate national farms (peculiar "rags"), having the contract with each other, it's qualitatively new formation which functions on the basis of interaction of separate national farms in various forms of market activity; on macro and micro levels on the basis of the coordinated uniform rules and competition standards and due to ensuring of fundamental national interests and priorities.

Macro level is the interaction of the national states, national sub regional and regional economies as whole – the world economy. The world economy is understood here as a synonym of the world farming.

Micro level is a level of interaction of economic units; separate firms, the enterprises of the state and private sectors of economy, house farms, and also multinational corporations (MNC) and the financial and industrial groups (FIG). There is also an interaction between the separate markets at the micro level.

The world economy is a result of historical and forward development, the interlacing of the national farms of the world. The process of formation of the world economy isn't yet completed. The result of its development has to become the intersystem of a planetary level (global economic system) similar to modern national farms.

Formation and development of the world economy are connected with socio-economic factors as: international division of labor, developments of means of transportation, communication and means of communication, movement of capital (financial, human etc.).

*The International Division of Labor (IDL)* is a direct continuation of public division of labor within the country; it represents the interconnected process of specialization of the certain countries, associations, the enterprises dealing with production of separate products or parts followed by cooperation of producers for joint release of end products.

IDL develops in two directions – *production* and *territorial*. In turn, the production direction is subdivided into vertical and horizontal. Vertical division of labor takes place when different producers make a one-linear technological chain and carry out a number of consecutive production operations during which the product of each previous stage is an incomplete product and it becomes an object

of the labor for each subsequent stage. Horizontal division of labor assumes production of components from which technically or technologically difficult products are gathered. Both horizontal and vertical IDL break up at the international level into the general (between large groups of branches), private (disintegration of large groups of branches into less aggregated branches and subsectors), and single (intra-branch division). In territorial aspect the international specialization of production assumes specialization of the certain countries, groups of the countries and regions on the production of separate products and their parts for the world market.

Modern theories of IDL originate from classical political economy of A. Smith and D. Ricardo's theory, who were the first to assume that for the country not only sale, but also purchase of goods in a foreign market can be favorable as it's a participation in IDL.

A. Smith on the basis of the *theory of absolute advantage* proved the profits of IDL. He claimed that if any country can supply our country with any goods at cheaper price than we are able to produce it, it is much better to buy it from there or exchange some part of own industrial work enclosed in that area if we have some advantage in it. For this reason in a choice of specialization of production A. Smith assigned a big part to the market, he claimed that it's necessary to consider the advantages of the countries; natural (climatic conditions, possession of some natural resources, etc.), and acquired (usually caused by the production technology).

A. Smith's views were added and developed by D. Ricardo who founded the *theory of comparative advantage*. He proved not only the opportunity, but also the need of mutually advantageous trade even with absolute advantage of one country in production of all products: this country will receive benefits if refuses something less effective in favor of more effective. According to this theory, the total amount of production can be increased at the expense of the additional benefits which have arisen at specialization of the country on production of that production on which advantages in expenses are especially great. In opinion of D. Ricardo, it isn't favorable for a country to develop those branches where costs of production are lower than in other countries, but the difference in expenses is less, than the production of the most productive branch in the country. Despite the fact that any country is capable to let out a set of various goods, it has a comparative advantage in production of only certain types of production while other countries are better in production of some other goods. Each country exports the production in which it succeeds and imports something in which other countries succeed.

The modern modification of the theory of comparative expenses is the *theory of a ratio of factors of production*. The countries differ from one another with the amount of production factors such as human resources, the land and the capital. If the country is more provided with any of the factors, for example human resources with rather low wage, the labor-consuming goods made in this country will be managed cheaper. It is favorable to this country to make and to export the labor-consuming goods.

The founders of this theory are well known economists Eli Heckscher and



Bertil Ohlin (they subsequently became Nobel Prize winners) who developed modern ideas about directions and structure of the international commodity streams. Paul Samuelson revealed mathematical conditions under which Heckscher-Olin's statements become valid for economic practice. In the Western countries the model is often called *Heckscher-Olin's-Samuelson's model* in acknowledgement of their united merits.

In 1954 was published the article of the American economist of the Russian origin Wassily Leontief (he became the Nobel prize winner too) where was made an attempt to check Heckscher-Olin's theory on the basis of calculation of full expenses of work and the capital for export and import of the USA, which at that time were considered as the overcapitalized country. It was supposed that the USA export capital-intensive and import the labor-consuming goods. The result appeared was controversial and received the name of *paradox of Leontief*. It appeared that the relative surplus of the capital in the USA isn't reflected in the American foreign trade. The USA exported more labor-consuming and less capital-intensive production than imported. W. Leontief offered that in any combination with this quantity of the capital of 1 people human year of the American work is equivalent to 3 human years of foreign work, i.e. the big productivity of the American work is connected with higher qualification of the American workers. It emerged the basis of *model of qualification of labor*.

According to this model not three but four factors participate in production: the skilled work, the unskilled work, the capital and the land. Relative abundance of the professional personnel and highly skilled labor conducts to the export of goods demanding a large number of skilled works and the abundance of unskilled labor promotes export of goods for production of which a high qualification isn't required.

The modern economic science indicates not only advantages, but also limitation of the theory of Heckscher-Olin in which the following processes aren't included:

- the rapprochement of the structural shifts in the industry and trade of advanced and earlier underdeveloped countries;
- considerable and constantly growing amount of trade between the countries with equally high level of the income;
- high and escalating amount of counter deliveries of similar industrial goods in world trade.

These circumstances set a problem of search of expansion or updating of the basic provisions of the theory of Heckscher-Olin for economic science. It led, on the one hand, to the extension of the theory, new definition of factors of production, and from another to its complete negation and emergence of absolutely new approaches to a problem of efficiency of IDL.

The leading place among neoclassical theories of the international division of labor takes the *model of opportunity cost* of the American economist G. Haberler. He offers the curves of production capabilities for each country showing in what ratio each country can make two goods using all resources and the best technology. According to these views, countries export production of those branches of

economy in which they possess the highest in comparison with other countries technology. As a result the advanced technology inevitably extends on the world, the separation disappears, the export falls and the generating of further change of structure of world trade happens.

*In the product life-cycle theory (PLC) of Raymond Vernon* it is claimed that the success of the country in world trade depends on domestic market. According to this theory, some types of production pass a cycle consisting of four stages (introduction, growth, a maturity and a decline), and their production moves internationally depending on a cycle stage. R. Vernon tried to explain why the USA leads in production of considerable number of new and perspective goods. He claimed that the demand for such goods arose in the national market earlier than abroad as the results of technological advantages of the USA. The American firms export these innovations at a stage of development of production, and in process of increase of demand for them they set productions in foreign countries. In the process of distribution of new technology foreign firms also master the technology of production of new goods and start importing them into the USA.

The deepening of IDL confirms the viability of all theories and the need of their continuous modification, addition with new sides that is caused by objective tendencies of NTP and a tendency of the general humanization of the international economic relations.

First of all, it should be noted that the world economy consists of the national and state economies that are in a constant interconnection in that measure which provides advantage of participation of the country in the world economy. The results of functioning of the world economy are the increase of efficiency of use of resources in each state and acceleration of rates of economic growth around the world. The world economy represents the global economic organism consisting practically of all countries and the people of a planet. The world economy develops in accordance with market laws; it's mainly a market system. However, it still doesn't represent a complete unity. The system of world economy includes the states with various ways of economy.

Nowadays the following structure of the world economy is formed:

- 1) The world market of goods and services;
- 2) The world capital markets;
- 3) The international market of labor;
- 4) The international currency system;
- 5) The international monetary and financial system.

Besides, internationalization intensively develops in the spheres of information, research and development, culture and sports. The common scientific information space is being formed.

The main subjects of the world economy are:

- the states with their economic complexes;
- multinational corporations;
- international organizations and institutes;
- firms of all sectors of farming which have left for national borders.

The world economy is characterized by unevenness of development.

Economic distinctions between parts appears in extent of development of commodity markets, the work, the capitals and information, the depth of division of labor in the countries and character of their inclusiveness in the world market, the level and forms of social protection of the population.

A variety of combinations of indicators of economic development of the various countries doesn't allow assessing the level of economic development from only one point of view. For this purpose some main indicators and criteria are used:

- Absolute and relative gross domestic product (GNP);
- ND and income of per capita;
- Branch structure of national economy;
- The structure of export and country import;
- The level and quality of life of the population and some other.

There is some approaching to definition of a place of the country in the world economy. The simplest one is a division of world economy into groups of the countries based on income level per capita. Such approach is used in the UN, the Navy, IBRD (absolute measures of the income per capita over the countries are estimated annually).

The world with its social and economic nature is extremely non-uniform. Nowadays three groups of the countries can be marked out: industrialized countries with the market economy, forming as though a framework of the world economy; developing countries of Asia, Africa, Latin America and Oceania (or countries of "the third world"); the countries with the transitional economy, presented generally by the states of Eastern Europe, and also Russia, being on a way of development of new forms of managing. These countries are referred to developing countries as well and there are 123 countries among members of IMF include in this group.

The center and the periphery are usually allocated in structure of the world economy. The advanced industrial countries which share three quarters of total volume of the world national product gross, streams of the capital and world trade belong to the center. These countries (many of them are included into the Organization for Economic Cooperation and Development) are pioneers of scientific and technical progress, application of high technologies and discoveries, possess huge military industrial complex and the most capable organization (NATO).

The world economy differs from the national with the existence on the uniform world market. The economic policy of the developed states has essential impact on its functioning. The distinctive feature of the world market is functioning of system of the world prices and the international competition. The last reduces various national costs to the uniform international one. The world price is defined by conditions in those countries which deliver the main volume of the benefits to the world market. The constant competition for sales markets is conducted between the countries. It quite often proceeds in a price form: textile, automobile, computer, trade wars. The wide circulation gained different types of non-price competition connected with the efficiency of use of achievements of a

scientific and technological revolution and organization of administrative measures.

The world economy is characterized by broadening and deepening integration and internationalization.

In present time in the economic literature there are set the definitions of integration, into basis of which commodity or regional forms are put. **Integration** is a form of internationalization of economic life, objective process of an interlacing of national farms and carrying out the coordinated economic policy at national and international levels in various forms: free trade, Customs unions, the general markets, economic unions, currency and political unions.

**Internationalization** is a process of development of economic relations between national farms, when economy of one country acts as a part of world economic process which goes deep on the basis of the international division of labor, production and scientific and technical specialization and cooperation.

These processes really changed the appearance of the world economy and they were held not only by the countries and regions, but also by independently operating subjects represented by the separate firms gaining gradually transnational character.

There are listed main types of integration associations:

1) free trade zone is when the participating countries are limited to cancellation of customs barriers in mutual trade;

2) the Customs union is when free movement of goods and services in group supplements a common customs tariff in relation to the third countries and is created system of proportional distribution of the customs income;

3) common market is when the barriers between the countries are liquidated not only in mutual trade, but also for labor and capital movement; thus, a common market is a market of goods, services, the capitals and labor;

4) the economic union includes a common market and carrying out uniform economic policy, creation of system of interstate regulation of the social and economic processes proceeding in the region;

5) the currency union based on a uniform banking system and, finally, on uniform currency;

6) political union.

The simplest form of economic integration is a free trade zone; more difficult form is the common market and the most difficult form of interstate economic integration is the economic and currency unions.

For the characteristic of level of integration the following coefficients are used:

1. **Preferences** allow revealing commercial relations in which the countries possess high degree of an attraction to each other. If value of the coefficient is equal to zero then commercial relations between the states are absent if it's equal to one then it's on average world level. The higher the value of the coefficient, the more trade integration happens between the countries:

$$Kp = T_i/T_w$$

In this formula  $T_i$  is a share of the trade partner in trade with any country;

$T_w$  is the specific position of the partner country in the international foreign trade.

2. *Mutual preference* represents the average size of preference indicators among partners.

The importance of commodity streams can't be compared using the indicators calculated only on one country. It is possible to eliminate the specified defect, defining coefficient on two countries at the same time.

3. *Relative preference* shows the intensity of the international commercial relations between two countries comparing their relations with all other states. The more value of this indicator exceeds one mark, the higher the preference degree is. These relations are showed in a formula:

$$Kp = \frac{(E_{ab} + Z_{ba}) * E_w}{E_{aw} * Z_{bw}}$$

In this formula  $E_{ab} + Z_{ba}$  is the total volume of bilateral trade;  $E_{aw}$ ,  $Z_{bw}$  is the total exports and import of the countries;  $E_w$  is the total amount of world export.

*Foreign trade* is the most important form of the international economic relations; along with international production, scientific and technical and other forms (training, tourism etc.) of cooperation.

The main forms of the international production cooperation:

- the modern coordination of production and sale on the basis of specialization and cooperation;
- joint possession of the enterprises (joint ventures);
- contract construction;
- scientific and technical cooperation.

Especially significant for modern development of the world economy is a scientific and technical cooperation, as the most rational one and as it has some effective forms as:

- creation of the general research centers, bureau, laboratories for use of the latest scientific and technical ideas designing, market researches and technical and economic calculations;
- joint experiments in the field of improvement of operating equipment and technology for the purpose of improvement of technical and economic indicators of work of a firm;
- joint researches and studying of foreign experience in the area of the organization of production of work;
- the current coordination and consultations concerning scientific and technical policy;
- the measures for preparation of the qualified research personnel.

A set of foreign trade of all countries forms international trade.

*International trade* is an exchange of goods and services between state and national farms. It arose in an extreme antiquity, but only by XIX century it took the form of the world market as in there were involved generally all developed countries.

For an assessment of international trade the total volume of export or a foreign trade turnover of the country is analyzed. It's figured out in accordance with export and import summation.

There are a number of the indicators characterizing the degree of inclusion of a country in foreign economic relations. For example, the indicators of level of the international specialization of production of the branch (according to a type of production) are the coefficient of relative export specialization (CRES) and an export quota in production of branch. CRES is determined by a formula:

$$KO = \frac{E_0}{EM}$$

$E_0$  is the specific weight of goods (set of goods of branch) in country export;  $E_M$  is the specific weight of goods (goods analogs) in world export.

If the ratio exceeds this unit, we can speak about reference of this branch (goods) to international specialized and vice versa.

As for  $Ke$ 's export quota, it is a reference point characterizing level of openness of the national industry for a foreign market:

$$Ke = \frac{E}{GNP}$$

Where  $E$  is the export cost.

The increase of the export quota testifies both the increasing of participation of the country in the international division of labor and the growth of competitiveness of production.

Export volume per capita of the country characterizes degree of "openness" of economy. The export potential (export opportunities) is a share of production which the country can afford to sell in the world market without damaging of internal requirements.

Export and import, as well as other components of cumulative expenses, work with animated effect. Therefore, on the basis of growth of the national income and a gross national product the economic theory developed a trade multiplier for a quantitative assessment of impact of foreign trade and uses it in practice. The big contribution to its creation and development brought J. Keynes, Caen River, F. Makhlop, P. Samuelson and other economists.

Similar to the multiplier of investments the multiplier of export ( $M_x$ ) is caused by internal processes in the sphere of consumption and can be defined through limit tendency to consumption ( $MRC$ ) or limit tendency to savings ( $MRS$ ):

$$M_x = \frac{1}{MRS} = \frac{1}{(1 - MRS)}$$

The influence of increase in export  $X$  is defined by the output on the basis of a formula

$$GNP \approx Mp \cdot X,$$

$Mp$  is the foreign trade multiplier.

But the international trade is not only export, but it's also import. If the part of gained export income goes on import, internal purchasing power will be reduced. Import works as leak, similar to savings (import has a negative sign).

Therefore import can be analyzed as something similar to the savings function. With introduction of the concept of limit tendency to import (*MRM*) as the relations of change of volume of import to income change, the formula of the multiplier becomes:

$$Mp = \frac{1}{(MRS + MRM)\Delta X}$$

The action of the multiplier of the foreign trade is not infinitely. The multiplication has fading character; sizes of the next incomes are steadily reduced as value of limit tendency to consumption of import goods is less than one.

Historically various forms of the state protection of national interests in fight in the world markets which define a trade policy of the certain countries exist. The protectionism (protection) and free-trade (full freedom of trade) are most known.

The rigid *protectionism* assumes the control of import of goods and all stimulation of export, protection of the national industry by introduction of high import duties, the state monopoly for trade in certain types of goods. Theoretical basis of this policy is the mercantilism.

Modern protectionism as well as a classical one, means the aspiration of the states to provide the best conditions for the producers of the countries in domestic market and to protect them from the competition of importers.

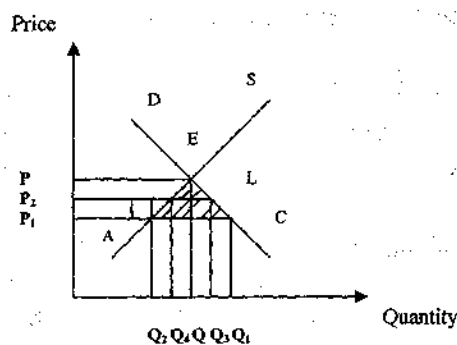
But the protectionism inevitably leads to the reduction of foreign trade, to self-isolation. That's why during the industrial revolution the country inevitably starts a *free-trade policy*. The theory of comparative expenses of D. Ricardo became a basis of such economic policy. Reduction of tariffs and the quotas, conducting to growth of volumes of the international trade, reflects a tendency to liberalization of a trade policy, to achievement of bigger openness of national economy. Liberalization of foreign trade is more favorable both for each of the countries, and for all world community; it is a source of growth of welfare of the state.

Regulation of international trade is carried out at two levels: international and national.

At national level regulation is presented by export and import regulation. Regulation of export is directed on its stimulation by means of organizational, credit and financial methods. Regulation of import is reduced generally to its restriction by means of tariff and non-tariff means. The main tariff means are the customs duties.

*The customs duty* is the monetary collecting raised by the state through a network of customs from goods, property and values when they cross the borders of a country.

Discrepancy of the interests of various subjects of the market relations while using instruments of state regulation of foreign economic activity can be illustrated on the example of influence of duties on import (fig.14.1).



**Fig. 14.1: The consequences of implementation of tariffs**

The point E in figure 14.1 corresponds to the price  $P$  and the quantity  $Q$  – the equilibrium price of some goods and quantity in domestic market in the absence of foreign trade. If the world price for these goods is lower than the internal then its level is defined by  $P_1$  point in our drawing. In option of free trade the domestic price of these goods has to be not higher than in the world. Thus internal demand of lower price increases to  $Q_1$ , and the volume of the offer of goods of the local producer will decrease to  $Q_2$ . The missing quantity (*AC piece*) will be provided at the expense of import.

In condition of carrying out the import the price will increase to  $P_2$ . The new price is equal to the world's one but plus the import duty. The increase of the price will lead to demand reduction, increase in a domestic production and import reduction (*BL piece*). Therefore, the local producers can sell the goods at higher price and increase sales volume if the import duties are set. Consumers will have to reduce quantity of cheaper import goods and to increase the consumption of more expensive local.

The tariff increasing the domestic price of import goods causes damage to consumers. However, it is favorable for domestic producers of these goods, and it's also a source of the income of the state (in fig. 14.1 the shaded triangle represents volumes of income from duty to the state). The damage of the consumer, in fact, reflects public damage as it is not only about decrease in consumption, but also about the support not enough effective national productions by means of a tariff.

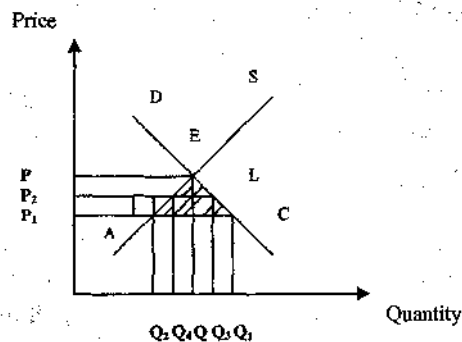
The true picture characterizing real effects of foreign trade reflects the country balance of payments.

**The balance of payments** is a ratio between the sum of the payments received from abroad and the sum of payments, translated abroad, for this or that period (year, quarter, and month) expressed in currency of each country.

The structure of the balance of payments is given in table 14.1.

In the real life the balance of payments can be reduced with positive or negative balance. This result belongs to balance on two accounts: current





**Fig. 14.1: The consequences of implementation of tariffs**

The point E in figure 14.1 corresponds to the price  $P$  and the quantity  $Q$  – the equilibrium price of some goods and quantity in domestic market in the absence of foreign trade. If the world price for these goods is lower than the internal then its level is defined by  $P_1$  point in our drawing. In option of free trade the domestic price of these goods has to be not higher than in the world. Thus internal demand of lower price increases to  $Q_1$ , and the volume of the offer of goods of the local producer will decrease to  $Q_2$ . The missing quantity ( $AC$  piece) will be provided at the expense of import.

In condition of carrying out the import the price will increase to  $P_2$ . The new price is equal to the world's one but plus the import duty. The increase of the price will lead to demand reduction, increase in a domestic production and import reduction ( $BL$  piece). Therefore, the local producers can sell the goods at higher price and increase sales volume if the import duties are set. Consumers will have to reduce quantity of cheaper import goods and to increase the consumption of more expensive local.

The tariff increasing the domestic price of import goods causes damage to consumers. However, it is favorable for domestic producers of these goods, and it's also a source of the income of the state (in fig. 14.1 the shaded triangle represents volumes of income from duty to the state). The damage of the consumer, in fact, reflects public damage as it is not only about decrease in consumption, but also about the support not enough effective national productions by means of a tariff.

The true picture characterizing real effects of foreign trade reflects the country balance of payments.

**The balance of payments** is a ratio between the sum of the payments received from abroad and the sum of payments, translated abroad, for this or that period (year, quarter, and month) expressed in currency of each country.

The structure of the balance of payments is given in table 14.1.

In the real life the balance of payments can be reduced with positive or negative balance. This result belongs to balance on two accounts: current

operations and capital movement. It shows the direction of movement of currency (to the country or from the country) from the conducted international trade and financial operations. If the balance of payments is scarce, the country receives less foreign currency than spends. The extent of deficiency is equal to reduction of official reserves. The active balance means that the state earns more currency than spends as a result an increase in currency reserves take place. In the world is practiced the criterion of three-month sufficiency of the international reserves for financing of import of goods and services.

Macroeconomic purpose of the balance of payments consists is reaching a laconic form to reflect a condition of the international economic relations of this country with her foreign partners; being the indicator of a choice of a monetary and credit, currency, budgetary and tax, foreign trade policy and management of the state debt.

