

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ**  
**ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ ЕКОНОМІЧНИЙ УНІВЕРСИТЕТ**  
**ІМЕНІ СЕМЕНА КУЗНЕЦЯ**

**ЗАТВЕРДЖЕНО**

на засіданні кафедри  
державного управління,  
публічного адміністрування  
та економічної політики  
Протокол № 1 від 25.08.2023 р.

**ПОГОДЖЕНО**

Проректор з навчально-методичної роботи

Каріна ПЕМАШКАЛО



**МАКРО- І МІКРОЕКОНОМІКА**

**робоча програма навчальної дисципліни (РПНД)**

Галузь знань	<b>29 Міжнародні відносини</b>
Спеціальність	<b>292 Міжнародні економічні відносини</b>
Освітній рівень	<b>перший (бакалаврський)</b>
Освітня програма	<b>Міжнародний бізнес</b>

Статус дисципліни	<b>обов'язкова</b>
Мова викладання, навчання та оцінювання	<b>англійська</b>

Розробники:

к. е. н., доцент  
к. е. н., доцент  
к. е. н., доцент

Підписано КЕП

Підписано КЕП

Наталія СТЕПАНЕНКО  
Тетяна ЧЕРКАШИНА  
Вадим СОБОЛІВ

Завідувач кафедри  
Державного управління,  
публічного адміністрування  
Та економічної політики

Підписано КЕП

Наталія ГАВКАЛОВА

Гарант програми

Підписано КЕП

Наталія ПАРХОМЕНКО



## INTRODUCTION

The educational course "Macro- and microeconomics" belongs to the professional training cycle of mandatory educational components. It is an integral part of the complex of economic disciplines, which includes political economy, modern economic theories, state regulation, world economy, international economy, social economy, global economy, environmental economy, etc.

The issues considered in the discipline "Macro- and microeconomics" are of great importance for future specialists in the field of public management and administration, as they allow to reveal the mechanism of the functioning of the economic system based on a combination of macro- and microeconomic theories, concepts, models based on global and national science and tested by economic practice.

Successful study of this educational discipline is possible only under the conditions of possession of theoretical knowledge of the conceptual and categorical apparatus of economic theory, the essence of economic phenomena and processes, understanding of the laws and main trends of the economic development of society. The combination of macroeconomics and microeconomics makes it possible to reveal in one academic discipline the mechanism of functioning of the country's economic system on the basis of a combination of macro- and microeconomic theories and economic modelling, substantiated by domestic and international science and tested by economic practice.

**The goal of the educational discipline:** formation of a system of theoretical knowledge regarding the conceptual and categorical apparatus of macro and microeconomics; thorough mastery of the essence of economic phenomena and processes; provision of basic fundamental theoretical training necessary for further study of the cycle of economic disciplines; deep understanding of the laws and main trends of the economic development of society; disclosure of the tools and mechanisms of economic development functioning on the basis of its best-known global models and strategies.

The tasks of the educational discipline are: determination of the essence of the main problems and indicators of macroeconomics, their relationship; analysis of the main macroeconomic indicators, their correlation and measurement, as well as problems related to them; research of theoretical and methodological problems of the modern labor market; characteristics of household incomes and consumption in the modern economic cycle; determination of the functional role of investments in the modern economy; determination of equilibrium GDP in conditions of different levels of employment; optimization of economic decisions of economic entities, taking into account the limitations imposed on their capabilities; analysis of the impact of 4 restrictions that impose on the capabilities of business entities and determine the quality of their decision-making.

The object of the educational discipline is the process of managing the public sector in modern conditions for the further socio-economic development of the state.

The subject of the academic discipline is the functioning mechanism of the country's economic system at the macro- and micro-level.

The learning outcomes and competencies formed by the course are defined in table 1.

Table 1

Learning outcomes and competences formed by the course

<b>Learning outcomes</b>	<b>Competencies</b>
LO4	SC1
LO8	SC1
LO18	IC
LO28	GC2

LO4 – Systematize and organize the received information about processes and phenomena in the world economy; evaluate and explain the influence of endogenous and exogenous factors on them; formulate conclusions and develop recommendations taking into account the peculiarities of the national and international environment.

LO8 – To understand, highlight and describe new phenomena, processes and trends of global development, mechanisms and tools for the implementation of economic policy and world integration / disintegration processes, including Euro-Atlantic integration.

