MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

SIMON KUZNETS KHARKIV NATIONAL UNIVERSITY OF ECONOMICS

POLITICAL ECONOMY

Guidelines for self-study

of Bachelor's (first) degree students
of all specialities

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A set of practice tests, graph and web-based exercises, tasks for students' self-study according to the themes of the academic discipline and guidelines to them are given to help the students obtain professional competences to solve urgent economic problems.

For Bachelor's (first) degree students of all specialities, all forms of study.

UDC 330.101(07.034)

Introduction

The academic discipline "Political Economy" is a part of the complex of economic disciplines that consists of macroeconomics, microeconomics, economic history, world economic thought, modern economic theories, global economy, regional economy, social economy, environmental economy, etc.

Students' self-study is a significant part of the study of the academic discipline "Political Economy" that includes guidelines to preparation for the lectures, practical studies, and seminars as well as the recommendations on how to do scientific research and write essays. Students' self-study is supported by the following methodological writings: syllabus of the academic discipline and lectures which are compiled as presentations to each theme and are placed on the site of personal education systems of Simon Kuznets Kharkiv National University of Economics as well as a practicum on this discipline.

The aim of the guidelines to self-study work on this discipline is to provide the students with the main theoretical information on political economy, assist in doing different practical tasks and obtaining competences in solving problems and contradictions of modern economic development.

The guidelines involve several types of tasks (practice tests, key questions for self-assessment, graph exercises, web-based exercises, tasks) which allows the lecturer to choose the right types of self-study work according to the level of preparation of students and, thus, correct the process of study. Each practice test of the type "one out of four" consists of a question and four variants of answer, among which only one answer is correct. Examples of tasks which are given in the guidelines contain all the needed formulas and explanations as to the use of them. The list of typical written tasks for students' self-study is also given. Besides, the guidelines involve the recommendations on how to do the web-based exercises linked with real macroeconomic and microeconomic situations as well as the topics of essays and presentations on two content modules and themes according to the syllabus of the academic discipline "Political Economy".

Content module 1. The general issues and the fundamentals of a market economy

Theme 1. The subject matter of political economy. Production of goods and services. Economic needs and interests

Questions for self-study

1.1. The scope and method of political economy.

1.2. The nature and importance of economic laws.

1.3. The relationship between political economy and other social sciences.

Recommended literature: [3, p. 18; 8, p. 6–8; 7, p. 1–17].

Key terms: political economy, English classical economics, laisser faire doctrine, the "invisible hand", marginal analysis, Keynesian economics, economic laws, positive political economy, normative political economy.

1.1. Practice tests.

1.1.1. The economic school which is based on the so-called marginal values is:

a) English classical economics;

b) marginalist economics;

c) Keynesian economics;

d) monetarist economics.

1.1.2. The object of the study of macroeconomics is:

a) activities of firms;

b) households;

c) selected industries;

d) the economy of the country as a whole.

1.1.3. The school of political economy which focused on the policy of protectionism is:

a) mercantilism;

b) marginalist economics;

c) Keynesian economics;

d) monetarist economics.

1.1.4. The law of value, the law of demand, the law of supply, the law of money circulation are:

a) universal laws;

b) general laws;

c) specific laws;

d) the right answer is not given.

1.1.5. What economic categories apply to several rather than all formations:

a) universal;

b) general;

c) specific;

d) all the above mentioned?

1.1.6. The method that consists in research from particulars to generals is:

a) analysis;

b) synthesis;

c) the inductive method;

d) the deductive method.

1.1.7. The functions of political economy are the following:

a) methodological, psychological, ideological, cognitive, practice;

b) methodological, cognitive, practice, forecast;

c) methodological, cognitive, practice;

d) methodological, practice, forecast.

1.1.8. The function of political economy related to economic policy is:

a) cognitive;

b) practice;

c) ideological;

d) forecast.

1.1.9. The function related to other economic disciplines is:

a) practice;

b) forecast;

c) methodological;

d) ideological.

1.1.10. The positive economy answers the question of:

a) how it must be;

b) what is needed to do for this purpose;

c) what it is;
d) the right answer is not given.

Recommended literature: [7, p. 5–12; 8, p. 7–8].

1.2. Key questions for self-assessment.

1.2.1. Why do we study political economy?

1.2.2. What do you know about the English classical school? Who are the representatives of the English classical school? What did they say about the nature of political economy?

1.2.3. Do you agree with the followers of the monetarist economics who regarded political economy as a science which focused on "the means to get rich"?

1.2.4. If the government think that the economy is growing too fast, what could they do to slow down the economy?

1.2.5. What kinds of problems do we study in macroeconomics?

1.2.6. What kinds of problems do we study in microeconomics? List three microeconomics decisions you have made today.

1.2.7. List three positive economic statements.

1.2.8. List three normative economic statements.

1.3. Web-based exercises.

1.3.1. Look for a newspaper on the Internet. Find a news story about macroeconomics. How do you know that it is about macroeconomics?

1.3.2. Find a news story about microeconomics. How do you know that it is about microeconomics?

1.4. Essays.

1.4.1. The relation of political economy to economic history.

1.4.2. The relation of political economy to ethics.

Guidelines for tasks 1.4.1, 1.4.2

The students need to choose one of the topics from the two above and then write an essay on about four sheets including the title and the used

literature. In the essays, students should make a point – not a statement of fact, but an interpretation – and support it persuasively with evidence from the readings. In order to achieve this aim, students should use scientific writings by three or four researchers and give the reason "for" and "against" through brief quotations from the assigned readings. All quotations must be properly and thoroughly documented. The assignments are intended, through the experience of writing and rewriting, to improve students' skills as a critical reader, writer, and researcher.

The essay should be given to the lecturer either in the printed form or an electronic file using the personal education system Moodle on the site of S. Kuznets KhNUE [20]. The following technical requirements are to be met: page size A4; font – Times New Roman; font size 14; interline spacing 1.5; indention 1.25 cm; right, upper, lower borders 20 mm, left border 25 mm. The essay must be written in English.

1.5. Presentations.

1.5.1. The main political economy thinkers.
1.5.2. The purposes of political economy.
1.5.3. Classification of economic laws.

Guidelines for tasks 1.5.1 – 1.5.3

In order to do tasks 1.5.1 – 1.5.3, students need to choose one of the topics from the three above and then prepare a presentation on about eight slides in the programme environment Microsoft Power Point (.ptt, .pttx). Presentations must contain text and statistics represented in the form of graphs, figures, images, pictures, etc.

Theme 2. The socio-economic structure of society. The economic system and laws of its development

Questions for self-study

2.1. Free market economic systems: merits and disadvantages. The basic force that drives a free market economy.

2.2. Mixed economy: merits and demerits.

2.3. The nature, characteristics and classification of human wants. The laws of human wants.

2.4. Maslow's need hierarchy theory: applications and criticisms.

2.5. Private property rights and their importance in the market economy.

Recommended literature: [4, p. 10–13; 7, p. 30–32, 35–37, 88–92; 8, p. 73–76, 253–257, 271–273, 287–291].

Key terms: wants, needs, Maslow's hierarchy of needs, consumer goods, capital goods, scarcity, opportunity cost, economic systems, market economy, "driving force" of a market economy, property rights, private ownership, private property, dividend.

2.1. Practice tests.

2.1.1. If the basic problems are solved by traditions and custom rules, then we mean:

a) traditional economy;

b) capitalist economy;

c) command economy (or socialist economy);

d) mixed economy.

2.1.2. In a command economy, all decisions regarding production and distribution are taken by:

a) market forces;

b) central planning authority;

c) customs and traditions;

d) private sector.

2.1.3. The salient feature(s) of capitalism is(are):

a) the private ownership of resources, including capital;

b) the freedom of individuals to engage in economic activities of their choice to advance their material well-being;

c) self-interest;

d) all the above mentioned.

2.1.4. Inequalities in income and wealth are the main features of:

a) traditional economy;

b) capitalist economy;

c) command economy;

d) mixed economy.

2.1.5. The production possibilities curve does not assume:

a) full employment;

b) fixed resources;

c) fixed technology;

d) three goods.

2.1.6. The production possibilities curve (PPC) is bowed out from the origin because:

a) the marginal benefit of one good declines as more goods are consumed;

b) the curve gets steeper as we move from one to another point;

c) it reflects the law of increasing opportunity costs;

d) resources are scarce.

2.1.7. All points on the production possibilities curve necessarily represent:

a) society's optimal choice;

b) less than full use of resources;

c) unattainable levels of output;

d) the right answer is not given.

2.1.8. Sweden belongs to the following type of economic systems:

a) traditional economy;

b) capitalist economy;

c) command economy;

d) mixed economy.

Recommended literature: [7, p. 24–29; 8, p. 15–18, 29–37, 309–310].

2.2. Key questions for self-assessment.

2.2.1. Distinguish between the needs and wants.

2.2.2. Distinguish between the needs and economic interests. What types of economic interests do you know?

2.2.3. What types of economic systems do you know?

2.2.4. Define the key features of the free market economy.

2.2.5. Define the key features of the mixed economy. Give at least three examples of mixed economy in the modern world.

2.2.6. What are the main factors of production? What is the most important among them in the free market economy?

2.2.7. Distinguish between the state and common property. Give at least two examples of state property in the Ukrainian economy.