**Table 14.1**

**Structure of the balance of payments**

<b>1. The account of current operations</b>	
1. Commodity export	2. Commodity import
<b>Balance of foreign trade (trade balance)</b>	
3. Export of services (the income from foreign tourism etc., excepting credit services)	4. Import of services (payments for tourism abroad etc., excepting credit services)
5. Net income from investments (net income from credit services)	
6. Pure transfers	
Balance of the current operations	
<b>2. Account of movement of capital</b>	
7. Inflow of capital	8. Capital outflow
Balance of movement of capital	
<b>Balance of the current operations and balance of movement of capital</b>	
<b>3. Change of official reserves</b>	

Communication between economies of the various countries is carried out through trade in goods, services and financial operations. Money acts as the intermediary in them. As a result the currency relations connected with functioning of money in the world economy take place.

The currency system acts as concrete form of the organization and regulation of the currency relations. In development of society are formed national, regional and international currency systems.

*The currency system* is a set of the relations reflecting functioning of money (currency) in open and state economy and also in the international institutes (the organizations, establishments, rules of law, etc.). The most important element of currency system is currency.

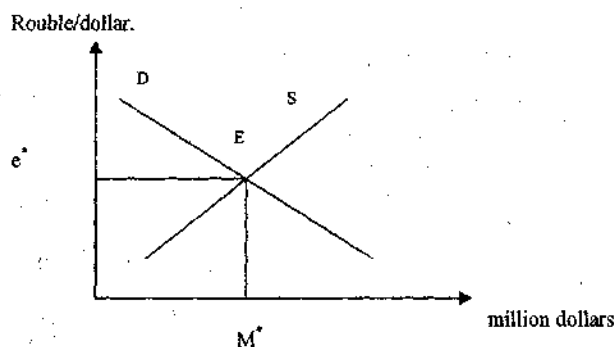
The term "currency" can be used in double sense. Firstly, it can be understood as a monetary unit of the country; one of the elements of its national monetary

system. Secondly- as bank notes of the foreign states and expressed in them credit and means of payment. In more strict definition the currency is a special way of use of national money in the international payment and settlement turn.

Worldwide the national currency is used as lawful mean. The exchange of a national currency for the foreign one is important for payment of foreign goods and services. International trade and exchange of foreign currencies are carried out in the foreign currency markets. They represent the most considerable part of the financial market of the world. Calculations in the currency market are carried out in cash (where the currency, traveler's checks and multi-currency plastic cards is used) and a non-cash way. The volume of supply and demand of currency depends on its price known as an exchange rate.

**The exchange rate** is the price of monetary unit of one country expressed by monetary units of another country. It is represented in the different ways: as number of units of national currency (for example, rubles), necessary for the acquisition of one foreign currency (exchange rate), and as a number of units of the foreign currency which is necessary for the acquisition of national currency (an exchange course). Such representation is called as a bilateral nominal exchange rate.

The price of balance or market price of currency is an exchange rate at which the currency is offered in the currency market is equal to demand for it. Curves of supply and demand of currencies – dollar and ruble are presented in fig. 14.2. Point  $E$  – a balance point in the currency market;  $e^*$  – a nominal exchange rate (the direct quotation of foreign currency, for example 28 rub/dollars);  $M^*$  – the mass (quantity) of currency.



**Fig. 14.2. The exchange rate of rouble to dollar**

Curves of supply and demand have a classical appearance; however the factors defining supply and demand are a bit different. The offer of foreign currency is formed by importers of the Russian goods and services, foreign investors, the Russian exporters. Demand for currency is formed by the Russian importers and investors, exporters of the Russian goods and services. As a result demand for dollars for rubles is decreasing in an exchange rate, and the offer of

dollars for rubles is increasing an exchange rate. The more demand exceeds the offer, the more expensive currency becomes.

Unlike other markets there is no the general unit of measure estimating each goods represented by currency in this market. Therefore, this market can be considered as barter were a ratio of various currencies in pairs should be analyzed.

In Russia the result of the daily auction at the Moscow Interbank Currency Exchange (MICE) the official rate of ruble in relation to the main convertible currencies is established.

*Reversible or converted currencies* are such currencies which can be freely exchanged on some national monetary units, goods and services.

Modern international economic life can't simply be imagined without such currencies. Thanks to convertibility of currencies a huge commodity turnover and even more enormous turn of the capitals is made in the world. All this emphasizes the importance of a problem of convertibility of currencies.

One currency can be converted to another directly or through the third currency. In the second case the cross rate of two currencies is established. As the cost of ruble changes due to the relation to all currencies, *the index multilateral*, or an *effective* exchange rate pays off. It represents the price of a representative basket of foreign currencies, the specific weight of each of which corresponds to trade size of Russia. The effective exchange rate reflects a change of an average nominal exchange rate. For an assessment of change of a ratio of the prices of domestic and foreign goods the indicator of a *real* exchange rate (RER) is used. It shows competitiveness of national goods in the world trade. It can be calculated as the relation of the ruble prices in foreign countries to the prices in domestic market of Russia:

$$RER = eR_z/P,$$

$P_z$  and  $P$  is the price level respectively in the foreign and internal markets;  $e$  is ruble price of foreign currency (exchange rate).

The real exchange rate shows a relative price level.

Growth of a real exchange rate reflects that the prices of foreign goods in rubles exceed the prices of similar goods of a domestic production. There is a depreciation of a real exchange rate. Other equal things it will lead to increase of competitiveness of made production as goods made in the country become cheaper than the foreign. Opposite is a decrease in a real exchange rate means rise in price of a real exchange rate and leads to loss of competitiveness of domestic goods.

*Convertibility* is a communication between the internal and world markets through a flexible exchange rate of national monetary unit at an existing freedom of trade.

Convertibility of currencies in the conditions of the gold standard is *absolute*. Under all other operating conditions of the international currency system convertibility of currencies can be characterized only as relative. In this case it is shown in currency exchange of one country only on currencies of other countries, but not on gold.

Existing types of convertibility can be subdivided into two conditional groups: *full* convertibility and *partial* convertibility.

Full convertibility means no restrictions for national and foreign owners of currency of this country on its import-export or transfer abroad at commission of any operations at any time. Partial convertibility indicates existence of certain currency restrictions which extend on subjects, objects and reversibility zones.

Introduction of partial convertibility for residents, i.e. local holders of currency, means providing them with the right of free import-export and transfer of means abroad, purchases of foreign currency without any restrictions. Such form of partial convertibility is entered for the purpose of liberalization of import and is called internal.

The application of partial convertibility only for nonresidents (on accounts of foreign physical and legal entities) received the name of external convertibility. In this case the currency restrictions remain for residents.

Partial convertibility can extend on separate types of currencies and currency means. So, if object of convertibility are the currency means received as a result of the current operations (i.e. connected with foreign trade, tourism and others), we deal with so-called commercial convertibility.

Partial convertibility on the operations, reflecting movement of the capitals is distinguished as well. The elimination of restrictions on movement of the capitals is one of the directions of development of currency integration in modern conditions. For example, EU countries have completely cancelled currency restrictions in this area since 1992, and since 2002 they have introduced the euro into circulation as uniform currency for the countries entering into the currency economic union.

It is necessary to notice a partial convertibility also within this or that currency zone when reversibility of currencies of the countries entering into this zone is resolved.

The main condition promoting application of convertibility of currency is balance of the current payments.

The country shouldn't have deficiency of the balance of payments, i.e. its payments abroad shouldn't be above the specified payments from abroad. Besides, convertibility of currency demands almost free movement of goods and determination of price level mainly under the influence of supply and demand. Thus influence of a market mechanism on formation of the internal world prices has to be equivalent and substantially predetermine identical tendencies in their dynamics and impossibility of essential long-term distinctions in levels of these prices.

One of the major factors that influences on a condition of the balance of payments and by that of creating conditions for convertibility is the real course ratios reflecting cost conditions and proportions of an exchange of this country with other world.

Noted signs are peculiar to national economies of only the advanced countries which occupy an ascendant position in the world commodity, monetary market and

the market of the capitals. These countries have an enormous steady foreign trade turnover; they deliver bulk of goods to the world market.

Today the national currency of 60 states is completely convertible. Only six of them (US dollar, English pound sterling, Deutsche Mark, Japanese yen, the Swiss and French franc) are used for the majority of international payments, official reserves, definition of currency parity and a course for other countries. These currencies are called reserve or key.

*The currency policy* is a policy of the state in the field of regulation of the currency market which is characterized by various extent of its participation in this market.

In this regard two types of the currency policy are distinguished, based on two opposite systems of the organization of an exchange rate: *the system of rigidly fixed exchange rates* and the *mode of freely floating exchange rates*.

In the conditions of the fixed exchange rates the change of supply and demand in the currency market doesn't lead to fluctuation of an exchange rate. It is reached by means of the state intervention in functioning of the currency market.

Purchase or sale of a foreign currency by the central bank is called *currency intervention*. Its volume is defined by the size of the balance of payments and the saved-up gold and exchange reserves. If a long deficiency of the balance of payments takes place it causes a loss of competitiveness of the country in the world market that reserve assets decrease to a critical point. It becomes impossible to correct negative balance of the balance of payments by means of interventions. In this case the central bank declares the devaluation of the currency; it means the official fall of a rate of national currency in relation to foreign currencies or the international settlement. Objective basis of devaluation is to overestimate an official exchange rate with real purchasing power of money. If the country balance of payments for a long time is consolidated with positive balance, the central bank can make the decision on revaluation – to increase the rate of national currency in relation to foreign. At system of freely floating (flexible) exchange rates the central banks don't interfere at all with functioning of the currency market, don't carry out intervention. Exchange rates are defined only by supply and demand.

For a long-term time intervals between exchange rate of any two currencies fluctuates round parity of purchasing power – the level of an exchange rate which purchases the power of national currencies is identical. It means that the ratio, for example, of ruble and the Hungarian forint provides acquisition of identical consumer sets of goods for the equal sums at this course.

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#### **14.2. The essence and distinctive features of globalization process**

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*Globalization* is a role of external factors in reproduction of all countries participating in this process, the formation of the uniform world market without national barriers, where uniform legal conditions are set.

IBRD describes globalization as "increasing economic interdependence of the

countries of the world, as a result of the increasing volume and increasing variety of the international movements of goods, services and international streams of the capital, and also more and more fast and wide circulation of technology".<sup>57</sup>

Supporters of globalization consider it as process which follows from self-development of economy and, promoting, to free streams of goods, the capitals and information, she creates "the best conditions for growth and human welfare".<sup>58</sup>

According to the concept of Fukuyama globalization promotes formation of a uniform social and economic system of the world that leading it to one-alternativeness of development. According to M. Delyagin's concept, the process of globalization consists of three interconnected components; new international division of labor, the international production and the political relations.

The international division of labor is irreversible, especially in its new forms as a globalization component. This element allows to optimize economic structure and to receive tangible benefits from globalization to a certain number of the states. That's why it will go deeper and will be improved, irrespective of the will and intentions of these or those producers and the states.

The international production is conducted both at the foreign enterprises placed in foreign countries and due to the contracts that are transferred to the local enterprises. Thus the foreign companies achieve not only decrease in costs of production, but also economy of initial investments, simplification and reduction in cost of administrative structures as contractors are responsible for the phase of production given to them. As the international production is one of the most important instruments of fight for sales markets it grows quickly. There is a very broad dispersion of estimates of its size – from 4 to 14 trillion dollars. By the beginning of the third millennium it made 6-7 trillion dollars. This production is international on character of sales markets.

The economist M. Castells wrote: "The governments, especially the governments of the countries of the big seven and their international institutes ... were the chief agents in formation of global economy"<sup>59</sup>. The main sense of pressure of the developed states on the other countries consisted in giving of globalization of general character, and also in acceleration of its rates so that they advanced rates of development of economy and objective growth rates of the international division of labor, irrespective of position of these or those countries.

Globalization implementation to the practice was promoted by some tools. **Liberalization** acts in two forms. On the one hand there were a great number of international arrangements made on the basis of a coordinated decrease in customs tariffs, elimination of non-tariff barriers, simplification of procedures of registration of export and import, etc. The decrease in restrictions of access and operations in the world market was observed.

At the same time there was a change of the domestic legislation concerning foreign economic relations – cancellation of quoting of export and import, obligatory sale to the state of currency revenue, restrictions of activity of the

<sup>57</sup>World Economic Outlook. 1997, - p. 45.

<sup>58</sup>UNDP. Human Development Report. 1997, New York, - p. 82.

<sup>59</sup>"The economic strategy." 2000, № 5, - p. 55.

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foreign capital in domestic market and so on. External aspects are the international aspects of activity that were more unified and universalized than internal as the first were based on multilateral coordination, and the second won the national approaches which were defined by national executive and legislatures. But there are considerable distinctions between regulations of movement of goods and the capitals though the World Trade Organization insists on adoption of the coordinated code of the foreign investor for some years. Liberalization promoted considerable association of commodity markets and the capitals in the 90th.

*Privatization* is another instrument of globalization. Existence of public sector with the reproduction regularities interfered with free movement of the capital and creation of uniform social and economic system. Therefore privatization was directed on completion of creation of uniform world economic and social and economic space.

The neoliberal theory became a *theoretical basis of globalization* (especially the monetarism) which approves a priority of market mechanisms in economic development, the refusal of the state intervention in economy, the elimination of all obstacles in a way of movement of the capital, goods and labor. In the last quarter of the XX century it took leading positions owing to giving to this theory the character of the only correct both scientific community, and leaders of leading powers, training of specialists of all countries of the world on its basis, activity of numerous western advisers.

That's why the assistance to globalization process in the majority of the states is regardless to the level of their development, the extent of the development markets the relations and so forth gained the nature of indisputable dogma. Owing to all these reasons were created some postulates in the world science and policy.

First, the process of globalization gained a planetary character.

Secondly, all countries involved in globalization, receive indisputable benefits (from expansion of scales of production, decrease in expenses, improvement of quality and increase in opportunities of a choice of goods) which are optimistically estimated as 15-unit figures.

Thirdly, globalization covers all aspects of life of human society – economy, social life, culture and so on; that involves formation of "a universal civilization". Actually results of globalization were much more modest.

There was a huge distribution of the European-American culture worldwide due to scientific and technical progress and expansion of communications, however in the second half of the XX century in the developing world opposite process also happened - the revival of autochthonic religious cultural and civilization values in parallel was developed.

It was promoted, first, by the changes in the local elite, replenishment with natives of the village, who were the carriers of traditional representations and values; secondly, the loss of fear in front of the European weapon because of the defeats suffered by it in a number of local wars (Vietnamese, Afghan, etc.); thirdly, the ability of a number of developing countries to compete as equals with the developed states and to occupy certain niches in the world market.

The initial divergence of vectors of civilization development was in the

eighties replaced by alienation, and by the end of the 90th years it began to develop into direct hostility in some cases. In other words, neither on social and economic, nor on the cultural and civilization line globalization couldn't bring rapprochement *between separate components of the world system*. That's why the step forward to formation of uniform "universal civilization" didn't turn out.

Bigger progress was made in the sphere of economic globalization. The indicators of these successes are usually the growth of volumes of foreign trade and an export quota, the significant increase in dynamics of direct foreign investments, the increase of a role of external factors in reproduction etc. However, not everything is safe in this sphere as it looks in reports of the international economic organizations.

Globalization and integration of world economic space are accompanied by its fragmentation.

On the one hand, the level and the extent of interaction in group of developed and adjoining them small number of developing member countries of OECD (Organization for Economic Cooperation and Development) accrues: at the beginning of the millennium about  $\frac{3}{4}$  of all movements of the capital, about  $\frac{7}{10}$  world commodity turnovers were the share of cross investments between them, and about 90% of issue of actions. This group of the countries has the main production and information technologies, and also produces the most difficult and exact products. In conditions of globalization a self-sufficiency of this group of the states is amplified.

On the other hand, throughout the second half of the XX century in the world gradually was a group of the countries appeared away from process of economic development due to the lack of valuable natural resources, the small capacity of domestic market, extraordinary low level of literacy and qualification of labor.

Though a certain role in it was played by sharpness of internal contradictions, however influence of globalization which avoided them was important also, or influenced them negatively.

Fragmentation is strengthening as two different ways of inclusion of the countries to global economy come to light. The majority of the small and average countries don't possess a necessary set of resources and the branches, capable to provide the economic growth and increase of the income of the population on an internal basis.

That's why they can only optimize economic proportions and pass to intensive methods of growth by full integration into global economy. But such integration means that the structure of national economy is defined by foreign markets which provide also inflow of the capitals and technology. As this country can't influence noticeably on the Common Economic Space, it is compelled to join in game by the rules imposed by the developed center of world system. Therefore the results of this integration are substantially unpredictable.

The large countries and regional integration groups (India, China, in the long term Indonesia and Brazil, EU, ASEAN, MERCOSUR (Brazil, Argentina, Paraguay, Uruguay and the associated Chile) and etc.) have a different position as they are capable to develop on to endogenous basis owing to existence of

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necessary natural, production and intellectual resources. These countries and structures, on the one hand, are compelled to play by the general rules on a global field, and with another – to be guided by internal efficiency as the last plays a dominating role in internal reproduction. Therefore this is not integration into global economy but adaptation or interaction to it. It is natural that such countries and structures receive the greatest benefits from globalization, but unevenness distribution of profits and losses between the certain countries and their groups at the same time increases.

As globalization worsened the provision of a quite considerable number of developing countries, in the late nineties there were antiglobalist movements inside them. In these movements was a consolidation of the most diverse forces – businessmen of the developed countries connected with domestic market, labor unions, socialists, anarchists, green, left social democrats, etc. It is represented that these forces won't be able to achieve the globalization termination as in its basis lies the international division of labor which is irreversible. However their pressure can change its forms and methods to adapt it for interests of the producers serving domestic market and less developed countries.

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### **14.3. Globalization of financial and commodity markets**

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The financial markets of the developing and transitional countries with a catching-up type of development are forming (emerging) a segment of the world (global) financial market.

The financial markets of the catching-up countries treat the unripe being formed markets. Many of them are in a process of emergence and formation. As for the Latin American financial markets, especially large countries, many market structures (joint stock companies, stock exchanges, commercial banks and so forth), arose there in the XIX century. In this regard in application to Latin America the being formed markets mean the being transformed or being updated markets rather.

Distinctive features of the being formed markets are high profitability, high risks, financial and economic instability, susceptibility to crises, which are overcome by means of official creditors of the developed states and the international organizations. They are characterized by undeveloped monetary, financial and bank infrastructure, high share of the state in the credit market, low capitalization of the equity market, i.e. limited number of the companies with quoted actions.

The condition and development of the being formed markets significantly depend on the inflow and outflow of the foreign capital, on the scales of participation of nonresidents on securities markets and the bank credit. Certain preconditions are necessary for origin and development of the financial markets in the peripheral countries. Among the internal factors promoting emergence of the financial markets, a certain level of development of private business and market

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economic, political and legal conditions is primary. Further formation of the being formed markets depends on a level of development of monetary infrastructure, a credit banking system, exchange and interbank securities markets and the derivative financial instruments, allowing to carry out speculative operations and hedging.

The foreign market capital (excepting direct investments) arrives on the being formed markets by means of acquisition by nonresidents of bonds and the stocks issued by residents (the central governments, other official and corporate issuers), and also by granting the international bank credits to the state and private borrowers of the countries recipients.

Preconditions for inflow of the foreign private capital developed during the overcoming of the consequences of debt crisis of the 1980th on restructuring of debts and implementation of the economic reforms directed on macroeconomic stabilization, institutional and structural adaptation and the external economic liberalization of the crisis countries.

By the beginning of the 1990th during privatization and weakening of protectionism in debtor countries the market space extended and market mechanisms became more active. The process of formation of open economy more and more approached their economic structures to world economic conditions, and formation of the financial markets took place a preliminary stage and reached a certain level.

The main tendency of modern development is the globalization of *stock market* is characterized by following main points.

*Firstly*, this is the application of modern electronic technologies; means of communication and informatization which render, on the one hand, essential impact on development of national stock markets, first of all on their infrastructure and system of information support of operations in the markets, and with another expand possibilities of interaction between them.

Stock markets become a field of activity not only for national participants, but also for foreign ones. It is promoted by the liberalization of the national markets connected with abolition of restrictions for certain participants on carrying out these or those operations etc.

*Secondly*, it's a growth of volumes of offered securities – bonds and actions and expansion of number of types of these securities. At the heart of growth of the offer of securities deficiencies of the state budgets and need of the private sector for financing of the activity lie. Stock markets became the main mechanism of redistribution of financial resources as in national of today, and on a global scale it acts as the main source of means for the states and the private sector, forcing out banks as financial intermediaries and turning them into participants of stock market.

Strong incentive of development of the offer of securities and strengthening of process of globalization is the privatization accompanied by release in the circulation of stocks belonging to the state. On the growth of capitalization the American market wins though its share tends to reduction owing to faster development of the equity market outside the USA is in the lead.

Thirdly, it's a formation of large institutional investors (pension and insurance funds, investment companies and mutual funds) which accumulate monetary resources of corporations and the population and invest them in securities. The number of institutional investors constantly grows. Volumes of the capital attracted by them grow as well. The overwhelming part of a foreign portfolio of institutional investors is the share of securities of the developed states. Rather high share of a foreign portfolio at institutional investors in Western Europe is explained by it.

The currency market is the central link of the international financial system. It surpasses stock market in the volume of operations (a bond market and actions). Daily the volume of transactions in the currency market is estimated on the average in 1,2-1,4 trillion dollars. For comparison: daily volumes of operations in a bond market (state and private) make about 500-700 bln. dollars and 100-150 bln. dollars – in the equity market.

Thanks to application of electronic technologies two directions of development of currency trade were created. The first are electronic dealing systems (which example the Reuters-2000 system is). The second are electronic broker systems.

The basis of a banking system is made by commercial banks of which the most part of all world currency transactions is the share. Banks not only facilitate movement of streams of existing corporate resources, but also provide credit financing in the local and international markets. The largest banks of the world outgrew national borders and turned into transnational banks (TNB) which along with multinational corporations make the main contribution to world integration process. In the mid-nineties there was a pronounced tendency to integration of banking institutions and concentration of a banking capital both on national, and at global level. A series of merges and merger of large banks testifies to their aspiration to increase of profitability of bank operations. Concentration of the capital allows banks to diversify sources of the income thanks to improvement of a set of services and expansion of geography of operations. Besides, in recent years the competition in the monetary sphere considerably amplified from non-bank financial institutions. The part of the traditional banking market was taken by the companies offering to clients of operation on simulating of credit cards and service in the market of crediting of transactions with real estate. The essential changes in the World Bank's elite are connected generally with emergence on the world scene of powerful Japanese banks. In the seventies into the list of the largest banks of the world entered in main European and the American banks.

Globalization of the financial markets is carried out in several forms: *international movement of the loan capital, international credits* (intergovernmental, interbank, etc.); *foreign portfolio investments*, considerably surpassing in the scales direct foreign investments and the usual international credits.

Until recently the world financial system practically ignored potential instability of the financial markets, and the international organizations weren't adapted for control and regulation of streams of the capital. The gap between





dangers which concealed the financial markets in itself, and the opportunities of their prevention and localization catastrophically quickly increased.