LO18 Investigate economic phenomena and issues in the international sphere based on an understanding of categories and laws; highlighting and summarizing trends, patterns of functioning and development of the world economy, taking into account cause-and-effect and space-time relationships.

LO28 Analyze basic micro- and macroeconomic models, modern macroeconomic approaches to economic analysis, principles of behavior of economic entities in the global environment.

SC1 The ability to distinguish characteristic signs and trends of the development of the world economy, peculiarities of the implementation of economic policy and world integration/disintegration processes, including Euro-Atlantic integration.

IC The ability to solve complex specialized tasks and practical problems in the field of international relations in general and international economic relations in particular, as well as in the learning process, which involves the application of the latest theories and methods in the implementation of complex studies of global economic relations, is characterized by the complexity and uncertainty of conditions.

GC2 The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle.

# COURSE CONTENT

## Content module 1: The main problems of microeconomics

### Topic 1. Usefulness of economic good. Economic choice. Analysis of consumer behavior

**1.1. The subject of microeconomics.** The role of microeconomics. Subjects and objects of economic relations at the micro level. Normative and positive microeconomics. Modern tools of microeconomic analysis. Relationship of microeconomics with other disciplines.

**1.2. Utility. Indifference curves: essence, features of construction and relationship with product utility.** The concept of utility. Cumulative and marginal utility. Utility function. The law of diminishing marginal utility of an economic good. The consumption process and the dynamics of changes in aggregate and marginal utility. Consumer preferences. Construction of indifference curves. Map of indifference curves. Properties of indifference curves.

**1.3. Marginal rate of substitution.** Consumer equilibrium. Budget constraint of the consumer. Change of the budget line. Price changes and their impact on the consumer's budget. Consumer equilibrium.

**1.4. Consumer reaction to changes in income and prices of goods.** The "income-consumption" curve. The concept of normal goods and goods of lower consumer value. The "price-consumption" curve. Construction of the individual consumer demand curve. The concept of ordinary goods and Giffen goods.

**Seminar class.** Analysis of consumer behavior. Modeling of consumer behavior. Graphical analysis and construction of "income-consumption" and "price-consumption" curves.

**Practice session.** The "income-consumption" curve. The concept of normal goods and goods of lower consumer value. The "price-consumption" curve.

### Topic 2. Laws of demand and supply in the market economy

**2.1. Market demand.** Market demand as the sum of individual demands (definition, construction of graphs). Change in demand and change in the volume of demand, factors of change (economic, algebraic, graphic analysis).

**2.2. Supply and the main factors affecting supply dynamics.** Market offer. Change in the offer and change in the amount of the offer, factors of change (economic, algebraic, graphic analysis). Interaction of supply and demand.

**2.3. Market equilibrium.** Market price and equilibrium price, equilibrium volume. Mechanism for establishing market equilibrium. Effect of changes in supply and demand on equilibrium, interaction of changes in supply and demand. Consumer and producer gain.

**2.4. Elasticity of supply and demand.** The concept of "elasticity" for the general case. Basic properties of elasticity. Factors of price elasticity, features of their influence. Elasticity of demand. Methods of calculating the coefficient of elasticity of demand. Calculation of the coefficient of elasticity for "normal" and "poor" goods. Elasticity of supply. Factors affecting the elasticity of supply.

**Practice session.** Determination of elasticity coefficients of supply and demand, their types. Point and arc coefficients of elasticity. The practical value of elasticity

**Seminar class.** Market price and equilibrium price, equilibrium volume. Mechanism for establishing market equilibrium.

### **Topic 3. The theory of marginal products and the microeconomic model of the enterprise. Production costs and profit**

**3.1. The enterprise as a subject of market relations.** Factors of production and their classification. Economic periods of the firm's operation and the set of possible combinations of resources. Immediate, short- and long-term periods of enterprise operation. Motivation of the company's behavior.

**3.2. Production function.** A production function with one variable. The law of decreasing productivity of a variable factor of production. Concept and parameters of the production function. The main properties of production functions. Two-factor production function. The law of decreasing productivity of factors of production. A production function with two variables. Isoquants and isocosts. Map of isoquants. Marginal rate of technical substitution. Limits of substitution of factors.