2.2.8. What do you know about the private property rights? What private property rights do you have?

2.3. Graph exercises.

2.3.1. Plot a production possibilities curve (PPC) of the country A given by the following data:

Goods	Production alternatives							
	A	B	C	D	E	F	G	H
TV sets	0	1	2	3	4	5	6	7
Mobile phones	45	44	40	34	27	19	10	0

2.3.2. Plot production possibilities curves (PPCs) and explain what can affect shifting of the curve using the graphs.

Combinations	Refrigerators	TV sets	Combinations	Refrigerators	TV sets
A1	0	10	A2	0	20
B1	1	9	B2	2	18
C1	2	7	C2	4	14
D1	3	4	D2	6	8
E1	4	0	E2	8	0

Recommended literature: [4, p. 17, 24–26; 8, p. 11, 15].

2.4. Tasks.

2.4.1. Calculate the opportunity cost of the bicycles in each production combination using the data below.

Type of product	Production alternatives		
	A	B	C
Coats	24	18	16
Bicycles	4	6	8

Guidelines for task 2.4.1

1. Calculate the opportunity cost of the bicycles when moving from A to B:

$$\text{The opportunity cost of the skirt (ААБ)} = \frac{24-18}{6-4} = 3. \qquad (2.1)$$

Thus, the opportunity cost of the production of one item of bicycles when moving from A to B is three coats.

2. Calculate the opportunity cost of the bicycles when moving from B to C:

$$\text{The opportunity cost of the bicycles (BC)} = \frac{18-16}{8-6} = 1.$$

2.4.2. Calculate the price of shares if the dividend per share is 26 % and the interest rate is 15 %.

Guidelines for task 2.4.2

Calculate the price of shares using the following formula:

$$\text{The price of shares} = \frac{\text{Dividend}}{\text{Interest rate}} \cdot 100\,\% \qquad (2.2)$$

Entering the data in the formula (2.2), we obtain:

$$\text{The price of shares} = \frac{26\,\%}{15\,\%} \cdot 100\,\% = 173.33\,\%$$

Tasks for self-study

2.4.3. Below is a production possibilities table for consumer goods (chairs) and capital goods (excavators).

Type of product	Production alternatives				
	A	B	C	D	E
Excavators	0	2	4	6	8
Chairs	30	27	21	12	0

Do the following:

a) show these data graphically;

b) plot a PPC assuming that improvement occurs in the technology of producing the chairs but not in the technology of producing the excavators;

c) plot a PPC assuming that a technological advance occurs in producing the excavators but not in producing the chairs;

d) plot a PPC that demonstrates technological improvement in the production of both goods.

2.4.4. The following numbers measure the cost of production of blankets and kettles:

Goods (in thousands)	Production alternatives			
	A	B	C	D
Blankets	14	12	9	5
Kettles	1	2	3	4

Calculate: a) the opportunity cost of kettles when moving from A to B; b) the opportunity cost of blankets when moving from C to D.

2.4.5. Calculate the opportunity cost of pizzas in each production alternative using the following data.

Type of product (in hundred thousands)	Production alternatives				
	A	B	C	D	E
Pizzas	4	3	2	1	0
Gowns	0	2	4	6	8

2.4.6. Calculate the share price if the dividend per share equals 28 % and the interest rate is 17 %.

2.4.7. Calculate the share price and its market value if the nominal share value is 220 euros, the dividend per share is 22 %, the interest rate is 14 %.

Recommended literature: [3, p. 15; 8, p. 12–13, 15–18].

2.5. Web-based exercises.

2.5.1. Visit the web-site of the Centre of Free Online Learning, Work & Life [19] which covers two free hierarchy of needs self-tests, based on the original Maslow's five-stage model and the later adapted eight-stage model, ideal for training, presentations and project work. The students should self-test and conclude in writing.

2.5.2. Look through some magazines on the Internet and fulfill the table below.

Things I need	Things I want

2.6. Presentations.

2.6.1. The merits and disadvantages of the command economy: the experience of the Soviet Union.

2.6.2. The essence and key features of the Swiss model of mixed economy.

2.6.3. The variation of the 2018 Index of Economic Freedom within European countries.

Theme 3. The commodity form of organization of social production. Goods and money

Questions for self-study

3.1. The nature and origin of value. The labor theory of value. Profit rates and "surplus value".

3.2. The concept of utility: the Marshallian approach. Total and marginal utility. The law of diminishing marginal utility.

3.3. The history of theories of the origin of money.

3.4. The causes, effects, costs, and remedies for inflation.

Recommended literature: [4, p. 237–240, 296–301; 7, p. 37–40; 8, p. 107–111, 359–363; 10, p. 31–32].

Key terms: surplus value, variable capital, net product, utility, competition, money, fiat money, commodity money, quantity equation, inflation, deflation, hyperinflation, consumer price index (CPI).

3.1. Practice tests.

3.1.1. The author of the labor theory of value is:

a) A. Smith;

b) K. Marx;

c) H. Gossen;

d) I. Fisher.

3.1.2. According to the labor theory of value, goods have not the following property:

a) consumer value;

b) marginal value;

c) value;

d) exchange value.

3.1.3. According to the labor theory of goods, the value of goods is calculated as:

a) c + m;

b) c + v;

c) v + s;

d) c + v + s.

3.1.4. The rate of the surplus value (or the "rate of exploitation") is calculated as:

a) s + v;

b) s – v;

c) s · v;

d) s / v.

3.1.5. Utility as a measure of personal satisfaction was proposed by the representatives of:

a) English classical economics;

b) Marxian economics;

c) marginalist economics;

d) Keynesian economics.

3.1.6. Marginal utility is calculated as:

a) TU / Q;

b) TU · Q;

c) ΔTU / ΔQ;

d) ΔTU · ΔQ.

3.1.7. Fisher's equation is described as:

a) V · P = M · Q;

b) M · P = V · Q;

c) M · V = P · Q;

d) the right answer is not given.

3.1.8. Inflation is a:

a) sustainable rise in the level of prices;

b) sustainable decrease in the level of prices;

c) sustainable rise in the average level of prices;

d) sustainable decrease in the average level of prices.

3.1.9. An increase in total spending that is not offset by increases in the supply of goods and services and so causes the average level of prices to rise is called:

a) hyperinflation;

b) cost-push inflation;

c) demand-pull inflation;

d) "creeping" inflation.

3.1.10. A very high rate of inflation that often results in the introduction of a new currency is called:

a) hyperinflation;

b) cost-push inflation;

c) demand-pull inflation;

d) "creeping" inflation.

Recommended literature: [8, 134–137, 141–142, 360–362].

3.2. Key questions for self-assessment.

3.2.1. Distinguish between the use value and the exchange value.

3.2.2. What is the significance of the marginalist theory of marginal utility for consumers and producers?

3.2.3. What is money? What functions of money do you know?

3.2.4. Explain Marx's law of money circulation.

3.2.5. Explain Fisher's law of money circulation.

3.2.6. What currencies play the role of world money nowadays?

3.2.7. What does demand-pull inflation cause?

3.2.8. Distinguish between the creeping and galloping inflation. What are the features of creeping inflation in Ukraine?

3.3. Graph exercises.

3.3.1. Plot a curve of the total utility of bananas using the data below.

Bananas consumed, units	Total utility, utils
1	40
2	80
3	105
4	125
5	135

3.3.2. Plot a curve of the marginal utility of chocolate using the data below.

Chocolate consumed, units	Marginal utility, utils
1	25
2	18
3	15
4	13
5	7

Recommended literature: [8, p. 360–361; 12, p. 149–150, 197].

3.4. Tasks.

3.4.1. Calculate the rate of the surplus value (or the "rate of exploitation") if the surplus value is 75 000 euros and the variable capital is 150 000 euros.

Guidelines for task 3.4.1

In order to calculate the rate of the surplus value, the following formula is used:

$$r_s = \frac{s}{v} \cdot 100, \qquad (3.1)$$

where r_s is the rate of the surplus value;

s is the surplus value;

v is the variable capital.

Entering the input data in the formula (3.1), we obtain:

$$r_s = \frac{75\,000\,\text{UAH}}{150\,000\,\text{UAH}} \cdot 100 = 50.$$

3.4.2. The surplus value of goods is 100 000 UAH, the constant capital is 150 000 UAH, the variable capital is 200 000 UAH. Calculate the net product and the value of goods.

Guidelines for task 3.4.2

1. Calculate the size of the net product using the following formula:

$$NP = v + s, \qquad (3.2)$$

where NP is the net product.

Entering the input data in the formula (3.2), we obtain:
NP = 200 000 UAH + 150 000 UAH = 350 000 UAH.

2. Calculate the value of goods using the formula:

$$w = c + v + s, \tag{3.3}$$

where w is the value of goods.

Entering the data in the formula (3.3), we obtain:
w = 150 000 UAH + 200 000 UAH + 100 000 UAH = 450 000 UAH.