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#### **14.4. Advantages and contradictions of globalization of world economic relations**

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Globalization of the markets and world economy as a whole acts as an objective tendency of development which in the short term, probably, isn't present other real alternative. It isn't linear, but very inconsistent, uneven process which is constantly changing the concrete forms, methods and mechanisms of realization, manifestation.

Experience of the last decades shows that the dynamic development of world economic communications significantly modifies reproduction processes within national borders, changing the volume of the resources used by the countries, and transforming their material and material form. Under pressure of the foreign competition in open market economies there is a restructuring: impractical or falling into decay productions are curtailed, the advanced branches develop. Are at the same time carried out technical modernization, new forms of the organization of economic activity take root, methods of management are improved. Active retraction in the international division of labor forces to reduce expenses, to increase labor productivity, to support necessary level of competitiveness.

In the theory of international trade is proved that the world exchange promotes increase in profitability of those factors of production which in this country are available much, and to decrease in profitability of those factors in which it has deficiency. In the conditions of different security of the countries with work and the capital their inclusion in world economic communications creates opportunities for rapprochement of levels of a salary labor deficiency and labor abundance regions.

Supporters of globalization, based on the mentioned theory, specify that in developing countries the deficiency of the capital and surplus of manpower allows to receive higher rate of return. Therefore, in their opinion, removal of obstacles for a modulation of the capital accelerates its movement from developed to developing countries. It, in turn, involves increase in growth rates of economy and the income per capita in the countries absorbing the capital. Differently, globalization gives an impulse to gap reduction in the income between various groups of the countries, helps the catching-up countries with a certain measure to be tightened to economic leaders.

Opponents of supporters of globalization claim that the profit on the capital (it is a question of the mass of profit, its volume, instead of rate of return) in the developed countries remains higher, than in the developing. It is promoted by large-scale investments in human development (education and training), scale effect use, constant innovative activity and some other factors operating in an industrial kernel of the world economy. Therefore, the capital moves not from the developed countries in developing, and in an opposite direction. Economic growth in developing countries is slowed down by the huge external debt which is

seriously limiting import opportunities, deterioration of "terms of trade" for the raw materials export countries<sup>60</sup>, limitation of demand from industrialized countries on export production of other world. Globalization consequences in this regard are estimated by them negatively.

Globalization consequences in the countries of the developing world are even more sharply estimated. Their politicians and economists claim that trade liberalization, guarantees to exporters of the capital and protection of intellectual property rights give a prize to only the few rich countries and conduct to increase in a gap in technical and economic development between the North and the South. Some domestic researchers give to modern global economic development so rigid characteristic. So, for example, S. Glazyev notes submission "world economy to interests of the international financial oligarchy and the transnational capital"<sup>61</sup>.

The poorest countries declare that they not only aren't able to afford to expand a liberalization frame, but would like to slow down rates of introduction in action of the agreements reached earlier. Partly it is connected with that though developing countries lowered barriers on a penetration way on their markets of industrial import from the developed countries, the West doesn't hurry to fulfill the obligations for import liberalization from developing countries, first of all, agricultural and textile production.

Polarity of estimates of consequences of globalization testifies, at least, to uneven, asymmetric distribution on a planet of its positive effect. Advantages of globalization, in essence, aren't shown in any way in the least developed countries poorest, first of all, (48 African states, Asia, the Caribbean Basin and the Middle East), technical and economic and which social lag from world industrial vanguard continues to increase. The result of it is preservation of economic polarization of the world strengthening intensity in the relations between the North and the South.

Seeking to clear up a question of the globalization consequences, certain foreign and domestic experts make attempts to check a correctness of theoretical conclusions of supporters and opponents of globalization by means of the analysis extensive statistic materials about development of considerable number of the countries of the world. So, J.Sachs and E.Warner, having carried out calculations for 117 countries of the world for the twenty-year period, come to conclusion that a sufficient condition of the accelerated development of the poor countries is carrying out the economic policy focused first of all on openness of national economy and protection of the rights of a private property by them. Yu.Shishkov, having considered dynamics of indicators of gross domestic product, population, a foreign trade turnover and consumption on six groups of the countries aggregated by it, claims that the gain of a foreign trade turnover counting on one inhabitant of the region is higher, the gross domestic product and consumption per capita quicker grows. In his opinion, fears relatively consequences of globalization are

<sup>60</sup> Under the "terms of trade" refers to the ratio of the indices of average export and of import prices in foreign trade of a specific country. They are improved with an increase in this indicator and limited in its decline.

<sup>61</sup> Glazyev S. "We and the new order" // Nezavisimaya Gazeta. Appendix "Scenarios". 1997. No.11.

connected, mainly, with misunderstanding of difficult straight lines and the inverse relationships which total balance in principle is positive for all countries of the world. Exception – the countries with a transitional economy in which structural crises broke normal economic regularities.

These and other optimistic estimates, however, don't give the grounds not to notice the certain real dangers resulting increase of economic openness.

Obviously, for example, that deepening of the international division of labor and extension of reproduction chains on a planet as a result of globalization led to dispersal of reproduction problems and disproportions on the wide territory, their transfer from the centers of the world economy on the periphery.

It isn't less obvious that in the course of integration in world economy the developing and post-socialist countries face serious problems of adaptation.

The main danger to them consists that in the conditions of decrease in a role of the national states in regulation of world economic communications opportunities to protect themselves from destructive powers of market elements, expansion of more powerful competitors, massive outflows of the foreign capital, destructive financial and economic crises decrease.

"Inconveniences" of globalization even more often feel also industrialized countries. Retraction in the world economy of regions with a cheap manpower and migration of labor from poor to richer countries already put pressure upon level of the income in the West countries that is shown in decrease in remuneration for the done work in the USA and high unemployment rate in Europe.

Strengthening of interdependence of national farms does them by more vulnerable in cases of emergence of crisis processes in the separate world commodity and financial markets. At mentioned deterioration of a price environment of the countries reduces the export income, with unsuccessful financially the national markets quickly and in wide scales the capital leaves foreign, first of all, speculative. Thereof the countries involved in crisis meet difficulties in service of the external debts, are compelled to resort to the new loans aggravating their debt burden, and also to limit import that in aggregate contains their economic growth.

The need of overcoming of disproportions arising in the world for distribution of advantages of globalization declares the UN. In the report on a role of this organization in the XXI century her Secretary general Kofi Annan emphasized that for this purpose, "to use prospects which are opened by globalization, and thus to eliminate its negative consequences, we have to learn to operate better and have to learn how it is better to operate together"<sup>62</sup>.

The growth of internationalization of economic life, therefore, not only opened additional possibilities of acceleration of development before the world community, but also generated the new complex problems which aren't giving in to the decision out of coordination at supranational level. Differently, instability of

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<sup>62</sup>"We the peoples: the Role of the United Nations in the 21<sup>st</sup> Century". The report of the Secretary-General of the United Nations Kofi Annan//Kommersant. April 4, 2000.

system of world economic communications causes need of strengthening of the international interaction for development of its participants of conditions of implementation of economic cooperation arranging the majority. Therefore in the most various circles of the world community – from political to scientific – search of the most optimum models of regulation of world economic communications becomes more active.

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#### **14.5. Integration of national economy to the world market**

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From the end of XX to the beginning of the XXI centuries is the period of formation of new structure of the world economy, the global economic system, new economy. Despite numerous contradictions of a modern era, the tendency to cooperation, strengthening of interdependence of national farms, movement to uniform, more developed and socially fair world becomes the main line of its evolution increasingly. Globalization erases a side between internal and external coverage, between domestic and foreign policy. Global processes in economic, financial, social, political and other spheres become the most important reference points of development of any national economy. Ignoring of this fact dooms to a failure any strategy of national development.

Process of globalization of world economy mentions all countries and world regions, its influence on internal economy, policy, social life of society increases. The way of autarkic development becomes absolutely unacceptable, it leads up a blind alley, dooms the country which has chosen it to isolation and, finally, to technical and technological backwardness of production, low efficiency of economy and, as a result, the lowest standard of living of the population. Process of strengthening of openness of economy, its integration in world is not end in itself, and the most important means of acceleration of market reforms, improvements of economy, ensuring economic growth and increase of welfare of the population.

Growth of openness of economy, allowing to use actively advantages of the international division of labor, doing domestic market more competitive, it can appear the serious factor promoting stabilization of national economy, to its restructuring, increase of its efficiency. In particular, liberalization of foreign trade: accelerates pricing reform, establishing connection between the internal and world prices; promotes carrying out an antimonopoly policy, introducing in the monopolized economy a serious element of the competition; forces domestic producers as in focused on export, and import-substituting branches to improve the production technology, to reduce expenses, to increase quality of production etc.; allows to reveal comparative advantages of the country and to define the directions of its specialization and the subsequent restructuring of economy.

The process of inclusion of economy of the certain country in world system of economy is always process long and difficult, and in many respects duration and success of this process depend on what preconditions of integration into world economic community this country possesses. It is necessary to carry the following

to these conditions, first of all:

- the developed scientific and technical base, existence of the powerful scientific and technical potential, allowing to carry out research and development almost in all priority areas of science;
- considerable personnel potential, high level of education of workers, their susceptibility to new requirements of an emerging market economy;
- high degree of security with raw materials and energy resources and their relative low cost;
- existence of extensive economic space.

However, the fact of existence of favorable initial conditions and factors for integration into the world economy yet doesn't guarantee success, it will depend first of all on that, how effectively and rationally they will be used. Besides, for relief of burden and reduction of time of integration into the world economy it is necessary to accelerate:

- creation of a stable political regime;
- development and improvement of a market mechanism;
- creation of favorable investment climate both for domestic, and for foreign investors;
- development and realization of the active foreign trade and currency policy directed on growth of openness of the Russian economy;
- expansion of a circle of competitive production of the Russian production that is necessary both for export diversification, and for development of import-substituting productions.

In the course of integration into global economy possibly use of two approaches: fast liberalization of foreign economic activity and gradual liberalization at an active regulating role of the state.

In the conditions of globalization of world economy the particular interest represents process of regional integration, first of all, with the nearby countries. It is dictated by economic interests of neighboring countries or the countries being in limits of interests of a certain territorial group.

The policy of a regionalism when strengthening globalization allows to develop effective actions for protection of regional interests and to use regional features as advantages to development acceleration.

Process of internationalization of the economic life, based on mutual adaptation and rapprochement of economy of the different countries, their mutual adaptation, is characterized by formation of integration groups. Creation of integration groups is promoted, as a rule, by the following conditions: geographical proximity of the being integrated countries, existence of the general border, transport and other engineering communications and historically developed economic relations; community of the economic and other problems facing the countries in the field of development, financing, economy regulation; proximity of levels of economic development and degree of a market maturity of economy of the being integrated countries.

Creation of the international integration associations is promoted by modulations of the capitals for a framework of a various national identity, creation

of transnational and multinational firms on the basis of direct portfolio investments.

Besides, the interstate cooperation directed on formation of joint market space develops also, by creation of uniform economic, legal, information and political mechanisms for the being integrated countries.

These preconditions of integration are closely connected among themselves. Active development of intercompany communications involves adoption of the relevant decisions by government bodies. Decisions of the authorities have to provide freedom of movement of goods, services, the capitals, labor in integration economic space.

At the level of national economies the coordinated implementation joint economic, scientific and technical, monetary, external (i.e. in relation to the third countries which aren't entering into this group), and sometimes and defensive policy is carried out. In process of development and expansion of integration communications difficult integration forms are formed.

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### *Control questions*

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1. Describe the world economic system in terms of micro and macroeconomics.
2. Explain the essence of world division of labor. What are the current trends in this sphere?
3. Describe basic provisions of the international theory of trade.
4. What processes in international trade are described by Heckscher-Olin's theory?
5. What is the essence of paradox of Leontief?
6. What aspects of IDL are considered by model of opportunity cost of G. Halber?
7. What factors determine the success of the country in international trade in R. Vernon's life cycle theory?
8. Describe the structure of world economy. Who are the subjects of the world economy?
9. What role do internationalization and integration have in the development of the world economy?
10. What criteria are used in the assessment of development of the countries?
11. Explain the purposes and problems of foreign trade policy of the state.
12. What processes in the world economy lead to globalization? Explain the essence of this term. What conditions in the national states became preconditions for globalization?
13. Describe the theoretical basis of globalization.
14. Explain the nature of globalization of financial and commodity markets.
15. What are the advantages and contradictions of globalization?
16. What features are inherent to the integration of national economy into the world market at the present stage? Give examples.

## CHAPTER 15

### GLOBALIZATION OF CAPITAL MARKET AND LABOUR FORCE

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#### 15.1. Contemporary features of international capital flow

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The international movement of capital getting the priority development in the late XIXth - early XXth century, laid the foundations of the modern world economic system. At the beginning of the XXIth century the international capital market continues to play a crucial role in the development of the world economy to a qualitatively new stage of development, characterized by the globalization. Cross-country capital flows are forming the international, in the truest sense of the word, manufacturing, foreign investment involves the international migration of labor flows, forming a global labor market, investment processes are associated with innovation, bringing the entire process research and development acquired an international character and contributes to the creation of a unified science information space.

In turn, the processes of globalization have given additional impetus to the export of capital, dramatically increasing its portability. Growing economic role of the export of capital in the form of foreign direct investment (FDI) should be noted. According to the international classification, foreign investments are divided into direct, portfolio and others. Due to the lack of clear scientific definitions of these categories is understood by direct investments such capital investments, which provide fullest control over a foreign company. In a dispersion of equity among the hundreds of thousands and even millions of shareholders accepted that the package that provides complete control of 10% of the shares (with voting rights). Investments can be attributed to the direct parent company if: acquires a majority stake in a foreign company, buys or builds new businesses abroad, establishes new equipment, expanding existing overseas production; reinvest overseas profits from foreign investments.

*Direct investments* are made in the form of horizontal, vertical and conglomerate integration. *Horizontal integration* implies that in the parent and foreign company's capital investment made in the same sector in the same step of production. Horizontal integration aims to avoid the tariff trade barriers, especially considering accounting and taxation abroad, to expand its presence in the global market.

*Vertical integration* occurs when the capital investment at home and abroad at various stages of the process of the same industry.

*Conglomerate* formed in the case of investments in the donor country and the recipient country implemented in non-conjugated industries producing such a variety of products such as food products and chemicals, electronics, furniture and etc.

To include the *portfolio* investment, in which the parent company holds at least 10% of the shares and cannot exercise full control over the foreign company. In addition to the equity interests in portfolio investments also include the corporate bonds, notes and other securities.

The other investments include various loans (commercial loans, loans from international organizations, foreign governments and loans, etc.), deposits, foreign currency shortages.

Over the past of the XX century, especially since the Second World War, the export of capital has demonstrated more than impressive dynamics. The most impressive rates of growth are typical for foreign direct investment.

Parallel to the growth in the absolute volume of FDI is increasing their economic importance as a factor of economic growth and national and world economies.

Over the past century radically changed the geographical focus of international investment flows and the role of individual countries. At the beginning of the XX century there was a clear separation of investment positions of countries in the world: the number of exporters had little capital and practically confined to the great powers: Britain, France and Germany. United Kingdom as a metropolitan capital invested mainly in their colonies, dominions and dependencies, of 53% of the investments accounted for America (Canada, Brazil, Argentina and Uruguay), 41% - in Asia, Africa and Australia, and only 6% - to Europe. The export of capital served as the financial support of the colonial system and supplied the metropolis cheap natural resources and food. France has also invested in its colonies, though not as intense. France mostly serve the growing needs of European countries in financial assets, in connection with what became known as the international lender 65% of exported capital was in the form of loans to European governments, first of all, Russian (28% of all French investment). Germany had a vast colonial empire and distributes their foreign investments more evenly: 20 % were in Asia, Africa and Australia, 2% - the Americas, and 52 % - for Europe. Minor amounts of capital exported as Belgium and the Netherlands.

By the beginning of this century, the situation has radically changed. More and more states are involved in the international exchange of capital, at the same time investing abroad and receive foreign investment. Thus, by the early 1980, According to the UN, 85 countries took FDI and 25 countries were international investors. Back to top 2000, the number of donor countries has risen to 120, and the recipient countries - 180.

Today, almost there is no any country, that it could be said they are the only exporters or importers of capital. Countries pioneers investing abroad are taking today a growing number of foreign capitals from all over the world. Currently, you can designate only the final investment position of the country as a net exporter or a net importer of capital.

In recent years there has been increasing the international competition for investment in the limited world of savings and the need to secure funding for economic development. At the same time increasing competition among countries and investors seeking the most profitable areas of investment. The result so far in



the world clearly recorded among the leading countries exporting capital and largest importer.

Among 120 capital exporters excel twelve countries: the USA, Japan, Germany, Britain, France, Italy, Canada, the Netherlands, Belgium, Spain, Sweden, and Switzerland. By the beginning of 2000th, FDI undertaken by these countries has tripled. At the same time, these states have adopted foreign capital in the amount of 84 % of their own exports.

Among the 180 recipient countries allocated 15 states, which account for the amount of capital equal to the total FDI 12 leading exporting countries. According to the World Bank, one of the fifteen importers of the capital are as following: Argentina, Brazil, Mexico, Chile, India, China, Hong Kong, Malaysia, South Korea, Singapore, Thailand, Poland, Czech Republic and Russia. Capital being exported to developing countries, located mainly in the developed countries. More than 50 % of FDI made in the USA, UK, Canada, Germany and France.

It should be emphasized that there is more active interchange of the direct investment among developed countries. About 50 % of all US\$, the FDI directed to Europe. In this case, the United States as the largest recipient of FDI as a major investor has to deal with such countries as the United Kingdom, the Netherlands, Germany, as well as Canada and Japan. Overall, 12 % of assets in the manufacturing sector and 20 % of banking assets in the USA are foreign-owned.

A new trend that has developed in the late in XX century; it is involvement in the process of international investment Central and Eastern Europe.

Foreign investments in Russia are regulated by several laws, including the key role played by the Act of July 9, 1999 № 160- FZ "On Foreign Investments in the Russian Federation". It sets out the basic guarantees of the rights of foreign investors to invest and obtain their revenues and profits.

However, it does not apply to relations connected with the embedding of foreign capital in the credit and insurance organizations, as well as a non-profit organization.

The great importance has a number of laws and regulations which regulate foreign direct investment in Russia, in particular the federal laws "On investment activity in the Russian Federation in the form of capital investments" (in the issue of the Federal Law № 22 dated January 2, 2000) , "On production of Sharing Agreements " (in the issue of the Federal Law № 19 dated January 7, 1999 and the Federal Law № 75 dated June 18, 2001), "On Currency Regulation and Currency Control" (in the issue of the Federal Law № 173 dated 10 December 2003) and the Civil Code of the Russian Federation.

In addition, many of the subjects of the Russian Federation (more than 50) take special legislation governing FDI to the regions. However, these acts are not always consistent with federal laws. Moreover, in practice, the regional authorities often impede the flow of foreign investment, or try to use it in the interests of certain circles in the national capital and interest groups.

At the same time Russia takes modest position as an importer of capital, losing in the competition for attracting international funding for the development of its economy. The country's share in the annual volume of global FDI is only 1.3

%, while FDI stock - about 0.5 %. In terms of foreign investment Russia occupies a modest position in comparison with other countries in transition. By the mid - 2000s' accumulated FDI in Russia (66 billion USD) were only slightly more than the annual inflow of foreign capital in China (52.7 billion dollars in 2002), and significantly lower than the accumulated FDI in the Czech Republic and Poland<sup>63</sup>.

However, today, foreign investors are involved in more than 3,500 Russian companies. Rapidly growing number of mergers and acquisitions, where the leaders are the US companies.

The intensity of foreign investment flows and volumes are largely determined by the investment environment in the recipient country. In this respect, the situation in Russia is far from perfect. According to the World Bank, Russia occupied the 53rd position in 2004, but rose in 2005 to 42th place. The situation continues to gradually improve, which manifested itself, in particular that the rating of the country has increased dramatically, going from a group of speculative risks of the investment group. This breakthrough was made in 2003, when the company "Moody's Investors Service" awarded Russia's investment rating. In November 2004, the investment ratings assigned and the company "Fitch Ratings", and in January 2005 "Standard & Poor's" - the most conservative of the rating companies - joined colleagues. At present, Russia is in the rating group B.

Strengthening of Russian positions recorded and UNCTAD project "Evaluation of global investment prospects," according to which in 2005-2006. Russia won the fifth place in attractiveness to FDI<sup>64</sup>.

Because of the large geographic and socio- economic differentiation of the Russian Federation, there are significant regional differences in the nature of the investment climate. In this case, there is a positive correlation between investment grade and region influx of foreign investment, particularly, straight.

Investment attractiveness of the country (region) is determined by the advantages and benefits that can get an investor, on the one hand, and the costs and risks associated with investing are on the other.

The main motives for investment in Russia, which are commonly called in the first place the plenty of the cheap natural resources and the availability of cheap, but highly skilled, educated workforce. The value of the notorious factors largely exaggerated. Concerning resource following can be noted. First, easily accessible mineral deposits are exhausted and the marginal cost of further production increases. Second, most of the natural resources available in distant from industrial centers sparsely populated areas with poor infrastructure and a harsh climate, which leads to an increase in total and average costs of production.

In addition to the above-mentioned reasons to invest in Russia, which on closer examination does not involve so much with benefits, but with the problems and costs, consider a number of motivational factors.

<sup>63</sup>Banking. 2004. № 11. - p. 29.

<sup>64</sup>URL: [www.unctad.org/fdi/prospects](http://www.unctad.org/fdi/prospects).

It should be noted the high potential capacity of the market, in particular, the consumer, as determined by a population of 142 million people.

Absolutely, one could argue that the average per capita income in Russia is small; therefore, the actual size of the market is negligible. However, we must note that the last decade has seen the growth of real income, and because foreign investors to get a good quota of the growing Russian market, should it develop now. Rising incomes and purchasing power of the population, the steady increase in consumer demand - all of this is an important motive for investing.

The next important factor - positive rate of growth of the Russian economy in 1999 and its successful recovery. Related to this is the growth of investment demand in the country. According to the Swiss business school IMD, the efficiency of the Russian economy has increased slightly, from 52th place in the international ranking of 49th (of 55 countries assessed). Business efficiency is also on the 49th position, down to one stage from the last year. Of course, the domestic success of Russia is still quite modest in an international context.

The investment attractiveness of the country increases the total liberalization of the economy and the emerging market with the appropriate infrastructure. However, it should be noted that the quality of the infrastructure is low, moreover, noted a decrease in its 37th places (55 countries) to 45th place in 2008.<sup>65</sup>

It is impossible to note the positive role of Russia in the established political and economic stability. Undoubtedly, the successful repayment of part of the external debt indicates the competitiveness and reliability of Russia as an economic partner. Finally, the accumulation of a weighty gold reserve (about 500 billion USD in 2008), as well as the stabilization fund significantly improve investor perceptions of Russia as a country of direct investment capital.