**3.3. Concepts and types of expenses.** Production costs in the short-term and long-term period. Concepts of production costs. Economic and accounting approaches to cost determination. Opportunity costs. Explicit and implicit; internal and external costs. Transaction costs. "Normal profit" as an element of costs. Fixed, variable, total, average and marginal costs. Law of increasing marginal cost. Long-term cost curves and their types. Equilibrium of the producer: the choice of a combination of production factors according to the criteria of cost minimization or output maximization. Positive, neutral and negative scale effect. Factors determining the effect of scale. Equilibrium of the producer: graphical, algebraic and economic interpretations.

**3.4. The essence and types of profit.** The essence of profit. Profit functions. Theories of profit. The main areas of profit use. Accounting and economic profit. The rule of cost minimization under the condition of a given volume of production. The rule of profit maximization. Total, average and marginal income. The essence and measurement of the profit of the enterprise. Performance indicators of modern enterprises.

**Practice session.** Justification of optimal economic decisions of manufacturers regarding production volumes and cost minimization.

**Seminar class.** Concepts of production costs. Economic and accounting approaches to cost determination.

### **Topic 4. Theory of market structures**

**4.1. A perfectly competitive market.** The model of perfect competition and its characteristic features. Conditions for perfect competition. Characteristics of a perfectly competitive market. Advantages and disadvantages of a perfectly competitive market. A perfectly competitive firm and its operating conditions.

Equilibrium of a competitive firm in the short and long run. Types of firm behavior under conditions of perfect competition: profit maximization, cost minimization, production cessation (graphically). Market demand and the demand curve for the firm's products under conditions of perfect competition. Aggregate, average and marginal income of the firm, their graphic display. Marginal revenue and its relationship with the demand line for the firm's products. Points of critical volume of production. Conditions of long-term equilibrium. Long-run average cost curve. Profit maximization in the short- and long-term periods.

**4.2. Monopoly market.** Model of pure monopoly and its characteristic features. Characteristic signs of imperfect competition. Definition of monopoly. Natural, economic, administrative and legal barriers of the monopoly market. Types of monopolies: open, closed, natural. Bilateral monopoly. Monopsony. Diversification of production. Monopoly power. Sources of monopoly power. Monopoly price. Determination of price and volume of production by a monopolist (graphical and algebraic interpretation). The offer of a monopolist firm and the peculiarities of its formation. Price discrimination. Dumping. Equilibrium of a monopolist firm in the long-term period. Economic consequences and social cost of monopoly. State regulation of monopoly activity. Antimonopoly policy: basic principles, mechanism of action. Peculiarities of monopoly policy in Ukraine.

**4.3. Market of monopolistic competition.** The market model of monopolistic competition and its characteristic features. Conditions for monopolistic competition. Signs of monopolistic competition. Mechanism of monopolistic competition. Pricing and determination of production volumes under conditions of monopolistic competition in the short- and long-term periods. Price determination. The role of advertising in price determination. Deepening product differentiation: positive and negative consequences. The impact of advertising on production volumes and costs. The essence and prerequisites of the development of non-price competition.

**4.4. Oligopolistic structure of the market.** Pricing and determination of production volumes in oligopoly conditions. Oligopoly, its essence and main features. Indicators of market concentration. Causes of oligopoly. The variety of oligopolistic structures, general interdependence and the complexity of analyzing the behavior of an enterprise on the market. Duopoly: the essence of Cournot and Bertrand models. The prisoner's dilemma. Oligopolistic pricing.

**Practice session.** Justification of optimal economic decisions of firms regarding production volumes and sales prices of products under different types of market structures.

## **Content module 2: The main problems of macroeconomics in the conditions of international economic relations**

### **Topic 5. Macroeconomic indicators in the system of national accounts in the context of international economic relations**

**5.1. The subject of microeconomics.** The role of macroeconomics. The place of macroeconomics in the system of economic sciences. Definition of

macroeconomics. Macroeconomic approach to the study of economic processes and phenomena. Aggregation. Subject, object and subjects of macroeconomics. Interactions between economic subjects. The goal of macroeconomic development. Economic growth, economic efficiency, economic freedom. Objectives of macroeconomics. State regulation of Economy. Basic methods of macroeconomics.