3.4.3. Calculate the marginal utility of mutton at each level of consumption using the table given below.

Mutton consumed, kg	Total utility, utils
1	12
2	20
3	28
4	32
5	34

Guidelines for task 3.4.3

To calculate the marginal utility of mutton, use the formula:

$$MU = \frac{\Delta TC}{\Delta Q}, \tag{3.4}$$

where MU is marginal utility;
ΔTU is the increase of marginal utility;
ΔQ is the increase of the quantity of goods.

Entering the input data in the formula (3.4), we obtain:
TU_2 = 20 utils – 12 utils = 8 utils.
TU_3 = 28 utils – 20 utils = 8 utils.
TU_4 = 32 utils – 28 utils = 4 utils.
TU_5 = 34 utils – 32 utils = 2 utils.

3.4.4. The average price level increased by 4.5 %, the real input decreased by 8 %, the velocity of money slowed down by 7 %. Calculate how the quantity of money will change.

Guidelines for task 3.4.4

Calculate how the quantity of money will change using Fisher's equation:

$$M \cdot V = P \cdot Q, \quad (3.5)$$

hence $M = \frac{P \cdot Q}{V}$,

where M is the quantity of money;

V is the velocity of money;

P is the average price level;

Q is the real input.

As the input data is given in relative units (percent), then Fisher's equation can be written as:

$$I_M = \frac{I_P \cdot I_Q}{I_V}.$$

Entering the input data in the formula below (3.5), we obtain:

$$I_M = \frac{1.045 \cdot 0.92}{0.93} = 1.033.$$

3.4.5. The total sum of goods in circulation is 500 bln euros, the credit agreement is 55 bln euros, the loan payments make 25 bln euros, the compensating payments amount to 75 bln euros. Each monetary unit turns 5 cycles during the year. The sum of the actual money in circulation is 79 000 bln euros. What consequences might follow if the government decides to emit new paper money to exchange the old money at the rate of 1 : 500?

Guidelines for task 3.4.5

1. Calculate money needed in circulation. Use Marx's equation:

$$M_n = \frac{SP - CA + LP - CP}{V}, \quad (3.7)$$

where M_n is the money needed in circulation;

SP is the total sum of prices of goods in circulation;

CA is credit agreements;

LP is loan payments;

CP is the sum of mutually compensating payments;

V is the velocity of money.

Entering the input data in the formula above (3.7), we obtain:

$$M_n = \frac{500 \text{ bln euros} - 55 \text{ bln euros} + 25 \text{ bln euros} - 75 \text{ bln euros}}{5} = 79 \text{ bln euros}.$$

2. According to the conditions of this task, actual money in circulation is 79 000 bln euros that is more than money needed in circulation. For that reason, the government implement money reform, emit new paper money to exchange the old money at the rate of 1 : 1000:

$$M_a = \frac{79\,000 \text{ bln euros}}{1\,000} = 79 \text{ bln euros}.$$

As the actual money in circulation (M_a = 79 bln euros) equals the money needed in circulation (M_n = 79 bln euros), then inflation will be stopped.

Tasks for self-study

3.4.6. Calculate the rate of the surplus value (or the "rate of exploitation") if the surplus value is 100 000 euros and the variable capital is 250 000 euros.

3.4.7. The variable capital is 150 000 dollars, the rate of the surplus value is 200 %. Calculate the surplus value.

3.4.8. The constant capital is 450 000 euros, the variable capital is 650 000 euros, the rate of the surplus value is 300 %. Calculate the value of goods.

3.4.9. Calculate the marginal utility of biscuits using the following data.

Biscuits, units	Total utility, utils
1	55
2	75
3	89
4	95
5	100

3.4.10. Fill the gaps in the table given below.

Quantity consumed, kg	Fruit		Fish		Beef	
	TU_A	MU_A	TU_B	MU_B	TU_C	MU_C
1	60			90	128	
2		48	170			104
3		33		50		80
4		15	245			56
5	165			20	408	

3.4.11. The quantity of money increased by 2.5 %, the real input increased by 2.5 %, but the velocity of money did not change. Calculate how the average level of prices will change.

3.4.12. The total sum of goods in circulation is 450 bln euros, the credit agreement is 75 bln euros, the loan payments make 45 bln euros, the compensating payments amount to 100 bln euros. Each monetary unit turns 5 cycles during the year. The sum of the actual money in circulation is 79 000 bln euros. What consequences might follow if the government decides to emit new paper money to exchange the old money at the rate of 1 : 100?

Recommended literature: [6, p. 149; 8, p. 134–137].

3.5. Presentations.

3.5.1. Modern types of money.
3.5.2. Inflation rate variation within post-socialist economies.
3.5.3. Problems and perspectives of inflation targeting in Ukraine.

Theme 4. Capital. Wage labor and wages. Production costs and profits

Questions for self-study

4.1. The "laws of motion": the accumulation and centralization of capital.
4.2. Nominal and real wages. Merits and disadvantage of hourly wages.
4.3. Normal profit as a cost. Calculation of normal profit.

Recommended literature: [4, p. 95–96; 7, p. 107–112, 142–145; 10, p. 8, 51–53].

Key terms: explicit costs, implicit costs, fixed costs, variable costs, sunk costs, marginal costs, revenue, profit, accounting profit, economic profit (or pure profit), normal profit, loss, wages, real wages, nominal wages.

4.1. Practice tests.

4.1.1. Explicit costs are:

a) the opportunity costs of an enterprise using its self-owned, self-employed resources;

b) the monetary payments to those who supply factors of production;

c) the total monetary value of the goods or services sold;

d) the right answer is not given.

4.1.2. The examples of variable costs are:

a) interest on capital, employees' wages, and insurance;

b) forgone interest, forgone rent, forgone wages, and forgone entrepreneurial income;

c) hourly labor, raw materials, fuel, and power;

d) all the above mentioned.

4.1.3. Average variable costs are calculated as:

a) TC + FC;

b) TC − FC;

c) (ATC − AFC) · Q;

d) all the above mentioned.

4.1.4. Accounting costs are:

a) variable costs + fixed costs;

b) variable costs + fixed costs + value of the next best alternative use of the money involved in a business;

c) total (explicit) costs;

d) both a) and c).

4.1.5. Economic costs are:

a) variable costs + fixed costs;

b) variable costs + fixed costs + value of the next best alternative use of the money involved in a business;

c) marginal costs;

d) variable costs + fixed costs + marginal costs.

4.1.6. Accounting profit is calculated as:

a) revenue + economic costs;

b) revenue − economic costs;

c) revenue + accounting costs;

d) revenue − accounting costs.

4.1.7. The owners of labor get the following type of incomes:

a) rent;

b) profit;

c) interest;

d) wages.

4.1.8. Real wages are calculated as:

a) $W_r = \frac{\text{Nominal wages}}{\text{Interest rate}} \cdot 100;$

b) $W_r = \frac{\text{Nominal wages}}{\text{Inflation rate}} \cdot 100;$

c) $W_r = \text{Nominal wages} - \text{interest rate};$

d) $W_r = \text{Nominal wages} + \text{interest rate}.$

Recommended literature: [8, p. 379–385].

4.2. Key questions for self-assessment.

4.2.1. What types of costs do you know?

4.2.2. Distinguish between the explicit and implicit costs. How are explicit costs calculated?

4.2.3. Why does normal profit belong to implicit costs?

4.2.4. Give at least four examples of fixed costs.

4.2.5. What do average costs show? Why should the entrepreneur calculate them?

4.2.6. What are marginal costs? Why should the entrepreneur calculate them?

4.2.7. Distinguish between the accounting and economic profit.

4.2.8. Distinguish between the nominal and real wages.

4.3. Graph exercises.

4.3.1. Plot the curves of variable costs (VC), total costs (TC) and marginal costs (MC) using the data below.

Units of output	Variable costs	Total costs	Marginal costs
1	380	2380	–
2	720	2720	340
3	1025	3025	305
4	1300	3300	275
5	1550	3550	250
6	1780	3780	230

4.3.2. Plot the curves of average fixed costs (AFC), average variable costs (AVC) and average total costs (ATC) using the data below.

Units of output	Average fixed costs	Average variable costs	Average total costs
1	2000	380	2380
2	1000	360	1360
3	667	342	1009
4	500	325	825
5	400	310	710
6	333	296	629

Recommended literature: [4, c. 95, 102–103; 8, p. 385, 388, 403; 12, p. 205].

4.4. Tasks.

4.4.1. Calculate fixed costs, average fixed costs, average variable costs, average total costs and marginal costs using the data below.

Q	TC	VC	FC
100	1050	800	250
150	1800	1200	
250	2100	1500	

Guidelines for task 4.4.1

Calculate total costs using the following formula:

$$TC = FC + VC, \quad (4.1)$$

where TC is total costs;
FC is fixed costs;
VC is variable costs.

Calculate average total costs using the following formula:

$$ATC = \frac{TC}{Q}, \quad (4.2)$$

where ATC is average total costs.
Q is quantity.

Calculate average variable costs using the following formula:

$$AVC = \frac{VC}{Q}, \quad (4.3)$$

where AVC is average variable costs.