It should be noted the recent efforts of all branches of the government of the Russian Federation: the president, government, parliament - concentrate on the fight against corruption. International experts have noted some improvement in this area: on the effectiveness of government in Russia rose in 2008 from 30th to 39th place out of 55.

The main flows of foreign investment in Russia come from such countries as Luxembourg, the Netherlands, United Kingdom, Cyprus, Switzerland, Germany, Austria, USA, France, the Bahamas and etc. In total, almost 90 % of all foreign capital coming in Russia only 10 the donor countries. It is possible to distinguish three types of conditional cross-country partnerships:

1) highly developed nation (for example, Germany, UK) provides a loan to Russian trading partner;

2) the nation is interested in long-term strategic presence in the Russian market and carries out FDI (e.g. , Cyprus, USA, Netherlands, Finland, Great Britain, Switzerland), and

3) loans come from offshore in search of a higher , compared with Europe, the level of profits, with most of the credit is of Russian origin.

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<sup>65</sup>The IMD World Competitiveness Yearbook 2008. Lausanne: IMD, 2008.

Speaking of corporate foreign investors, among them include such MNCs and TNCs: "Royal Dutch Shell", "Unilever", "Nestle", "United Technologies", "Cargill", "Procter and Gamble", "Siemens", "Mitsubishi", "Coca-Cola", "Pepsi-Cola", "Gillette", "Citibank", "Deutsche Bank", "Reiffeisen Bank Austria", "Ernst & Young", "Price Water house Coopers", "KPMG", "Deloitte" and etc. More than 80 % of foreign companies to assess their investment activities in Russia as successful and effective - 17% as satisfactory and only 3% - as a mistake and a failure. It is not surprising that at least 80 % of companies plan to expand its business in Russia and to make further investments.

The effectiveness of foreign investment is relevant not only for investors but also for the recipients. From the point of view of Russia, either quantitatively or qualitatively foreign investments are not fully favorable.

Quantitatively inferior import export of capital from Russia. As a net exporter of capital, the Russian finance the development of other countries, with more advanced economically and socially. From the point of view of attracting and productive use of foreign investment in Russia is losing the competition for global capital markets. Raise capital on the volume behind the Russian demand for investment resources. In addition, it should be noted that 70-80% of all FDI is a repatriation of Russian capital. On the one hand, well, that Russian capital back to their homeland and contribute to its economic revival. It also indicates the improvement of the investment and political climate in the country. On the other hand, this fact once again confirms that the actual foreign investment in Russia is not so much.

Qualitative analyses of foreign investment also indicate a lack of effectiveness. First of all, you should consider investing in terms of the focus and urgency. Unfortunately, not dominated by long-term and short-term investments of capital is a strategic investment in the real sector of the economy, and speculative "hot money". Thus, for the import of Russian capital is more a factor of financial and economic instability, increasing its susceptibility to the influence of market and cyclical shocks of the global financial market.

The structure of foreign investment in Russia by types can hardly be called a winner. Over the past 10 years, the annual inflow of capital into the country mainly consisted of loans, which only increased the national debt, but did not contribute to the development of the national economy. The share of loans (other investments) ranged from 55% to 77% of the total volume of foreign capital.

Speaking of external borrowing in international markets, we note an important trend. If in the 1990's the principal borrower was the Russian government, in the 2000's the transformation of the external public debt in corporate debt to non-residents. The state, as noted above, has successfully repaid their foreign debts. At the same time, foreign banks and corporations are increasing lending to Russian companies. In this case, the Russian state is the guarantor for the most part of corporate debt.

The structure of the accumulated foreign investment in 1998-2008 characterized by increased share of FDI: about 45-50% of the total investment, the

share of portfolio investment is also low: 1.5-3.5%, the share of other investments (primarily loans) amounted to 45-52%.

The increase in the share of FDI in investment patterns are traditionally regarded as an auspicious event for the recipient country. First, these investments are directed to the real sector of the economy and ensure its development, including innovation, creating the working places, bring new corporate culture and new management principles. Second, the strategic investors to take risks on a par with the state and local businesses, they cannot retrieve their capital out of the business as fast as it makes financial speculative capital. FDI carried out for a sufficiently long period in order to pay off and make a profit. Third, FDI compared with bank loans give impetus to economic growth in the recipient country. An increase of 1 % index FDI/GDP provides a 0.4 % GDP growth, while a similar increase in the index of "bank loans/GDP" reduces GDP by 0.2-0.4 %. At present, the ratio of FDI in Russia/GDP ratio was 1.5%, while in other emerging markets - 5%. Accordingly, in Russia at the expense of FDI reached only 0.6 % of GDP growth that is not in full use external sources of financing growth.

At the same time leaves a lot to be desired and the regional structure of foreign investment, which is very unevenly distributed geographically and do not meet Russia's interests. Significant amounts of capital receive only about 20 federal subjects. Of these, the main flows of investments receive large industrial centers such as Moscow and Moscow region, St. Petersburg, Yekaterinburg, and the areas of oil and gas production.

No matter how effective certain measures to attract foreign capital in Russia, or, on the contrary, to limit individual capital flows require their effective coordination within the framework of consistent public policies aimed at financial stability and innovative growth in the knowledge economy.

*Modern Uzbekistan* is a leading industrial state in the Central Asia, which provides stability and economic some development of the region as a whole. Among the advantages offered by the modern economy of Uzbekistan for foreign companies are political and macroeconomic stability, favorable climatic conditions, hospitable and hard-working people, and much more.

Of all the benefits of the key success factors of doing business in Uzbekistan are a rich source of raw materials, favorable geographic location in the center of the largest regional markets, integrated into the network of ground and air communications international importance of transport and logistics system, a diversified industrial base; intellectual and scientific and human resources of the country.

Today, the current investment laws of the Republic of Uzbekistan is one of the most advanced in the legislation of the CIS countries, which has incorporated the main provisions of international investment law, in particular the provisions guaranteeing the rights of foreign investors, the provision of certain preferences for investors and etc.

The bases for the legal regulation of foreign investments in the Republic of Uzbekistan are:

1. The law "On foreign investments".

2. The law "On investment activity".

3. The Law "On guarantees and measures of protection of the rights of foreign investors", as well as a number of legal acts adopted in the form of decisions of the President of the Republic of Uzbekistan and resolutions of the Government.

The particular note is that in Uzbekistan there are no restrictions on the form of investments. Foreign investors may establish in the territory of the republic in any company permitted by law, the legal form.

To date the potential foreign investors are offered a variety of forms of investments: the creation of joint local businesses, the creation of companies with 100 - percent foreign capital, the acquisition of a part or full stake in the privatized enterprises.

Enterprises with foreign investment are newly created enterprises that meet the following conditions: the size of the authorized capital of the company not less than the equivalent of 150 thousand USD, one of the participants of the enterprise is a foreign legal entity; the share of foreign investment is not less than 30 % of the share capital of the company.

In addition, if the enterprises with foreign investments receive more than 60 % of the revenues generated from the sale of products or services, it is a manufacturing enterprise with foreign investment. Such enterprises are granted additional tax, customs and other privileges and incentives.

Currently, one of the most important tasks for Uzbekistan is to create a mechanism of modern high reproduction of the national economy, which should be constantly re-created the preconditions of social orientation, market fundamentals, self-sufficiency and a liberal open-ended nature. Therefore, you should initially consider the investment as a component of national reproduction. The possibility of an optimal balance between all the macroeconomic parameters opens only in this way - from quantitative growth to maximize consumption. It should be noted that the strategy of the Activity of the investment activity in Uzbekistan takes on the character of reproduction, especially in the part where it is directed by the Government.

13 billion dollars of capital investments with growth by 11,3% were used within the Investment program of 2013. Private investments made 47%. In 2013 within the Investment program an implementation of 150 projects of production direction by total cost of about 2,7 billion US dollars was completed.

The main part of investments was directed to production construction (70%), and the share of investments in acquisition of modern equipment made 40%. Investments in national economy made 23% to gross domestic product. Foreign investments made over 3 billion dollars of used capital investments, out of them more than 72%, or 2,2 billion dollars, – foreign investments.

So, the sum of attracted domestic and foreign investments (increased by 11,3% in comparison with 2012).

Attraction of foreign investments was promoted in many respects by creation of Fund of reconstruction and development.

In 2013 with participation of fund assets there realized 33 major projects for the sum of more than 780 mln. US dollars.

21 enterprises of food industry were modernized and technically re-equipped.

It should be especially noted that investment volume in the sphere of health care grew by 3,8 times in 2013; 295 medical objects were reconstructed and put into operation.

Most of the projects included in the investment program in 2014, aims to update the fixed assets of key industries. It is planned to create new production capacity and accelerate the introduction of scientific and technical progress.

The main share of foreign direct investment is in Switzerland (42.1 %), the UK (11.2% ), Turkey (8.9 % ) , Russia (6.5%), South Korea (6.0% ), Germany (4.5% ), Singapore (4.1% ), China (2.1%), Cyprus (2.0% ), the USA (1.9%) and others (10.7 %).

In addition, special attention should be paid to the further development of production in light industry, textile and food industry, for more in-depth processing of cotton, other agricultural products and raw materials, building materials industry.

It should be noted that by the Decree of the President of the Republic of Uzbekistan Islam Karimov "On the program of measures for implementation of the major projects on modernization, technical and technological re-equipment of production for 2009-2014", 645 provides for the implementation of various projects with the participation of domestic and foreign investors. Uzbek company for 5 years to attract more than 22,973 billion USD, of which more than 15,394 billion USD will be spent on new construction, more than 6,419 billion USD, the modernization and reconstruction of production facilities, and about 1,159 billion USD - other purposes.<sup>4</sup>

Organization of production of high quality products in the Republic of Uzbekistan and the gradual replacement of its products being brought from abroad is achieved through localization of production, i.e., gradual, incremental production of components imported machinery in Uzbekistan followed by an adaptation of it in the country.

Uzbekistan has approved a program of localization of production of finished products, components and materials based on industrial cooperation for 2014.

In accordance with the decree of the President of the Republic of Uzbekistan "On the Program of localization of production of finished products, components and materials based on industrial cooperation for 2009" were approved by the basic parameters of production and the level of localization of the main industrial products.

Increased localization of finished products will further dynamic and sustainable development of Uzbekistan's economy, reduce its dependence on external factors, accelerating the introduction of new, efficient technologies in manufacturing processes. In addition, it would allow more use of local raw materials and production resources, to increase on this basis, the manufacture of

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<sup>4</sup> Resolution of the President of the Republic of Uzbekistan "On measures for implementation of the program of major projects on modernization, technical and technological re-equipment of production for 2009-2014" dated March 12, 2009.

modern competitive products, and economically efficient use of foreign exchange resources, and create new working places.

In 2013 it was planned to increase the volume of localized production by 50 major types of industrial products. Organizations realizing the projects of manufacture localization of parts and components, as well as projects of localization of production of finished products and raw materials since January 1, 2011 released from paying a number of taxes and duties. Among them: customs duties (with the exception of charges for customs clearance) for imported technological equipment and spare parts to it, as well as components that are not produced in the country and in the process used in the production of localized production, income tax, single tax payment (for subjects using the simplified taxation system) in terms of products produced by localization projects, and property tax in the main part of the production of funds used for the production of localized products. According to analysts, the annual effect of import in Uzbekistan is about 2.0 billion USD.

It should be noted, that funds released in connection with the provision of the above benefits will be directed to the creation of new, and expansion, renovation, modernization, technical and technological re-equipment of existing production, the introduction of quality management systems, purchase of raw materials required for the production of localized products.

In the automotive industry on the basis of "General Motors" will continue the localization of production of cars "Nexia", "Damas" and "Matiz". In agricultural engineering landmark project will be the localization of the production of wheeled tractors at the Tashkent Tractor Plant to 60% and the release of about 6,000 units of the technique.

The experts noted especially the development of the level of localization of production in the electrical industry. JSC "Photon" localizes production of TV sets up to 45 %, and of "Roison Electronics" up to 47%, JV "Zenith Electronics" to 37 %. In addition, the recently created joint venture Roison White Goods localization will be busy with variety of goods under the global brand Candy: refrigerators (33 %), washing machines (33.5 %), gas stoves (34 %), etc.<sup>66</sup>

It is important to note that in modern economic theory and practice investments are divided into *autonomous* and *induced*. Under the autonomous investments made to understand the formation of new capital, which occurs regardless of the interest rate or the level of national income. Under the induced investment is commonly understood as the formation of new capital by increasing the level of consumer spending.

Indeed autonomous investment given the initial pulse of economic growth and cause a multiplier effect, and induced investment is the result of increased revenue and lead to further growth of the economy.

It is the transition from the *autonomous* nature of the investment activity is *induced* by a qualitative change in the system of national reproduction. In this liberal national reproduction becomes a reality in predominantly induced type of

<sup>66</sup>State Statistics Committee, T., 2013.



investment. It gives every reason to believe that another advantage of modern reforms and anti-crisis policy is timely transition to the type of economic growth that is based on the formation of induced character of investment activity in Uzbekistan.

During the years of independence of the Republic of Uzbekistan created a favorable investment climate, abroad system of legal guarantees and privileges for foreign investors to develop a comprehensive system of measures to stimulate the activity of the enterprises with foreign investment, which is particularly evident on the organization of the first industrial free in Uzbekistan - Economic Zone.

Actual direction of the investment is to further increase the volume of attracted foreign investments in "Navoi" free industrial economic zone. From the moment of FIEZ "Navoi" creation in its territory there were put into operation 19 investment projects for total amount of more than 100 mln. US dollars.

Along with it, there arranged the production of hi-technology output according to 5 projects for total amount of 44 million US dollars in the territory of FIEZ "Angren". In its turn 3 projects were already realized in new FIEZ "Dzhizak" for the sum of 6 mln. US dollars where began the production of mobile phones in number of 100 thousand pieces a year.

According to the Decree of the President of the Republic of Uzbekistan "About creation of free industrial and economic zone in Navoi area" of December 2, 2008 for № UP-4059 the managing entities registered in FIEZ "Navoi", are exempted from tax payment for land, property, profit, improvement and development of social infrastructure, uniform tax payment (for small enterprises), obligatory contributions to Republican Road Fund and Republican fund of school education at the volume of attracted direct investments. Also many above mentioned preferences were provided for managing entities conducting their activity in FIEZ "Angren" and "Dzhizak":

- From 3 million to 10 million Euros - for 7 years;
- From 10 million to 30 million Euros - for 10 years, with a decline in the next 5 years, the rates of income tax and single tax of 50%;
- More than 30 million Euros - for 15 years, with a reduction in subsequent 10 years, the rates of income tax and single tax of 50%.

Navoi region is at a critical crossroads of the automotive, rail and air routes. Here the focus of major industrial sites - Navoi Mining and Metallurgical Combine, "Navoi -nitrogen", "Kyzylkumcement" and many other enterprises.

On the basis of the Decree of the President in FIEZ "Navoi" more than 20 agreements for incorporating of industrial enterprises were signed. Successfully implement their projects by companies from South Korea, China, Thailand, Italy and other countries.

The enterprises are set up in the framework of projects at full capacity will annually produce products at 375.5 million, of which almost half will be exported. In FIEZ planning the production of a wide range of electrical products, precision

played by the social consumption funds on corporation and state levels, the pay and benefits, not only in money, but in - kind. At their expense partially or fully satisfied the needs of workers in nutrition, housing, education, medical care, vehicles, recreation, etc.

Classic market mechanism implements the private interests of the corporation as an economic system through the relationship of the purchase and sale of labor power. Meanwhile, today the labor market is not fully secure the business needs in the labor force required quantity and quality. An interesting trend is the modern intra "lapping" purchased the necessary manpower to qualitative and structural parameters. More and more corporations carry out in-house training of employees and implement a permanent program of staff development. Moreover, many firms interact with the external labor market mainly in recruitment at grassroots positions on the starting position.

On this basis, organized and constantly developing so-called internal labor market, where the company draws its resources to fill vacancies on the middle and senior levels. Intercompany labor market in fact the market is not as the staff of the company focused and centrally trained and formed in accordance with the objectives of the company. In-house training and development is funded by the company and is its investment in human capital.

This trend shows that today the production and distribution of the total labor force continues within corporations, that is implemented outside of the labor market and non-market methods.

Under the terms of the transformation of the socio-economic system in modern Uzbekistan, there is a significant transformation mechanism of reproduction of the labor force, for the concept of nature which must be considered as a global and purely Uzbek trend.

By the help of the state smoothed the most pressing social injustices, is guaranteed a minimum of social protection and financial security, forming an economic climate favorable to the reproduction of the labor force quality. The state acts not only as a kind of gauge and regulator of establishing some general "rules of the game" for contractors operating in the market.

The state is involved in the financing and operation of the social infrastructure, thereby directly affecting the quantitative and qualitative characteristics of the labor force, the degree of adaptation to the needs of production in a scientific and new technological revolution.

In a globalized economy develops global level mechanism of reproduction of labor force. The global labor market and internationalization of the reproduction of the labor force are important components of the global economic mega. There is not only unprecedented in scale international migration, but also the human resources of a single country are inherently multinational. On the one hand, these processes lead to the equalization of educational qualifications and qualities of the labor force in the world that promotes technical and economic progress. On the other hand, the internationalization of labor reproduction occurs in the face of increasing ethnic, socio-cultural and religious differences, which poses a threat not only to the country, but also to international stability and hampers economic and

social development. These are the main trends in modern reproduction of the labor force.

Investing in education, vocational training, health care is not expensive, and the investment capital that will bring profits that pay increase does not lead to inflation, and to improve quality and productivity and, ultimately, to economic growth.

Youth is one of the subjects of the processes of forming and functioning the labor market bringing many features of these processes, including social and psychological problems. The proportion of young competitive on the labor market, the total labor force is small enough so that there is common for young high unemployment.

According to the UN forecast, the population growth rate in the country in the next 20-25 years will be significantly reduced, which generally observed in the last 20 years of the 20th century. If to analyze the demographic indicators of Uzbekistan, it can be stated that if in 1960, the average population growth rate was 1.25%, in 1980 - 3.15%, 1990 - 2.3% 2000 - 1, 4 %, and in 2025 is expected to 0.75%.

Uzbekistan's transition to a market economy, the emergence of new forms and methods of work gradually led to the fact that the problem of improving the competitiveness of the workforce is becoming more urgent and important. The problem is the level of competitiveness of labor in Uzbekistan emerged only with the beginning of market reforms in the economy. The constitution of independent Uzbekistan provided to all citizens of the republic the exclusive right to use his abilities to productive and creative work and to carry out any activity not prohibited by law.

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### **15.3. International population migration and world labor markets**

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The process of internationalization of production actively taking place all over the world is accompanied by the internationalization of the labor force. Labor migration has become part of international economic relations. Giving rise to some problems, labor migration provides clear benefits to countries hosting the workforce and delivering it.

Observed in the last decade, the intensification of migration is expressed in quantitative terms and in quality: change the shape and direction of movement of labor migration flows. Problem is very relevant in our time, because many of them have unimpeded entry or exit the territory of foreign states. Actively taking place around the world accompanied by a process of internationalization of production internationalization of the labor force.

One of the manifestation of the internationalization of economic, social and cultural life of humanity, as well as the consequences of acute ethnic conflicts, direct clashes between the two countries and peoples, emergency situations and natural disasters are large-scale in-country and inter-country movement of population and labor force in different forms. This is - voluntary migrants, enjoy

the rights and opportunities offered to them by world civilization and international labor markets to choose where to live and work. The world community has not recently experienced just the size, characteristics and consequences of migration at the international level, faced with the need to coordinate the efforts of many countries to resolve tense situations and collective management of migration flows.

**International labor migration** - is movement of workers from one country to the other. These movements will be probably one of the biggest events of the XXI century. Migration is directly connected, first of all, the problem of capital flight, to a large extent determined by the internal laws of motion, although it is a movement of goods "of a special kind." Objectively, the possibility of international labor migration is formed due to the appearance of national differences in wage levels - as traditionally accepted to consider the economic substance of migrant movements. There distinguish between *internal labor migration* occurring between regions of one country, and *external migration* of affected several countries.

International (external) migration exists in different forms: work, family, recreation, tourism and other international labor market covers multidirectional flow of labor across national borders. International labor market brings together national and regional labor markets. International labor market is in the form of labor migration.

Neo-Keynesians recognize the possibility of deterioration as a result of migration, economic situation of the country, exporting labor, especially skilled workers emigrate. In this context, the idea was widely discussed imposing a tax on the "brain drain", the proceeds of which offered to make available to the United Nations and used for the needs of development.

In recent years the emphasis has shifted to the analysis of migration to study the accumulation of human capital as an endogenous factor of economic growth of the countries. Based on the fact that the accumulated human capital is the most important prerequisite for economic development, in the framework of this model group, international migration is one of the explanations for the differences in growth rates between countries. Depending on the time of stay in the territory of the other country (other region of the same country) allocate permanent, temporary and circular migration.

**Permanent (long term) migration** is characterized by the number of migration arrivals or departures for permanent residence. Thus in some immigrant alien starts counting (immigrant) if it is present (or absent) in the country during a certain period of time.

**Temporary (short-term) migration** is entering or leaving associated with the current needs without having to change citizenship and permanent residence. However, in many countries the number of temporary migrants excludes the number of seasonal workers (sometimes quite large).

**Commuting migration** is a special kind of migration as a function of time and represents the movement of workers to and from work from one region to another and back to their place of residence if the term of the lack of a permanent entity was less than one week.

By the *territorial basis migration* divided into: *internal*, i.e., movement within the country, for example, between its regions, from village to city, outside - moving out of the country.

Distinguish: *immigration*<sup>67</sup> (from the Latin immigrants - infuses), enter the workforce in this country from abroad and *emigration* - (from the Latin emigro2 - evicted), leaving the citizens of the country to another country for permanent residence or for more or less long term.

The "*brain drain*" - the international migration of highly skilled personnel. By the legal status the migration is classified into registered and unreported. There are also the voluntary and forced migrations. There isn't an exhaustive list of its classification; all types of migration are relative, because there aren't strict boundaries in reality. International migrants are divided into five main categories:

- Immigrants and non-immigrants legally admitted to the country. For countries that traditionally accept immigrants, the period from the end of 1980<sup>th</sup> to the beginning of 2000<sup>th</sup> was of high immigration level;

- Migrant workers under contract. Many countries depend on foreign labor. Agreement on its contracting is among the countries with surplus labor force in some parts of Asia, for example, a number of countries in the Middle East, Europe - illegal immigrants. By the beginning of XXI century their number was more than 32 million people. Almost all industrialized countries are at illegal immigrants. Some of them get across the border, while others remain in a foreign country with expired visas; they usually replace the jobs that are on the lowest rung of the hierarchy of labor;

- Asylum seekers. The asylum people direct for political reasons, and also because of the difficult economic situation in their countries;

- Refugees. According to the UN at the beginning of the 2000 there were over 22 million refugees in the world (including about 4 million which have returned to their homes, but are under the patronage of the United Nations). Most of today's refugees live in special camps. Under the tutelage of the United Nations or private agencies. It is estimated that less than 1 % of the refugees resettled in the developed countries of the West.