**5.2. Gross domestic product (GDP) and methods of its calculation.** Gross national income (GNI). GDP Final products. Intermediate products. Nominal and real GDP. The dynamics of the real volume of production and the dynamics of the price level. Aggregate indices: consumer prices, (Laspeyres); GDP deflator (Paasche); Fisher's index. GDP measurement methods. Production method, end-use method, distribution method. Difficulties in calculating GDP. Shadow production. Illegal production. Production in the informal sector. Household production for own final use.

**5.3. Main macroeconomic indicators of income.** National wealth. National wealth (NB) and its structure. Main macroeconomic indicators of income. National income. Net national income. Net indirect taxes, indirect business taxes, business subsidies. Social security contributions, corporate income taxes, net interest on debt, government transfers and payments to households, labor income, distributed earnings, individual income taxes of citizens.

**5.4. Cyclicity and economic growth.** Economic growth and economic development. Socio-economic development. Sources and factors of economic growth. Production function. Economic cycle and its types. Phases of the cycle. Modern economic cycles.

**Practice session.** Business game "Efficiency of functioning of the national economy". Mini-training "Circle of income and expenses".

**Seminar class.** Socio-economic development. Sources and factors of economic growth.

## **Topic 6. Household consumption and private investments. Macroeconomic equilibrium**

**6.1. Consumption, savings, investments. Household, its functions.** Formation of personal household income. Consumption and saving of households. Consumption function. Autonomous consumption Savings function. Autonomous savings. Average propensity to save. Marginal propensity to save. Average propensity to consume Marginal propensity to consume. Marginal propensity to save. Investments. Investment demand of enterprises. Gross and net investments. Amortization. Autonomous and induced investments. The necessity of handing the state over to regulate the economy. Definition of the multiplier effect in the economy. Investment multiplier.

**6.2. Macroeconomic equilibrium "AD - AS".** Aggregate indicators. General level of prices. Aggregate demand (AD) as GDP by expenditure. Aggregate demand curve and reasons for its negative slope. Price factors of aggregate demand. The wealth effect or the effect of real cash balances. Interest rate effect. The effect of import purchases. Non-price factors of aggregate demand. Aggregate Offer (AS).



Aggregate supply curve. Behavior of the economy in the short-term and long-term periods. A synthesis of classical and Keynesian theories of views on the aggregate supply curve. Price and non-price factors of aggregate supply. The mechanism of formation of the equilibrium volume of national production and the equilibrium level of prices. Macroeconomic equilibrium. The AD-AS model as a basic model of economic equilibrium.

**6.3. Model of macroeconomic equilibrium "expenditure-output".** The mechanism of the "cost-output" model. Aggregate expenditures in the role of aggregate demand. GDP as aggregate supply. Formation of economic equilibrium. Graphical representation of the cost-output model. Change in inventory.

**6.4. The model of macroeconomic equilibrium "withdrawal-injection".** The mechanism of the "withdrawal-injection" model. Definition of the terms "withdrawal" and "injection". Private economy. Planned and unplanned investments. Determination of equilibrium GDP. The "withdrawal-injection" model in cases of closed regulated economy and open economy.

**Seminar class.** Investments. Investment demand of enterprises. Gross and net investments.

**Practice session.** The "withdrawal-injection" model in cases of closed regulated economy and open economy.

## **Topic 7. Macroeconomic instability. Banking system**

**7.1. Labor market.** Population groups according to economic activity. Employed and unemployed. Unemployment as a socio-economic phenomenon and an indicator of macroeconomic instability. Full employment and natural unemployment. Cyclical unemployment. Potential and actual GDP. The level of unemployment as the main indicator of the labor market. Social consequences of unemployment. Economic consequences of unemployment: Oaken's law. GDP gap. Labor supply and demand. Equilibrium in the labor market. Main functions of the labor market. State policy of regulation of population employment. Phillips curve.

**7.2. Inflation mechanism.** Inflation as the main indicator of macroeconomic instability. Causes of inflation, types of its manifestation and classification. Demand inflation. Cost inflation. Inflation rate. Rates of price growth and price growth. Inflation index. Inflationary expectations. Deflation and disinflation. Social and economic consequences of inflation. Losses from inflation for the population. Inflation tax. Anti-inflationary policy of the state.