Calculate average fixed costs using the following formula:

$$AFC = \frac{FC}{Q}, \tag{4.4}$$

where AFC is average fixed costs.

Calculate marginal costs using the formula below:

$$MC = \frac{\Delta TC}{\Delta Q}. \tag{4.5}$$

where MC is marginal costs.

Enter the obtained results in the table:

Q	TC	FC	VC	AFC	AVC	ATC	MC
100	1050	250	800	2.5	8	10.5	–
150	1450	250	1200	1.67	8	9.67	8
250	1750	250	1500	1	6.2	7	3

Tasks for self-study

4.4.2. Calculate the average variable costs of a T-shirt manufacturer if the fixed costs are 125 000 euros, the variable costs are 175 000 euros, the output is 7500 units.

4.4.3. Calculate the average fixed costs of a pharmaceutical manufacturer if the average variable costs are 45 UAH, the total costs make 420 000 UAH, the output is 700 units.

4.4.4. Calculate the variable costs if the average total costs are 125 000 dollars, the average fixed costs are 55 000 dollars, the output is 500 units.

4.4.5. Calculate the fixed costs, the average fixed costs, the average variable costs, the average total costs and the marginal costs using the data below:

Q	TC	VC	FC
100	1000	800	200
150	1500	1200	
250	2000	1500	

4.4.6. A firm's revenue is 245 000 euros, its fixed costs are 80 000 euros, variable costs are 100 000 euros. Calculate the accounting profit of the firm.

4.4.7. Calculate the real wages in the country if the nominal wages amount to 1500 euros, the consumer price index is 106 %.

Recommended literature: [3, p. 39; 8, p. 379–380, 385–388].

4.5. The creative task on the theme: "Total up the accounts on running a future business".

Guidelines for task 4.5

In order to solve this task, the students should choose the type of activity that they are planning to undertake in the future. For instance, it can be a bakehouse, a hair-dressing saloon, a grocery store, a chicken slaughterhouse, a travel agency, an estate agency, a printing house, etc. After that the students should total up their accounts, fill in the table (Table 3.1) and conclude.

Table 3.1

Total up the accounts on running a future business

Fixed costs	Variable costs
Total	Total

4.6. Presentations.

4.6.1. Forms of government intervention in labor markets.
4.6.2. Contradictions between capital and labor in the market economy.
4.6.3. Minimum-wage laws in Ukraine.

Theme 5. Market: the essence, the functions. Market models. Competition and pricing

Questions for self-study

5.1. The nature, characteristics and classification of markets. Perfectly competitive markets.
5.2. Market demand. Exceptions to the law of demand.
5.3. Market equilibrium. The gains from trade in equilibrium.
5.4. Measuring the elasticity of demand.

Recommended literature: [4, p. 36–50; 7, p. 58–74, 78–80, 114–115, 120–122; 10, p. 8].

Key terms: market, product markets, perfect competition, monopoly, monopolistic competition, oligopoly, demand, supply, demand curve, complementary goods, substitute goods, Veblen's goods, point elasticity.

5.1. Practice tests.

5.1.1. A change in demand can be described as:

a) a shift from one point to another on a fixed demand curve;

b) a shift of the demand curve;

c) both a) and b);

d) the right answer is not given.

5.1.2. The basic determinants of demand are:

a) consumers' tastes (preferences), the number of buyers in the market, the number of sellers in the market;

b) consumers' incomes, the prices of related goods, taxes and subsidies;

c) consumers' incomes, consumer expectations, taxes and subsidies;

d) resource prices, technology, taxes and subsidies.

5.1.3. The law of demand states:

a) there is a positive or inverse relationship between the price and quantity demanded of a commodity;

b) there is a negative or inverse relationship between the price and quantity demanded of a commodity;

c) both a) and b);

d) the right answer is not given.

5.1.4. An increase in the number of buyers in a market is likely to:

a) increase product demand;

b) decrease product demand;

c) increase product quantity demand;

d) decrease product quantity demand.

5.1.5. Boots and shoelaces are:

a) Veblen's goods;

b) Giffen's goods;

c) complementary goods;

d) substitute goods.

5.1.6. Tea and coffee are:

a) Veblen's goods;

b) Giffen's goods;

c) complementary goods;

d) substitute goods.

5.1.7. A luxury car is an example of:

a) inferior goods;

b) superior goods;

c) Veblen's goods;

d) Giffen's goods.

5.1.8. Which of the following statements is true:

a) a decrease in property taxes will drive up supply;

b) an increase property taxes will reduce supply;

c) a decrease in sales will reduce supply;

d) an increase in sales will reduce supply.

5.1.9. If the quantity supplied exceeds the quantity demanded, then it results in a(n):

a) excess demand;

b) excess supply;

c) lacking demand;

d) lacking supply.

5.1.10. The example of pure monopoly in Ukraine is:

a) PJSC "Turboatom";

b) SE "Malyshev plant";

c) SE "Ukrzaliznytsia";

d) company "Lifecell".

Recommended literature: [8, p. 44–61, 342–348, 400–402].

5.2. Key questions for self-assessment.

5.1.1. Distinguish between the local market and the national market.

5.1.2. Distinguish between the market of goods and the market of services. Give at least four examples of the market of services.

5.2.3. Enumerate the factors that define demand.

5.2.4. Distinguish between monopoly and monopolistic competition in the market economy.

5.2.5. List the examples of these types of imperfect competition.

5.2.6. Explain the law of demand. Why does the demand curve slope downwards?

5.2.7. What is supply? What are the determinants of supply?

5.2.8. Distinguish between a change in supply and a change in the quantity supplied.

5.2.9. Distinguish between perfect competition and imperfect competition. What are the merits of perfect competition?

5.2.10. What are the features (the key characteristics) of imperfect competition? What types of imperfect competition do you know?

5.3. Graph exercises.

5.3.1. A market demand schedule for cucumbers is given below.

Price, UAH	4	7	11	14	17
Quantity demanded, kg	4000	3500	2500	2000	1500

Plot a demand curve of cucumbers.

5.3.2. Using the table given below: a) plot a demand curve of strawberry; b) plot a supply curve of strawberry; c) determine graphically the equilibrium price and the equilibrium quantity of strawberry.

Price, euro	2	2.5	3	3.5	4	4.5
Quantity demanded, kg	800	750	700	650	600	550
Quantity supplied, kg	500	600	700	800	900	1000

5.3.3. Plot a revenue curve of the firm using the data below.

Price, zlt	4	7	11	14	17
Revenue, zlt	72 000	147 000	275 000	532 000	714 000

Recommended literature: [3, p. 27–28, 37, 39; 4, p. 37, 39, 41, 44, 49–51, 81; 8, p. 45–49, 51–53; 12, p. 96].

5.4. Tasks.

5.4.1. The demand for apples is represented by the equation $Q_d = 48 + 12P$ and supply by the equation $Q_s = 62 + 5P$. Determine the equilibrium price and the equilibrium quantity.

Guidelines for task 5.4.1

Calculate the equilibrium price:

$48 + 12P = 62 + 5P$;

$12P - 5P = 62 - 48$;

$7P = 14$;

$P = 2$ euros.

Now calculate the equilibrium quantity by entering the equilibrium price ($P = 2$ euros) in each equation:

$Q_d = 48 + 12P = 48 + 12 \cdot 2 = 72$ kg.

$Q_s = 62 + 5P = 62 + 5 \cdot 2 = 72$ kg.

5.4.2. Calculate the value of the price elasticity of demand if the price of rice rises from 40 to 45 UAH and the demand for rice falls from 5000 to 4200 kg.

Guidelines for task 5.4.2

To calculate the value of the price elasticity of demand, the following formula is used:

$$E_d = \frac{\Delta Q}{\Delta P} = \frac{Q_2 - Q_1}{Q_1} \div \frac{P_2 - P_1}{P}, \qquad (5.1)$$

where E_d is the value of the price elasticity of demand;

Q_1 is the original quantity;

Q_2 is the new quantity;

P_1 is the original price;

P_2 is the new price.

Entering the input data in the formula (5.1), we obtain:

$$E_d = \frac{4200\text{ kg} - 5000\text{ kg}}{5000\text{ kg}} \div \frac{45\text{ UAH} - 40\text{ UAH}}{40\text{ UAH}} = 1.28.$$

Tasks for self-study

5.4.3. Assume that the demand for salt is represented by the equation $Q_d = 100 - 4P$ and the supply by the equation $Q_s = 60 + 4P$. Determine the equilibrium price and the equilibrium quantity.

5.4.4. Assume that the demand for tomatoes is represented by the equation $Q_d = 120 - 4P$ and the supply by the equation $Q_s = 30 + 6P$. Determine the equilibrium price and the equilibrium quantity.

5.4.5. Suppose that the demand for apples is represented by the equation $Q_d = 83 - 3P$ and the supply by the equation $Q_s = -47 + 10P$. Determine: a) the equilibrium price and the equilibrium quantity; b) surplus or shortage if the price is fixed at 12 UAH; c) surplus or shortage if the price is fixed at 8 UAH.