The most appropriate quantitative indicators of the new cross-country movement of labor are indicators that are specified by the balance of payments. As in other cases, the non-resident is considered to be a private person in the country less than a year. If a person is in the country for over a year, then for statistical purposes it is reclassified as a resident. In the balance of payments statistics indicators related to labor migration, are part of the current account balance and are classified on three items:

- Labor income;
- Compensation of employees;
- Salaries and other benefits paid in cash or in kind received by non-resident individuals for work done for residents and paid by them. This category also

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<sup>67</sup>Dictionary of foreign words. L.P.Krysina M., 2003

includes all transfers of residents in retirement, insurance and other funds associated with hiring a non-resident.

The pursuit of economic well-being was and is the cause of the most massive and sustained migration flows. In principle, legal immigration is easy to manage in a sense, it is easy to regulate the import of a sought after commodity in the domestic market by prohibiting, privileges and preferences. This does not mean that this will necessarily decrease the number of non-residents, since immigration may take illegal forms. Moreover, a reasonable time horizon is closer to the economic than to the demographic indicators.

It is reasonable to assume that potential migrants compare the expected utility of income in the entry and exit. The model makes sense only if one takes into account the great diversity of individual expectations, which differ according to age, education, qualifications, property condition.

On the one hand, even a relatively simple model where potential migrants compare discounted real income and availability of their sources at home and abroad can greatly distort the reality, which is usually characterized by a lack of information and the inability to interpret.

On the other hand, not every drop of income creates an adequate standard motive for migration. People are not guided by economic considerations only native cultural environment, in particular native language, known since childhood lifestyle, family ties and friends - these are important, but not reflected in statistics deterrence factors can balance economic reasons for emigration.

Therefore, migration flows between countries often come to nothing after reaching a certain threshold of absolute well-being, and long before the economic development levels of entry and exit. Empirical studies have shown that the flow of labor migrants from Southern Europe to Western Europe has dried up in the 2000s, when in Italy, Spain, Portugal and Greece's gross domestic product (GDP) amounted to 4 thousand dollars per capita. Net migration between the countries - members of the Organization for Economic Cooperation and Development (OECD) decreases when the difference in GDP per capita between them reduced to 50%. However, the amount of migration flows on a global scale is not decreasing.

The huge difference in the economic, political and social conditions continue to form a huge reserve of people to move to where the best. Although the geographical locations of the centers pushing and centers of gravity of migrants is changing, it is difficult to imagine that in the foreseeable future, global economic conditions even out to a labor migration will cease. Rather, the uneven economic development will increase, while the global information field will be more consistent way to shape migration installation.

In recipient countries immigration caters to the demand for labor, filling the ground floor of the social pyramid, promotes upward social mobility "their", reducing the price of labor increases the profits of entrepreneurs and competitiveness of the national economy. The demographic situation in developed countries creates a historically unprecedented demand for mass immigration. Low fertility and increased life expectancy result in aging and shrinking its size. Election (by age) immigration - in the only practical way to slow down population

aging. Attempts to make it through the "management" of fertility or mortality hopeless. According to the UN, in 2000, the total number of international migrants, i.e., people living outside their countries of origin, reached over 185 million, more than doubling from 1980, and was approximately 3% of the world population. About 60% of them live in the more developed its regions: Europe (including Eastern Europe and Russia), North America, Australia, New Zealand and Japan. In 90 years, net immigration has provided in the developed regions of the world 56% of population growth, including in Europe - 89 %. In the major countries of immigration, alien residents make up 5-20% of the population and 10-25 % of the economically active.

Due to its large scale immigration - an important source of additional labor in most developed countries, especially in times of economic recovery and deficit of local workers. However, the steady growth of immigration shows that it has become autonomous, little dependent on economic conditions processes. Specific feature of contemporary migration is that it flows consist of two directions, and therefore, the same state can be as a country the donor and the recipient country. For example, the United Kingdom and the United States are both among the top recipient countries in the world and the donors for individual states (USA donor for Canada, United Kingdom - for Australia). In the United States since the late 2000's, dominated by the percentage of immigrants from developing countries. The number of immigrants from Asia and Latin America in the immigration flow reaches 88%. For such a compact settlement of immigrants is characteristic, which leads to the formation of ethnic businesses. Thus, according to American researchers, 47.5% of the Korean population was entrepreneurs, 27.6% - were employed by the same firms. For Iranian migrants, these figures were 56.7 and 4.6%. Traditional areas of ethnical businesses are construction, trade and services. In both the USA and Canada large number of illegal immigrants, most of whom come from Mexico. The flow of immigrants bound for Canada, have also undergone changes in its composition. Thus, if 2000 came from Asian countries accounted for 3 %, by 2001's this figure had risen to 52 %. Major donor countries are: Hong Kong (15.3%), the Philippines (5.2%), Sri Lanka (5.1%), and India (5.1%). Most of the immigrants from Hong Kong are investors or entrepreneurs who come to permanent place of residence. An estimated Canadian Imperial Bank of Commerce, every year about 2.4 billion Canadian dollars comes into the country from the former British colonies. Recently, there increased influx of immigrants to Canada from Eastern Europe, especially Poland.

There is a continuing export of labor forces from the UK, Germany, Italy and the United States. Western Europe is also one of the largest centers of international labor migration. Major donor countries for some European countries are: Algeria, Morocco and Portugal to France, Italy and Morocco to Belgium, Turkey, Yugoslavia, Italy, Greece and Poland to Germany, Turkey and Morocco, the Netherlands, Italy, Yugoslavia and Spain to Switzerland; India to Britain. Recently, the European market is experiencing stiff competition from migrants from Turkey and the republics of the former Yugoslavia, Greece, Italy, Portugal and Spain for low-skill jobs. As a rule, foreign workers, especially with regard to

the natives of the countries of the East, are used in those areas and sectors where a high proportion of manual labor and the work are not considered prestigious or paid at economical rates. In France, for example, half of all immigrants were employed in the manufacturing industry and trade, and in Germany, three -fifths of foreign workers worked in manufacturing.

These figures show the orientation of individual sectors for foreign workers. Geography settlement of immigrants traditionally characterized by their concentration in large cities and the border counties.

In recent years, with the glut of similar districts immigrants and their inability to absorb the newly arrived contingents increasing tendency of immigrants to move to regions with more attractive working conditions.

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#### **15.4. Economic and social impact of migration**

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As globalization of the international economy in the global economy increases, the scale of labor migration does the same. In economic terms, the immigration is a benefit for the host countries. In particular, intellectual contribution of immigration to the US economy is well-known. Suffice it to say that immigrants in the United States earned at the end of the 90's more than 240 billion USD a year, paying about 90 billion USD in taxes in 2008's - about 500 billion USD by paying about 220 billion USD in taxes.

At the same time, the US government spends on social assistance to immigrants annually about 5 billion USD. It is clear that the returns, which provides this category of citizens in purely monetary terms, is very high, not to mention the contribution that they make to the development of science and art. US spending policy to attract highly qualified personnel remains recognized center of attraction professionals.

Thousands of programmers and other experts in the field of information technology and computer companies from the CIS work in Silicon Valley and other technology parks of the country. It should be emphasized that the official figures of Ukrainian immigration to the United States say little about the real extent of the "brain drain".

Thus, according to the official data of the Immigration and Naturalization Service of the United States 3.0 thousand specialists with higher education entered into the country for permanent residence in 2012. The real figure, bearing in mind the work under the contract, is higher in an order of magnitude. The example of the predominantly positive impact of immigration on the economy of the country is Israel, conducting a deliberate policy of attracting into the country of the Jews from all over the world. Largely because of immigration of highly qualified scientific personnel and Israel became one of the most economically developed and scientifically-advanced states.

The positive aspect is financial transfers (transfers) of migrant workers to their families, as well as certain payments to the budgets of their countries. According to reports, in some cases, such transfers reach very significant



quantities. Thus, the scope of transferred income amounted to at the beginning of the twenty-first century for Pakistan - more than 3% of GDP, Bangladesh - 4%, Jamaica - more than 5%, Sri Lanka - 6.2%. According to experts, translation, for example, in Egypt emigrant income of 2.8 billion USD stimulated the creation of additional GDP of 6.8 billion USD, which was 16% of GDP. In 2012, official remittances to developing countries amounted to more than 200 billion USD, far exceeding the volume of international technical assistance to these countries, the volume of portfolio investments and nearly equal to the volume of capital raised in the form of direct investment. During the years 1970-2008, the volumes of remittances in the world (mainly from developed countries to developing countries) have increased by 17 times, while the number of migrants - only 2.5 times.

Thus, transfers of remittances in fact form a separate component of the international capital market - migration capital. Its volume can be characterized as income workers who, minus the costs of their stay in the country of employment are sent home and are used to improve the economic and social life of the family, the development of local areas and countries as a whole.

The impact of immigration on employment and working conditions of the local population for many decades is under scrutiny in developed societies and judgments of it developed a very contradictory. It is widely believed its negative character, which is often used as one of the main arguments of immigration policy.

However, many Western studies indicate that the effect of immigration on the overall labor market is not statistically significant, and often positive. However, this effect of immigration has differentiated manifestations that differ in time and space (by region) among different ethnic and socio-professional groups of the local population and largely dependent on the structural parameters of immigration. If the employment of highly skilled migrants and locals are very similar, which increases the competition between them, and then they are low-skilled workers, however, differ significantly.

In respect of the international migrants is held rigid and strictly regulated immigration policy, which is a system of special measures, legislation and international agreements to regulate migration processes pursuing economic, demographic, geopolitical and other purposes.

At the present stage of development, there are three levels of moment of the policy: global, international and national. Migration activity policies at the global level is manifested in the actions of international organizations, especially the UN, IOM, ILO, in those documents and recommendations that they made at various meetings and conferences. Among the latter, a special place belongs to the UN World Conference, having the status of a government, and therefore the documents, they have taken more than a recommendation. Over the past years there have been five such conferences - three on Population and Development, and two - on Environment and Development, which called attention to the need for policies and programs in the field of migration, which is a result of the destruction of the environment. Duality of migration policy at the global level is that the

interests of the international community or certain organizations may be in conflict with the national interests of individual states.

The creation of various international alliances between states, as a rule, provides for the free movement of citizens of these countries through their national borders, the establishment of the so - called "porous borders". A striking example of such a union could be the European Community of 15 countries whose citizens can travel freely across their borders with different purposes and for different terms in accordance with the Schengen Agreement in 1985, which became a turning point in the disappearance of his signed between the two countries every obstacle in the way of movement of capital, goods and people. And among the latter may be citizens of "third" countries that have received a visa to enter any of the Schengen States. The first is that the interests and objectives of the Union as a whole may be in conflict and not coincide with the interests of the individual states. A second aspect lies in the fact that the current immigration policy of the developed world increasingly defined directly opposite tendencies: on the one hand, beginning in 1974, there is a constant tightening of the policy towards migrants from "third" countries.

On the other hand, it is further liberalization, the emergence of more and more "porous borders" within the framework of international and regional alliances.

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### **15.5. Economic security and globalization**

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Globalization leads to the fact that the main economic entities in the world, and eventually the global economy become the transnational corporations (TNCs), international (multinational) company and the state. At the same time retain their traditional activities and market entities (firms, households, banks, "outside", etc.).

But the symbiosis of interests and power the main economic parties in the context of globalization have created a new economic system that the American economist John Perkins called the corporatocracy. Imperial expansion corporatocracy is the cause of most wars, pollution, famine, genocide. The new economic environment associated with the globalization of markets and competition, requires special attention to the study of the behavior of not only the main economic actors but also the traditional subjects of management positions with the security of their business.

The globalization of the world economy and international relations of production calls into question the preservation of the nation-state form of the organization of economic systems. Private enterprises getting direct access to the world markets, in many cases, facing not just competing with individual companies, with state- monopolistic structures, resist which they alone are incapable.

Globalization poses a threat to the sovereignty and the state, and its economic security, if it is viewed in the aspect of TNCs, which is equal to the area of land for the economic space of the free movement of their goods and capital.

It is known that the core of the global economic system is about 500 TNCs, five of them control more than half of the world production of durable goods, as well as aircraft, cars and electronic equipment, etc.

Supporting the ideology of economic liberalism, speaking for the free movement of capital, goods, and services within the global economic space themselves TNC use planning, set prices as a result of the interaction of supply and demand, and administrative means. But the most important thing is that in the 90<sup>th</sup> of the last century, there was a transition of the transnational capital into financial capital with its separation from the real capital.

Factor of globalization has broken the relative equilibrium of the world economy, the interdependence of its structural elements and components.

The characteristic feature of the global system from the old traditional model of international economic relations is its structural asymmetry is not only due to hypertrophy of its financial segment, but its separation from the system because of the very mobility of portfolio investments.

In general, threats to economic security generalization shows that they have covered the most important areas of the economy have affected the fundamentals of human life. Ongoing economic policy, leading to a decline in production, ostensibly in the interests of structural adjustment, artificially constrains development, thereby undermining the basis of national security.

The elements of the economic security of the Republic of Uzbekistan are financial (monetary), technological, social, transport, energy, industry, foreign trade and food security.

*The financial (monetary) security* is characterized by stability of the financial system of the country, stability of the national currency, while maintaining the real exchange rate, ensuring the competitiveness of the national economy, the adequacy of reserves, maintaining the balance of payments surplus and the creation of favorable conditions for sustainable and high economic growth rates.

*Social security* is characterized by state – protection of the population, which is provided by the lack of high unemployment, the degradation of the individual, social conflicts, the low level of social tension in society, the availability of standards of education, health, culture, science, and improving the quality of food and living conditions.

*Transport security* is defined as the protection of transport infrastructure, the management structure of freight and passenger traffic and the effective implementation of international and domestic traffic in accordance with the territorial, temporal, three-dimensional, and structural and other domestic needs of public and private economic agents, and foreign users.

*Energy security* is determined by the ability to provide its own energy and the production of sufficient energy resources to support national industrial production and export.

*Industrial safety* is expressed in the development of the industrial potential of the country, stability and efficiency of the production of technical products, the necessary functional support economic activity in the country.

*Food security is characterized by a state of the national economy, including its agriculture, food security, adequate resources, capacity and guarantees, regardless of the external and internal environment that meets the needs of the population in food in accordance with the physiological nutritional standards.*

In the modern period has acquired special urgency the problem of ensuring the economic security of the state. This refers to the security of the country as a sovereign state - in the political, economic, social and environmental aspects. The fundamental importance is the protection of the rights and legitimate interests of citizens, strong guarantees of their personal safety. Society and its democratic institutions are in need of stability.

This sets high demands on the state and its organization and activities. Unfortunately, the lack of management of public affairs is a serious concern in the community. Weakens the protection of national interests in various spheres, and negative events and external pressures often exacerbate the contradiction. Therefore, the most important task is to strengthen our state and increase its role in ensuring the security of the country.

Successful economic security is possible only in the interaction of all subjects. The basic principles of this interaction should be: mutual responsibility of the state and non-state organizations before the law for actions detrimental to the national interest, the protection of the legitimate interests of the state in their respective fields, providing priority assistance of the NGOs directly involved in providing technical and economic invulnerability and independence, respect for and observance of the rights and freedoms of man and citizen.

Currently, the economic security - is a nationwide series of measures aimed at sustainable development and continuous improvement of the country's economy, which necessarily involves mechanism to counter internal and external threats.

The most important element in the country's economic security of modern conditions - it is a financial component. And this is explained by the following arguments and circumstances.

In modern conditions, the impact of geofinances, the world's financial systems on individual state to a qualitatively new level. Globalism, demonstrated in the present economic civilization is what creates the conditions for the establishment of special financial power, which through the ownership and disposition of the global currency value; cash flow management allows you to impact on all the global economic space, and the individual states.

State management of financial security of the state is the main condition of its ability to carry out independent financial - economic policy in accordance with its national interests. In general, the financial component of the economic security of the Republic of Uzbekistan is the ability of its bodies:

- ensure the sustainability of the economic development of the country;
- ensure the stability of the payment and settlement system and the key financial parameters;
- neutralize the impact of the global financial crisis and deliberate action of the world states, transnational corporations, and other sub-state groups, shadow,

etc. , structures on the national economic and socio- political system of the Republic of Uzbekistan;

- the most optimal for the economy to attract and use foreign borrowing funds;

- prevent crimes and administrative violations in the financial relationship.

In modern conditions, the special role played by external threats. Among the major causes of external threats to the financial and economic security, in our view, should include the following:

- rapid development of the trans-nationalization process of economic relations , the internationalization of the world economy (called globalization);

- steady increase in the great mass of capital, the extreme mobility which creates a tense situation , the high degree of concentration of financial resources, both at the macroeconomic level (budgetary system of states and international organizations) , as well as at the global level (inter-state economic integration, including its fiscal and monetary component);

- increasing autonomy for sub-state actors (TNCs, TNB, etc.), has considerable financial power, their impact on the economic systems of individual countries, a high degree of mobility and the relationship of the financial markets on the basis of the latest information technologies, the variety of financial instruments and a high degree of dynamism, an unprecedented interpenetration of domestic and foreign policies, which are more and more dependent on global finance.

In such circumstances, the problem of the financial and economic security is difficult to overestimate. Therefore, in the present conditions of particular relevance is the task of developing the national strategy of financial security of the Republic of Uzbekistan.

State strategy of financial and economic security should include, at a minimum:

- a) Determining of the geofinance zones of influence (based on economic, climate, and other ethno-national community of peoples of Uzbekistan);

- b) Determination of the criteria and parameters (quantitative and qualitative thresholds) of the financial system in Uzbekistan, meeting the requirements of the financial and economic security;

- c) Development of mechanisms to identify threats and measures of financial and economic security of the Republic of Uzbekistan and their carriers;

- d) Identify areas of their display (spheres localization threats);

- e) Establishment of basic subjects threats mechanisms of their functioning, the criteria of their impact on national economic (including financial) and socio-political system;

- f) Development of the methodology of forecasting, detection and prevention of occurrence of the factors that determine the occurrence of threats to economic security, research to identify trends and opportunities for the development of such threats;

- g) Organization of an adequate system of state financial control (SPC) meets the geofinance in certain areas;

h) Formation of mechanisms and measures of financial - economic policy and institutional reforms that neutralize or mitigate the impact of negative factors;

i) Identification of objects, subjects, settings controls to ensure financial and economic security of the Republic of Uzbekistan.

The role of the government in ensuring economic security of the Republic of Uzbekistan is diverse. It is closely related to the mechanism of government, as follows:

- First, is a tool to study and make strategic and operating decisions, covering both macro-and microeconomic effects and parameters governing the functioning of the state;

- Secondly, through administrative and economic instruments provides a practical implementation of the strategy and the ongoing economic development programs, as well as analysis and evaluation of the results achieved , the adjustment of measures and actions, depending on the prevailing conditions;

- Third, intended to provide the necessary legal protection of the economic sovereignty of the country through the development and consistent implementation of laws and regulations, provide for enforcement, incentive and restrictive regimes in the system of relations with other countries;

- Fourth, forms a stable system of distribution of the rights, duties and responsibilities, cooperation agencies and officials, allow to quickly and adequately responding to all the emerging phenomenon and problem situations in the functioning of the economy.

The interests of ensuring the economic security of the Republic of Uzbekistan require that each time the system of public administration at the highest level of quality and flawlessly created the conditions for the performance of the role, which was discussed above. The high quality of public administration - is the optimal level of four main elements: organizational structure, the entire system of communication and relationships, the information used; fully trained management personnel.

Development and implementation of solutions designed to ensure the economic security of the Republic of Uzbekistan, directly related to the structure and functions of government. The main thing is that they have to meet the current and long-term objectives of ensuring the economic security of the Republic of Uzbekistan, the objective requirements of a clear division of roles and responsibilities, duplication and overlap, establishment of executive discipline.

Following the interests of economic security is an inherent in each of these requirements. These interests should be taken into account in the activities of all stakeholders executive no matter what sphere of government is involved.

On the economic security are directly related tasks to improve the quality of the executive, improve the organization of the national government agencies and regional levels. Along with the measures to improve the status and security officials of the executive authorities should complete its rational construction for a clear division of functions between the bodies.

The current to the present time, organization of public administration in the area of economic security is still not geared to providing a focus of economic policy. One reason for this situation lies in the sparseness of control for various ministries and departments in accordance with these or other areas of economic policy, which inevitably leads to duplication of functions and powers while reducing liability.

It is quite obvious that the incapacity and corruption of the state apparatus just make meaningless any government control and regulation, not to mention the management of economic security.

Economic security gains significance as an important element of national security of the Republic of Uzbekistan. Legislation in the field of economic security is an essential and integral part of the law of the country.

It's required to form the ideology of economic security, to develop a doctrine put into practice by coordinating with the major components of the socio-economic policy in general. To a certain extent, the actual government's economic policy, implemented reform policy must undergo a mandatory diagnostics through the prism of economic security.

Economic security of the Republic of Uzbekistan is a long-term and strategic problem. With the help of the concept of economic security should be forthcoming examination of legislation, scientific, technical and socio-economic programs for compliance with the task of ensuring economic security of the countries.

Development of the program priorities and long-term measures to ensure the economic security of the Republic of Uzbekistan and the practical steps in this direction should be based on a clear understanding of contemporary threats to economic security.

It's necessary to define a "zone of responsibility" of the state enterprises (private firms) and citizens in the areas of economic security. At this stage, the government must obviously be a leader, but not the only actor in the system.

The subject of legal regulation of economic security of the Republic of Uzbekistan is the public relations to ensure economic security issues that arise in the implementation of economic and other activities which endanger the economic security of the Republic of Uzbekistan.

Objects of economic security - the individual, his rights and freedoms, the enterprise, its economic and moral values, the state and its constitutional system, economic independence and territorial integrity.

Subjects of economic security - the state, implementation of its authority through legislative, executive and judicial branches of government, citizens, businesses, organizations and institutions.

The requirements of economic security - conditions, prohibitions, restrictions and regulatory requirements in the area of economic security contained in the acts and regulations, compliance and enforcement of which will ensure economic security.

Economic security is a system of measures aimed at the prevention of harm and damage to objects of economic security in the economic, trade and other activities posing a threat to economic security.

Indicators (indicators) economic security - quantitative characteristics of the state of the national economy, which determine the degree of protection against internal and external threats allowing early signal about the rise of threats and imminent danger after exceeding their limits and thresholds.

Thresholds - limit values of indicators (indicators) and the criteria of the economic security, the excess of (or reduction) which leads to the formation and spread of negative, destructive tendencies in the field of socio-economic development.

Monitoring of economic security - aggregate of activities aimed at collecting, processing and analysis of the major socio-economic indicators and the data of the national economy of the Republic of Uzbekistan.

State-legal economic security of the Republic of Uzbekistan - a system of legislative, organizational, legal, socio-economic, ideological, administrative, criminal, legal, informational, aimed at the detection, prevention and containment of threats to economic security implemented to ensure the economic security of the subjects in within the powers conferred upon them by the legislation of the country, as well as the willingness and ability of government institutions to create mechanisms for the implementation of national interests in the development of the national economy, both inside and outside of the Republic of Uzbekistan.

Globalization encourages the emergence of many economically independent economic structures of different scale and direction, as well as changes of emphasis in the economic activity of traditional market parties, results of which is the production of goods and services.

Current conditions complicate economic activity as businesses some efforts directed at addressing external and internal threats to the stable position to overcome the negative trends, economic security.

The main external threats include: the loss of competitive position on the market, aggressive and negative competition policy, the deterioration of the financial situation of the country, defaults, etc. The internal - mass aging and retirement of capital, delay in the engineering and technology, high production costs and etc.

To prevent and neutralize the threats to the security necessary for monitoring factors causing the threat, the calculation of threshold values of economic security for each company taking into account the specifics of its activities.

Global problems are relevant to the whole of humanity and affect every living human on the Earth. These include the problems of war and peace, demography, food, raw materials, energy, environment.

The humanity today has become "a powerful geological force" and has so much pressure on the natural world that nature begins to inhibit the growth of social production and the negative impact on the individual. Earthquakes, surprisingly accurately coincident with the beginning of social conflicts, national disasters, the outbreak of fungi - the killers - these are just the first signs of the growing resistance of nature. Increasingly, there are conflicts of planetary scale.

It became apparent relationship of all global problems. Today, the earth has more than 5 billion people; by the 2030 this number will reach 10 billion.



Provision of food rapidly growing population has become a hot issue. In countries where there is a constant shortage of food is now home to two thirds of the world population. They suffer every day more than 2 billion people. The fertile land in the densely populated too severe exploitation annually leads to a reduction in their area of 2 % (6.7 million hectares). No less rapidly declining of non-renewable resources.

According to some estimates, mankind will consume up to 2500 stocks of all metals.

Environmental threat is now so great that it can be put on a par with the danger of nuclear war. Many scientists believe that the clock has already started an environmental disaster and began to count down the time. It is an ecological crisis: lack of basic natural resources, the possible natural and geological disasters, hazardous effects of environmental pollution on human health and the planet's living organisms, new and more destructive forms of economic, social and environmental conflicts.

All the more dangerous dimensions accepts pollution of the Earth: it is thrown every year 250 million tons of dust, 70 million cubic meters of gas, 145 million tons of sulfur dioxide, 1 million tons of lead compounds, tens of thousands of tons of fluoride and chloride compounds. This leads to increased "greenhouse effect", reduce and break the ozone layer of the earth. Adverse operating results fall into the hydrosphere - oceans, seas, rivers, and groundwater.

The world's oceans every year get more than 100 million tons of oil and oil products.

Woodlands give way to the planet's arable land. Carbon, concentrated in the biomass of the forest, began to circulate rapidly in the atmosphere as carbon dioxide. The biosphere is at the limit. On this basis, there may be profound irreversible shifts in the physical condition of the human being in the attack on his new, more dangerous diseases.

Not only people but also the entire flora and fauna of the planet suffer. There destroyed 40 % of the forests of Latin America, 50 - Africa, 60 - India. Experts say that due to the degradation of the environment disappear annually 10 - 15 thousand kinds of biological organisms. This means that in the coming 50 years, the planet will lose a quarter to a half of its biodiversity, generate hundreds of millions of years.

The humanity has already begun to move the acceptable range of risk: there is a real threat of self- destruction mechanism of the biosphere is increasingly repeated local environmental disaster. In 1984 due to leakage of poisonous gas at a chemical plant in Bhopal (India) have poisoned more than 200 thousand people, of which 2.5 million were died. In 1986 in Basel (Switzerland), there was a fire at the warehouse of chemical substances. Toxic waste water hit the Rhine, died flora and fauna of the river, created a threat to thousands of people on the banks of NSW. From the disaster at the Chernobyl nuclear power plant affected 3 million people, and large areas of Ukraine, Belarus and Russia. The dangerous consequences of the Chernobyl tragedy had been globalized.

Serious concern about the state of the environment and the prospects of the development of civilization was voiced by another UN Stockholm Conference in 1972, which created a special structure - UN Environment Program (UNEP). UN World Commission on the Environment, Center for urgent environmental assistance of the United Nations and other global environmental were formed - profit organizations which have done over 20 years of serious work in the field of protection of the environment.

The most significant environmental issues are considered at - pollution of air and water, deforestation and the depletion of the ozone layer, the loss of many animal and plant species, global warming and a sharp decline in soil fertility.

Among the causes of environmental degradation in all 22 states of the respondents' highlights business and industry, at 16, most respondents believe that they greatly increase the environmental problems. This is followed by poor technology and waste. Lack of education and incompetence of governments are on the fourth and fifth places, and overpopulation is on the last. Research suggests that people all over the world consider environmental issues increasingly threatening mankind and show increasing concern them. Not only do they give priority to the protection of the environment, but they themselves are willing to pay for it. Finally, surveys show a high level of environmental responsibility and activity of people opposed to consumer attitudes to nature, for a cleaner environment.

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### ***Control questions***

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1. Reveal the interrelation of the international movement of capital and labor.
2. What role do the foreign investments play in the development of national economies?
3. What criteria the foreign investments are classified by?
4. What conditions facilitate the development of competition for foreign investments?
5. Describe the investment conditions in Russia and Uzbekistan?
6. Describe the nature of autonomous and induced investment activity. Give an example.
7. What role do the free economic zones play in the development of the international movement of capital and labor? Give an example.
8. Describe the process of reproduction of the labor force, as an essential part of social reproduction as a whole.
9. How does the role of a human change with the transition to multi-level process of reproduction of the labor force?
10. What market entities realize their interests in the reproduction of the labor force?
11. Define the terms "international migration", "international labor migration".

12. What is difference between the internal and external migration of labor force? What criteria is the migration classified by?
13. What quantitative indicators assess the labor force migration?
14. What are the economic and social impacts does the migration entail? How the state can neutralize the negative effects of migration?
15. Explain the role of transnational corporations in the global economy.
16. How does globalization create a threat to the sovereignty and economic security of the state?
17. What are the qualitative differences between new global economic system and traditional model of international economic relations?
18. What are the main elements of the economic security of the country?
19. Reveal the content of the financial component of economic security of the country in the context of global financial crisis.
20. What are the causes of external threats to economic potential of the state?

## **CHAPTER 16**

### **THEORY OF NEW ECONOMY FORMATION**

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#### **16.1. Civilization: definition, characteristics and development concepts**

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The word "civilization" (from the Latin "civilis") means civil and public. This concept is relatively young for the science, introduced in the scientific revolution of two centuries ago and was used by French philosophers of Enlightenment to describe a society where reason and freedom reign. Today in the scientific literature, the term "civilization" is still undetermined. It is known, for example, interpretations of Arnold Toynbee ("Civilization before the court of history"), N.Y. Danilevsky ("Russia and Europe"), and Samuel Huntington ("The driving forces of civilization"), according to the civilization is considered as a unity of language, history, religion, customs, and institutions of self-identification.

Concept of "civilization" is very often used:

- To assess the nature and level of culture (there distinguished ancient and modern, European and Asian civilizations, etc.);
- To characterize the stage of development of human society, successor to the barbarism (L. Morgan, Engels);
- As cultural-historical cycle of closed groups, peoples and nations;
- As final stage of cultural development phase of its decline (Spengler);
- As synonym for culture.

However, not everyone agrees with this concept of civilization. Opponents argue: civilization - a set of material conditions for the most part (land-use features, development of technology, trade, emergence of cities, industrialization, etc.), and culture is above all spiritual conditions.

In the scientific understanding of social sciences there is a civilization, as a regional cultural and historical type of human society, which is characterized by specific features in the field of religion, culture, economics, geography, politics, social institutions, morals, law, and etc., as a set of core components of social life of human potential, mode of production of material goods, environment, distinguished gathering, agricultural and industrial civilization (A.M. Kovalev), as a stage in the cyclical development of the society in the integrity of its constituent elements: science, economics, culture and etc. (U.V. Yakovets ). Thus, in the view of many scientists this concept is not the same, unequal and not equivalent.

According to the theory of cyclical development allocated 7 Civilizations: Neolithic; East slaveholding (Bronze Age), antique (Iron Age), feudal, pre-industrial, industrial, post-industrial.

There is also common place and journalistic meaning of "civilization", adopted in countries with European culture, which empower societies, countries, states, different principles of democratic governance, post-industrial type of socio-economic development, high welfare of people, by the warranty of rights and freedoms.

The modern world is on the demolition of two civilizations, foundation of the first civilization is existing developed market economy (probably exhausted itself

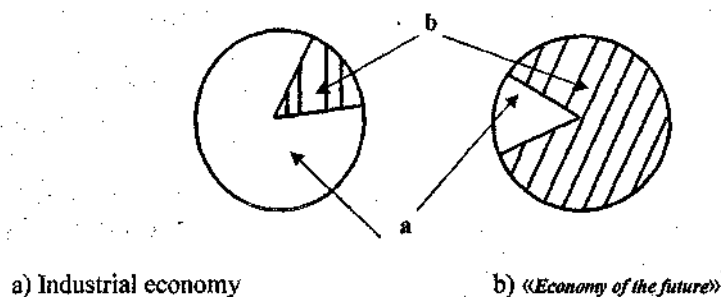
as an efficient economic system, but continued to be praised by conservative-minded economists), on the basis of the second one, only emerging (and insufficiently studied), new civilization of post-industrial, non-information, postmodern, new economy. The latter requires the new perspectives on economic processes and phenomena that previously existed and now exist: market, money, price, finance, labor, economic growth, consumption, well-being and etc.

At the turn of Millennium III there created new processes and phenomena, new concepts in economic theory : globalization, informatization, transformation of the economy, virtual economy, new functions of state, new value of financial capital, etc. They have a significant influence on formation and specifics of "new economy" theory. According to Alvin and Heidi Toffler new phenomenon that emerged in the global economy - a "new civilization in which "neoeconomics" is only one of the components"<sup>68</sup>.

The most important global trend of formation of new civilization is a transition from commodity and industrial economy to so-called "neoeconomics" based on intellectual resources, high-tech and information technology. Currently, high-tech sector "of the economy of the future" play a decisive role in economic development, not only of advanced countries , as evidenced by the increase in annual turnover of global market of high technology and high-tech products, which is several times higher than the turnover of raw materials, including crude oil, petroleum products and gas.

Unfortunately, today an explicit theory of "economy of the future" which would be shared by the majority of scientific community has not been developed yet. A number of important issues to this day remain controversial, unresolved until the end. And the first in this series can be called the understanding of essence of its historical places, definition of this economy, allocation of its specific features and even acceptance or denial of phenomenon.

The process of historical formation of the "economy of the future" suggests that the elements of subsequent civilization arise in the previous civilization, first as individual phenomena, then gaining strength, their weight increases, they already form a separate sector or sub-system in the economic system. In the case when the subsystem occupies the predominant place, the economic system gets its name (fig. 16.1).



**Fig. 16.1. Formation of "economy of the future"**

<sup>68</sup>Walt Street Journal. 2001. 29 March.

On the fig.16.1a there shown an industrial, commercial (traditional), economy, subsystem, which occupies the largest share at this stage in the development of civilization. With the development and spread of a new sector of the economy, industrial sector of the economy is shrinking and entire economic system is transformed into an economic system called "new economy" or "economy of the future" (fig. 16.1 b).

Most of the countries of modern world, including Uzbekistan and Russia, are just on the way to the "economy of the future." Hence it is necessary to distinguish between the "new economy" as an economic system with new content and as part of economy, fragment or technology driven economy, which consists of high-tech industries (aerospace, computer, communications, software, biotechnology), along with the traditional allocation in economic system based on various criteria, "economy of education", "economy of science", "network economy" sector "virtual economy", "new household economy", and etc. The evolution of these sectors suggests that "economy of the future" is a complex multi-sectoral economic system.

New ideas about the sources and factors of economic development make it possible to perceive and evaluate new education, science, medicine, telecommunications, management skills and experience, as the spheres of social life, which have a decisive influence on the pace and direction of economic development of the country. Today, development of the country can be judged according to how developed the intangible component in social production is and how strong post-industrial trends are.

Many people believe, that the main characteristic of information society is a spread of "superior technologies", their involvement in everyday life. XX th century provided three most important technological breakthroughs - development of qualitatively new energy sources, revolution in molecular biology (genetic engineering technology, use of transgenic plants and animals, transplants, cloning), and rapid development of information the computer industry, which explains formation of objective factors of information economy.

Other authors (for example, academician N.N. Moiseev) determine the information society as a society in which the collective intellect (collective mind) plays a role analogous to the one played by the human mind in his body. And all of technical achievements is the only prerequisites for the emergence of collective intellect on the planet.

Collective intellect is a system that combines human information links, which are available through shared knowledge. As a result, inevitably there is a shared vision of what is happening, as the basis for common solutions and actions. Collective intellect and collective memory are the only forms of collective ownership, using of which the members of a society get only its accumulation.

Information semantics includes the concepts, such as information society, information economy, new economy, virtual economy, and global information networks, internet technologies and etc. These concepts are interrelated, but not identical, and have their internal content and external display. For example,

information society is the notion of broader and more capacious than information economy.

The most important work in the study of information economy was the three-volume monograph of Spanish-American economist Manuel Castells, "The Information Age: Economy, Society and Culture", published in 1996-1998. It uses the different criteria in **determining Information Society**:

1) *Technological criteria*. This refers to cable and satellite television, computer networks, personal computers, new office technologies, etc.

2) *Economic criterion* involves consideration of economic growth value of information. Increasing the share of information business in gross domestic product is treated as a movement in the direction of "economy of the future";

3) *Labor criterion* allowing to state that society is entering an information stage of its development, when the majority of employees working in the field of information. This approach is based on the fact that information is "raw material" for non-manual labor. Employment criterion derives its theoretical basis in the work of Daniel Bell;

4) *Spatial criterion* is based on geographical principle. The main emphasis is on information networks that connect different places, and therefore can have a profound impact on spatial and temporal aspects of social life. By such approach, modern society is seen as an information and networking;

5) *Consumption criterion* suggests that in today's world, consumption of goods is increasingly mediated communication activities. This phenomenon is called the consumption of information. The example is the continuous increase of information value of clothing, by man creates the own image, thereby transmitting data messages to other people;

6) *Creative criterion*. It is assumed that the information economy is characterized by the dominance of higher, creative activities in public life (from the English creative). The total volume of creative activity, expressed in units of time, reflecting the maturity of the information economy. Creative criterion derives its theoretical basis in the work of the Austrian-American economist Joseph Schumpeter, who was the first in economics considered creativity as the key to economic development.

Information product creation is higher priority than the production of material goods for the informational system of economic. The fourth sector of the economy dominates. It follows on agriculture, industry, services sector. Capital and labor - the basis of industrial society - yields to the information - the basis of information society.

The concept of information society is a kind of theory of post-industrial society, which may be synonymous with "post-modern society".

Postmodern society represents a further development of information society. Therefore, post-modern society is similar to the information society; however, the core basis is a usage of information systems for testing, interpretation of reality and controlling their own change.

The development of post-modern society closely associated with the virtual economy and an interactive business.

The virtual economy is an economy based on the basic law of life and human activities (time saving law) and on the interactive business. Virtual economy means that a variety of economic transactions can be carry out in the electronic environment (e- auctions, payments, transfers, and etc. This is more specific section of the information economy, which characterizes new way of conducting economic activity of entities, their relationships through a virtual agent. Interactive business (from the English interaction and business) - it is a business built on common actions of the business process in the face of a businessman and a computer or other automated unit. The virtual economy is a modified form of the market economy. The main item on the virtual market economy is an automated information technology.

Some economists also use the term "network economy" to describe the new economy. This approach is quite justified, since the above-mentioned high-tech industries involved in the production of network benefits; it is that a network having a number of unique characteristics determine the features of the new economy.

Universal computerization and development of the Internet resulted in a change the role of the time factor as a basis for dividing the capital on the main (more than a year) and working (less than a year). That fact, in its turn, has led to the need to review the content of value, and hence prices, and costs. Modification costs and expenses were reflected in a significant reduction of the cost of maintaining the value or cost of interaction, called the transactional world revolution.

The most important basis of the "economy of the future" is the knowledge and intellect that become the primary resource for further development. That is why some authors call the new economy and knowledge economy intellectionomics and knowledge of the economics.

There are three basic trends at the core of the formation of the intellectionomics as a new type of society: the intellectualization, humanization and socialization.

Sometimes "economy of the future" is an economy of knowledge, where not only production of information product plays the leading role, but namely the production of new knowledge over the production of material assets.

There is no consensus in determining the characteristics of new economy in the economic literature.

Many researchers recognize as a distinctive feature of the "new economy" the fact that the main productive resource is economic information (i.e., data about objects and phenomena that affect economic activity, their parameters, properties, and states that reduce uncertainty, incompleteness necessary in economic management knowledge). The look at competitiveness changes in connection with that.

The important factors of competitiveness in an information economy are:

- Technological power as not merely the result of adding different elements and characteristics of the system that Manuel Castells called "science - technology



- production -society" system (STIS). Moreover, this characteristic associated with industrial complexes that are formed on a territorial basis;

- Access to a large, integrated market, such as the European Union, the North American Free Trade Area. The best competitive position could be one that allows firms to work quietly on one of the major markets and at the same time making it possible to enter other markets with minimal impediments and restrictions;

- The difference between production costs in producing the parties and the prices of the target market, i.e., the profit potential associated with lower production costs, which can be obtained only with the possibility of access to a large market;

- The political capacity of national and international institutions to manage growth strategies of countries or regions under their jurisdiction. Government activities are not limited only by the control of trade: governments can provide the necessary support in the field of technological development and training of human resources, which forms the basis for the work of the "economy of the future".

Under the formation conditions of the new economy on an international scale is necessary to remember that the competitiveness of the national economy is now directly related to information technology, and investment in e- infrastructure and education are important components of it. Formed other development priorities, other performance criteria, other economic development opportunities.

It is impossible not to notice the uneven formation of the new economy, where some countries are priority in certain areas and its directions of development. Thus, the global market distinguished American and Japanese firms - the developers of high information technologies and communication tools that combine a PDA and a mobile phone, a light keyboard and a wireless monitor. Mass production of the final, the assembly is concentrated in South-East Asia. Among the developers of programs and anti-virus tools on the world market Russian experts also are recognized.

The special features of the "economy of the future" also change in the market model, and the model of the individual person, institution of ownership and others.

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## **16.2. Economy of knowledge, its essence and theoretical concepts**

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The term " economy of knowledge " was introduced in the scientific revolution in 1962, Austrian- American economist Fritz Machlup, who considered knowledge as an object of economic research and as a resource for economic growth and proved the fundamental possibility of the existence of economy of knowledge, including a study of knowledge in the sphere of economic interests.

Conceptual foundations of economy of knowledge have been laid F. Machlup, F. Hayek and I. Schumpeter, also the definition of role and identification of functioning the economy of knowledge has been widely discussed in recent years. Calling the process of becoming an economy of knowledge, "the third

economic revolution in human history" (after agricultural and industrial)<sup>69</sup>, many modern economists associate it with major prospects of the society. Knowledge becomes the main source of becoming a competitive advantage, the ability to obtain new knowledge determines location of economic entities in the world, economic growth is determined in the same way as the process of accumulation of knowledge as a process of capital accumulation.

An economy based on knowledge or economy of knowledge is an economy that creates, disseminates and uses knowledge to ensure their growth and competitiveness. In essence, the subjects of any economy create and disseminate knowledge, however, the subjects of their economy is not only used in a variety of forms, but also create them on the basis of high-tech products, high quality services, scientific and educational products.

The conceptual basis of the economy of knowledge are such key concepts and categories as knowledge, human capital, education, human ability to actualize their creativity and experience to create new knowledge, ideas, and ability to translate them into the organizational and production schemes. The particular importance in economy of knowledge takes such a moral category of trust; an important role is played by the humanization of economic growth.

Despite the fact that by now developed a number of approaches to the classification and definition of knowledge, examined in detail various aspects of the nature of knowledge, so far there is no coherent theory that would fully meet the practical needs of today. However, reality of modern economic life forms new directions of research.

In modern economic literature can mark two different positions, summarizing the approaches to the allocation of common and distinctive features of categories such as knowledge and information. First of all, knowledge is understood as information that the economic agents use to make a rational choice. The object of economic research in this case is the amount of this type of information, and the ability of economic agents to receive it. This approach was developed in the framework of classical and neoclassical economic thought. Thus, representatives of neoclassical school, accepting that information about prices plays an important role in the economic process, did not study the process of creating and disseminating of knowledge, ignoring the value of knowledge, not dividing the category of "knowledge" and "information".

In second approach, knowledge is regarded as an economic asset, which plays a special role in new economic system. In this approach, knowledge as an economic resource discover their special feature, which is to have the knowledge that some of characteristics of public benefit. If the buyer disclose the content of knowledge to determine its value for the purpose of making decisions about the acquisition, private entity will be deprived of rational motives to invest in the production and dissemination of knowledge.

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<sup>69</sup> New Economy – A Chance for Russia: Theses. High School of Economics – State University, Moscow 2003.

A well-known economist Simon Kuznets proposed in 1995, the term "practical knowledge" to refer to the new knowledge that helps to create a modern material culture and affects the welfare of the people. J. Mokyr in his work "The Gifts of Athena" gives the following interpretation of the term: "Practical knowledge describes two types of knowledge. First - this is knowledge of "what", or the knowledge of statements (one might say, beliefs) about natural phenomena and laws. Such knowledge can be used to create knowledge "how", which is a training, or prescriptive, and can be called art or techniques"<sup>70</sup>.

To understand the economic nature of knowledge is very important concept of knowledge M. Polanyi, which reveals the essential components of knowledge through the provision of two levels of knowledge of the two forms of its manifestation - formal or knowledge.

The first level is formalized knowledge (explicit, central knowledge), which can be formulated and recorded on special media, passed through systematic language, that is, codified. Formalized knowledge and codification of knowledge play a key role in new economy, as serve to store and preserve knowledge, improving education, creating the fundamentals for the emergence of new knowledge.

The second level is non-formalized knowledge (implicit, hidden, peripheral knowledge) is personal; it is difficult to codify and pass from one subject to another. "We know more than we can express in words"<sup>71</sup>, and the reproduction of knowledge itself (even on a new stage of development in the emergence of new forms and training opportunities) are closely related to the system of education "teacher - student", which is based on a stable social bond between generations. There is a risk that knowledge will be lost and forgotten in conditions of weakening of these relationships. Intuition, ideals, values and emotions of the individual can be attributed among the implicit knowledge.

By the words of V.L. Makarov economy of knowledge is "an inseparable triad of knowledge markets, services and labor, which closely interact with each other". So there are three principal features of knowledge as an economic category by V.L. Makarov. Firstly, this knowledge is a discrete product (knowledge either is created or not). Secondly, knowledge being a *public benefit*, in process of their consumption becomes available to all without exception. And thirdly, knowledge being by nature *information product* does not disappear after consumption as a normal physical product.

V.L. Makarov distinguishes four types of knowledge consumption by the extent of use. The weakest use is an act of referring to it, an inquiry. Slightly stronger use is acquaintance or reading. Even stronger use is knowledge storing, the ability to reproduce, transfer to another. And finally, the most powerful use of knowledge is a production of new knowledge on the basis of the used (for example, use of scientific research results predecessors). However, it should be noted that knowledge that was not used at present time cannot be considered

<sup>70</sup> Mokyr J. The Gifts of Athena: Historical Origins of Economy. Princeton, 2002.

<sup>71</sup> Polanyi M. The Tacit Dimension. - N.Y.: Doubleday, 1967.

useless because it can be claimed at another time. Only if for such knowledge will find satisfaction in the useful application of economic life, knowledge can be the factors of production that is used to produce goods and services.

Often an economy based on knowledge is identified with high-tech industries and information and communication technologies. However, high-tech industries do not play a big role in the modern economy. The main effect of the economy of knowledge is not so much in the production of high-tech products and high quality services, but in its use in all industries and fields. The main thing in an economy based on knowledge is not only to create new knowledge and use it productively, and therefore, greatly increases the importance of education as a basic institution of economy of knowledge.

*In contrast, wealth and knowledge cannot be separated from the human being, so in the knowledge society, increased the role of individual in social and economic processes, and the most important trend is a humanization of society and economic processes. Humanistic, social and environmental components should not be seen as constraints, but as the goals of economic growth.*

The process of forming a new economy based on knowledge, involves overcoming the deformation of reproductive cycles of regressive qualitative changes in the development of productive forces, creating conditions for the revival of investment and high-tech engineering.

Solving this problem means:

- *Conducting a qualitatively new population policy, education policy and health care, able to give a new quality of human capital;*

- *A radical renewal of the entire institutional system of regulation of the economy, including serving export and import, investment finance and credit, foreign and domestic borrowing, repayment and servicing of domestic debt, government support competitive industries;*

- *A critical attitude to marginalize the concepts of regulation of economic growth through the use of mechanisms of economic liberalization. Despite the significance of these mechanisms must be overcome underestimation of comprehensiveness of economic growth.*

*Human being has always been and remains a central figure in the economy. There cannot be any economy without a man. Economics and economic activity emerged with the help of a man and in the name of a man. But economy created by a man has a very strong influence on the formation and development of human personality.*

All the variety of conceptions of man in theory of economics can be reduced to three levels of study:

- *micro-economic conception of human being in the economy;*
- *macro-economic conception of human being in the economy;*
- *global concept of human being in the economy.*

Microeconomic concepts regard the human being, his behavior in the economy at micro level, at the level of a separate individual. These include: the concept of "economic man" by Adam Smith, neo-classical concept of rational individual, under which describes two models of rational behavior - such as

rationality and follow their own interests, the concept of bounded rationality, Herbert Simon's theory of transaction costs, the concept of bounded rationality (A. Alchian, R.Nelson, S.Winter), due to ethical rules of conduct which have developed through evolution of human society institutions.

Microeconomic concepts of a human being in the economy, developed Keynesian school of historical institutionalism and the school would be more complicated. They include certain elements of psychological nature (observance of traditions, habits, and management considerations of prestige, a desire to enjoy life, etc.), group interest, government intervention in the economic life of society. In place of "rational maximizer" came a model of social and individual rights, which is characterized by the value is not so much material as spiritual needs of the individual (satisfaction from the process of labor, freedom of expression and free choice of the type of culture, religion, political views, and etc.).

The author of the concept of "economy of natural persons" professor G. Kleyner was very successful on choosing the term to describe the increased importance of individual and personal characteristic factor in the transformation of economic systems in transition economies. Indeed, systemic changes, reducing the role of institutions in the destruction of old and creating new relationships, with the same empty the place for the person who is able and willing to adapt to the environmental changes.

The modern theory of "evolutionary economy" considers classical postulates of rationality and optimal behavior of economic entities seeking to maximize profits, untenable for several reasons. One of them is that an entity in a market economy does not have complete information about the state of market and technological opportunities, in connection with which it has limited ability to conduct the calculations necessary for the optimal choice. The concept of bounded rationality of Simon, the firms are orientated not to the optimal, but an acceptable range of variants of behavior.

Introduced by Nelson and Winter's term "evolutionary" economics emphasizes the basic idea of this theory - the idea of economic "natural selection", according to which there is defined as "organizational genotype" with the properties and characteristics that allow surviving and thriving in changing conditions. Human behavior in the present reality is much more difficult, not only because of the uncertainty of the set production capacity and incomplete information about the market, but also because of the need to take into account economic conditions of the environment, when economic agents have no purpose other than the purpose of survival and growth.

All the stages or phases of human reproduction are important when considered in dynamics, in constant motion and change in the form of cycle.

The global concepts of human being in the economy are associated with the economic activities of a man within the world economy, covering the relationship of humanity and natural environment are associated with the processes of globalization proceeding in economy.

Global problems of modern science:

- have global in nature and relate to the interests of all or most of the countries;
- creates the threat to humanity, lead to regression in the living conditions of people in the development of the productive forces;
- Requires urgent and decisive action on the basis of collective and coordinated efforts of the international community.

According to the concept of S.P. Kapitsa, a survivor of humanity today, is an era of global demographic revolution, after the explosive growth of the population of the planet Earth abruptly changes its character, its development. The demographic revolution has to do with the exhaustion of possibilities of human population growth, which is globally regarded as a single entity, as a complex, single, interconnected system. One of the most important features of globalization advocates trend towards the formation of a new post-industrial, non – informative economy.

Totally two centuries of theory of economics was considered in natural and infallible status of a special person called "Homo economicus" – "economic man". This type of thought that person to comply with the economic benefit of its economic self-interest, and in the last century - the desire to maximize profits - are capable to provide both private and public welfare, general harmony of interests and well-being in society. Over time, everyone was convinced that the economic activity of people, along the lines of "profit maximization", all the more leads to small and large conflicts, contradictions of wealth and poverty, good and evil, and man and nature. The basis of new, knowledge-based economy is a distinctive, creative type of labor. And the nature of this work is so specific, it is known from numerous testimonies stories of creative achievements and discoveries, this work does not go directly to the maximization of profits. The results of intellectual work are often able to provide an economic benefit only through the decades.

Namely the man in the "economy of the future" is its "core" because he is a source and owner of intellectual resources and capital.

In the "economy of the future", the man has the following main features:

- *Intelligence, increase the proportion of workers engaged in mental work, finding and using necessary information, solution of problem type, change in intensity of intellectual work in the same workplace;*
- *Innovation, increase the ability to perceive, understand, and strive to be able to enter (find and use) innovations in the economy;*
- *The ability of partnership, i.e., this form of business organization in which all members participate as equal partners;*
- *Educational mobility is the ability of a person to continuing education, lifelong learning and retraining. Without this ability to an employee in the intellectual and information economy not keeping and cannot be survived;*
- Formation of the personality is a process of entering of a person in a new social environment and his integration in it, as a result of this process.

All the above mentioned basic features of a person associated with new economy and its features. This is a strong argument to ensure that their aggregate considered the basis of a new model of human provided due to the formation of new economy.

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### **16.3. Information society: main characteristics and distinctive features**

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A significant acceleration of economic development in the second half of the XXth century was due to many reasons, foremost among which are technological revolution and its current stage - information revolution. The basis of the processes taking place in the economy, has become a new type of technological and economic way of life in most developed countries, which have become the main scarce resource and information technology, including telecommunications, software, and Internet. After all, information is a resource that is easier to all other resources overcomes all boundaries and barriers, becoming a conductor of world globalization processes. Under these conditions, a new type of economy is formed: post-industrial economic system that takes a major and leading position in the global economy.

The concept of post-industrial society was first presented in 1973 which was published in the book by American sociologist Daniel Bell "The coming post-industrial society". Bell formulated the basic signs of such a society: creation of service economy, dominance of the layer of scientific and technical experts, central role of theoretical scientific knowledge as a source of innovation and policy-making in the community, possibility of self-sustained technological growth, and creation of a new "smart" technology. The author states that in the coming century crucial to economic and social life, for the methods of knowledge production, as well as the nature of employment rights will become the development of new social order, on emerging telecommunications. Analyzing new features in the economy, Bell concluded that there was a transformation in society from industrial to post-industrial stage of development, with prevalence not in the economy of manufacturing sector, but in service sector. The formation of post-industrial society, he connects with the unfolding revolution in the organization and processing of information and knowledge, where the central role belongs to a computer.

The theory of post-industrial society was later developed in the works of Z. Brzezinski, J. Galbraith, Alvin Toffler and others in the 90's, the concept of post-industrial society, many researchers linked to the concept of the information society, and sometimes these concepts are treated as synonyms.

In the foreign literature of the late 70's and 80's has been written about the coming of information society. So, T. Stounyer argued that information, like capital can be accumulated and stored for future use. In post-industrial society, national information resources are the largest potential source of wealth. The post-

industrial economy is an economy where the industry yields to the service sector by the indicators of employment and its share in national product, and the service sector is mainly information processing.

To characterize the large-scale economic changes taking place in the world under the influence of modern information technology (IT), the term "new economy" is often used. Its content has many meanings. In some cases, the trends identified with it, refer to the information revolution, in others - to the broader processes of globalization. Considering the historical and economic aspects of new economy, we can determine the location of new information technologies in the world today.

Referring to the historical evidence, it should be recalled that prior to the XVIIIth century growth in world per capita production was low at approximately 0.1 % per year. Economic growth has accelerated only since the end of the XVIIIth century, it is explained by serious changes in technology. Strelets I.A., in his book "New Economy and Information Technology" studies four major waves of innovation changes. *The first wave* dates back to the period from the 80s of the XVIIIth century to the 40s of the XIXth century, and its appearance is associated with the use of steam power. *The second wave* dates back to the period from 40s of the XIXth century to 90s of the XIXth century to the era of railways. *The third wave* covers the period from 90s of the XIXth century to the 50s of the XXth century, and it is connected with an appearance of electricity and the development of automotive industry. *The fourth wave* which is in question at the moment connected with the spread of information technology<sup>72</sup>.

K. Kelly, in his book "New Rules for the New Economy" lists the most obvious, in his view, features of the new economy. There included global nature of occurring changes; operating by the intangible benefits, such as ideas, information and relationships; close interaction between separate segments of the new economy. According to K. Kelly, these three characteristics create a new type of market and society, the activities of which are based on the principle of network, and there is such a situation where "the world of fine technology - machine starts to rule the world - the world of reality"<sup>73</sup>.

Considering the novelty of change, D. Taskott identifies ten fundamental differences of new technologies from the old (tab. 16.1)<sup>74</sup>.

Table 16.1

**Ten defining changes in technology**

Feature	Old technologies	New technologies
1. Signal	Analogous	Digital
2. Processors	Traditional technologies with use of	Microprocessors

<sup>72</sup>Strelets I.A. New Economy and Information Technology. – M.: Ekzamen, 2003.

<sup>73</sup>Kelly K. New Rules for New Economy. Ten Radical Strategies for Connected World. N. Y., 1998. – p. 2.

<sup>74</sup>Taskott D. Electronic – digital society. K.: INT-press, Relief - Book, 1998. – p. 121.



	semiconductors	
3. Computer system	Based on mainframe client- server	With a client - server architecture
4. Throughput capacity	Garden path	Information highway
5. Devices	Access device without intelligence	Informational household equipment
6. The format of information view	Data, text, speech, images	Multimedia
7. Systems	Specialized	Opened
8. Networks	Non – intellectual	Intellectual
9. Programming	At the craft level	Objectly oriented programming
10. Interface	Graphical user's interface (GUI)	Multi-User Dungeons (MUD), Multimedia Interface (MUI)

The emergence of new economy from chronological point of view is usually determined by the beginning of 90s. There is often an opinion that its history began in 1993, when business turned to the Internet and media information.

Sometimes the appearance trends of the new economy associated with the fact that the first test purchase through the online store in the spring of 1995, or with another fact, occurred in August 9, 1995, when the U.S. Company "Netscape" (it is now included in "America Online" company) began selling its shares: costing when it appeared on the market for only 28 USD per share by the end of the first day of trading, they have more than doubled in price<sup>75</sup>.

Unconditionally, innovations in information and communication technology (ICT) significantly accelerate the process of economic globalization, and are one of its important material and technical foundations. The development of the Internet and network infrastructure is of paramount importance for the economy of the country.

Bill Gates said, "If information about production systems, problems with products crises in relations with customers and other business important news does not crawl all day, but drifts from one part of organization to the other one in minutes, if managers can spend hours on a decision matters instead of days, then a win for the business will be huge. This current restructuring process is the most fundamental change in the economy after the transition to mass production". However, this content is not limited to these processes.

When the concept of "new economy" is used in a broader sense, essence of economic change is treated differently. Sometimes the term "new economy" is used as a synonym for complex knowledge-based industries involved in the production and maintenance of ICT equipment, creation and distribution of

<sup>75</sup>Strelets I.A. New Economy and Information Technology. – M.: Ekzamen, 2003. – p. 139.

software products, development of communication networks, etc.

The concept of "new economy" often includes organizational and institutional innovations in the activities of different sectors of the economy in some developed countries. In this case means the formation of electronic environment of economic activity, emergence of new network forms of business organization, distribution of distant business relationships, creating flexible virtual firms and labor groups, made up of employees who are not tied to a specific office and supporting the necessary contacts with the help of modern telecommunication systems, exemption companies from non-core activities by transferring its temporary workers or face-related organization, changes in trade-related change in e-commerce, etc.

American sociologist R. Crawford considers that the key role in the development of human society belongs to knowledge. He names modern society as "knowledge society": "... the new knowledge leads to the emergence of new technologies, which in turn leads to economic changes that in turn, lead to social and political change, which ultimately leads to the creation of a new paradigm or a new vision of the world. This model can be used to explain the serious economic, social and political changes that are taking place in the world<sup>76</sup>. "Distinguishing the concept of "knowledge" and "information", he writes: "Knowledge is an ability to apply the information to a particular kind of activity".

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#### **16.4. Models of information market in the new economy**

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The purpose of market relations in the traditional sense is reduced to the recoverable costs merchants and traders, their profits, as well as the satisfaction of consumer demand buyers of this product on the basis of free, mutual agreement, retribution, equivalence and competition. It is generic, essential features of the market in general and information market, in particular.

Current research information market is regarded as one of the types of product market (market information, market information products) and share the information market is through the movement of information goods.

Information (from the Latin *informatio* - clarification statement) - originally information which was sent orally from some people to other, in writing or in any other way (for example, by using of conventional signals and technical facilities, etc.), as well as the process of transfer or receipt of this information.

Information market can be defined as a competitive form of bonds (or set of transactions) in the purchase and sale of information due to the peculiarities of information as a commodity, specific information exchange, as well as the globalization of information space.

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<sup>76</sup>Crawford R. In the Era of Human Capital: The Emergence of talent, intelligence, and knowledge as the Worldwide Economic Force and What / Means to Managers and Investors. N. Y.: Harper Business, 1999. - p. 4.

Market Information System consists of three major subsystems: the actual market information, market information technology and information services market.

The object of information market is a diverse information, market information services - assurance services to the media, communications, educational services, different kinds of consulting, services, information security, IT services, maintenance of personal computers, etc.; market information technology (IT) - software and hardware.

**The subjects of information market** as consumers, traders (middlemen) manufacturers may make government agencies, organizations of any type, and other individuals, households and population.

The peculiarity of subjects of information market, committing their virtual activity is "virtual anonymity". On the Internet, users can remain anonymous, which is directly related to the specificity of the medium itself. The user can carry out information activities from anywhere in the world by sending and receiving information. The origin of a message can be hidden or encoded, thus giving rise to abuse of copyright, libel, conducting so-called "information warfare".

A feature of this model can be considered as **market competition, selection of information** - the struggle for leadership in the information market, information resources, and its two components - competition of manufacturers and competition among buyers. The first component is related to competition for access to these resources for the most modern information technologies and for the market share. Competition consumers by the desire to provide leadership in obtaining the information that serves as the starting point of decision-making and implementation of relevant business transactions.

For example, in information on a share price it is important not only its content, but also the speed of its receiving. The words "one who owns the information, owns the world" became a stereotype. Information competition has already become a reality for today's conditions for the formation of the information economy.

Another feature of this model is to change the behavior of the market monopolists. The phenomenon of new economy is linked, on the one hand, with the blurring of the boundaries and barriers to entry into the industry purely technical nature, on the other hand, with the advent of large monopolies, as "Microsoft", which also creates a host of innovative features of macroeconomic character.

Monopolistic tendencies manifest themselves differently than it was in a traditional economy. It is believed that unregulated monopoly is overpriced and makes lower the volume of production in comparison to their competitive level. But there is different situation in the market of information goods: monopoly increases output and makes lower the prices. In generation of 1970-1990s prices of computers fell by more than 10 million times, or average annual rate was 30-40%. This rate of fall in prices of means of communication exceeds all historical examples. For example, the price of ordinary telephone service was down in the XX century 3-7 times slower and electric power - 20-25 times slower.

Productivity growth, thanks to information technologies, leads to an increase in the rate of profit. But it happens only in the short term, as the fierce competition

existing in this monopolistic market, leads to reduction in the rate of profit in the long term, not to increase. Monopoly in the field of information is in conditions of severe competition and, therefore, in a constant search for the most effective solutions to production and management tasks.

Thus, we can state the duality of modification of the model of market in terms of information technology. On the one hand, the market inevitably monopolizes, but on the other hand, monopolies begin to behave themselves as perfect competitors. This allowed J. Schumpeter put forward the theory of creative destruction, in accordance with which the monopoly can not to slow down, but to encourage technological progress and economic growth. It stimulates introduction an innovation wishing to recoup their costs.

American economist P.Romer emphasizes that monopoly in terms of information technology plays a negative role, because it is advantageous to prevent the innovation process in order to maintain its monopoly position. The essence of antitrust regulation in the new conditions of new economy consists in: prevention of creation of such monopolies by eliminating unnecessary secrecy of information; transferring of ownership of a number of information objects to the state and similar activities.

But monopoly is not always an economic evil. This is especially true of the market for information products. Its specificity is that, unlike physical goods blocked "creator" and acts as a producer, and the buyer that this product can be easily copied.

Particular object of the purchase and sale of the market in the new economy are network goods, which are marked so that they can be played at almost zero marginal cost, and they generate network externalities for consumers.

**Network externalities** - a special kind of externality in which the utility of goods for an individual depends on number of people used this product.

The main parameters of the market in the new economy, namely supply and demand - behave themselves non-traditionally. In the situation of network benefits supply and demand curves switch their positions: the supply curve has a negative slope, as the marginal costs tend to zero at considerable intervals, and the demand curve has a positive slope, as the marginal utility increases as the number of participants in consumer goods. If this process will evolve dynamically, curves will tend to the intersection at increasingly lower prices, reflecting in the fig. 16.2.

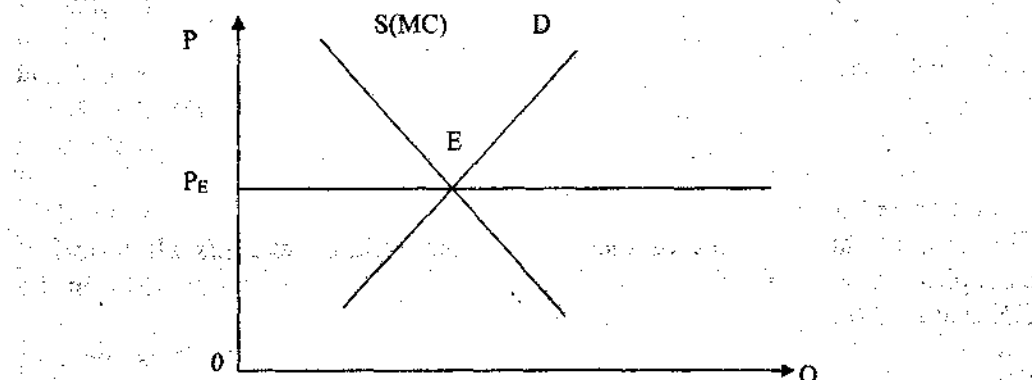


Fig. 16.2. Equilibrium in the market of network benefits

Thus, if the benefit increases its value with the growth of amount and with the price of the good decreases with increasing its value to consumers, we come to the following conclusion: the best value in the new economy has a benefit that is provided free of charge. The conclusion is paradoxical at first glance, because it certainly is not talking about all the benefits, but only on the network benefits, but they are the basis of the new economy. The new economy provides a wealth of examples that demonstrate an awareness of the logic of large companies, for example, many of them provide free their browsers (*Microsoft, Netscape*).

Industries engaged in the production of information product; get a huge opportunity to exploit economies of scale, promoting the emergence of monopolies in the market. Network externalities also promote it: consumer utility of "*Microsoft Windows*" is due precisely to the fact that the shell is used by a great number of customers, the process of product standardization occurs in the market. American economist K. Shapiro points out that the combination of economies of scale on the supply side and the demand side reinforces monopolistic tendencies in the market.

In the new economy intangible capital takes the following form:

a) Intellectual property - it is a legally protected knowledge that can bring profit on a contract basis patents, licensing agreements, etc. Exactly the right of ownership of the asset, not an asset in itself - tangible or intangible - is the subject of valuation, including an intellectual property;

b) Transformation of business relations between manufacturers, suppliers and customers into a coherent system of flexible alliances, or so-called networking. Alliances add value and reduce expenditures on interaction of the companies among themselves and final consumer;

c) Conversion of brand's reputation. Brands reduce costs due to the interaction of consumer confidence in the quality of purchased goods. Owner of a brand can, in turn, earn excess profits by reducing the cost of acquisition, maintenance, and customer retention or due to high prices;

d) Talent of employees, which is the most important intangible asset. Namely it creates the intellectual property, flexible alliances and brands.

Changes in the new economy, in the words of R. Coase, "nature of the firm", are operating in the market. "Intellectual firm" can currently do not have the productive assets in the traditional sense, as tangible assets start being replaced intellectual assets and current assets superseded information.

Informatization of the economy has led to the emergence of a new type of costs - information intangible costs. In relation to the tangible, material costs their share is significant, there is an upward tendency. For example, the share of intangible costs in U.S.A (search for information, exchange of information with partners, monitoring the actions of competitors, etc.) on average in mining industry 30-40 % of total costs, at financial institutions to 60 %.

Active participants in the information market are individual users, the number of which is growing day by day via Internet and local networks are integrated into a single system that has its own rules of conduct restrictions.

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## 16.5. Investments into human capital

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The development of national systems of education in modern conditions is determined by several factors: on the one hand, education has become one of the most important spheres of human activity, and on the other - the growing role of education in society creates new prospects for economic development. Thus, at present, there is the need for continuous development and improvement of the education system, which is caused by new trends in socio-economic development in the world today.

It is generally accepted today, that in the modern era there are fundamental changes in the conditions of the development of human civilization, among which are the following:

- A significant increase in the role of knowledge in the economy;
- A new level of information technology;
- Develop a global world information space, which provides free access of students to the accumulated amount of information and knowledge;
- Globalization of the world economy, opening up new opportunities for sustainable socio-economic growth.

Currently, there is a transition to the new economy - economy based on knowledge; in fact we are talking about the third economic revolution. In international scale not those who use the cheapest production resources and carry out large-scale operations are competitive, but those are who constantly improve themselves and introduce innovations. This conclusion is well known. If you look through the countries you will find that the countries which have well-developed educational system are more progressive than the countries which have rich natural resources. The increased importance of knowledge in the modern world confirms the emergence of new terms such as information society, economy of knowledge.

Enormous human, financial and material resources are involved in the field of education. An educational activity permeates modern society and is closely linked with almost every sphere of human activity, with a particular sector of the economy. Therefore, it is difficult to determine where the influence ends of the educational complex on translational processes in the country. If in the industrial society the question of the growth of wealth fairly is well studied, then the non-production processes that are basic in the post-industrial information society, yet little explored.

The transition to a more practical use of knowledge initiated the rapid development of civilization. The researchers noted that "the application of knowledge to the labor organization provided the explosive growth of its productivity."<sup>77</sup> Knowledge through their influence on society and the economy was the main factor of production. Traditional factors - natural resources, labor and capital - have acquired a secondary meaning. The necessary knowledge can be prepared in a much larger volume. Altogether, this has resulted in the emergence

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<sup>77</sup> Drucker P. The Post-Capitalist Society. - M., 1993. - p. 20.

of the concept of "*human capital*".

The rapid spread of the concept of "*human capital*" among economists in many countries gives reason to believe that this particular economic category with all its attendant laws. In this concept two beginnings are combined. The *first* one is something that is inherent in man as a creator of material and spiritual benefits. It is crucial to the progress of science and technology, dramatically expanding the potential of a person on the basis of the priority development of intelligent components in its operations while dramatically reducing heavy and laborious physical effort, resulting in a substantial change in the structure of the human and labor resources. And the *second* one beginning in the concept of human capital is its economic nature. The reproduction of human capital involves the dynamic development of general and special education based on the latest science and technology, and it requires matching funds from both low cost and in increasing measure of extra-budgetary sources. No services, including education, can't be free; we can speak only about the form and sources of compensation of their value to society and individuals. The knowledge gained in the training process; serve as a basis for further accumulation and practical use. Evaluating the effectiveness of educational system functioning can only be based on comparative analysis of the costs of acquisition of knowledge and the results of their practical use.

The formation of human capital theory in the form in which we consider it at the moment, realized in the late 1950s - early 1960s of XXth century, and its "pioneer" was an American scientist T. Schultz. His work "The formation of capital formation" was published in 1960s, and "Investment in human capital" in 1961. The basic theory has been developed in the works of another American scientist G. Becker, who became famous in the history of economics widespread introduction of the concept of "economic imperialism". It meant the spread of the methodology of the economy (rational individual behavior, maximizing his income) to other social sciences. Out of G. Becker's works it should be noted "Investment in human capital" (1962) and "Human Capital: A Theoretical and Empirical Analysis" (1964). Each of the researchers received the Nobel Prize: T. Schultz - in 1979, and G. Becker - in 1992.

Human capital is formed as a result of investing in the development of man, his intellectual and spiritual potential. In other words, we are talking about investing in education. Strictly speaking economic theory refers the investment in human capital to the migration and search for a new job, because all the processes associated with these costs are a kind of advances that not only pays off in the future, but also regularly brings increased returns, thereby increasing the value of human capital. However, it is generally accepted that education plays a decisive role in the formation of productive forces of a man and to increase its market value. Therefore, in theory of economics, namely the formation is regarded as the main form of investment in human capital.

In any kind of investment it is necessary to determine the cost of investment project and compare it with the expected results, i.e., to evaluate the effectiveness of investment and rate of return. Both the value and return on investment may vary in size and shape depending on the object of investment and scale of the investment project, the subject of investment and budget constraints of any particular recipient of funds.

The subjects of investing can be both physical and legal persons. The individual pays the tuition of the family budget to boost his market value as a real or potential employee. Firm develops in-house job training and pays for the education of employees in foreign educational institutions to increase staff productivity. Government agencies fund the educational sphere within specified budget. Foreign investors as private sponsors, business firms, banks, government agencies, international organizations can act as a subject of investing.

The objects of investing can be isolated educational programs or their complex. The recipient of funds may be separately taken educational and training institution (kindergarten, school, college, university), as well as the relevant ministry or agency that distributes money among subordinate educational institutions. Funded investment programs may be both local and national. Lately international educational projects are more and more extended.

At the investing in the education, as a form of human capital increment in the first place, the question on the impact, i.e., a positive effect. These effects are highly diverse and numerous, they can be classified according to different criteria as follows:

- by the recipient: positive effects of education can be obtained by an individual, organization, employer and society as a whole;
- by shape: shape of positive effects can be monetary, material, material and immaterial;
- by the degree of impact: education can have both direct and indirect positive effects;
- by the impact on the field: education can have both positive internal effects for the investor, but also external effects on third parties.

Let's consider the positive effects of investment in education in detail. An employee, making the decision of investing in education, expects to receive future returns in the form of higher wages, better working conditions, increase social status, rapid and successful career, professional, and social self-realization, etc. The company, investing in the education of the personnel, expects to get the increase in labor productivity, expansion of output, enhancing the creative energy of personnel, increased staff loyalty, ultimately, is expected to increase profits and strengthen the competitive position in the market. The state, developing education, not without reason believes to increase the quality characteristics of the total labor force, due to the growth in labor productivity to achieve high rates of economic growth, raising income levels in the country.

Especially it is necessary to stop on the positive external effects of education. They occur in any case, no matter who the investor is. Thus, if the subject of investment is an individual, externalities bring benefits to: children receiving competent parent; neighbors and friends, having a pleasant environment and



favorable social environment; potential employers having an opportunity to hire a qualified employee without spending money for his training; society as a whole, receiving economically and socially self-sufficient citizen possessing a high development potential and being able to provide qualitative change of generations.

If the investor in the education is a company (or other entity), positive external effects occur:

- For employees as they receive education and training production at the expense of the firm, although they will be able to use the results of their high qualifications during their life; first of all it is a question about increasing wages and other tangible and intangible benefits;

- For other firms (organizations) which can always get a knowledgeable and skilled employee without making the cost of its preparation;

- For the society in which to improve the quality and productivity of labor is economic growth and the accumulation of Public wealth.

If the sphere of education is funded by the state, then the individuals, receiving educational services at the price of taxes paid to the state, are undoubted winners, and the firms for which the bank of potential labor force has become expanded and of better quality. In addition, there are positive things for the community. It is empirically proved that the increase of educational level in the country facilitates to reduce crime; there exists a correlation link between levels of education and health of the nation, so that in a more educated society where citizens take care about their health, the state will have to bear lower costs of prevention and treatment of diseases, educated parents are inclined to finance the education of their children, which also allows the state to save budget.

Multiple direct and indirect, monetary and material and immaterial, internal and external positive effects of education make this area very important for a modern society.

In the transition of the most developed countries to the innovative economic growth and formation of the new economy - the economy of knowledge, role of human capital becomes even more important for both the individual and the society as a whole. At the same time there observed a steady increase in the demand for quality characteristics of the labor force. On the agenda there is a thesis of continuing education, as there is a rapid obsolescence of knowledge and skills of previous impairment losses on the one hand and, on the other there is accelerated accumulation of new information. "Life" and complicated training, of course, requires a high material, time and cost. The cost of training tends to the continuing growth. The market value of the annual training in higher education is measured in dozens and even hundreds of thousands dollars<sup>1</sup>. The cost of children's stay in secondary school and pre-school institutions is constantly rising. The same trends are characteristic to the system of vocational and industrial training.

Historically, the three parties as investors are interested in this: an individual (potential or actual employee), an employer (company, other organization) and the state, acting on the behalf of society. This distribution of financial burden is not accidental, but has its own socio-economic background.

Firstly, the cost of general and vocational education in many countries has reached such a high level that many households cannot fully meet their needs for educational services. The family is not able to finance higher education, and sometimes secondary education of their children.

Secondly, small and medium-sized firms, and most quite large firms also are unable to organize in-service training of their workers and employees, not to mention the payment of their education on the side.

Thirdly, as a consolidated government budgets and local cannot indefinitely increase the share of expenditure on education as a range of social spending is already high.

Finally it should be noted that education is quasi society service, i.e., combines the properties of both conventional goods and services supplied to the market by the private sector, as well as the characteristics of public goods and services whose production involved in the public sector.

On one hand, as a private good (service) education can be sold in the market of consumer identity in a certain amount of the price that the consumer is willing to pay for a given quantity and quality of educational services. In this case, the principle of exclusivity, that is, persons who have not paid for the service, its consumption is not permitted. On the other hand, education has significant positive externalities, making it socially relevant and at the same time reduces the attractiveness for private provider of the service, as there is a problem not excludability, otherwise known as the free-rider problem.

**Table 16.2**

**Factors affecting personal and social costs associated with education**

Key factors	Personal expenditures (income)	Public expenditures (income)
<b>DIRECT COSTS</b>		
Free education	Falling	Growing
Benefits on education payment	Falling	Growing
Provision of books and school supplies for free or concessional	Falling	Growing
Provision of scholarships and financial aid	Falling	Growing
<b>INDIRECT COSTS</b>		
Paid practice training	Falling	Fall in case of close relationship of practice and training
Decrease of real wages	Falling	Growing
Unemployment rise	Falling	Growing
<b>ADDITIONAL INCOME</b>		

The increase in the differentiation of rewards depending on the education level	Growing	Change depending on the validity of the differentiation
Increasing the retirement age	Growing	Change depending on the validity of the decision
Improving the quality of education	Growing	Growing

For example, the interest of the company in the training of their workers is reduced to zero at the thought that the trained employee can easily be won over by his rival organization. In this case, the competitor acts as a free rider, gaining access to a good "qualified person" without the appropriate fee in the form of the costs of training. As always, in the case of public goods and services, they are engaged in the production of the public sector, and the source of funding is a budget. Thus, questioning the efficiency of the economy in relation to the growth of investment in human capital includes:

- A comprehensive understanding of reproductive forces, covering all areas of the economy and single components of system-based structure of the objective economic linkages and reflects their criteria;
- Involvement in the economic analysis on an equal basis for all components of the employment potential of the country;
- Expanded view of the division of labor through the inclusion of temporal aspects of contingency between successive stages of scientific and technological progress and the corresponding expansion in terms of economic exchange;
- Justification of internal unity of the processes of scientific and technological change, tangible and intangible savings and structural changes in the economy.

However, modern practice of world economic development shows the necessity for a radical revision of the contents of this concept. The new approach to the problem is recognition of the unity of structure and composition of growth factors of labor force productivity, which in turn implies the involvement of all types of reproductive activity to the scope of the analysis in both material and spiritual production.

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### **16.6. The interaction of labor market and educational services market**

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The significance of the interaction of work and education is related to economic development trends, with the transition to post-industrial type of economic development that highly skilled employees are becoming a crucial factor in development. The interaction of these areas is a complex and multi-layered as it is entered by complex systems that influence each other in this process, achieving a consistency and coherence in the functioning of its components. The speed and

cost of mutual adjustment largely depends on the institutional environment of the society, in particular, the position of the state. First of all, the labor market assesses quantitative and qualitative agreement between labor needs and requirements of the production and thereby to determine the conditions of employment, working conditions and job security. At the same time, the labor market reveals a matter of mutual correspondence of stages and levels of the organization of the whole system of training and ensures the production workers. This feature of the labor market is essential if the functioning of one of the subsystems is not consistent with the other, in accordance with the cyber law by W.R. Ashby stability of the system is disturbed as a whole. Mismatch of the system can manifest itself in different ways, in particular, such as:

- Inconsistency of the structure of working places to professionally-qualified structure of labor supply;

- Inconsistency of highly specialized knowledge and skills of employees, the necessity for their free vocational qualifications movement within the enterprise and beyond;

- The contradiction between the growing needs of the economy for highly skilled workers capable of creative work and the conditions of formation of such a worker, limited resources spent on its formation;

- The contradiction between the needs of post-industrial development in the creative activity of the individual and focus mainly on the economy performing activities that meets the requirements of the era of mass production, i.e. the economy of producer.

Since unemployment acts as the form of manifestation of above mentioned intra violations, and the efficiency index of functioning of markets and optimality of structure and system of the education is employment, the resolution of problems is primarily associated with the issues of preventing the growth of unemployment or its reduction, with analysis and forecasting of current labor market conditions i.e. with the achievement of its balance. This approach to the consideration of relationship of labor market and education market is simplistic and limited, but to predict the need of economy in employees by certain professions is very difficult. Even more difficult is to predict demand for certain professions, since the relative wage changes with time, reflecting the fluctuations in the demand for different types of labor.

**Regulatory method**, according to which the demand for labor is determined on the basis of output norms and productivity level in the workplace. The condition for its implementation is a fundamental rate of works, which is unattainable for many modern forms of labor.

To overcome this drawback the calculation of the share of specialists in total number of workers was carried out by regulatory method taking into account the factor of the development dynamics and with the addition of judgment method.

It is proposed to determine the future need in qualified employees on the basis of elaborated programs of the development of regions and surveys of entrepreneurs. The obtained information allows selecting the generalized economic indicators, organic correlates with the indicators of number of specialists. To calculate the parameters for the future there can be used extrapolation, modeling,

expert judgments or their combination.

In the *dynamic approach* to identify the development tendencies of labor market there formed a multifactor economic-mathematical model (i.e. correlation and regression analysis is carried out). Performance of that prognosis depends on the stability of the system of labor demand for specialists.

*The method of reference sample* is based on calculation of the need for the labor force by analogy with the need for it in another country, which acts as a reference sample.

The above mentioned methods, their development indicate a complication of the problem of interaction of the labor market and educational services in changing environment. Attempts to make perspective balance of demand and supply of labor at the regional level did not justify, as these plans do not coincide with industry forecasts. In addition, industry structure does not provide information about the appropriate level of education and reveals the dynamics of employment in vocational structure of employment in the region.

Mutual adjustment of systems of labor markets and educational services is based on the coincidence of the interests of all participants in these markets (population, business, education, government). In modern conditions of globalization of the relationship of work and education obtains an important strategic value associated with determining the competitiveness level of the country, potential of its economic development and the direction of this movement.

The importance of achieving adequacy in the functioning and development of labor markets and educational services related to the fact that system of labor relations and education system reflect features of socio-economic and institutional development of the country, are built in terms of respective technological order. Technological setup is a sustainable holistic education, in the framework of which there implemented a reproductive cycle from extraction of primary manufacturing resources to output a certain set of final products. The widespread distribution and adoption of new setup illustrated of its self-sufficiency and meant the shift of economic paradigm.

For the analysis of the interaction of education system and labor practice it is necessary to identify the factors determining the nature of this interaction.

First and foremost such factor is the condition of formation of economic system. Modernization of production, accompanied by the formation of adequate institutional conditions, contributed to the formation of mechanism elements of market interaction of labor sphere and educational services. The main element of this mechanism is the price of labor. Through the price of the labor force labor market allows for the growth of education and training as an increment of human capital, which *ceteris paribus* increases the productivity of individual and social labor. Thus there is a direct correlation of labor market with the market of educational services.

Another factor influencing the interaction of labor market and the market of educational services is the type of labor market: external and internal. External labor market assumes the availability of professionally trained employee, whose skill level is confirmed by the document on education. Opportunity to increase the

future income determines high and steady demand from the employee at the higher education level and quality.

Next factor, influencing the interaction of labor market on the educational services market, is a degree of centralization of the educational services market. In the countries where the education system was formed as decentralized (USA, Japan), educational institutions function as market entities, focusing on acquisition of income from the provision of educational services, consumers' demand and timely accounted changes of demand. Thereby the need for skilled personnel is satisfied opportunely; local specifics of production are considered. It should be noted that in recent years there have been major changes in the functioning of the market model: involvement of the central and states' government in the financing of educational institutions has been increased; the share of their expenditures is over than 50 %.

For an employee information imperfections of the labor market lead to a corrupted view of the real situation about real size of the labor demand.

In most industrialized countries, particularly those who faced with the necessity of economic breakthrough (Germany and Japan) social character of educational services is recognized. The logic of rapid modernization required the rapid formation of a professionally trained workforce that has defined the leading role of the state in the production and consumption of educational services; the education sector was mainly derived from the application of market mechanisms (Germany, other European countries).

Having positive external effects education has a unique internal effect: each level of education, becoming a massive and universal, reduces the value of the achieved level of education, destroys the competitive advantages of such an individual and increases education demand of the next step, restoring the lost supremacy.

Labor market has its own traditional institutions of maintenance of supply and demand balance (labor exchanges, employment services), but in conditions of new economy, new forms of institutions appeared: "headhunter", intermediary companies, global markets qualified professionals. The latter represents a worldwide exchange of experts with a Ph D degree, the work of which is carried out through the website. The efficiency of the institutions of interaction between labor market and educational services market is based on the harmonization of cost interests of all the entities, which is provided not only by fluctuations in supply and demand for such specialists, but also by the following conditions:

- Certainty and clarity of mutual requirements and conditions of the employee and the employer, possession of equal rights;
- Guarantees confirming or enabling to check the level of required qualification;
- The possibility of termination or non-renewal of contractual relationships because of the expiration of the contract period or the reasons specified in advance.

Appearance and successful operation of the new tools in the framework of the already existing ones illustrate of the possibilities of traditional institutions of adaptation of labor sphere and education is not completely exhausted.

Reality provides many examples of high-quality fundamental education served as a basis for rapid adaptation to new economic and industrial conditions (it is successful careers abroad for the graduates of technical and natural science faculties of the leading Russian universities). Foreign studies show that the higher the degree of specialization (indicator of training narrowness), the lower the chances of getting a permanent job.

The basis of the new model of education is the development of professional standards that underlie educational standards for the harmonization of labor market needs and opportunities.

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### **Control questions**

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1. Explain the term of "civilization". What meaning does this term have in modern economic theory?
2. What are the trends, indicating the formation of neoeconomics? What is the place of education and science in the new economy?
3. Reveal the role of information technologies in forming the economy of knowledge.
4. Give the definition to the terms of "collective intelligence", "collective intelligence", "collective memory".
5. What criteria are used in determining the information society? Why the production of information products is priority over material benefits in the information economy? Define the terms of "network economy" and "net benefit".
6. What trends form the intellectionomics? What are the factors of competitiveness in the new economy?
7. Describe the conceptual basis of the economy of knowledge. State three fundamental characteristics of knowledge.
8. What conditions are necessary for development of the economy of knowledge?
9. Describe the concept of the human in economic theory. What are the characteristics inherent to the human in the economy of the future?
10. Describe the stages of the formation of modern information sector of economy and tendencies of its development. Describe the main models and the peculiarities of information market. What are the forms of intangible capital?
11. What factors determine the development of national education system? Describe the tendencies of modern educational market and its integration into the labor market.
12. What regularities determine the development of "human capital"? How do you understand the investments in human capital?

## CONCLUSION

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In modern conditions there implemented a transition from the society, main regularities of which lie in the sociological coordinate frame, to the stratum. And, of course, this new state is more complicated, not only as an object of cognition, but also as an object of management. It characterizes the process of formation of new third global era.

The main factors of production here are information and knowledge. The human desire for material wealth or achievement of high social status cannot replace the need to develop his own personality, to multiply his skills and abilities. Intangible interests become a dominant of social development, thus opening a space for modernization of productive relations.

The modern technological revolution caused in two fundamental changes: on the one hand, for the first time in the history it ensured the satisfaction of basic material needs of the majority of society members and, on the other hand it made the improvement of the man himself not only a matter of his personal choice, but the main condition of its social recognition. Today, when the need for self-improvement has not become so prevalent yet, as an increase of the level of material well-being has recently been, in the society there acts a mechanism stimulating a continuous development of man's intellectual potential, creating the competition of knowledge, sometimes no less brutal than the competition of property. With the course of time the process of self-improvement will be an absolute dominant of development. Then the creative activity generated by a desire for maximum self-realization, will completely replace the labor associated with the need of satisfying material needs.

Summing up, the authors consider it necessary to note that this tutorial had the following objectives:

- To form the reader's positive attitude towards progressive tendencies forming new post-industrial, information society, where purely personal and psychological relationships dominate;
- To develop a creative attitude to new economic knowledge, which requires an appropriate level of analytical thinking development and mastering scientific cognition methods;
- To equip with modern analytical tools, objectively reflecting contemporary reality and increasing the level of professional potential of future specialist's competitiveness who dedicated his life to such complicated and interesting sphere of human activity as the economy.

However, the research task is not in the statement of epoch-making modern social transformation, but in the attempt to understand what new phenomena it is accompanied by, what new forms the public structure acquires in the course of this process. Important tool of such perception is the study of tendencies that are common to the second epoch of historical development, replaced with new, post-economic system. The second part of "New course of economic theory" book is devoted to this. This is the main novelty of this edition. Such approach is not



spread in modern economic theory, limited by opposition of now emerging society to capitalist or industrial types of economy. For all its importance this opposition does not provide either a proper understanding of formation processes or the nature of decline of economic era.

Paying attention to a new page of economic history, one should not underestimate the difficulties of parting with the past, with the giant era that was cruel and unfair, but at the same time glamorous and great one; epoch, which is the only and unique way, almost passed by mankind. Yes, creativity has been rare destiny in this era, but it is creative conditions which created the greatest cultural monuments, worshiped by modern humanity.

It is impossible not to take into account the fact that humanity is capable to achieve not only a new level of technological and intellectual progress in the nearest decades, but also unprecedented tension of social contradictions and conflicts. It is important to remember that the real progress can only be evolutionary. And to urge the processes artificially which have completely objective dynamics and their domestic laws, means the breach of inner logic of civilization development by most radical way.

Finally, economists and politicians should be aware that they will not find ready and simple answers in economic theory. Modern condition of economic theory enables to get into the essence of many phenomena, but many issues remain open. The task of economists is to answer them and enrich our knowledge. Authors of economic policy should use existing knowledge to improve the state of economy. These tasks may seem insoluble, but there are no insurmountable heights in the world.

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