**7.3. Mechanism of functioning of the money market.** Concept of money market. Demand, supply, equilibrium in the money market. Interest rate. Nominal and real interest rates. Money supply. Monetary aggregates. Monetary base. Reservation rate. Banking multiplier. Money multiplier. The influence of the state on the money market.

**7.4. Banking system and money supply.** The concept of the banking system and its structure. Two levels of the banking system and their functions. The importance of the main bank of the country. Functions and tools of the Central Bank

of the country. Commercial banks and their functions. Passive and active operations. Specialized credit and financial institutions and their forms.

**Practice session.** Banking multiplier. Money multiplier.

**Topic 8. State policy of economic regulation and foreign economic policy**

**8.1. State policy of economic regulation.** Functions of the state to regulate the economy. Indicators of the level of economic development. Quality of life. Life expectancy of a person; income per capita; employment level; degree of realization of human rights; condition of environment. Fiscal policy. Tools of fiscal policy. National budget. Budget deficit: actual, structural, cyclical. Monetary policy, its goals and tools. Regulation of the exchange rate of the national currency. The policy of cheap or expensive money.

**8.2. Exchange rate.** Currency. Currency convertibility. Exchange rate. Currency quotation. Nominal and real currency exchange rates. Currency market. Regulation of the foreign exchange market. Interventions. Administrative and market mechanism of exchange rate formation. Fixed, flexible exchange rates. Currency system.

**8.3. Regulation of foreign economic activity of the state.** The balance of payments and its structure. The balance of the balance of payments. Macroeconomic adjustment. Foreign economic policy of the state. Protectionism. State regulation of foreign trade relations. State regulation of capital movement. Currency regulation and currency control.

**Practice session.** Fixed, flexible exchange rates. Currency system.

The list of practical (seminar) / laboratory studies in the course is given in table 2.

Table 2

**List of practical (seminar) classes/tasks**

Name of the topic and / or task	Content
Topic 1. Seminar class 1.	Analysis of consumer behavior. Modeling of consumer behavior. Graphical analysis and construction of "income-consumption" and "price-consumption" curves.
Topic 1. Practical lesson 1	The "income-consumption" curve. The concept of normal goods and goods of lower consumer value. The "price-consumption" curve.
Topic 2. Practical lesson 2	Determination of elasticity coefficients of supply and demand, their types. Point and arc coefficients of elasticity. The practical value of elasticity
Topic 2. Seminar class 2	Market price and equilibrium price, equilibrium volume. Mechanism for establishing market equilibrium.

Topic 3. Seminar class 3.	Concepts of production costs. Economic and accounting approaches to cost determination.
Topic 3. Practical task 3.	Justification of the optimal economic decisions of manufacturers regarding production volumes and cost minimization.
Topic 4. Seminar lesson 4.	Conditions for monopolistic competition. Signs of monopolistic competition.
Topic 4. Practical lesson 4.	Justification of optimal economic decisions of firms regarding production volumes and sales prices of products under different types of market structures.
Topic 5. Seminar class 5.	Socio-economic development. Sources and factors of economic growth.
Topic 5. Practical lesson 5.	Business game "Efficiency of functioning of the national economy". Mini-training "Circle of income and expenses".
Topic 6. Seminar lesson 6.	Investments. Investment demand of enterprises. Gross and net investments.
Topic 6. Practical lesson 6.	The "withdrawal-injection" model in cases of closed regulated economy and open economy.
Topic 7. Practical lesson 7.	Banking multiplier. Money multiplier.
Topic 8. Practical lesson 8.	Fixed, flexible exchange rates. Currency system.
Topic 8. Seminar lesson 7.	Indicators of the level of economic development. Quality of life. Life expectancy of a person; income per capita; employment level; degree of realization of human rights; condition of environment.

The list of self-studies in the course is given in table 3.

Table 3

**List of self-studies**

Name of the topic and / or task	Content
Topic 1 - 8	Study of lecture material and regulatory framework of Ukraine

Topic 1 - 8	Preparation for seminar classes
Topic 1 - 8	Preparation for practical classes
Topic 1, 2, 4	Performance of individual creative tasks
Topic 1-4, 5-8	Preparation for the colloquium

The number of hours of lectures, practical (seminar) classes and hours of independent work are given in the work plan (technological map) for the academic discipline.