5.4.6. The demand for tangerines is represented by the equation $Q_d = 30 - P$ and the supply by the equation $Q_s = 15 + 2P$. Determine: a) the equilibrium price and the equilibrium quantity; b) surplus or shortage if the price is fixed at 6.5 euros; c) surplus or shortage if the price is fixed at 4.5 euros.

5.4.7. Calculate the price elasticity of demand if the price of sport magazines rises by 5 % and the demand for sport magazines falls by 7.5 %.

5.4.8. Calculate the value of the price elasticity of demand if the price of buckwheat rises from 1.5 to 2 euros and the demand for buckwheat falls from 1000 to 875 units.

5.4.9. Using the table given below: a) calculate the value of the price elasticity of demand at each price; b) determine at which price the demand is relatively elastic and at which price it is relatively inelastic; c) determine at what price the demand is unitary elastic.

Price, dollars	2.10	1.80	1.50	1.20	0.90	0.60	0.30
Quantity demanded, units	10	20	30	40	50	60	70

Recommended literature: [8, p. 44–61, 342–348; 12, p. 87–89, 96;].

5.5. Web-based exercises.

5.5.1. Analyse the prices of farm products over the past three years.

Guidelines for task 5.5.1

Visit the web-site of the Department of Agriculture of Ukraine [16]. Study the published charts of the prices of farm products and choose three farm products, determine whether their prices have generally increased,

decreased, or stayed the same over the past three years. In which of these cases do you think the supply has increased more rapidly than the demand? In which of these cases do you think the demand has increased more rapidly than the supply?

5.5.2. Analyse the demand for baby diapers in different countries.

Guidelines for task 5.5.2

Visit the web-site of the U.S. Census Bureau [17] and find the population pyramids (graphs that show the distribution of population based on the age and sex) provided for countries in 2000, 2025, and 2050. View the population pyramids for Norway, China and the United States. Which country do you think will have the greatest percentage increase in demand for baby diapers between 2000 and 2050? For retirement villages?

5.5.3. Analyse the pricing of good X according to the category of elasticity.

Guidelines for task 5.5.3

In order to solve this task, the students should choose one good. It can be a good of some famous brands such as perfumes of the TM "Chanel" as well as world prices of gold, oil, gas, etc. After that the students should gather the information referring to the change in the quantity demand for the good and fill in the table (Table 5.1).

Table 5.1

The relationship between the price and the quantity demand for good X

Index	Period 1	Period 2	Period 3	Period 4	Period 5
Price, dollars					
Quantity demanded					

After the students have calculated the value of the price elasticity of demand over the five periods (days, months, years), they have to define the category of elasticity and recommend how to set the price for the given good according to the theory of elasticity.

5.6. Presentations.

5.6.1. The merits and disadvantages of oligopoly: the experience of the U.S.

5.6.2. The methods of controlling the monopoly in Ukraine.

Content module 2. The socio-economic progress and the world economy

Theme 6. The household in the system of economic relations. The enterprise as a commodity producer. Gross income and profit

Questions for self-study

6.1. The role of entrepreneurship in the free market economy. Modern forms of entrepreneurship in Ukraine.

6.2. The structure of fixed and circulating capital.

6.3. Measurement of the firm's profit.

Recommended literature: [7, p. 93, 114–115; 8, p. 145–146; 10, p. 10–12].

Key terms: enterprise, entrepreneurship, entrepreneur, sole proprietorship, partnership, corporation, circulating capital, commodity capital, money capital, physical capital, depreciation.

6.1. Practice tests.

6.1.1. An enterprise is:

a) a physical establishment that contributes to the production of goods and services;

b) a business organization that owns and operates plants;

c) a legally recognized organization which provides goods or services to consumers;

d) both b) and c).

6.1.2. What legal forms of businesses are there:

a) a sole proprietorship;

b) a partnership;

c) a corporation;

d) all the above mentioned.

6.1.3. The partnership is a business:

a) owned and operated by one person;

b) owned and operated by two or more individuals;

c) owned and operated by hiring managers;

d) the right answer is not given.

6.1.4. The examples of corporations in the Ukrainian economy are:

a) LTD "Avtramat", PJSC "Turboatom", SE "Malyshev plant";

b) SE "Malyshev plant", LLC "Kharkiv Tractor Plant", PJSC "Kharkiv Machine Building Plant "Svet Shakhtyora";

c) PJSC "Turboatom", SE "Malyshev plant", LLC "Kharkiv Tractor Plant";

d) LTD "Avtramat", PJSC "Turboatom", PJSC "Kharkiv Machine Building Plant "Svet Shakhtyora".

6.1.5. Which of the following characteristics of capital is false:

a) capital is perishable;

b) supply of capital is elastic;

c) capital is a passive factor of production;

d) capital is not an indispensable factor of production.

6.1.6. What functional forms of capital are there:

a) monetary;

b) productive;

c) commodity;

d) all the above mentioned.

6.1.7. The general formula of the movement of capital is described as:

a) $M - C - M$;

b) $M - C - M'$;

c) $M = M + \Delta M$;

d) both b) and c).

6.1.8. Circulating capital includes:

a) equipment, raw materials, labor force;

b) buildings, equipment, raw materials;

c) labor force, power, raw materials;

d) equipment, power, raw materials.

6.1.9. Fixed capital includes:

a) buildings, equipment, raw materials;

b) buildings, equipment, labor force;

c) equipment, lathes, raw materials;

d) buildings, equipment, lathes.

6.1.10. What form of capital refers to the quality of labour resources, which can be improved through investments in education, training, and health:

a) physical capital;

b) circulating capital;

c) fixed capital;

d) human capital.

Recommended literature: [8, p. 68; 10, p. 10–12].

6.2. Key questions for self-assessment.

6.2.1. What is the enterprise? What is the main goal of the enterprise?

6.2.2. List the main types of enterprises.

6.2.3. Distinguish between the sole proprietor and the partnership.

6.2.4. Distinguish between the partnership and the corporation.

6.2.5. List the main conditions of the existence of entrepreneurship.

6.2.6. What are the key characteristics of entrepreneurship?

6.2.7. Who is the entrepreneur? What kind of skills must the entrepreneur have?

6.2.8. Are you planning to be an entrepreneur? What entrepreneural skills do you have?

6.2.9. What are the features of entrepreneurship in Ukraine?

6.2.10. How can effective managing influence the profitability?

6.3. Tasks.

6.3.1. An entrepreneur has invested 150 000 euros in buildings, 45 000 euros in machinery, 70 000 euros in tools, 7500 euros in power, 23 000 euros in raw materials, 130 000 euros in piece wages, 49 000 euros in time wages. Calculate the value of fixed and circulating capital.

Guidelines for task 6.3.1

1. Calculate the value of fixed capital using the following formula:

Value of fixed capital = Value of buildings + Value of machinery +
+ Value of tools. (6.1)

Value of fixed capital = 150 000 euros + 45 000 euros + 70 000 euros = = 265 000 euros.

2. Calculate the value of circulating capital using the following formula:

Value of circulating capital = Value of power + Value of raw materials +
+ Piece wages + Time wages. (6.2)

Value of circulating capital = 7500 euros + 23 000 euros + 130 000 euros + + 49 000 euros = 209 500 euros.

6.3.2. Calculate the value of depreciation if the value of machinery is 250 000 UAH and the term of use is 10 years.

Guidelines for task 6.3.2

Calculate the value of depreciation using the following formula:

$$\text{Value of depreciation} = \frac{\text{Value of machinery}}{\text{Term of use}}. \quad (6.3)$$

$$\text{Value of depreciation} = \frac{250\,000\ \text{UAH}}{10\ \text{years}} = 25\,000\ \text{UAH}.$$

Tasks for self-study

6.3.3. An entrepreneur has invested 150 000 euros in buildings, 45 000 euros in metalworking machinery, 70 000 euros in tools, 7500 euros in power, 23 000 euros in raw materials, 130 000 euros in piece wages, 49 000 euros in hourly wages. Calculate the value of fixed and circulating capital.

6.3.4. Calculate the value of depreciation if the value of machinery is 440 000 UAH and the term of use is 20 years.

6.3.5. Simon White runs the enterprise that specialises in producing and exporting frozen-food products throughout Europe. He hires five helpers at $12 000 per year, pays annual rent of $12 000 for the building, and spends $55 000 per year on raw materials. He has $55 000 of his own funds invested

in electronic equipment that could earn him $4500 per year if alternatively invested. He has been offered $15 000 per year to work as a Managing Director for a competitor. He estimates his entrepreneurial talents at $4000 per year. The total annual revenue from frozen-food products sales is $250 000. Calculate the accounting profit and the economic profit for White's firm.

6.3.6. Calculate the term of use of the enterprise's tools if the value of tools is 360 000 UAH and the value of depreciation is 30 000 UAH per year.

6.3.7. Assume that the accounting profit of the enterprise is 210 000 euros and the implicit costs are 178 000 euros. Calculate the economic profit of the enterprise.

6.3.8. Calculate the economic profit of a sport goods manufacturer if the total revenue is 750 000 euros, the explicit costs are 240 000 euros, the normal profit is 100 000 euros.

Recommended literature: [8, p. 385–388; 12, p. 96].

6.4. Web-based exercises.

6.4.1. Visit the web-site of the magazine "Forbes" [18] and find information about the history, activities and profitability of five of the world's ten largest corporations, based on the dollar revenue in 2018.

6.4.2. Visit the web-site of the Antimonopoly Committe of Ukraine [15] and find information about the history, activities and profitability of five largest state enterprises in the Ukrainian economy, based on the UAH revenue in 2018.

6.5. Essays.

6.5.1. Economic versus accounting measures of profit.

6.5.2. The reasons to expand an enterprise.

6.5.3. The ways of maximizing profit in the free market economy.

6.6. Presentations.

6.6.1. Forms of business organizations in Ukraine.

6.6.2. Problems and perspectives of entrepreneurship in Ukraine.

6.6.3. The World's Ten largest corporations.

Theme 7. Industry features and functioning of capital. Forms of profit, interest and rent

Questions for self-study

7.1. The role of banks in the monetary system.

7.2. International banking.

7.3. Economics of agriculture: government price support.

7.3. Land rent: a surplus payment.

Recommended literature: [5, 605–610; 9, p. 221, 243].

Key terms: trading capital, farm commodities, rent, differential rent I, differential rent II, parity concept, bank, "bankers" banks, commercial banks, bank capital, net banking profit, interest, financial intermediaries, thrifts.

7.1. Practice tests.

7.1.1. The function(s) of the National bank of Ukraine is(are):

a) issuing currency;

b) setting reserve requirements and holding reserves;

c) lending money to banks and thrifts;

d) all the above mentioned.

7.1.2. Financial institutions that pool deposits of customers to purchase stocks or bonds are called:

a) central banks;

b) commercial banks;

c) thrifts institutions;

d) mutual fund companies.

7.1.3. Organizations that historically offered only savings accounts, rather than checking accounts are called:

a) commercial banks;

b) pension funds;

c) insurance companies;

d) thrifts.

7.1.4. The banking profit rate is calculated as:

a) $R_{bp} = \frac{\text{Net banking profit}}{\text{Banking capital}} \cdot 100$;

b) $R_{bp} = \frac{\text{Net banking profit}}{\text{Involved banking capital}} \cdot 100$;

c) $R_{bp} = \frac{\text{Net banking profit}}{\text{Owned banking capital}}$;

d) $R_{bp} = \frac{\text{Net banking capital}}{\text{Owned banking capital} + \text{Deposits}}$.

7.1.5. The income which the owners of land get in the free market economy is:

a) dividends;

b) profit;

c) rent;

d) wage.

7.1.6. In agriculture, price support means setting:

a) equilibrium prices for selected farm commodities;

b) maximum prices for selected farm commodities;

c) minimum prices for selected farm commodities;

d) price ceiling for selected farm commodities.

7.1.7. Demand for agricultural products is:

a) elastic;

b) relatively elastic;

c) inelastic;

d) unitary elastic.

7.1.8. Which of the following statements about the peculiarities of land is false:

a) land is a free gift of nature;

b) land is immobile;

c) land is imperishable;

d) land does not differ in fertility and location.

Recommended literature: [4, p. 302–307; 8, p. 605–610].

7.2. Key questions for self-assessment.

7.2.1. Define the features of trading capital.

7.2.2. What is the bank?

7.2.3. What types of banks do you know? What functions does each type of bank have?

7.2.4. Define the features of agrarian relations.

7.2.5. What is the land market? Define the features of the land market.

7.2.6. What factors affect the supply of land? What factors affect the demand for land?

7.2.7. What types of rent do you know?

7.2.8. Distinguish between differential rent I and differential rent II.

7.2.9. What is a farm business?

7.2.10. Define the role of state in the regulation of agrarian relations in Ukraine.

7.3. Tasks.

7.3.1. Calculate the net banking profit if the owned banking capital is 145 mln euros and the banking profit rate is 15 %.

Guidelines for task 7.3.1

Calculate the net banking profit using the following formula:

$$R_{bp} = \frac{\text{Net banking profit}}{\text{Banking capital}} \cdot 100. \qquad (7.1)$$

Hence

$$\text{Net banking profit} = \frac{R_{bp} \cdot \text{Owned banking capital}}{100}. \qquad (7.2)$$

Entering the input data in the formula (7.2), we obtain:

$$\text{Net banking profit} = \frac{15 \cdot 145 \text{ mln euros}}{100} = 21.75 \text{ mln euros}.$$

7.3.2. Calculate the value of land if the size of the land rent is 55 000 pesos and the interest rate is 12 %.

Guidelines for task 7.3.2

Calculate the value of land using the following formula:

$$V_l = \frac{R}{i} \cdot 100, \qquad (7.3)$$

where V_l is the value of land;

R is the size of the land rent;

i is the interest rate.

Entering the input data in the formula (7.3), we obtain:

$$V_l = \frac{55\,000 \text{ pesos}}{12} \cdot 100 = 45\,833.33 \text{ pesos}.$$

7.3.3. Calculate the land rent if the lease payments make 75 000 lire, the depreciation payments per year amount to 12 000 lire and the loan payments are 27 000 lire.

Guidelines for task 7.3.3

Calculate the size of rent using the formula below:

$$LSP = R + D + LP, \quad (7.4)$$

where LSP is lease payments;

R is the size of the land rent;

D is depreciation;

LP is loan payments.

Hence R = LSP − D − LP.

R = 75 000 lire − 12 000 lire − 27 000 lire = 36 000 lire.

Tasks for self-study

7.3.4. Calculate the net banking profit rate if the net banking profit is 19.5 mln euros and the owned banking capital is 98.8 mln euros.

7.3.5. Calculate the net banking profit if the owned banking capital is 145 mln euros and the banking profit rate is 15 %.

7.3.6. Calculate the net banking profit if the net banking capital is 7.5 mln dollars, the total banking capital is 75 mln dollars including the involved capital which equals 37 mln dollars.

7.3.7. Calculate the value of the land if the land rent is 110 000 pesos and the interest rate is 18 %.

7.3.8. Calculate the size of the land rent if the value of land is 355 000 UAH and the interest rate is 12 %.

7.3.9. Calculate the size of the land rent if the lease payments are 180 000 lire, the depreciation payments per year make 20 000 lire and the loan payments amount to 16 000 lire.

7.3.10. Calculate the size of the lease payments if the rent is 32 000 UAH, the depreciation payments per year make 17 000 UAH and the loan payments are 27 000 UAH.

Recommended literature: [8, p. 599–601, 605–610].

7.4. Web-based questions.

7.4.1. Visit the web-site of the magazine "Forbes" [18] and find information about the history, activities and profitability of five of the world's largest private sector financial institutions, based on the dollar revenue in 2018.

7.4.2. Visit the web-site of the magazine "Forbes" [18] and find information about the history, activities and profitability of the world's largest agricultural companies, based on the dollar revenue in 2018.

7.5. Essays.

7.5.1. Large versus small banks.

7.5.2. Seigniorage: the government's revenue from printing money.

7.6. Presentations.

7.6.1. Ricardian and Marxian theories of the land rent.

7.6.2. The role of financial intermediaries in the Ukrainian economy.

Theme 8. Social reproduction. A public product. The economic growth. Employment and unemployment

Questions for self-study

8.1. Measuring joblessness: the unemployment rate.

8.2. Policies to accelerate economic growth.

8.3. The facts about the business cycle.

Recommended literature: [4, p. 227–234, 357–364; 6, p. 395–400].

Key terms: business cycle, labor force, unemployment, full employment, natural rate of unemployment, frictional unemployment, structural unemployment,

cyclical unemployment, GDP gap, forgone output, Okun's law, economic growth, "long-term waves".

8.1. Practice tests.

8.1.1. Economic growth is measured by:

a) decrease in the inflation rate;

b) decrease in the unemployment rate;

c) increase in the nominal gross domestic product (GDP);

d) increase in the real gross domestic product per capita.

8.1.2. The peak is a phase of the business cycle:

a) when real output is increasing;

b) when real output is falling;

c) which marks the end of an expansion and the beginning of a contraction;

d) which marks the end of a contraction and the beginning of an expansion.

8.1.3. Frictional unemployment is:

a) a product of regular, recurring changes in the hiring needs of certain industries on a monthly or seasonal basis;

b) a product of the short-term movement of workers between jobs and of first-time job seekers;

c) a product of technological change and other changes in the structure of the economy;

d) a product of business-cycle fluctuations.

8.1.4. Cyclical unemployment is:

a) a product of regular, recurring changes in the hiring needs of certain industries on a monthly or seasonal basis;

b) a product of the short-term movement of workers between jobs and of first-time job seekers;

c) a product of technological change and other changes in the structure of the economy;

d) a product of business-cycle fluctuations.

8.1.5. Structural unemployment is mainly caused by:

a) movement of employees between jobs;

b) mismatch between the quantity of labor supplied and the quantity of labor demanded;

c) technology advance;

d) business-cycle fluctuations.

8.1.6. The unemployment rate is calculated as:

a) $\text{Unemployment rate} = \frac{\text{Number of unemployed}}{\text{Number of labor force}} \cdot 100$;

b) $\text{Unemployment rate} = \frac{\text{Number of unemployed}}{\text{All residents}} \cdot 100$;

c) $\text{Unemployment rate} = \frac{\text{Number of adults not looking for work}}{\text{Number of labor force}} \cdot 100$;

d) $\text{Unemployment rate} = \frac{\text{Number of unemployed}}{\text{Number of employed}}$.

8.1.7. The number of labor force is calculated as:

a) all residents – residents under 16 years of age + institutionalized adults + adults not looking for work;

b) all residents + residents under 16 years of age + institutionalized adults – adults not looking for work;

c) all residents + residents under 16 years of age – institutionalized adults – adults not looking for work;

d) all residents – residents under 16 years of age – institutionalized adults – adults not looking for work.

8.1.8. The actual rate of unemployment is calculated as:

a) frictional rate of unemployment + structural rate of unemployment;

b) frictional rate of unemployment + structural rate of unemployment + + cyclical rate of unemployment;

c) natural rate of unemployment + cyclical rate of unemployment;

d) both b) and c).

Recommended literature: [8, p. 120–127, 303–307].

8.2. Key questions for self-assessment.

8.2.1. What are the phases of the business cycle?

8.2.2. Define the features of recession.

8.2.3. Define the role of the technological advance in the business cycle.

8.2.4. What types of unemployment do you know?

8.2.5. What major factor causes the structural unemployment? Give at least two examples of structural unemployment.

8.2.6. How is the natural unemployment rate calculated?

8.2.7. What are the costs of cyclical unemployment? What does Okun's law indicate?

8.2.8. How can the government reduce unemployment?

8.2.9. How can economic growth be defined and measured?

8.2.10. Define the main sources of economic growth.

8.3. Tasks.

8.3.1. Calculate the number of labor force if the number of unemployed is 15 million people and the unemployment rate is 6.5 %.

Guidelines for task 8.3.1

To calculate unemployment rate, use the following formula:

$$R_u = \frac{U}{LF} \cdot 100, \qquad (8.1)$$

where R_u is unemployment rate;

U is the number of unemployed;

LF is the number of labor force.

Hence $LF = \frac{U \cdot 100}{R_u}$.

$$LF = \frac{15 \text{ million people} \cdot 100}{6.5} = 230.77 \text{ million people}.$$

8.3.2. Calculate the frictional rate of unemployment if the natural rate of unemployment is 4.5 % and the structural rate of unemployment is 3.5 %.

Guidelines for task 8.3.2

To solve this task, use the formula below:

$$NRU = FRU + SRU, \qquad (8.2)$$

where NRU is the natural rate of unemployment;

FRU is the frictional rate of unemployment;

SRU is the structural rate of unemployment.

Hence FRU = NRU – SRU.

Entering the input data in the formula (8.2), we obtain:

$$FRU = 4.5\ \% - 3.5\ \% = 1\ \%.$$

Tasks for self-study

8.3.3. Calculate the rate of unemployment, if the number of unemployed is 9.6 million people and the number of labor force is 78.11 million people.

8.3.4. According to Okun's law, calculate the GDP gap if the rate of unemployment is 10.2 % and the natural rate of unemployment is 6.8 %.

8.3.5. Calculate the cyclical rate of unemployment if the number of labor force is 45.7 million people, the number of employed is 39.7 million people, the natural rate of unemployment is 5.2 %.

8.3.6. Calculate the number of labor force if the number of unemployed is 48 million people and the unemployment rate is 6.2 %.

8.3.7. Calculate the frictional rate of unemployment if the natural rate of unemployment is 8.3 % and the structural rate of unemployment is 2.1 %.

8.3.8. Calculate the natural rate of unemployment in each country using the data below (Table 8.1):

Table 8.1

Comparison of labor markets in two countries

Indicators	Country A	Country B
All residents, mln people	75.2	84.9
Residents under 16 years of age, mln people	5.2	5.4
Institutionalized adults, mln people	2.1	2.4
Adults not looking for work, mln people	1.9	2.6
Unemployed, mln people	4.5	7.6
Cyclical rate of unemployment, %	2.8	3.8

Recommended literature: [3, p. 230–235; 8, p. 129–131].

8.4. Essays.

8.4.1. Comparing the main sources of economic growth in advanced economies and Ukraine.

8.4.2. Sustainable development as a main goal of economic policy.

8.5. Presentations.

8.5.1. Variation in the unemployment rate across demographic groups in Ukraine.

8.5.2. Unemployment rate variation within European Union economies.

8.5.3. The experience of growth in "new industrial countries".

Theme 9. The economic mechanism and economic functions of the state. Modern economic systems

Questions for self-study

9.1. Targets and tools of economic policy.

9.2. Limitations of market regulation.

9.3. Public goods and the risk of free rider consumers.

Recommended literature: [8, p. 71–75, 544–545, 549; 9, p. 723–750; 10, p. 142–147, 158–159; 12, p. 354–360].

Key terms: economic policy, economic regulation, government commitment, free trade policy, protectionism policy, public goods, private goods, free-rider problem, externalities, Coase theorem.

9.1. Practice tests.

9.1.1. Protectionism as a type of trade policy was proposed by:

a) mercantilist economists;

b) marginalist economists;

c) Keynesian economists;

d) monetarist economists.

9.1.2. Free trade policy was proposed by:

a) mercantilist economists;

b) English classical economists;

c) Marxian economists;

d) monetarist economists.

9.1.3. A circumstance in which private markets do not bring about the allocation of resources that best satisfies society's wants is called:

a) free-rider problem;

b) market failure;

c) Coase theorem;

d) externality right.

9.1.4. The key characteristic(s) of public goods is(are):

a) nonrivalry;

b) nonexcludability;

c) both a) and b);

d) the right answer is not given.

9.1.5. An example of public goods is(are):

a) electronic appliances;

b) dairy;

c) footwear;

d) national defense.

9.1.6. An example of private goods is(are):

a) peanuts;

b) diggers;

c) polyethylene resins;

d) all the above mentioned.

9.1.7. Pay-per-view movies on cable TV is the example of:

a) private goods;

b) public goods;

c) common resources;

d) artificially scarce goods.

9.1.8. Which of the following economic subjects finance the provision of public goods:

a) individuals;

b) households;

c) enterprises;

d) governments?

9.1.9. Public sector is:

a) households;

b) businesses;

c) the government;

d) the international sector.

9.1.10. The way(s) of government intervention is(are):

a) direct controls;

b) specific taxes;

c) subsidies and government provision;
d) all the above mentioned.

Recommended literature: [3, p. 147–150; 8, p. 544–545, 549].

9.2. Key questions for self-assessment.

9.2.1. What did K. Marx think about economic policy?
9.2.2. What did Keynesian economists think about economic policy?
9.2.3. What is the importance of economic regulation?
9.2.4. Describe the principles of economic regulation and government commitments.
9.2.5. What are the key targets of economic regulation?
9.2.6. What are the tools of economic policy?
9.2.7. Distinguish between protection and free trade policy.
9.2.8. What are the public goods? Distinguish between private and public goods.
9.2.9. Give at least three examples of public goods.
9.2.10. How can public goods be provided?

9.3. Essays.

9.3.1. Politics, time inconsistency, credibility and reputation.
9.3.2. Policy dilemmas faced by post-socialist economies.
9.3.3. Government information and the policy effectiveness debate.
9.3.4. Political and economic instability: are they related?

9.4. Presentations.

9.4.1. Special forms of government intervention in the command economies.
9.4.2. Externalities and public goods. Solutions to externality problems.
9.4.3. The importance of policy applications.

Theme 10. The essence and structure of the world economy. Economic aspects of global problems

Questions for self-study

10.1. Absolute and comparative advantage. Sources of comparative advantage.

10.2. Tools of trade policy. Trading possibilities curves: applications and illustrations.

10.3. Economic integration: customs unions and free trade areas.

10.4. The meaning and measuring of globalization.

Recommended literature: [12, p. 379–382, 388–394].

Key terms: absolute advantage, comparative advantage, domestic exchange ratio (or opportunity cost ratio), trading possibilities curve, economic integration, customs unions, free trade areas, the European Union.

10.1. Practice tests.

10.1.1. The author of the theory of absolute advantage is:

a) A. Smith;

b) D. Ricardo;

c) C. Menger;

d) K. Marx.

10.1.2. A country has an absolute advantage when:

a) the opportunity cost of producing a good, in terms of the forgone output of other goods, is lower than that of other nations;

b) the opportunity cost of producing a good, in terms of the forgone output of other goods, is higher than that of other nations;

c) it can produce a good more efficiently than other nations;

d) both b) and c).

10.1.3. The author of the theory of comparative advantage is:

a) K. Marx;

b) I. Fisher;

c) D. Ricardo;

d) T. Maltus.

10.1.4. The main subjects of global economy are:

a) national economies;

b) world organizations;

c) transnational corporations;

d) all the above mentioned.

10.1.5. A licensing requirement that specifies unreasonable standards pertaining to product quality and safety is called:

a) an import quota;

b) a voluntary export restriction;

c) a nontariff barrier;

d) a revenue tariff.

10.1.6. This type of trade barriers is usually applied to a product that is not being produced domestically:

a) a protective tariff;

b) a revenue tariff;

c) a voluntary export restriction;

d) an import quota.

10.1.7. The forms of regional trading agreements are:

a) preferential trading arrangements;

b) free trade areas;

c) common markets;

d) all the above mentioned.

10.1.8. The example of free trade areas is:

a) the European Union (EU);

b) the North American Free Trade Agreement (NAFTA);

c) the Eurasian Economic Union (EEU);

d) the Southern African Development Coordination (SADC).

Recommended literature: [4, p. 370–395].

10.2. Key questions for self-assessment.

10.2.1. What are the sources of comparative advantage?

10.2.2. How is the absolute opportunity cost calculated?

10.2.3. Describe the tools of trading policy. Distinguish between the revenue and protective tariffs.

10.2.4. Why does the government use export subsidies?

10.2.5. Distinguish between the effects of quotas for foreign and domestic producers.

10.2.6. What are the forms of regional trading agreements?

10.2.7. Give at least two examples of an economic union in the modern world economy.

10.2.8. What is globalization? How can it be measured?

10.2.9. Give at least three arguments against globalization.

10.2.10. What global issues do you know? How can they be solved?

10.3. Graph exercises.

10.3.1. Plot a trading possibilities curve using the data below.

Type of product	Trading alternatives						
	A	B	C	D	E	F	G
Tea, tons	30	25	20	15	10	5	0
Rice, tons	0	5	10	15	20	25	30

10.3.2. Plot a trading possibilities curves for two countries using the data below.

Trading possibilities	Country A		Country B	
	Wheat, tons	Potatoes, tons	Tomatoes, tons	Sugar, tons
A	200	0	225	0
B	175	75	200	75
C	130	125	175	120
D	70	150	130	150
E	0	160	0	165

10.3.3. Assume that Japan can produce 25 bln umbrellas and 5 bln coats. In turn, Canada can produce 10 bln umbrellas and 15 bln coats. Plot trading possibilities curves for Japan and Canada.

Recommended literature: [6, p. 323–327; 8, p. 678, 680; 12, p. 13–15].

10.4. Tasks.

10.4.1. Using the table given below, define: a) which country has the absolute advantage in biscuits production; b) which country has the absolute

advantage in cucumber production; c) calculate comparative opportunity costs of each country in producing biscuits and decide in what product each country should specialize.

Nation	Labor hours per ton of biscuits	Labor hours per ton of cucumbers
A	4	3
B	1	2

Guidelines for task 10.4.1

a) Nation A has the absolute advantage in biscuits production.

b) Nation A has the absolute advantage in cucumber production.

c) Define the comparative opportunity costs of each country in producing biscuits. Use the following formula:

$$\text{Opportunity costs} = \frac{\text{Labor hours per ton of biscuits}}{\text{Labor hours per ton of cucumbers}}. \qquad (10.1)$$

Entering the data in the formula (10.1), we obtain:

Nation	Opportunity costs of producing biscuits	Opportunity costs of producing cucumbers
A	3/4	4/3
B	2/1	1/2

Thus, nation A should specialize in the production of biscuits and nation B should specialize in the production of cucumbers.

Tasks for self-study

10.4.2. Study the table given below.

Country	Labor hours per unit of food	Labor hours per unit of clothes
X	10	12
Y	2	5

Assuming each country has 100 labour hours available, what will the total production of food and clothes be if each country specializes in the production of the good in which it has a comparative advantage?

10.4.3. Assume that Japan can produce 25 bln umbrellas and 5 bln coats. In turn, Canada can produce 10 bln umbrellas and 15 bln coats. Define:

a) the opportunity costs of producing coats in each country; b) which country should specialize in which product; c) which country has the comparative advantage in producing coats.

10.4.4. Suppose nation A can produce 80 units of product X by using all its resources or 60 units of product Y by allocating all its resources to product Y. The comparable figures for nation B are 60 units of product X and 60 units of product Y. In which product should each nation specialize?

10.4.5. Study the table given below.

Country	Plums, million bushels	Oranges, million bushels
Alfa	1 000	400
Beta	500	100

Define: a) which country has the absolute advantage in the production of plums; b) which country has the absolute advantage in the production of oranges; c) which country has the comparative advantage in the production of plums; d) which country has the comparative advantage in the production of oranges.

Recommended literature: [6, p. 323–325; 8, p. 676–681].

10.5. Presentations.

10.5.1. Economic integration in Central and Eastern Europe and in the former Soviet Republics.

10.5.2. Attempts at economic integration among developing countries.

10.5.3. The 2018 Top 10 Global economic challenges and the ways to meet them.

Recommended literature

Main

1. Політична економія : навчальний посібник для студентів першого (бакалаврського) рівня вищої освіти / М. С. Бріль, О. М. Кліменко, І. Ф. Ліснa та ін. – Харків : ХНЕУ ім. С. Кузнеця, 2019. – 320 с.

2. Юрчишена Л. В. Політична економія : навчальний посібник / Л. В. Юрчишена. – Вінниця : ВФЕУ, 2014. – 341 с.

3. Birchall O. Introduction to economics: Undergraduate study in Economics, Management, Finance and the Social Sciences / O. Birchall, D. Verry. – London : University of London, 2014. – 70 p.

4. Boyes W. Fundamentals of Economics / W. Boyes, M. Melvin. – Mason : South-Western, Cengage Learning, 2014. – 464 p.

5. Economic Theory: Higher Secondary – second year (A Publication under Government of Tamilnadu Distribution of Free Textbook Programme). – Chennai : College Road, 2017. – 208 p.

6. Lessons for the Young Economist: Teacher's Manual / P. R. Murphy, J. Davis, H. Davis et al. – Alabama : Ludwig von Mises Institute, 2012. – 436 p.

7. Lipsey R. G. Economics / R. G. Lipsey, K. A. Chrystal. – Oxford : Oxford University Press, 2015. – 507 p.

8. McConell C. R. Economics: principles, problems, and policies / C. R. McConell, S. L. Brue. – Boston : MCGraw-HillIrwin, 2008. – 818 p.

Additional

9. Barber W. J. A history of economic thought / W. J. Barber. – Princeton : Princeton University Press, 2016. – 696 p.

10. Ray M. Krugman'e Economics for AP / M. Ray, D. Anderson. – New York : Worth Publishers, 2010. – 927 p.

11. Schmitz A. Managerial Economics Principles / A. Schmitz. – Princeton : Princeton University Press, 2012. – 162 p.

12. Curtis D. Microeconomics: Markets, Methods & Models [Electronic resource] / D. Curtis, I. Irvine. – New York : S. n., 2014. – Access mode : www.lyryx.com.

Information resources

13. Практикум з навчальної дисципліни "Політична економія" для студентів усіх напрямів підготовки всіх форм навчання [Електронний ресурс] / уклад. І. Ф. Лісна, Т. С. Черкашина, Т. Є. Калашник, Т. В. Ус. – Харків : ХНЕУ ім. С. Кузнеця, 2016. – 154 с. – Режим доступу : http://www.repository.hneu.edu.ua/jspui/bitstream/123456789/16676/1/2016-235-%D0%95%D0%92%20%D0%9B%D1%96%D1%81%D0%BD%D0%B0%20%D0%86.%D0%A4.pdf.

14. The official site of the Antimonopoly Committee of Ukraine. – Access mode : www.amc.gov.ua.

15. The official site of the Centre of Free Online Learning, Work & Life. – Access mode : www.businessballs.com.

16. The official site of the Department of Agriculture of Ukraine. – Access mode : www.usda.gov.ua.

17. The official site of the electronic magazine "Forbes". – Access mode : www.forbes.com.

18. The official site of the State Statistics Committee of Ukraine. – Access mode : www.ukrstat.gov.ua.

19. The official site of the United States Sensus Bureau. – Access mode : www.2020census.gov.

Methodological support

20. Черкашина Т. С. Персональна навчальна система з навчальної дисципліни "Політична економія" [Електронний ресурс] / Т. С. Черкашина. – Режим доступу : http://www.ikt.hneu.edu.ua/course/view.php?id=3795.

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НАВЧАЛЬНЕ ВИДАННЯ

ПОЛІТИЧНА ЕКОНОМІЯ

Методичні рекомендації до самостійної роботи студентів усіх спеціальностей першого (бакалаврського) рівня

(англ. мовою)

Самостійне електронне текстове мережеве видання

Укладач **Черкашина** Тетяна Сергіївна

Відповідальний за видання *О. В. Раєвнєва*

Редактор *З. В. Зобова*

Коректор *З. В. Зобова*

Подано кілька практичних, тестових, графічних та інтернет-базованих завдань, завдань до самостійної роботи студентів відповідно до тем робочої програми навчальної дисципліни і методичні рекомендації до їх виконання, що сприятимуть набуттю студентами професійних компетентностей для вирішення актуальних економічних проблем.

Рекомендовано для студентів усіх спеціальностей першого (бакалаврського) рівня всіх форм навчання.

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