### **TEACHING METHODS**

In the process of teaching the course, in order to acquire certain learning outcomes, to activate the educational process, it is envisaged to use such teaching methods as:

Verbal (problem lectures (Topic 2, 5), debates (Topic 1, 3, 4, 8), conversations (Topic 2-8),

Visual (presentations (Topic 1-8).

Practical (practical work (Topic 1–8), case studies (Topic 1, 4), modeling of professional situations (Topic 7).

### **FORMS AND METHODS OF ASSESSMENT**

The University uses a 100-point cumulative system for assessing the learning outcomes of students. Current control is carried out during lectures, practical, laboratory and seminar classes and is aimed at checking the level of readiness of the student to perform a specific job and is evaluated by the amount of points scored:

– for courses with a form of semester control as grading: maximum amount is 100 points; minimum amount required is 60 points. The final control includes current control and assessment of the student. Semester control is carried out in the form of a semester exam or grading. The final grade in the course is determined:

– for disciplines with a form of grading, the final grade is the amount of all points received during the current control. During the teaching of the course, the following control measures are used:

Current control: express tests (35 points); creative tasks (15 points), written tests (10 points), colloquiums (40 points).

Semester control: Grading More detailed information on the assessment system is provided in technological card of the course.

### **RECOMMENDED LITERATURE**

#### **Main**

1. Політична економія [Електронний ресурс] : навч. посіб. / М. С. Бріль, О. М. Кліменко, І. Ф. Лісна [та ін.] ; Харківський національний економічний університет ім. С. Кузнеця. - Електрон. текстові дан. (3,09 МБ). - Харків :

ХНЕУ ім. С. Кузнеця, 2019. - 279 с. : іл. - Загол. з титул. екрану. - Бібліогр.: с. 273-278.

2. The Fundamentals of Economics [Electronic resource] : textbook for self-study / L. Ukrainka, M. Mashchenko, I. Lisna [et al.] ; under the edit. M. Mashchenko; Simon Kuznets Kharkiv national university of economics. - E-text data (910 КБ). - Kharkiv : S. Kuznets KhNUE, 2021. - 163 p. : il. - The title screen. - Referenc.: p. 162-163.

3. Теоретико-методологічні засади формування національної економічної системи в умовах інтеграції у світове господарство [Електронний ресурс] : монографія / М. С. Бріль, О. М. Кліменко, М. А. Мащенко та ін. ; за заг. ред. канд. екон. наук, доцента М. С. Бріля. – Харків : ХНЕУ ім. С. Кузнеця, 2019. – 208 с.

4. Макро- та мікроекономіка [Електронний ресурс] : навчальний посібник для студентів усіх спеціальностей першого (бакалаврського) рівня / М. А. Мащенко, М. С. Бріль, О. М. Кліменко та ін. ; за заг. ред. д-ра екон. наук, доцента М. А. Мащенко. – Харків : ХНЕУ ім. С. Кузнеця, 2021. – 214 с.

### **Additional**

5. Hindriks J., Myles G. D. Intermediate public economics. Ch. 14 // The MIT Press, 2016.

6. Tikkanen, Roosa, and Melinda K. Abrams. 2020. “U.S. Health Care from a Global Perspective, 2019: Higher Spending, Worse Outcomes?”. The Commonwealth Fund, Issue Brief, January 30, 2020. Trades Union Congress. 2020. “Amazon Warehouse Worker Takes Eight Weeks to Earn What Bezos Makes in a Second, says TUC.” <https://www.tuc.org.uk/news/amazon-warehouse-worker-takes-eight-weeksearn-what-bezos-makes-second-says-tuc>

### **Information resources**

7. Course page on the Moodle platform (personal learning system). URL: <https://pns.hneu.edu.ua/course/view.php?id=7321>

8. State Statistics Service of Ukraine. - [Electronic resource]. – Resource access mode: <http://www.ukrstat.gov.ua/>.

9. Ministry of Revenue and Duties of Ukraine. - [Electronic resource]. – Resource access mode: <http://minrd.gov.ua/ru/>.

10. Ministry of Finance of Ukraine. - [Electronic resource]. – Resource access mode: <http://www.minfin.gov.ua/>.

11. National Bank of Ukraine. - [Electronic resource]. – Resource access mode: <https://bank.gov.ua>

12. Statistics of Ukraine: scientific journal. - [Electronic resource]. – Resource access mode: [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua).